Orbital ATK

Div of Waste Management
and Radiation Control

SEP 16 2015

DSHW-2015-009811

September 16, 2015

Mr. Scott T. Anderson, Director
Utah Department of Environmental Quality
Division of Waste Management and Radiation Control
P.O. Box 144880
Salt Lake City, UT 84114-4880

Re: Corrective Measures Implementation Report (CMIR)
NIROP Sumps
SWMUs N-1, N-4, N-5, N-6, N-7, and N-8
HWMU BW-7
UTD001705029

Dear Mr. Anderson:

Attached to this cover letter are two (2) copies of ATK's Corrective Measure Implementation Report (CMIR) for the four remaining Group 1 NIROP sumps, two sumps that were remediated as part of an interim corrective measure, and addition corrective action from BW-7 associated with the Group 4a solid waste management units (SWMUs). An electronic copy of the report is included on the attached CD.

Should there be any questions or comments concerning this Submittal, please contact Ron Bowlin at 801.251.4865.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

George E. Gooch
Manager, Environmental Services

cc: Brad Maulding, DSHW
David Larsen, DSHW

Corrective Measures Implementation Report
NIROP Sumps
SWMUs N-1, N-4, N-5, N-6, N-7, and N-8
HWMU BW-7

Prepared for:
Utah Department of Environmental Quality
Division of Waste Management and Radiation Control

Prepared by:
ATK Launch Systems Inc.
Bacchus Facility, Plant 1
UTD001705029

September 2015

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Background 1
1.2 Purpose and Scope 2

2.0 CORRECTIVE MEASURE OBJECTIVES 4
2.1 Contaminants of Concern 4
2.2 Potential Risk to Human Health 4
2.3 Media Cleanup Standards 5
2.4 Selection of Corrective Action 5
2.5 Compliance with Cleanup Standards 6

3.0 CORRECTIVE MEASURE ACTIVITIES 7
3.1 Corrective Action Methodology 7
3.1.1 Excavation 7
3.1.2 Transportation and Disposal 8
3.2 Sampling Activities 8
3.2.1 XRF Soil Screening 9
3.2.2 Confirmation Sample Collection 9
3.2.2.1 Discrete Sample Collection 9
3.2.2.2 ISM Sample Collection 10
3.2.2.3 Sample Handling 10
3.2.3 Excavated Soil Sample Collection 11

4.0 CONFIRMATION SAMPLE RESULTS 12
4.1 Confirmation Samples 12
4.1.1 Metals – Confirmation Sample Results 12
4.1.2 Energetics – Confirmation Sample Results 13
4.1.3 Dioxin – Confirmation Sample Results 15
4.1.4 Volatile Organics – Confirmation Sample Results 15
4.2 Excavated Soil Samples 15
4.3 Confirmation Sample Result Summary 16
4.4 Quality Control 16

5.0 RISK EVALUATION 17
5.1 Human Health Risk Assessment 17
5.1.1 HHRA 17

5.1.2 Homegrown Produce Evaluation 18
5.2 Ecological Risk Assessment 20
5.2.1 Environmental Setting 20
5.2.2 Contaminant Fate and Transport 21
5.2.3 Potential Receptors and Ecotoxicity 21
5.2.4 Exposure Pathways 22
5.2.5 Selection of Endpoints 22
5.3 SUMMARY 23

FIGURES

Figure 1 – ATK Bacchus Location
Figure 2 – SWMU Locations
Figure 3 – HWMU BW-7, Designated Units
Figure 4 – Monitoring Wells near N-5
Figure 5 – Monitoring Wells near BW-7

TABLES

Table 1 – Media Cleanup Standards, Regional Screening Levels
Table 2 – Media Cleanup Standards, Ground Water Protection
Table 3 – Analytes/Analytical Methods
Table 4 – Summary of COPC Confirmation Sample Results – Metals/Energetics
Table 5 – Summary of Quality Control Sample Results
Table 6 – Background Threshold Values (BTV)
Table 7 – Residential Risk Values
Table 8 – Homegrown Produce Risk Values

ATTACHMENTS

Attachment A – Photographs of SWMUs and HWMU
Attachment B – Bills-of-Lading
Attachment C – ISM Standard Operating Procedure
Attachment D – Chain-of-Custody / Confirmation Sample Laboratory Reports
Attachment E – RAIS Tables

1.0 INTRODUCTION

This Corrective Measures Implementation Report (CMIR) has been completed in accordance with Module IV.F.3 of the ATK Launch System Inc. (ATK) Hazardous Waste Storage Permit, for the Bacchus Facility, Plant 1 (the Permit); in conjunction with the ATK RCRA Facility Investigation Work Plan (January 2010). The purpose of the CMIR is to document compliance with the technical and statutory requirements of remedial activities that took place during corrective action at seven solid waste management units (SWMUs) and one hazardous waste management unit (HWMU) on the Naval Industrial Reserve Ordnance Plant (NIROP). The SWMUs were earthen sumps used for disposal of process water wastes, the HWMU was a buried waste site comprised primarily of burning ground ash. The background and scope of this corrective action is discussed in the following sections.

1.1 BACKGROUND

The Bacchus Facility of ATK Launch Systems is located southeast of the unincorporated town of Magna, Utah, southwest of Salt Lake City, Utah (Figure 1). The facility began operations in 1915 as a producer of commercial blasting powder, and was transformed in 1958 to a solid-rocket propulsion research, development, and production facility.

The depth to groundwater in the area of the SWMUs is about 180 feet below ground surface; at the HWMU, groundwater is at about 30 feet below ground surface. The stratigraphy is extremely variable with interbedded layers of sand, gravel, silts, and clays throughout the entire section, with nearly no lateral continuity.

A Corrective Measures Implementation Plan (CMIP) was originally submitted to and approved by the Utah Division of Solid and Hazardous Waste (the Division), now known as the Division of Waste Management and Radiation Control, for corrective action on 16 SWMUs in 2008. The CMIP included 12 SWMUs on ATK's Plant 1 facility and 4 SWMUs on NIROP. During implementation of the CMIP in September 2012, access to the four NIROP SWMUs in the HMX production area (N-4, 5, 6, & 7) was restricted. Therefore, with approval from the

Division, corrective measure implementation and reporting on the four remaining units was delayed until the spring of 2013. Based on proximity to the four remaining HMX sumps, ATK requested that three additional sumps (N-1, 2, & 8) located on the NIROP property be included in the corrective action.

In August 2012, ATK submitted a RCRA Facility Investigation Report on four SWMUs in priority Group 4a. In this report ATK documented that HWMU BW-7 would require additional corrective action; therefore, ATK requested that BW-7 also be included in the corrective action. A supplemental CMIP was submitted and approved by the Division that included the four additional units.

Corrective action was conducted on the eight SWMUs mentioned in the previous paragraphs in April and May 2013. The subsequent analytical results from the confirmation sampling indicated that all but one unit (N-1) would require additional soil removal. A letter was sent to the Division requesting that additional soil removal be conducted during the next round of corrective action. The locations of the SWMUs are presented on Figure 2.

1.2 PURPOSE AND SCOPE

The corrective measure at the SWMUs discussed in Section 1.1 was implemented as described in the revised Corrective Measure Implementation Plan (CMIP) dated June 2010. The corrective measure to excavate and transport contaminated soils to an approved landfill was selected. Corrective action would remove contaminants of potential concern (COPC) to levels at or less than concentrations necessary to close the site under a residential scenario.

The additional corrective action was conducted in June of 2014. Addition soil was removed from SWMUs N-2, N-4, N-5, N-6, N-7, N-8, and BW-7. Samples were collected from the excavations to confirm adequate soil was removed to meet the corrective action objectives. Samples were also collected from the transported soils to confirm requirements for disposal at the Salt Lake County landfill were met. This CMIR includes the data and information necessary to request an unrestricted soil use determination as presented in UAC

315-101. This corrective measure meets the corrective action objectives, to be discussed in the following section, of protecting human health and the environment by eliminating surficial and shallow subsurface contaminated soil.

2.0 CORRECTIVE ACTION OBJECTIVES

Corrective action objectives (CAOs) were developed in the CMIP to address potential risks to human health and the environment. The CAOs are listed in the bullets below.

- Removal of contaminated soil, as needed, to meet a residential or unrestricted soil use exposure scenario as defined in R315-101 of the Utah Administrative Code.
- Removal of soil as needed to prevent potential migration of contamination to groundwater as described in R315-101-3 of the Utah Administrative Code.

Potential risks to human health were estimated based on a residential land use scenario. The potential receptors associated with this land use are ATK employees, construction workers, and future residential landowners and developers.

2.1 CONTAMINANTS OF CONCERN

COPCs were determined for each individual SWMU. This determination was based on the results of the RFI, confirmation samples collected during the first round of corrective action, and/or process knowledge and information contained in the RCRA Facility Assessment report approved by the DSHW in 1989. COPCs included as part of this CMIR include RCRA metals, energetics (nitroglycerin (NG), HMX, RDX, and perchlorate), and dioxin/furans. Not all analytes were considered a COPC at all SWMUs.

2.2 POTENTIAL RISK TO HUMAN HEALTH

The risk-based cleanup criteria were selected based on the Residential Regional Screening Level as published in the "Regional Screening Levels for Contaminants of Concern at Superfund Sites, June 2015," generated by the U.S. Environmental Protection Agency, Region 9. The soil analytical results were evaluated using these screening levels for a residential scenario and potential migration to groundwater, and consumption of homegrown produce.

2.3 MEDIA CLEANUP STANDARDS

Media cleanup standards are media- and chemical-specific concentrations that a corrective measure must achieve to meet the corrective action objectives. The media cleanup standards were based on the site-specific media of concern, identified contaminants of potential concern, exposure routes and receptors, and identification of acceptable concentrations for each exposure route. The published cleanup standards for the COPCs are presented in Table 1.

For the potential migration to groundwater, the dilution attenuation factor (DAF) was arrived at using "*Appendix E, Determination of Ground Water Dilution Attenuation Factors, EPA Office of Solid Waste, May 11, 1994.*" This document has been referred to many times by the Division when a migration to ground water concern may exist. Areas of excavation at the NIROP SWMUs ranged from 200 sq.ft. at N-8 to 780 sq.ft. at N-4; the three decision units (DUs) at BW-7 ranged from 2000 sq.ft. to 5400 sq.ft. Section 4.3 of the document (DAF Values as a Function of Source Area), presenting the 95th percentile for the Default Nationwide Scenario, was used. The graph presented as Figure 6 in the EPA document does not project DAF values for areas less than 1000 sq.ft. The DAF for SWMUs less than 1000 sq.ft. was therefore interpolated to be 4000. The DAFs for the DUs at BW-7 ranged from 650 to 1700. Ground water protection cleanup standards, including DAFs, are shown on Table 2.

2.4 SELECTION OF CORRECTIVE ACTION

Corrective measure technologies were evaluated based on their ability to effectively address the elevated concentrations of metals, energetics, and dioxin in the soil and achieve cleanup standards. Based on the conceptual model of the contaminated soil and its presumed historical appearance, the only corrective measure technology applicable to achieve a residential closure under R315-101, and receive an unrestricted soil use determination, was soil removal and off-site disposal.

2.5 COMPLIANCE WITH CLEANUP STANDARDS

Completion of corrective measures for the soil media was documented by comparing the confirmation sample concentrations of COPCs in the soil to the required media cleanup standards. The Exposure Point Concentration (EPC) value used for these comparisons was the average concentration value of the samples collected at the unit. Because of the minimal area of the excavated footprint at each SWMU, an adequate number of samples to calculate a 95% upper confidence limit were not practical. Additional excavation and sampling was conducted at SWMUs where the EPC was greater than the media cleanup standard. Incremental Sampling Methodology (ISM) was used for confirmation sample collection and analyses following the second round of corrective action. The ISM value was compared to the media cleanup standard to evaluate completion of corrective measures.

3.0 CORRECTIVE MEASURE ACTIVITIES

This section provides the details of the corrective measures conducted at the waste management units discussed in this report.

3.1 CORRECTIVE ACTION METHODOLOGY

The corrective action methodology consisted of excavating soils at each SWMU where COPCs were expected to exceed their RSLs, and off-site disposal at a Salt Lake County Landfill. The receiving landfill is constructed with a liner and leachate collection system, and permitted to receive the material excavated during this corrective action. Use of the Salt Lake County Landfill for disposal of the excavated waste was approved by the Division, based on analytical data supplied to the landfill operator. Excavation and transportation activities were conducted by Veolia Environmental Services (VES) under the direction of ATK. References to the excavation and disposal of soils from the SWMUs will refer to all SWMUs involved in the corrective action.

3.1.1 Excavation

The general boundary for each SWMU was established during the RFI. No documentation has been identified to raise concerns that the sumps or conveyance troughs overflowed. Discharge to the sumps was conducted in batch operations that were significantly less than the capacity of the sump. All of the sumps had potential for lead contamination; therefore, an XRF was used to evaluate lead concentrations along the traces of the troughs to screen for potential contamination. No lead values were significant enough to include the trough line in the corrective action process. Corrective action of the units continued until soil concentrations of the COPCs were less than the RSL cleanup standards.

Prior to beginning activities, all necessary onsite permits were obtained and underground utilities located. VES mobilized the necessary equipment to conduct the corrective action activities. Equipment used included an excavator, front-end loader, water trucks, and 18-yard sift-free boxes to be loaded and hauled by trucks. The sift-free boxes were

required under the special waste permit granted by the United States Department of Transportation. The special permit was required because of detectable concentrations of HMX.

Soils were excavated and placed either directly into the boxes for transport and disposal or staged next to the individual unit. During excavation, the soil was sprayed with water to mitigate potential dust emissions. Excavation continued until material that exceeded the approved cleanup standard was thought to have been removed. During excavation, qualitative analysis for the COPC metals was conducted using a hand-held X-ray fluorescence (XRF) spectrometer. The XRF allows for field analysis of in-situ and grab soil samples. Site experience has indicated that the XRF tends to report metals concentration at levels slightly more conservative (greater concentration) than quantitative laboratory analysis. The XRF was used to direct the operator where to excavate and when to cease excavation. Photos of the excavation areas are presented in Attachment A.

3.1.2 Transportation and Disposal

Each box was loaded with approximately 14 tons of soil. Over the course of both corrective action events, 175 truckloads (2443 tons) were loaded and transported to the landfill. The boxes were sealed and transported, accompanied by a bill-of-lading, which included the origin of the waste soil, its final disposal location, and date of transport. Copies of the bills-of-lading are included in Attachment B.

3.2 SAMPLING ACTIVITIES

Confirmation sampling consisted of screening the exposed areas of the excavation with the XRF for metal analytes and collection of soil samples for quantitative analysis to confirm that the CAOs were achieved. Confirmation analyses were conducted for volatile organics, RCRA metals, energetic compounds, or dioxin/furans, depending on process knowledge of waste streams discharged to or disposed at, each individual unit. Samples were also collected from

the soils loaded into the transport boxes to confirm that disposal requirements for the landfill were met. The following sections discuss the process of sample collection.

3.2.1 XRF Soil Screening

Once excavation activities were thought to be complete, the excavation area was visually inspected for signs of contamination. HMX contamination can appear as a white, powdery material; however, HMX cannot be qualitatively tested for in the field. If necessary, additional soil was removed until the field engineer made a determination that the likelihood of HMX contamination, based on visual observation, was no longer present. The exposed soils were then qualitatively evaluated for metals using the XRF. The areas evaluated included the bottom and side-walls of the excavation, along with random buckets of soil placed in the transport boxes. In areas where the XRF indicated elevated metal concentrations, additional soil was removed and reevaluated.

3.2.2 Confirmation Sample Collection

Discrete samples were collected from the bottoms and side-walls of the excavated units during the first corrective action event. Analytical results indicated that additional soil needed to be removed to meet the CAOs, primarily for HMX/RDX, which cannot be qualitatively screened in the field. The modified CMIP for the second round of soil removal divided each sump into decision units (DU) for the side-walls and excavation bottom, and used Incremental Sampling Methodology (ISM) for sample collection. Each event is discussed in the following sections.

3.2.2.1 Discrete Sample Collection

Confirmation samples were collected according to the approved/modified CMIP. Subsequent to the first excavation activity, the confirmation sample locations were randomly spaced over the excavation floor. The excavations were visually evaluated for areas of staining or other indicators of contamination. The locations of the confirmation samples were discussed with and agreed to by Division personnel. One sample was always positioned in the approximate location of the historic outfall into the sump. Discrete samples of the side-walls were

randomly selected from around the sump excavation, and in cases of a small sump, the samples were composited. The confirmation soil samples were collected manually, generally from zero to 6 inches deep. Samples were screened with a 10-mesh sieve to remove the larger fractions of pebbles and concentrate the fines. This tends to produce a slightly more conservative analytical result (higher reported concentration). The final excavations and sample locations were not surveyed in by a professional land surveyor. Sample locations were recorded using a standard GPS meter.

3.2.2.2 ISM Sample Collection

Following the second soil removal event, each SWMU was divided into two DUs; typically, the side-walls (DU-1) and the excavation bottom (DU-2). Each DU was divided into 30 areas of approximately the same size, as per typical ISM protocol. An increment of soil was collected from within each area of approximately the same volume/mass and placed in a clean 5-gallon bucket. The composite of collected soils was then transferred to a large sealable, plastic bag for delivery to the laboratory. Each increment was collected according to the SOP submitted to the Division. The total composite of the 30 increments was sent to the testing laboratory for processing and analyses. ISM was only used on samples that required metals or energetic analyses. The resulting ISM value is then applied to the entire DU. The SOP used for the DU sampling is included as Attachment C.

3.2.2.3 Sample Handling

Sample containers were labeled with the date and given a unique identification number. The primary analytical services were provided by ATK Launch Systems, Analytical Chemistry Laboratory, certified by the State of Utah for the analytes required under the CMIP. The samples were analyzed for the constituents shown in Table 3.

Soil samples were placed in containers consisting of new glass jars, with Teflon-lined lids. Only stainless-steel equipment or disposable nitrile gloves contacted the samples during

placement into the jars. Disposable gloves were worn at all times during sample handling to prevent possible cross-contamination. Gloves were disposed of between each sample location.

Sample jars were placed in resealable plastic bags to provide protection from other samples and sample handlers in the event of sample-container breakage. Sample labels were used to identify the samples and were sufficiently durable to remain legible if wet and were marked with indelible ink and affixed to the sample containers. Sample jars were placed on ice, in waterproof chests, for delivery to the analytical laboratories.

A chain-of-custody form was completed to track sample possession from the time of collection through laboratory analysis. One chain-of-custody form accompanied each shipping container of samples. The required analyses were indicated on the chain-of-custody form, including the quantity and types of containers that comprised each sample. The completed chain-of-custody form was sealed in a plastic bag and placed inside the shipping container. The shipping container was then securely closed and delivered to the analytical laboratory. Copies of the chain-of-custody forms are included with the analytical reports in Attachment D.

3.2.3 Excavated Soil Sample Collection

Samples from the excavated soils were collected at a frequency of about one sample for every 100 cubic yards (CY) of soil removed for disposal. Twenty samples were collected and analyzed for RCRA metals, TCLP RCRA metals, and energetics over the two excavation events. Each sample was a composite of at least four locations within the box or within the staging pile.

Where soils were staged, approximately 12 inches of addition soil beneath each staging pile was removed. This area was considered part of the excavation when confirmation soil sampling was conducted.

Samples were collected using the same methodology as the confirmation samples in Section 3.2.2. Analytical reports are included in Attachment D.

4.0 CONFIRMATION SAMPLE RESULTS

Soil samples were analyzed for the list of constituents presented in Table 3. Data collected during this investigation were evaluated for the contaminants of potential concern (COPCs) using the "Regional Screening Levels for Contaminants of Concern at Superfund Sites," June 2015, used by the U.S. Environmental Protection Agency. The Regional Screening Levels (RSLs) for a residential land-use scenario were used to screen the data for potential risk to human health. Each SWMU was evaluated individually. Because of the limited size of each SWMU, there were not enough confirmation samples at each unit to calculate a 95% upper confidence limit for each analyte. The average concentration was therefore used as the EPC and compared to the RSL. Where ISM results were reported, the ISM value was used as the EPC for the specific DU. All data is reported as dry weight equivalents. The ISM samples were designate with either an "a" or "b," based on whether the sample was collected from the sidewall or bottom of the excavation, respectively. SWMU N-1 was small enough that it was considered one DU. HWMU BW-7 was originally divided into five DUs (Figure 3). For the second round of sampling for dioxin, DU-2 and DU-3 were combined for ISM sampling. Analytical reports are included in Attachment D.

4.1 CONFIRMATION SAMPLES

The following sections discuss the results of the samples-of-record collected from the excavation events, discrete and ISM.

4.1.1 Metals – Confirmation Sample Results

Confirmation samples were collected within the area of excavation to document completion of the corrective action and compliance with the CAOs. During the initial excavation event, 63 discrete samples were collected for metals and energetic analyses. Thirteen additional ISM samples were collected during the second excavation event. A summary of the confirmation sample results for COPC metals is shown in Table 4.

Ten metals (antimony, beryllium, cadmium, chromium, copper, lead, nickel, silver, zinc, and mercury) reported concentrations greater than the method detection limit (MDL) in at least one sample. There were no detectable concentrations reported for arsenic, selenium, or thallium from the initial confirmation samples. ISM results from the second excavation event did report low concentrations of arsenic and silver at two units. During the first sampling event, lead at SWMU N-7 was the only metal reported at concentrations greater than the respective RSL (400 mg/kg). Although lead concentrations at SWMU N-5 did not exceed the RSL, three samples exceeded 300 mg/kg. SWMUs N-5 and N-7 were selected for additional soil removal. The second excavation event brought the lead concentrations at N-5 down from a high of 338 mg/kg to 15.7 mg/kg, and at N-7, from a high of 555 mg/kg down to 73.8 mg/kg.

Arsenic was detected in the ISM samples at N-5 at N-7 at concentrations greater than the background value of 10 mg/kg. The maximum reported concentration was 12.8 mg/kg. No processes have existed at the locations where arsenic would have been used or part of any component used in a process. Historically, arsenic has been reported at the Bacchus facility as high as 25 to 30 mg/kg. The concentration of arsenic at these locations is considered a natural occurrence.

4.1.2 Energetics – Confirmation Sample Results

HMX was the only energetic constituent reported in every sample collected during the first sampling event (see Table 4). The maximum concentration of HMX was reported at SWMU N-5, at a concentration of 15,400 mg/kg. SWMUs N-6 also reported a concentration greater than the RSL (5580 mg/kg). The residential RSL for HMX is 3800 mg/kg. Although less than the RSL, HMX concentrations at SWMUs N-4 and N-8 were reported near the RSL (2350 mg/kg and 3490 mg/kg, respectively). These four units were selected for additional soil removal.

Following the second excavation event, the residual HMX concentrations were reduced as follows: N-4 reduced to 68 mg/kg, N-5 reduced to 160 mg/kg, N-6 reduced to 96 mg/kg, and

N-8 reduced to 100 mg/kg. The respective maximum HMX concentration for each SWMU is less than the respective RSL and GWP value.

RDX was reported at concentrations greater than the RSL at SWMU N-2 (a high of 36.7 mg/kg); the RSL is 6 mg/kg. N-2 was therefore selected for additional soil removal. Following the second excavation event, the RDX concentration was still greater than the RSL. The ISM concentrations for RDX were reported to be 16 mg/kg (bottom) and 20 mg/kg (sidewalls). Since additional soil removal will be required to achieve CAOs, N-2 is no longer discussed in this CMIR. RDX was reported in the side-wall sample of N-5 at a concentration of 0.27 mg/kg. The sample collected from the bottom of the N-5 excavation did not report RDX greater than the method detection limit (MDL). The MDL for RDX is 0.20 mg/kg. HMX and RDX concentrations at each SWMU are less than the respective RSL and GWP. Figure 4 shows the locations of monitoring wells down gradient. RDX has not been historically reported in these wells.

Perchlorate was only identified in samples collected at HWMU BW-7 (8 of 25 samples). The maximum concentration following the first corrective action was 6.83 mg/kg. The RSL is 55 mg/kg. ISM sampling for the second sampling event reported concentrations of 3.2 mg/kg, 0.87 mg/kg, and 0.29 mg/kg at each of the DUs.

Perchlorate has been reported in all of the monitoring wells near BW-7 shown on Figure 5. Monitoring wells up gradient from BW-7 have historically reported both perchlorate and HMX at concentrations greater than wells down gradient from BW-7. The USEPA has not established a soil-to-groundwater protection value for perchlorate. However, the EPA formula for a soil screening level (SSL) for a soil-to-groundwater migration pathway, yielded a result of about 6.9 mg/kg; assuming a DAF of 100 (see Section 2.3) and a K_d of 4.6. The perchlorate reported in BW-7 is protective of groundwater based on the following items:

- The SSL is greater than the maximum perchlorate concentration at BW-7
- Groundwater below BW-7 has already been classified as contaminated from other past up-gradient sources.

- Monitoring of groundwater is already in place.
- The size of BW-7 and the corresponding DAF is insignificant when included in the total size of the contaminant plume both onsite and offsite.

4.1.3 Dioxin – Confirmation Sample Results

Dioxin was only analyzed from the soils at HWMU BW-7. Rather than discrete samples, BW-7 was initially divided into five DUs (see Figure 3). A composite was collected from each DU for analysis. Three of the DUs reported TEQ values greater than the RSL of 4.9 ng/kg. BW-7 was selected for additional soil removal in those DU areas (1, 2, and 3). Additional soil was excavated from the areas reporting the elevated dioxin TEQs.

Following the second soil removal event, the three areas reporting the presence of dioxin were divided into two DUs (combining 2 and 3), and sampled according to the SOP. The ISM results reported a drop in the dioxin TEQ from 26.6 ng/kg in DU-1 to 3.95 ng/kg, and from 6.59 ng/kg to 0.661 ng/kg in the combined area of DU-2 and 3.

4.1.4 Volatile Organics – Confirmation Sample Results

Based on process knowledge, volatile organics were only analyzed on soil samples from N-1 and BW-7. The only organic compound reported was dichlorodifluoromethane, at 0.028J mg/kg and 0.025 mg/kg, respectively. The RSL value is 87 mg/kg.

4.2 EXCAVATED SOIL SAMPLES

Soil samples from the excavated soils were analyzed for RCRA metals, RCRA TCLP metals, and energetics. Composite samples were collected from the transport boxes or staging pile to evaluate the material that was sent off-site for disposal. A scatterplot of total lead concentrations versus TCLP lead results had been developed from extensive data to calculate a 95% Prediction Interval. A similar chart has also been developed to compare the total lead concentration results to the qualitative XRF field results. Using this data, ATK was able to predict the possible TCLP leachate concentration based on the XRF results obtained in the field. This information was used to make a field decision on whether or not the soil would

meet the landfill criteria for a non-characteristic hazardous waste (based on lead concentrations).

The laboratory results for total lead concentrations for the excavated soils ranged from non-detectable to 3890 mg/kg. The TCLP extract concentrations for lead ranged from non-detectable to a maximum of 1.64 mg/L. The regulatory level is 5 mg/L.

4.3 CONFIRMATION SAMPLE RESULT SUMMARY

As discussed in Section 4.1, except for HMX results at N-2, the maximum concentrations for all COPCs evaluated under this corrective action are less than both the RSL for a residential scenario and the Groundwater Protection Level using the respective DAF for the area of each SWMU. The results indicate that corrective measures satisfied the required media cleanup standards and CAOs.

4.4 QUALITY CONTROL

Seven duplicate samples were collected during the first excavation event. Duplicate analyses included metals and energetics. Two additional duplicates were collected following the second excavation event. Dioxin was included to the list of analytes for duplicates collected from BW-7. No volatile organic compounds were considered COPCs for the purpose of this CMIR, and only dedicated sample collection equipment was used. Therefore, only duplicate soil samples were collected for field quality control. No equipment blanks were collected.

A summary of the samples with detected metals in either or both the sample-of-record and corresponding duplicate sample are shown in Table 5, along with the relative percent deviation (RPD) value. RPDs ranged from 0.0% to 62.5%. Only two of the 68 comparisons (3%) calculated a RPD greater than 25%. These were low concentration values, which can be expected to have a larger RPD range.

5.0 RISK EVALUATION

The following sections discuss the evaluations of human and ecological risk assessments. Arsenic was not detected at concentrations greater than the MDL (~2 mg/kg) during the initial sampling event. However, arsenic was detected in two of the second event samples at a maximum concentration of 12.8 mg/kg. The background threshold value (BTV) for arsenic at the Bacchus facility has been calculated to be 9.98 mg/kg. Concentrations of naturally occurring arsenic across the Bacchus facility have been reported as great as 30 mg/kg. Silver was also reported in two samples from the second sampling event, with a maximum concentration of 0.07 mg/kg. The BTV for silver has been calculated to be 0.446 mg/kg. A list of BTVs for metals and dioxin are shown in Table 6. Selections of the COPCs (discussed in Section 2.1) were based on analyte concentrations that reasonably exceeded the BTV for the Bacchus facility, regardless of whether the RSL or GWP value was exceeded. The analytes considered COPCs for this study are cadmium, copper, lead, mercury, zinc, HMX, RDX, perchlorate, dioxin/furan, and dichlorodifluoromethane. Although perchlorate is not considered a COPC, the soil-to-groundwater pathway was evaluated and found to be protective.

5.1 HUMAN HEALTH RISK EVALUTION

The principle activity associated with corrective action was the excavation of eight SWMUs associated with this CMIR and off-site disposal. The HHRA was evaluated using the Risk Assessment Information System (RAIS) Contaminated Media (Risk) Calculator, developed by the Oak Ridge National Laboratory, sponsored by the US Department of Energy. The RAIS Calculator is located at www.rais.ornl.gov.

5.1.1 HHRA

Based on the published RSL and GWP values (Tables 1 and 2), and the general immobility of the identified constituents, migration to groundwater (which is generally around 180 feet below the current excavation surfaces) would be highly unlikely, and unable to accumulate at

concentrations that would be of adverse effect on human health or the environment. The soil to groundwater pathway poses no concern for dermal contact and/or ingestion and is protective of human health.

The analytes identified as COPCs at each specific SWMU/HWMU were entered into the RAIS Calculator, and evaluated for the HHRA. Lead was not included in the RAIS evaluation, and is discussed in the next paragraph. The results indicate that the measureable resident risk for soil at each unit is less than 1.0×10^{-6}, and the Adjusted Total Hazard Index was calculated to be less than 1.0. The RAIS output for these values is summarized in Table 7 and included in Attachment E.

EPA has no consensus RfD (reference dose) or CSF (carcinogenic slope factor) for inorganic lead, so it is not possible to calculate screening levels, as can be done for other the other analytes. EPA considers lead to be a special case because of the difficulty in identifying the classic "threshold" needed to develop an RfD. EPA therefore evaluates lead exposure by using blood-lead modeling, such as the Integrated Exposure-Uptake Biokinetic Model (IEUBK). The EPA Office of Solid Waste has also released a detailed directive on risk assessment and cleanup of residential soil lead. The directive recommends that soil lead levels less than 400 mg/kg are generally safe for residential use. Above that level, the document suggests collecting data and modeling blood-lead levels with the IEUBK model. For the purposes of screening, therefore, 400 mg/kg is recommended for residential soils. The greatest concentration of lead reported was 139 mg/kg, in the side-wall sample at SWMU N-6.

5.1.2 Homegrown Produce Evaluation

Residential consumption of homegrown produce was evaluated. The evaluation assumed a 15% consumption of produce being homegrown, using a combined fruit/vegetable consumption of 84,700 mg/day for an adult and 25,200 mg/day for a child.

Each SWMU/HWMU, except for N-1, was divided into decision units (DUs). DUs for the HMX sumps included the side-walls of the excavation and the excavation bottom

(designated as "a" and "b", respectively). BW-7 was divided into three DUs, for reasons discussed earlier. Fourteen DUs were evaluated for risk that could be associated with homegrown produce. A summary of the Produce Ingestion Hazard Index/Quotient (HI/HQ) and Total Risk are shown on Table 8. The RAIS reports are included in Attachment E.

Three DUs at the HMX sumps showed an HI greater than 1; N-5a (1.39), N-5b (1.03), and N-8a (1.14). Each HI value is driven by the HQ of the HMX concentration; 160, 120, and 100 mg/kg, respectively. To attain a non-carcinogen HQ less than 1, the HMX concentration would need to be reduced to less than 100 mg/kg (38 times less than the RSL). HMX has a RSL of 3800 mg/kg. The RDX concentration at N-5a (0.27 mg/kg) produced a risk value of 3.19×10^{-6}.

HWMU BW-7 was part of the second corrective action because dioxin/furan TEQs exceeded the RSL. Current results indicate an ingestion risk from produce of 8.6×10^{-6} and 1.44×10^{-6}, for DU-1 and DU-2, respectively. A Produce Ingestion HI of 1.40 is calculated at DU-1.

All of the HI and risk based calculations are based on consuming 15% of fruits and vegetables from a homegrown source. Discussions with EPA Region 8 and the Natural Resources Conservation Service in Salt Lake City, Utah, indicated that between one and two acres of producible land is required for a self-subsistence scenario. For a residential homegrown scenario, the type and quantity of vegetables and fruit must be established, as well as the soil quality, soil enhancements, root depths, and actual available land. Using one and a half acres for self-subsistence (65,340 sq.ft.), a consumption of 15% would require about 9800 sq.ft. The square footages for the units exceeding the risk values at N-5 and N-8 are only 700 (1%) and 200 (0.3%) sq.ft., respectively. It would be extremely difficult to grow, preserve, and consume enough of the right produce to reach these risk levels. It would also require that the produce be grown in the exact location of the excavated unit.

HWMU BW-7 has a similar situation with an HI of 1.40 (DU-1) and risk levels of 8.6×10^{-6} and (DU-1) and 1.44×10^{-6} (DU-2). The square footage of these DUs are 2000 (3%) and

3000 (4.6%). Looking at a proportional value of self-subsistence to actual unit size would put the risk values at 2.6×10^{-7} and 6.6×10^{-8}.

Section 5.1.1 presented the human health residential screening level (RSL) for lead to be 400 mg/kg. However, inputting a lead soil concentration into the RAIS Calculator for homegrown produce requires that lead be reduced in the soil to as low as 11 mg/kg to achieve a 1×10^{-6} risk level. This concentration approximates facility background concentrations.

5.2 ECOLOGICAL RISK ASSESSMENT

The "Ecological Risk Assessment Guidance for Superfund, (ERAGS, 2009) addresses five issues to develop a conceptual model. The screening criteria are evaluated to determine whether the ecological risks are negligible, or if the process should continue. The issues to be addressed are:

1. Environmental setting and contaminants known or suspected to exist at the site.
2. Contaminant fate and transport mechanisms that might exist at the site.
3. Mechanisms of ecotoxicity associated with contaminants.
4. Complete exposure pathways that might exist at the site.
5. Selection of endpoint to screen for ecological risk.

The screening criteria were evaluated using known and collected data to assess whether a possible risk to the ecological environment could be present. The following sections summarize each of the potential issues above.

5.2.1 Environmental Setting

The SWMUs are located on industrial property and is anticipated to be industrial for years to come. In the distant future, there is potential for the property to become residential pending RCRA closure of the entire facility.

5.2.2 Contaminant Fate and Transport

The confirmation soil samples indicated that corrective action has met the media cleanup goals as presented in the CMIP. Vertical migration of contaminants through precipitation is the only potential transport mechanism. The COPCs (lead and HMX) are highly immobile and the source of further migration has been removed. The reduction in soil concentration of COPCs demonstrates that migration to groundwater will not occur or cause a potential risk.

5.2.3 Potential Receptors and Ecotoxicity

The SWMUs are located on the NIROP facility, where access by animals that live or forage onsite is not restricted. The potential contaminants of concern have absorption pathways via oral ingestion or inhalation. Although no COPCs pose a threat to human health, lead has been used for the purpose of ecotoxicity in this evaluation. There are no ecological risk values for HMX at this time. Site knowledge suggests that avian ingestion of soil invertebrates and grazing by deer on terrestrial plants would be the most probable receptors. The document titled "Ecological Soil Screening for Lead, Interim Final, OSWER Directive 9285.7-70, and March 2005" (the Directives) was used in this evaluation.

Section 1.0 of the Directives states:

> "Ecological Soil Screening Levels (Eco-SSLs) are concentrations of contaminants in soil that are protective of ecological receptors that commonly come into contact with and/or consume biota that live in or on soil. Eco-SSLs are derived separately for four groups of ecological receptors: plants, soil invertebrates, birds, and mammals. As such, these values are presumed to provide adequate protection of terrestrial ecosystems. Eco-SSLs are derived to be protective of the conservative end of the exposure and effects species distribution, and are intended to be applied at the screening stage of an ecological risk assessment. These screening levels should be used to identify the contaminants of potential concern (COPCs) that require further evaluation in the site-specific baseline ecological risk assessment that is completed according to specific guidance (U.S. EPA, 1997, 1998, and 1999). *The Eco-SSLs are not designed to be*

used as cleanup levels and the United States Environmental Protection Agency (EPA) emphasizes that it would be inappropriate to adopt or modify the intended use of these Eco-SSLs as national cleanup standards." [italics added].

The Eco-SSLs are calculated to achieve a hazard quotient (HQ) equal to 1. The Eco-SSL for lead for birds and mammals, respectively is, 11 mg/kg and 56 mg/kg (insectivores), 46 mg/kg and 1200 mg/kg (herbivores), and 510 mg/kg and 460 mg/kg (carnivores). The lead Eco-SSL for mammals is higher than the 95th percentiles of reported background concentrations for western U.S. soils; however, for avian wildlife the Eco-SSL is lower than the 50th percentile. The average concentration for lead in this study is 68 mg/kg.

The values above indicate a potential risk only to the avian insectivores. However, these values are less than national background concentrations as well as the Bacchus facility.

5.2.4 Exposure Pathways

EPA guidance states, "only complete exposure pathways should be evaluated." For an exposure pathway to be complete, a contaminant must be able to travel from the source to ecological receptors and be taken up by the receptor via one or more exposure routes. As mentioned in Section 5.2.3, ingestion and inhalation are the most likely exposure routes. Limited exposure levels are present for ingestion by terrestrial animals, and the lack of transport of contaminants mitigate exposure pathways and exposure routes. A complete exposure pathway does not exist and the contaminants do not pose a significant risk.

5.2.5 Selection of Endpoints

Based on the site data, there do not appear to be any adverse effects on potential ecological receptors. Therefore, there are no assessed or measureable endpoints to be drawn from this ecological risk screening.

5.3 SUMMARY

A complete summary of risk includes an evaluation of human health risk consisting of dermal, ingestion, and inhalation contacts with the remaining soils, indoor air quality, and potential ecological impact. Based on the information generated from the criteria used to screen the confirmation sample results additional human health risk and/or ecological risk evaluations are not necessary. The ecological risks are negligible and therefore no need for additional remediation or controls are necessary based on ecological risk. ATK requests the Division for a waiver of any additional ecological risk assessment activities and an unrestricted soil use determination under UAC R315-101 relative to the soils at SWMUs N-1, N-4, N-5, N-6, N-7, N-8, and HWMU BW-7.

Figures

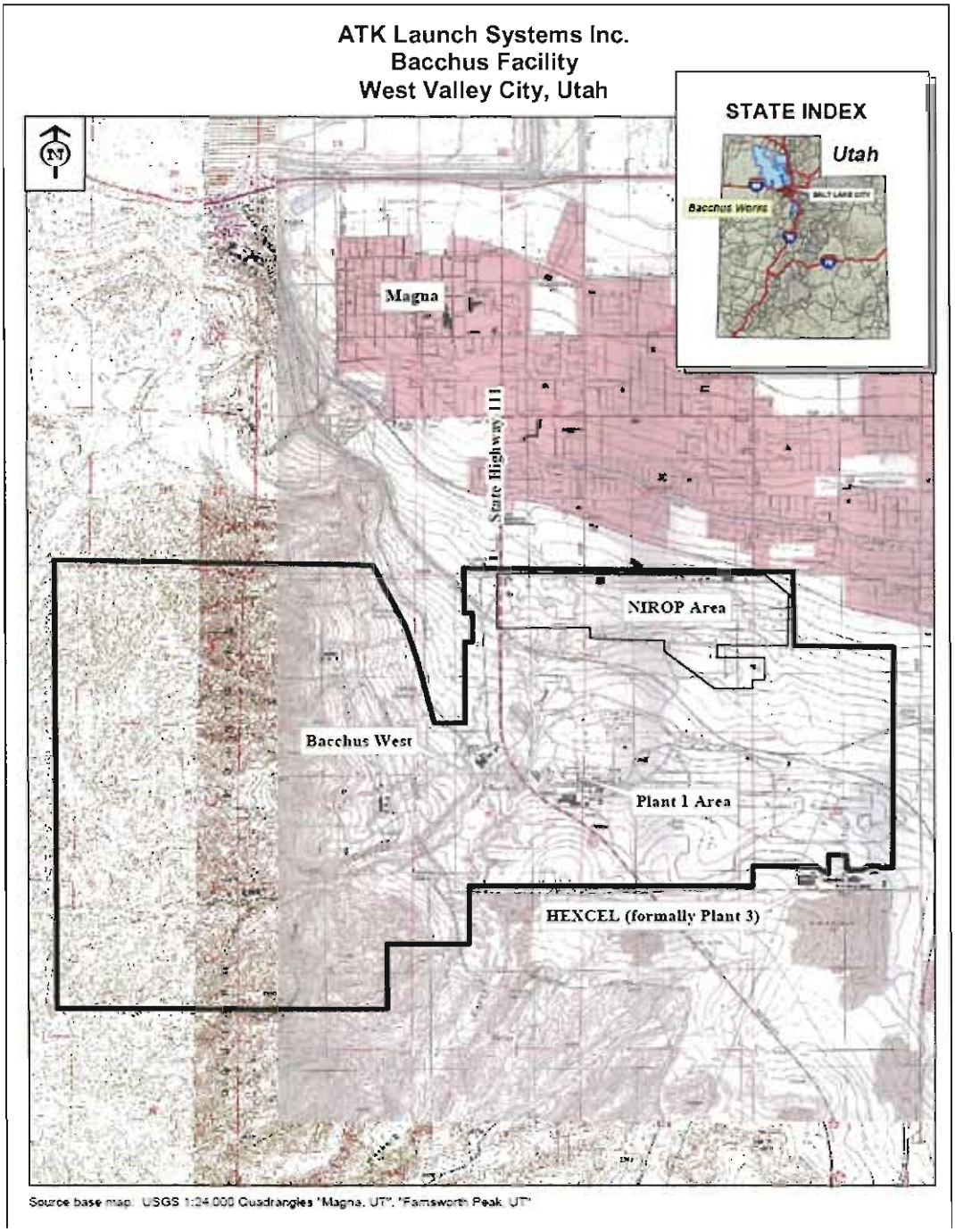

Figure 1 – ATK Bacchus Location

Figure 2 –SWMU Locations

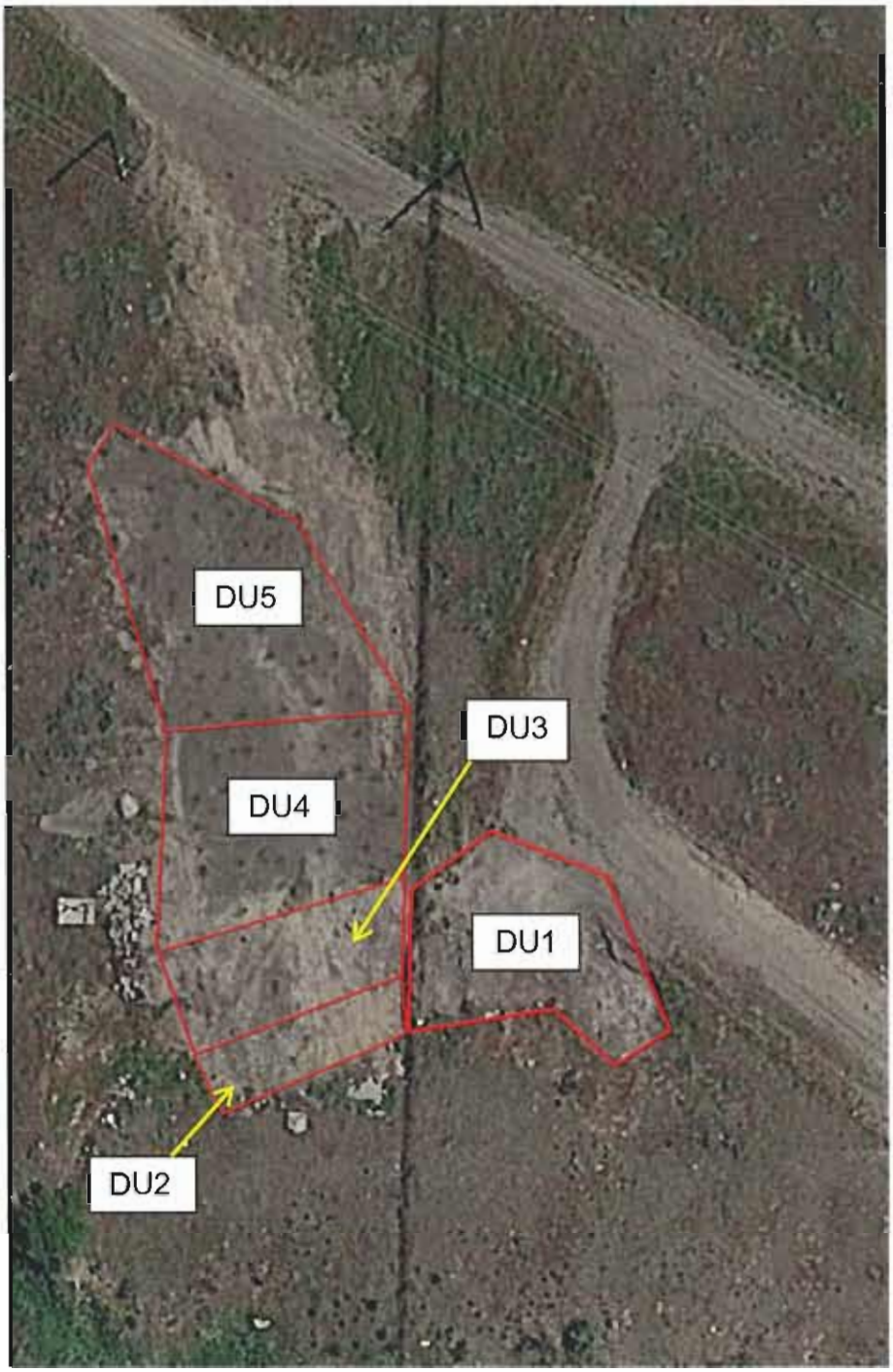

Figure 3 – HWMU BW7, Designated Units

Figure 4 – Monitor Wells near N-5

Figure 5 – Monitoring Wells near BW-7

Tables

TABLE 1 MEDIA CLEANUP STANDARDS[1]	
Constituent	**Regional Screening Level, mg/kg (Residential Scenario)[2]**
Cadmium	70
Copper	3100
Lead	400
Mercury	9.4
Zinc	23,000
Dichlorodifluoromethane	87
HMX	3800
RDX	6
Perchlorate	55
Dioxin	4.9[3]

Note: Concentrations are in mg/kg
(1): Based on detected analytes/Contaminants of Potential Concern
(2): "Regional Screening Levels for Contaminants of Concern at Superfund Sites, January 2015"
(3): ng/kg

TABLE 2 MEDIA CLEANUP STANDARDS[1] GROUND WATER PROTECTION (GWP)				
Constituent (DAF=1)	**Soil Screening Level – GWP**			
	N-1, 2, 4, 5, 6, 7, 8	**BW-7 DU-1**	**BW-7 DU-2&3**	**BW-7 DU-4&5**
	(DAF = 4000)	**(1700)**	**(900)**	**(650)**
Cadmium (0.69)	2760	1170	620	450
Copper (28)	112,000	47,600	25,200	18,200
Lead	(2)	(2)	(2)	(2)
Mercury (0.033)	132	56.1	29.7	21.4
Zinc (370)	(3)	6.3E+5	3.3E+5	2.4E+5
Dichlorodifluoromethane (0.3)	1200	510	270	195
HMX (1.3)	5200	2210	1170	845
RDX (0.00027)	1.08	0.46	0.243	0.175
Perchlorate	(2)	(2)	(2)	(2)
Dioxin (0.03)[4]	NA	51[4]	27[4]	19.5[4]

Note: Concentrations are in mg/kg, unless otherwise noted. DAF is in (__).
(1): Based on detected analytes/Contaminants of Potential Concern
(2): No risk-based SSL
(3): > 1E+6
(4): ng/kg

TABLE 3 ANALYTES / ANALYTICAL METHODS	
Contaminants of Potential Concern	**Extraction / Analytical Method**
Priority Pollutant/RCRA Metals	EPA 3050B,3550B / 6010B,74714A
Energetics - NG, HMX, RDX Perchlorate	EPA 8330A / EPA 8330 Mod EPA 314.0
Dioxin/Furans	EPA 8290
Volatile Organics	EPA 5035A/8260C

TABLE 4 – SUMMARY OF COPC CONFIRMATION SAMPLE RESULTS[1,8]										
DU[2]	Cadmium	Copper	Lead	Mercury	Zinc	HMX	RDX	Perchlorate	Dioxin[3]	DCDFM
N1	0.55	26.8	63.8	0.04	74	0.65	ND[5]	ND	NA[6]	0.028
N4a	1.0	59.5	85.8	0.04	91.6	*29*	*ND*	ND	NA	NA
N4b	0.85	18.6	56.9	ND	70.0	*68*	*ND*	ND	NA	NA
N5a	*0.81*	38.9	*14.2*	*0.03*	88.5	*160*	*0.27*	ND	NA	NA
N5b	*0.76*	27.4	*15.7*	*0.03*	80.9	*120*	*ND*	ND	NA	NA
N6a	1.17	51.3	139	0.06	85	*65*	*ND*	ND	NA	NA
N6b	1.15	40.8	103	0.15	79.6	*96*	*ND*	ND	NA	NA
N7a	*0.52*	50	*73.8*	*0.03*	96.4	1.94	ND	ND	NA	NA
N7b	*0.50*	49.1	*61.2*	*0.03*	94.6	2.28	ND	ND	NA	NA
N8a	1.0	127	72.1	0.04	92.4	*100*	*ND*	ND	NA	NA
N8b	0.2	16.8	11.2	0.03	31.3	*0.93*	*ND*	ND	NA	NA
BW7-1	1.4	161	98.7	0.29	211	10.1	ND	3.2	*3.95*	ND
BW7-2_3	1.01	62.3	38.2	0.11	92.8	1.61	ND	0.87	*0.661*	ND
BW7-4_5	1.37	90.4	53.9	0.11	92.8	1.69	ND	0.29	*ND*	0.016J
RSL	71	3100	400	9.4	23,000	3900	6.1	55	4.8	87
GWP[4]	450	18,200	(7)	21.4	2.4E+5	845	1.08	(7)	19.5	195

Notes:

1. Results are reported in mg/kg, except where discussed.
2. a = side wall sample; b = bottom sample; for BW7, the following numbers represent the DUs from the initial discrete sampling event that were combined for the second ISM sampling event.
3. Dioxin is reported as the dioxin/furan TEQ in ng/mg.
4. For ease in table display, the value shown is the greatest value shown in Table 2, based on the DAF for each unit, with the exception of RDX, which was only reported at N5a, and dioxin, which was only analyzed for at BW7.
5. ND = not detected
6. NA = not analyzed
7. No risk-based soil screening level
8. Italics represent ISM concentration results; non-italic values are the average of discrete samples collected at each SWMU.

TABLE 5 - SUMMARY OF QUALITY CONTROL SAMPLE RESULTS

	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury	HMX	RDX	Dioxin
N4-C4	0.6	0.7	36	12.6	13	12.7	58.7	U	84.5	--	--
N4-C5	0.62	0.8	38.2	12.7	13.9	13.7	62.1	U	90.3	--	--
RPD	3.3%	13.3%	5.9%	0.8%	6.7%	7.6%	5.6%	--	6.6%	--	--
N5-C1	0.6	0.9	35.1	15.9	322	11.6	64	0.03	5590	--	--
N5-C4	0.61	1	40.8	17.5	257	11.9	66.6	0.03	4830	--	--
RPD	1.7%	10.5%	15.0%	9.6%	22.5%	2.6%	4.0%	0.0%	14.6%	--	--
N6-C1	0.65	1.5	47.7	75.1	215	15.7	102	0.08	4450	--	--
N6-C5	0.61	1.5	44.5	70.5	201	14.1	99.2	0.07	4610	--	--
RPD	6.3%	0.0%	6.9%	6.3%	6.7%	10.7%	2.8%	13.3%	3.5%	--	--
BW7-3-6	1.09	0.8	26.9	22.8	7.3	16.1	83.3	0.04	3.16	--	--
BW7-6-2	1.17	0.9	27.1	23.3	7.4	16.2	81.9	0.04	3.18	--	--
RPD	7.1%	11.8%	0.7%	2.2%	1.4%	0.6%	1.7%	0.0%	0.6%	--	--
BW7-4-6	1.01	1.5	24.6	105	65.1	15.6	91.6	U	1.03	--	--
BW7-6-3	1.07	1.5	25.2	109	65.4	15.8	93.1	0.16	1.04	--	--
RPD	5.8%	0.0%	2.4%	3.7%	0.5%	1.3%	1.6%	--	1.0%	--	--
BW7-5-3	1.09	1.1	24.5	51.6	32.4	16.1	86.9	0.09	2.69	--	--
BW7-6-4	1.05	2.1	23	49.3	31	15.2	83.5	0.1	2.47	--	--
RPD	3.7%	62.5%	6.3%	4.6%	4.4%	5.8%	4.0%	10.5%	8.5%	--	--
BW7-5-5	1.05	0.9	24.4	23.2	7.8	15.5	78.1	0.04	2.03	--	--
BW7-6-5	1.02	0.9	23.9	22.6	7.5	15.1	77.2	0.04	1.44	--	--
RPD	2.9%	0.0%	2.1%	2.6%	3.9%	2.6%	1.2%	0.0%	34.0%	--	--
N5A	--	0.81	30.1	--	13.5	--	--	0.03	160	0.27	--
N5C	--	0.78	31.1	--	14.2	--	--	0.03	130	0.25	--
RPD	--	3.8%	3.3%	--	5.1%	--	--	0.0%	20.7%	7.7%	--
BW7A	--	--	--	--	--	--	--	--	--	--	3.43
BW7C	--	--	--	--	--	--	--	--	--	--	3.95
RPD	--	--	--	--	--	--	--	--	--	--	14.1%

TABLE 6 BACKGROUND THRESHOLD VALUES (BTV)		
Analyte	**BTV (UTL95-95)**	**Distribution**
Arsenic	9.98	Gamma
Beryllium	1.271	Lognormal
Cadmium	0.994	Gamma ROS
Chromium	36.9	Normal
Copper	29.3	Lognormal
Lead	17.7	Lognormal
Nickel	18.3	Normal
Silver	0.446	Approx. Normal (Nonparametric)
Zinc	66.1	Normal
Antimony	(1)	--
Mercury	0.04 (2)	Maximum detected value
Selenium	(1)	--
Thallium	(1)	--
Dioxin/Furan	2.382	Gamma

Notes:
(1) No values reported greater than the MDL.
(2) Seven values reported greater than the MDL (J flag), but less than the MRL.

TABLE 7 RESIDENTIAL RISK VALUES		
SWMU/HWMU	Adjusted Total Hazard Index	Total Risk
N-1	8.04×10^{-3}	4.4×10^{-11}
N-4	1.90×10^{-2}	9.54×10^{-11}
N-5	2.85×10^{-2}	4.48×10^{-8}
N-6	2.86×10^{-2}	1.10×10^{-10}
N-7	1.31×10^{-2}	7.34×10^{-11}
N-8	2.62×10^{-2}	7.34×10^{-11}
BW-7	1.22×10^{-1}	8.06×10^{-7}

TABLE 8 RESIDENTIAL RISK VALUES HOMEGROWN PRODUCE			
SWMU/HWMU	Produce Ingestion HI	HMX HI	Cancer Risk (Analyte)
N-1	0.161	0.00465	--
N-4a	0.484	0.287	--
N-4b	0.635	0.486	--
N-5a	1.39	1.14	3.19×10^{-6} (RDX)
N-5b	1.03	0.858	--
N-6a	0.745	0.465	--
N-6b	0.975	0.687	--
N-7a	0.223	0.139	--
N-7b	0.221	0.163	--
N-8a	1.14	0.715	--
N-8b	0.065	0.0065	--
BW-7-DU1	1.40	--	8.6×10^{-6} (Dioxin)
BW-7-DU2	0.461	--	1.44×10^{-6} (Dioxin)
BW-7-DU-3	0.444	--	--

Attachments

Attachment A

Photographs of SWMUs and HWMU

SWMU N-1

SWMU N-4

SWMU N-5

SWMU N-6

SWMU N-7

SWMU N-8

HWMU BW-7, DU-1

HWMU BW-7, DU-2

HWMU BW-7, DU 2 & 3

HWMU BW-7, DU-4 & 5

Attachment B

Bills-of-Lading

Bill of Lading No.	Date	Sump	Net Wt. (tons)	Net Charge
1	4/30/2013	N4	12.49	324.75
2	4/30/2013	N4	13.85	360.11
3	4/30/2013	N4	15.63	406.39
4	5/1/2013	N4	18.35	477.11
5	5/1/2013	N6	13.06	339.57
6	5/1/2013	N6	14.28	371.28
7	5/1/2013	N6	12.72	330.72
8	5/1/2013	N6	12.18	316.69
9	5/1/2013	N6	12.66	329.17
10	5/1/2013	N7	12.74	331.25
11	5/1/2013	N7	13.91	361.67
12	5/1/2013	N7	13.14	341.65
13	5/2/2013	N7	14.21	369.47
14	5/2/2013	N7	15.53	403.79
15	5/2/2013	N7	15.63	406.39
16	5/2/2013	N7	12.32	320.32
17	5/2/2013	N7	13.00	338.00
18	5/2/2013	N7	14.02	364.53
19	5/2/2013	N7	15.60	405.60
20	5/2/2013	N7	16.49	428.75
21	5/2/2013	N7	11.02	286.53
22	5/2/2013	N5	13.77	358.03
23	5/2/2013	N5	13.52	351.52
24	5/3/2013	N5	15.40	400.40
25	5/3/2013	N5	13.55	352.31
26	5/3/2013	N5	11.56	300.56
27	5/3/2013	N5	13.10	340.61
28	5/3/2013	N5	12.82	333.33
29	5/3/2013	N5	15.13	393.39
30	5/3/2013	N5	14.26	370.77
31	5/3/2013	N5	15.02	390.53
32	5/3/2013	N5	15.06	391.57
33	5/3/2013	N5	14.76	383.76
34	5/6/2013	N2	14.87	386.63
35	5/6/2013	N2	15.53	403.79
36	5/6/2013	N2	14.53	377.79
37	5/6/2013	N2	13.20	343.20
38	5/6/2013	N2	13.40	348.40
39	5/6/2013	N2	14.02	364.53
40	5/6/2013	N2	15.50	403.01
41	5/6/2013	N2	11.15	289.91
42	5/6/2013	N2	15.26	396.77
43	5/7/2013	N2	12.81	333.07
44	5/7/2013	N2	17.37	451.63

Bill of Lading No.	Date	Sump	Net Wt. (tons)	Net Charge
45	5/7/2013	N2	16.12	419.12
46	5/7/2013	N2	15.34	398.85
47	5/7/2013	N2	14.40	374.40
48	5/7/2013	N2	16.37	425.63
49	5/7/2013	N2	15.48	402.48
50	5/7/2013	N8	15.01	390.27
51	5/7/2013	N1	14.21	369.47
52	5/8/2013	BG	15.11	392.87
53	5/8/2013	BG	13.34	346.85
54	5/8/2013	BG	14.86	386.37
55	5/8/2013	BG	13.76	357.76
56	5/8/2013	BG	13.04	339.04
57	5/8/2013	BG	12.26	318.77
58	5/8/2013	BG		
59	5/8/2013	BG	12.41	322.67
60	5/8/2013	BG	12.64	328.64
61	5/8/2013	BG	12.88	334.88
62	5/8/2013	BG	14.71	382.47
63	5/8/2013	BG	13.04	339.04
64	5/8/2013	BG	12.72	330.72
65	5/9/2013	BG	10.95	284.71
66	5/9/2013	BG	9.11	236.87
67	5/9/2013	BG	10.65	276.91
68	5/9/2013	BG	10.13	263.39
69	5/9/2013	BG	10.08	262.08
70	5/9/2013	BG	11.84	307.84
71	5/9/2013	BG	10.92	283.92
72	5/9/2013	BG	10.71	278.47
73	5/9/2013	BG	10.59	275.35
74	5/10/2013	BW7	12.08	314.08
75	5/10/2013	BW7	11.46	297.97
76	5/10/2013	BW7	14.31	372.07
77	5/10/2013	BW7	11.33	294.59
78	5/10/2013	BW7	11.48	298.48
79	5/10/2013	BW7	13.06	339.57
80	5/10/2013	BW7	13.54	352.05
82	5/10/2013	BW7	12.91	335.67
81	5/13/2013	BW7	13.63	354.39
83	5/13/2013	BW7	12.22	317.73
84	5/13/2013	BW7	13.42	348.93
85	5/13/2013	BW7	11.14	289.65
86	5/13/2013	BW7	14.27	371.03
87	5/13/2013	BW7	14.20	369.20
88	5/13/2013	BW7	15.58	405.09

Bill of Lading No.	Date	Sump	Net Wt. (tons)	Net Charge
89	5/13/2013	BW7	13.71	356.47
90	5/13/2013	BW7	13.52	351.52
91	5/13/2013	BW7	13.50	351.01
93	5/13/2013	BW7	13.52	351.52
94	5/13/2013	BW7	12.51	325.27
92	5/14/2013	BW7	11.71	312.33
95	5/14/2013	BW7	10.65	276.91
96	5/14/2013	BW7	14.05	365.31
97	5/14/2013	BW7	11.98	311.49
98	5/14/2013	BW7	6.38	165.89
99	5/14/2013	BW7	11.53	299.79
100	5/14/2013	BW7	12.25	318.51
101	5/14/2013	BW7	11.76	305.76
102	5/14/2013	BW7	10.46	271.97
103	5/14/2013	BW7	10.50	273.01
104	5/14/2013	BW7	11.10	288.61
105	5/14/2013	BW7	10.35	269.11
106	5/14/2013	BW7	13.13	341.39
107	5/14/2013	BW7	12.64	328.64
108	5/15/2013	BW7	12.70	330.21
109	5/15/2013	BW7	14.28	371.28
110	5/15/2013	BW7	12.53	325.79
111	5/15/2013	BW7	11.43	297.19
112	5/15/2013	BW7	11.44	297.44
113	5/15/2013	BW7	13.07	339.83
114	5/15/2013	BW7	13.98	363.49
115	5/15/2013	BW7	14.23	369.99
116	5/15/2013	BW7	12.45	323.71
117	5/15/2013	BW7	12.74	331.25
118	5/15/2013	BW7	11.23	291.99
119	5/15/2013	BW7	14.25	370.51
120	5/15/2013	BW7	13.59	353.35
121	5/15/2013	BW7	9.57	248.83
122	5/15/2013	BW7	11.02	286.53
123	5/15/2013	BW7	13.41	348.67
124	5/16/2013	BW7	12.74	331.25
125	5/16/2013	BW7	13.41	348.67
126	5/16/2013	BW7	13.37	347.63
127	5/16/2013	BW7	13.65	354.91
128	5/16/2013	BW7	10.51	273.27
Running Totals			1666.58	43,339.89

Date: 7-30-13

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-01

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box #1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 4/30/13

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082 - 02

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:
BOX 1110

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date
Robert M Yarosik Jr/ 4/30/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date
4/30/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 4-30-13

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-03

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description	LTL Only NMFC No.	LTL Only Class
						Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360		
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box# 1120		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Robert Yar 4/30/2015
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 4-30-13

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-04

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description (Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360)	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box# 1114		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Muñoz 5/1/2013
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 5-1-13

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-05

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133) Box #1110		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/1/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/1/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-06

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1106		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Munoz 5/1/2013
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number:

1082-07

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1120		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Rafael Munoz 5/1/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-08

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 1SS68, EX2009090510 (ERG133)		
						Box # 1110		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/1/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/1/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-09

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box# 1114		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Munoz 5/1/13
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-10

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description (Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360)	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1106		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-11

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description	LTL Only NMFC No.	LTL Only Class
						Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360		
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX # 1110		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date
Rafael Mu 5/1/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-12

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX# 1106		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-13

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description (Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360)	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1120		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Pitt N-7

Date: 05-01-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-14

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1114		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/1/2013

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/1/2013

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-15

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15S68, EX2009090510 (ERG133)		
						BOX 1106		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

PitN-7

Date: 05-02-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-16

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package				Commodity Description	LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX# 1114		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-17

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX# 1110		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: 5/2/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-18

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1106		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/2/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/2/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. B400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-19

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box # 1120		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-20

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	1S yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Robert Yarosik 5/23/2015

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-21

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/2/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/2/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-22

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per ,

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Rafael Alcio 5/2/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-02-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-23

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 03-03-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-24

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ❑ Collect ❑ 3rd Party ❑

❑ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ❑ Prepaid ❑ Customer check acceptable ❑

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Rafael Munos 5/3/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
❑ By driver

Freight Counted:
☒ By shipper
❑ By driver/pallets said to contain
❑ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-25

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ❑ Collect ❑ 3rd Party ❑

❑ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ❑ Prepaid ❑ Customer check acceptable ❑

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Rafael Muñoz 5/3/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
❑ By driver

Freight Counted:
☒ By shipper
❑ By driver/pallets said to contain
❑ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-26

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/3/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/3/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-27

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Rafael Alonzo 5/3/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-28

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Rafael Muñoz 5/3/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-29

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/3/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/3/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-30

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

Box #1118

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-31

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Robert Yarosik 5/3/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2012

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-32

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date
Robert M Yarosik Jr/ 5/3/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date
5/3/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-03-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-33

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX# 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-34

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ❑ Collect ❑ 3rd Party ❑

❑ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ❑ Prepaid ❑ Customer check acceptable ❑

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: [signature] 5/6/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
❑ By driver

Freight Counted:
☒ By shipper
❑ By driver/pallets said to contain
❑ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-35

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/6/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/6/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-36

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Robert M Yarosik 5/6/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-37

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ❑ Collect ❑ 3rd Party ❑

❑ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ❑ Prepaid ❑ Customer check acceptable ❑

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
❑ By driver

Freight Counted:
☒ By shipper
❑ By driver/pallets said to contain
❑ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-38

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit		Package				Commodity Description	LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: 6/6/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-39

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15S68, EX2009090S10 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: 5/6/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-40

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX#1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Robert Yarosik 5/6/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082 - 41

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Rafael Alm 5/6/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-42

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Rafael Munoz

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-43

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX# 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Robert M Yarosik 5/7/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-44

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Rafael Alum 5/7/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

Date: 05-07-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-45

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature: Rafael [illegible] 5/7/2013

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-46

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX# 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-06-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-47

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/6/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/6/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-48

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2012 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-49

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description	LTL Only NMFC No.	LTL Only Class
						Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360		
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX # 1110		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

5/8/2012
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-50

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN33B0, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						Box #1114		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ _____

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
[illegible]000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-51

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX# 1120		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/7/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/7/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-07-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-52

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		
						BOX # 1114		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Robert Yarosik 5/7/201

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
1000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-53

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360

Box# 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ _____

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-~~53~~54

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/8/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/8/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
1000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-55

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date 5/8/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-56

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX# 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/8/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/8/2013

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-57

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Mu 5/8/2012
Carrier Signature/Pickup Date

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-59

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
1000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-60

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Robert M Yarosik 5/8/13
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-61

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
7000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-62

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael [illegible] 5/8/2013
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-63

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description (Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360)	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr 5/8/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/8/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-64

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box #

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-08-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-65

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ❑ Collect ❑ 3rd Party ❑

❑ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX #1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ❑ Prepaid ❑ Customer check acceptable ❑

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/8/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
❑ By driver

Freight Counted:
☒ By shipper
❑ By driver/pallets said to contain
❑ By driver/pieces

Carrier Signature/Pickup Date

5/8/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-66

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	1S yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Rafael Mu 5/9/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-67

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Robert M Yarosik 5/9/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-68

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box #1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date
Robert M Yarosik Jr/ 5/9/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date
5/9/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-69

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date 5/9/1

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-70

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-71

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15S68, EX2009090S10 (ERG133)		

BOX #1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

8/9/13
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-72

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/9/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/9/2013

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-09-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-73

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	1S yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box# 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Muñoz 5/9/13
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-10-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-74

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	1S yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-10-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-75

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box #1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Hume 5/10/2013
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date. 05-10-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-76

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer Number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/10/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date. 05-10-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-77

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No :

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Jackson Hill 5-10-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-10-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-78

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Rafael Ellen 8/10/13
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-10-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-79

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Rafael Muñoz 5/10/13

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-10-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-80

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/10/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/10/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: 05-10-2013 **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-82

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description (Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360)	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/10/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/10/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date 05-10-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-81

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date
Robert M Yarosik Jr/ 5/10/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date
5/10/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-10-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Beccmus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-83

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yaroslk Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date. 05-10-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-84

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No :

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight*	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-10-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-85

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer Number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

Box #1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-13-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-13-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-86

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

Box # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-87

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX #1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-13-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-13-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Baccius
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-88

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Beacons
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-89

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, 1, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-13-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-90

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer Number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/13/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/13/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-91

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No :

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX# 1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-13-2012 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-93

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15S68, EX2009090S10 (ERG133)		

BOX #1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

John Hall 5-13-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-94

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding pe:

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-92

SHIP TO

Salt Lake [illegible]
[illegible] Ave
Salt Lake City, UT 84104
CID No.

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer Number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

[signature]

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

Date 05-13-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-95

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

[signature] 5-14-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-14-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-96

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer Number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date: 05-14-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-97

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No :

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(c) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-14-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date. 05-14-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-98

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-14-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

Date 05-14-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

ATK Launch Systems - Bacchus
5000 S. 8400 W.
West Valley City, UT 84120

Bill of Lading Number: 1082-99

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer number:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Oesensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted

05-14-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-100

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

SHIP TO

Salt Lake County Jail
6030 N. California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date
Robert M Yarosik Jr/ 5/14/13

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date
5/14/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

Date 05-14-2013 BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-101

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer Number

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

CH 5-14-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-14-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-102

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake [illegible]
6030 N. California Ave
Salt Lake City, UT 84104
CID No

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order, except as noted.

05-14-2012 BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-103

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
[illegible] California Ave
Salt Lake City, UT 84104
CID No:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

05-14-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-104

SHIP TO

Salt Lake County Jail of
[illegible] W. California Ave
Salt Lake City, UT 84104
CID No.

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer Number

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15S68, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

5-14-13
Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-14-2013

BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE

Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-105

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer [illegible]

SHIP TO

Salt Lake County Jail
[illegible] California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX# B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-14-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is properly classified, packaged, marked and labeled, and in proper condition for transportation according to the applicable regulations of the DOT.

05-14-2013 BILL OF LADING - SHORT FORM - NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-106

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer Number:

SHIP TO

Salt Lake County Jail
[illegible] N. California Ave
Salt Lake City, UT 84104
CID No

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-14-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order, except as noted.

Date 05-14-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-107

SHIP TO

Salt Lake County Jail
[illegible]
Salt Lake City, UT 84104
CID No:

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

Trailer [illegible]

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order except as noted.

05-14-2013 BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-108

Carrier Name: EnviroCare Inc.
505 N. Main
Nc. Salt lake, UT 84054

SHIP TO

Salt Lake County, [illegible]
4000 W. California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX#1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/14/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/14/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order, except as noted (contents and condition of contents of packages unknown).

Date 05-15-2013 BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-109

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.

Trailer Name

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box #1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

Joshua Hill 5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082 - 110

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County [illegible]
[illegible] California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is properly classified, packaged, marked and labeled, and in proper condition for transportation according to the applicable regulations of the DOT.

05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-111

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
[illegible] W. Carmina Ave
Salt Lake City, UT 84104
CID No.

Trailer Number

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, 1, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING - SHORT FORM - NOT NEGOTIABLE

SHIP FROM

Bill of Lading Number: 1082-112

SHIP TO

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per:

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order, except as noted.

05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

Page 1 of

SHIP FROM

[illegible]

Bill of Lading Number: 1082-113

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
6030 W. California Ave
Salt Lake City, UT 84104
CID No.:

Trailer Number

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/15/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

[signature] 5/15/13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

Bill of Lading Number: 1082-114

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
4001 W. California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above-named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order, except as noted.

05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-115

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County, Lab
[illegible] N. Cardiff Ave
Salt Lake City, UT 84104
CID No.

The [illegible]

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15S68, EX2009090510 (ERG133)		

Box # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order except as noted.

05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

Page

SHIP FROM

[illegible]

Bill of Lading Number: 1082-116

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake City [illegible]
[illegible] California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/15/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5/15/13

Carrier certifies emergency response information was made available and carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

Bill of Lading Number: 1082-117

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake City, UT
4000 N. California Ave
Salt Lake City, UT 84116
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box #1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

Date 05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-118

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake. UT 84054

SHIP TO

Salt Lake County Jail
[illegible] W. California Ave
Salt Lake City, UT 84104
CID No

Trailer Number

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

[signature]

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

Page 1 of 1

SHIP FROM

[illegible]

Bill of Lading Number: 1082-119

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
[illegible] N. Cardiff Ave
Salt Lake City, UT 84104
COD No.:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.
Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-120

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

Trailer [illegible]

SHIP TO

Salt Lake County Jail
[illegible] W. California Ave
Salt Lake City, UT 84104
CID [illegible]

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date 05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-121

SHIP TO

Salt Lake County Jail
[illegible] W. California Ave
Salt Lake City, UT 84104
CID No.

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

Trailer Name

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1120

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/ 5/15/13

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING - SHORT FORM - NOT NEGOTIABLE

SHIP FROM

[illegible]
[illegible]
[illegible]

Bill of Lading Number: 1082-122

SHIP TO

Salt Lake County Landfill
6030 W. California Ave
Salt Lake City, UT 84104
CID No.

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer Name

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090S10 (ERG133)		

BOX # 1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date
[signature] 5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-123

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
[illegible] W. California Ave
Salt Lake City, UT 84104
CID No.

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

5-15-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-124

SHIP TO

Salt Lake County Jail
[illegible] California Ave
Salt Lake City, UT 84104
CID [illegible]

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

Trailer [illegible]

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, 1, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # B1203

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Joshua Fitch 5-16-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-125

SHIP TO

Salt Lake County Jail
6030 W. California Ave
Salt Lake City, UT 84104
CID No.

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

Trailer Number

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Box # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

John Hill 5-16-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

05-15-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

Bill of Lading Number: 1082-126

SHIP TO

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt Lake, UT 84054

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number:

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	
Grand Total				

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX #1106

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above-named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above in apparent good order except as noted.

05-16-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-127

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
[illegible] N. California Ave
Salt Lake City, UT 84104
CID No:

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)	Additional Shipper Information
			Y N	
			Y N	
			Y N	

Grand Total

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1110

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

5-16-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is properly classified, packaged, marked and labeled, and in proper condition for transportation according to the applicable regulations of the DOT.

05-16-2013 BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM

[illegible]

Bill of Lading Number: 1082-128

Carrier Name: EnviroCare Inc.
505 N. Main
No. Salt lake, UT 84054

SHIP TO

Salt Lake County Jail
6030 W. California Ave
Salt Lake City, UT 84104
CID No

THIRD PARTY FREIGHT CHARGES BILL TO

SCAC:

Pro Number

Special Instructions:
EMERGENCY RESPONSE PHONE: (877) 818-0087
Emergency Response Contracted By VESTS
Additional ATK Contact: Ron Bowlin (801) 450-9824

Freight Charge Terms (Freight charges are prepaid unless marked otherwise):
Prepaid ☐ Collect ☐ 3rd Party ☐

☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit Qty	Handling Unit Type	Package Qty	Package Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	LTL Only NMFC No.	LTL Only Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

BOX # 1114

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding per .

COD Amount: $
Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature:

Shipper Signature/Date

Robert M Yarosik Jr/

This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver pieces

Carrier Signature/Pickup Date

[signature] 5-16-13

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order except as noted.

Bill of Lading No.	Date	Sump	Net Wt. (tons)	
1	6/23/2014	N-5	15.69	
2	6/23/2014	N-5	15.98	
3	6/23/2014	N-5	16.34	
4	6/24/2014	N-5	20.68	
5	6/24/2014	N-5	17.59	
6	6/24/2014	N-5	18.27	
7	6/24/2014	N-5	15.06	
8	6/24/2014	N-4	19.40	
9	6/24/2014	N-4	14.93	
10	6/24/2014	N-4	15.33	
11	6/24/2014	N-4	16.82	
12	6/25/2014	N-6	13.73	
13	6/25/2014	N-6	16.89	
14	6/25/2014	N-6	16.96	
15	6/25/2014	N-6	15.86	
16	6/25/2014	N-7	15.48	
17	6/25/2014	N-7	16.68	
18	6/25/2014	N-7	15.16	
19	6/25/2014	N-7	17.69	
20	6/25/2014	N-7	15.25	
21	6/26/2014	N-8	16.55	
22	6/26/2014	N-8	16.07	
23	6/26/2014	N-8	18.36	
24	6/26/2014	N-2	15.96	
25	6/26/2014	N-2	15.84	
26	6/26/2014	N-2	17.60	
27	6/26/2014	N-2	19.17	
28	6/27/2014	N-2	16.10	
29	6/27/2014	N-2	16.84	
30	6/27/2014	N-2	18.20	
31	6/27/2014	N-2	15.25	
32	6/27/2014	N-2	16.04	
33	6/27/2014	N-2	18.07	
34	6/27/2014	N-2	16.24	
35	6/30/2014	BW-7	17.57	
36	6/30/2014	BW-7	18.15	
37	6/30/2014	BW-7	16.12	
38	6/30/2014	BW-7	17.45	
39	6/30/2014	BW-7	17.72	
40	6/30/2014	BW-7	16.50	
41	6/30/2014	BW-7	15.54	21238.04
42	7/1/2014	BW-7	17.78	
43	7/1/2014	BW-7	18.92	
44	7/1/2014	BW-7	3.06	
45	7/1/2014	BW-7	19.65	
46	7/1/2014	BW-7	17.11	
47	7/1/2014	BW-7	14.31	2847.54
Totals			775.96	
Average			16.51	

Sump	Loads	Total Tons
N-4	4	66.48
N-5	7	119.61
N-6	4	63.44
N-7	5	80.26
N-2	11	185.31
N-8	3	50.98
BW-7	13	209.88
	47	775.96

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 01
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/23/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/23/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK- 02
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/23/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Roger Wood 6/23/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

$495.39 15 93600-3

BOX B1207

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-03
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/23/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	[signature] 6/23/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

BOX 1102

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 04
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:**
	Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/24/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Rosy Ward 6/24/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

BOX GFCU 1455

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-05
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 24 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	24 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Clark A. Taylor

Box # 1114

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 06
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:**
	Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/24/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Roger Wood / 6/24/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

B 1207

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-07
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No..	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 24 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	24 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted. Clark A. Taylor

Box #02

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-08
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:**
	Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/24/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Roger Wood 6/24/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GFLU 1587

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 09
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 24 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	24 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Box #102

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 10
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/24/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Bryan Wood 6/24/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

B1207

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 11
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 24 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	24 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Clark Taylor

6FL4 001587 Box #

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-12
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/25/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/25/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GFLU 1455

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-13
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr / 25 June '14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	25 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GFL4001587

Clark A. Taylor

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK 14
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 25 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	25 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GFL4001587 Box #

Date:

BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-13
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/25/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Robert Wood 6/25/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

BOX 1102

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK- 16
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 25 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	25 June/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

B 1207

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-17
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/25/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/25/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

6PLU 1455

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 18
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 25 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	25 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Box 114

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-19
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/25/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GFLU 1587

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-20
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:**
	Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 25 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	25 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1102

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-21
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: GFLU 1455
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/26/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/26/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

BOX GFLU 1455

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 22
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 26 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	June 26 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1587

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-23
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	~~Trailer~~ number: CONTAINER 1114
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/26/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Roger Lobed 6/26/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Box 1114

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-24
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date

Robert M Yarosik Jr/ 26 June 14

This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.

Trailer Loaded:
☒ By shipper
☐ By driver

Freight Counted:
☒ By shipper
☐ By driver/pallets said to contain
☐ By driver/pieces

Carrier Signature/Pickup Date

26 June 14

Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GLFU001587

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-25
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 1102
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:**
	Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/26/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Roger Abbott 6/26/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-26
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 26 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	26 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1455

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-27
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 26 June/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	26 June/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

GLFU 001587

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK · 28
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 1114
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/27/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Ross Wood 6/27/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 29
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: GFLU 1455
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/27/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Brian Wood 6/27/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM	**Bill of Lading Number:** ATK-30
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: GFLU 1587
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 816-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____ .

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	**Trailer Loaded:**	**Freight Counted:**	**Carrier Signature/Pickup Date**
Robert M Yarosik Jr/ 6/27/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/27/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-31
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 1102
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/27/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/27/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-32
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 27 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	27 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1587

Date:

BILL OF LADING -- SHORT FORM -- NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-33
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: GFLU 1455
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/27/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/27/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK - 34
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 1114
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/30/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/30/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date: **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE**

SHIP FROM	**Bill of Lading Number:**
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-35
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: GFLU 1587
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	**Trailer Loaded:**	**Freight Counted:**	**Carrier Signature/Pickup Date**
Robert M Yarosik Jr/ 6/30/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/30/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-36
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 6FLU 1455
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/30/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/30/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-37
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 30 June 14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	30 June 14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Box 1114

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-38
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 1114
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: Darrel Muir

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/30/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/30/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-39
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: Box#1587
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/30/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	6/30/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-40
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:**
	Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 30 June '14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	30 June/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1102

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-41
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: B1207
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	1S yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 6/30/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Roger Wood 6/30/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-42
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1102

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK -43
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-44
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number:
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 816-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

1114

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK- 45
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: B1207
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 7/1/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	7/1/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number:
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	ATK-4L
SHIP TO	**Carrier Name: EnviroCare Inc.** **505 N. Main** **No. Salt lake, UT 84054**
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: GFLU 1587
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____.

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 7/1/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	7/1/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Date:

BILL OF LADING – SHORT FORM – NOT NEGOTIABLE

SHIP FROM	Bill of Lading Number: ATK-47
ATK Launch Systems - Bacchus 5000 S. 8400 W. West Valley City, UT 84120	
SHIP TO	**Carrier Name:** EnviroCare Inc. 505 N. Main No. Salt lake, UT 84054
Salt Lake County Landfill 6030 W. California Ave Salt Lake City, UT 84104 CID No.:	Trailer number: 1102
THIRD PARTY FREIGHT CHARGES BILL TO	**SCAC:** Pro Number:
Special Instructions: **EMERGENCY RESPONSE PHONE: (877) 818-0087** **Emergency Response Contracted By VESTS** **Additional ATK Contact: Ron Bowlin (801) 450-9824**	**Freight Charge Terms** (Freight charges are prepaid unless marked otherwise): Prepaid ☐ Collect ☐ 3rd Party ☐ ☐ Master bill of lading with attached underlying bills of lading.

CUSTOMER ORDER INFORMATION

Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information
			Y	N	
			Y	N	
			Y	N	
Grand Total					

CARRIER INFORMATION

Handling Unit		Package					LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	**Commodity Description** Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC Item 360	NMFC No.	Class
1	Roll Off	1	CM	15 yd	X	UN3380, Desensitized explosive, Solid, n.o.s., (contains less than 3% HMX), 4.1, I, DOT-SP 15568, EX2009090510 (ERG133)		

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."

COD Amount: $ _____

Fee terms: Collect ☐ Prepaid ☐ Customer check acceptable ☐

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.

The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.

Shipper Signature: _____

Shipper Signature/Date	Trailer Loaded:	Freight Counted:	Carrier Signature/Pickup Date
Robert M Yarosik Jr/ 7/1/14 This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.	☒ By shipper ☐ By driver	☒ By shipper ☐ By driver/pallets said to contain ☐ By driver/pieces	7/1/14 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Attachment C

ISM Standard Operating Procedure

1.0 INTRODUCTION

1.1 Scope and Application

Incremental sampling methodology (ISM) is a structured composite sampling and processing protocol that reduces data variability and provides a reasonably unbiased estimate of mean contaminant concentrations in a volume of soil targeted for sampling. ISM provides representative samples of specific soil volumes defined as decision units (DUs) by collecting numerous increments of soil that are combined, processed, and subsampled according to specific protocols.

ISM is increasingly being used in the environmental field for sampling contaminants in soil. Proponents have found that the sampling density afforded by collecting many increments, together with the disciplined processing and subsampling of the combined increments, in most cases yields more consistent and reproducible results than those obtained by more traditional (i.e., discrete) sampling approaches. Although ISM sampling was initially implemented for the assessment of impacts from explosives, there has been recent movement to extend the list of acceptable contaminants to include metals, semi-volatile organic compounds, and even volatile organic compounds.

The purpose of this SOP is to delineate protocols for the application of MI field sampling of surface soil. The procedure, which can be adapted to allow for MI sampling in other environments, i.e., in an excavation trench, has been adapted from U.S. Army Corps of Engineers sampling guidance (2009).

1.2 GLOSSARY OF TERMS

1.2.1 Sampling Units (SU)

An SU is the area and depth of soil (the sampled population) to be characterized by the average concentration of the ISM sample. SUs are restricted to actual source zones and must incorporate only areas that are similar as far as impact (i.e., not to "dilute" contamination) as well as future use.

1.2.2 Decision Units (DU)

A DU is a specific area (or volume of soil) about which a decision is to be made. The important thing is that the entire area of a DU is consistent as far as contamination distribution and future use/exposure scenario. Either all or a percent of the SUs composing the DU may be sampled in an ISM fashion, the number of SUs sampled depending on the confidence of the data that are extended from the SUs to the DU.

1.2.3 Grid Cell

A grid cell is a sub-division of the DU. DUs are divided into uniform-size grid cells, and one increment is collected from each cell, from the same relative location within each grid cell. The

shape of the cells is not specified—the only criterion for cell shape selection is that the cells should be of equal size (they can be triangular, square, rectangular, etc.) so the increments collected from each cell are equally weighted over the DU.

2.0 EQUIPMENT AND MATERIALS

The following equipment and materials may be required:

- Stakes, pin flags, or rope to mark either grid corners or outline the sampling grid
- Incremental sampling tool; stainless steel spoons or scoops may be used but only in conjunction with scales or containers of known volume, so that aliquots of equal mass are collected from each location
- Clean Zip-lock® bags, 5-gallon plastic containers, or other appropriate large container for placing the increments; the size of the container should be adequate to hold the sample volume, which is approximately 1-2 kilograms
- Coolers and ice for cold storage of samples after collection
- Field logbook and pen with waterproof black ink for field documentation
- Global Positioning System instrument or other survey equipment to document locations of DU or SUs

3.0 ISM SAMPLING PROCEDURE

Increments of soil will be collected within each cell of the DU. Increments should be approximately of the same weight and/or volume. For surface soil sampling, clean sampling equipment, including a coring tool, will be used to facilitate the collection of uniform, representative increments from a consistent depth interval. This way, equal volumes are collected for each increment and equal mass is obtained under the assumption that the density of the sampled medium is uniform across the cell of the SU. The size of the coring tool will be selected based on the volume of the increments, which is in turn calculated based on number and depth of the increments and the fact that an adequate total sample mass is typically 1-2 kilograms dry weight (to overcome effects of compositional heterogeneity due to the inherent particulate nature of soil and sediment). It is not necessary to determine by the Global Positioning System location of every increment collected, as long as the DU has been properly identified and the relative position of the increment location within each cell is recorded. The DU will be demarcated in the field using pin flags, spray paint, or rope and fixed with a Global Positioning System. Increments will be selected as defined in the sampling plan.

The increments will be collected from the depth specified in the planning documents (usually up to 8 inches deep) using a coring tool or other method that ensures equal volume is collected for each increment. The horizontal limits of sampling will be dependent on past disposal practices and the decision to be made. If used, the stainless-steel sampler will be pushed into the soil until

the sampler is full. The sampler is then removed carefully, and the soil is pushed out of the sampler with the lever on the side of the instrument. If samples are being collected by hand rather than using a coring device, the sample material will be collected and placed into a 4oz jar to measure equal volumes of soil.

Place the sample (increment or aliquot) directly into a large re-sealable bag, 5-gallon bucket, or alternative large container. Field experience has found that placing samples into a decontaminated 5-gallon bucket and then pouring the whole sample into a bag is a better process. The likelihood of spilling increases with the use of a bag alone because as the bag fills up it is harder to eject additional soil increments into the bag. The bucket is more stable and may prevent loss of fines. The holes left by sampling will be filled using surrounding soil or, if necessary, sand may be used to bring the subsurface sampling areas back to original grade. Soil samples should not include large rocks or pebbles unless they are part of the overall soil matrix. It is not necessary to decontaminate the sampling tool between the increments within a DU or SU.

Prior to the collection of replicate samples or ISM samples from another SU or DU, the sampling tool will be decontaminated. The specific relative location of the replicate increments within each DU cell will be established in a random manner to eliminate potential bias. To select the relative increment location for a replicate increment in a cell, the cell may be divided in turn into sub-grids and a sub-cell may be selected by randomly generating a number on a calculator. Another selection method is performed by rolling a dice for a 6 × 6 sub-grid in the SU cell; the first die would indicate the row and the second die the column of this sub-grid. The large re-sealable bag containing the total sample volume will be labeled with indelible ink and then double-bagged. The samples will be sealed for shipping and placed into iced coolers for transport under chain-of-custody protocol to the analytical laboratory. Field activities will be documented according to logbook procedures specified in the SAP.

Attachment D

Chain-of-Custody
Confirmation Sample Laboratory Reports

N-1

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306009

Sample Delivery Group: 1306009

Sample No.	Client No.	Received	Collect Date/Time
Test Requested	**Sample Description**	**Matrix**	
1306009-01	1S13092A - N1-C1	06/05/13	6/4/2013 11:30:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8260B (Solids)	Volatile Organics Appendix 9	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306009-02	1S13092B - N1-C2	06/05/13	6/4/2013 11:45:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306009-03	1S13092C - N1-S1	06/05/13	6/4/2013 12:00:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8260B (Solids)	Volatile Organics Appendix 9	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306009-04	1S13092D - N1-S2	06/05/13	6/4/2013 12:15:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	

Sample Delivery Group: 1306009

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306009-04	1S13092D - N1-S2		06/05/13	6/4/2013 12:15:00
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Certified By: W. Scott Fraser, Quality Assurance Officer

07/03/2013
Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306009

Client Sample ID: 1S13092A - N1-C1 | **Laboratory Sample ID:** 1306009-01
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 11:30
Moisture: 7.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.08	4.32	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.5	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.8	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.67	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	0.6	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	28.4	ug/g	1.1	5.4	1	MTB	06/19/13
7440-50-8	COPPER	25.7	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	65.9	ug/g	2.2	10.8	1	MTB	06/19/13
7440-02-0	NICKEL	11.1	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.2	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/19/13
7440-66-6	ZINC	80.6	ug/g	1.1	5.4	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.07 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8260B (Solids)*	Volatile Organics Appendix 9						
67-64-1	ACETONE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	30.2	60.5	5.593	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	3.02	60.5	5.593	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	18.7	60.5	5.593	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	121	302	5.593	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	10.3	60.5	5.593	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	10.3	60.5	5.593	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	12.7	60.5	5.593	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE	U	ug/kg	3.02	60.5	5.593	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	6.65	60.5	5.593	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	30.8	60.5	5.593	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	13.3	60.5	5.593	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	6.65	60.5	5.593	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306009

Client Sample ID: 1S13092A - N1-C1 | **Laboratory Sample ID:** 1306009-01
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 11:30
Moisture: 7.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	6.65	60.5	5.593	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	12.7	60.5	5.593	PCI	06/10/13
100-41-4	ETHYLBENZENE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	6.65	60.5	5.593	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	10.3	60.5	5.593	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	121	302	5.593	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	121	302	5.593	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	10.9	60.5	5.593	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	11.5	60.5	5.593	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	12.7	60.5	5.593	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	24.2	60.5	5.593	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	9.07	60.5	5.593	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	7.86	60.5	5.593	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	4.23	60.5	5.593	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	5.44	60.5	5.593	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	9.67	60.5	5.593	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	6.65	60.5	5.593	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	7.86	60.5	5.593	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	4.84	60.5	5.593	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	13.3	60.5	5.593	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	7.26	60.5	5.593	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	121	302	5.593	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	3.63	60.5	5.593	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	12.1	60.5	5.593	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	6.05	60.5	5.593	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	154	%			5.593	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	110	%			5.593	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	113	%			5.593	PCI	06/10/13
2037-26-5	TOLUENE-D8	95.7	%			5.593	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306009

Client Sample ID: 1S13092A - N1-C1 | **Laboratory Sample ID:** 1306009-01
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 11:30
Moisture: 7.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.89	mg/kg	0.04	0.22	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	97.2	%			1	KMS	06/14/13

Client Sample ID: 1S13092B - N1-C2 | **Laboratory Sample ID:** 1306009-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 11:45
Moisture: 4.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.05	4.18	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.4	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.5	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.5	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.66	ug/g	0.05	0.26	1	MTB	06/19/13
7440-43-9	CADMIUM	0.4 J	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	28.5	ug/g	1.1	5.2	1	MTB	06/19/13
7440-50-8	COPPER	21.8	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	43.5	ug/g	2.1	10.5	1	MTB	06/19/13
7440-02-0	NICKEL	10.6	ug/g	0.5	2.6	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.7	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.2	1	MTB	06/19/13
7440-66-6	ZINC	57.9	ug/g	1.1	5.2	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.43	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	97.8	%			1	KMS	06/14/13

Listing of Results by Sample

Sample Delivery Group: 1306009

Client Sample ID: 1S13092C - N1-S1 | **Laboratory Sample ID:** 1306009-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 12:00
Moisture: 6.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.06	4.26	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.1	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/19/13
7440-36-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.62	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	0.6	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	26.3	ug/g	1.1	5.3	1	MTB	06/19/13
7440-50-6	COPPER	21.2	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	62.3	ug/g	2.1	10.6	1	MTB	06/19/13
7440-02-0	NICKEL	11.	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	16	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/19/13
7440-66-6	ZINC	78.2	ug/g	1.1	5.3	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8260B (Solids)*	Volatile Organics Appendix 9						
67-64-1	ACETONE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	26.3	52.5	4.933	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	2.63	52.5	4.933	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	16.3	52.5	4.933	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	105	263	4.933	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	8.93	52.5	4.933	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	8.93	52.5	4.933	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	11	52.5	4.933	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE	U	ug/kg	2.63	52.5	4.933	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	5.78	52.5	4.933	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	26.8	52.5	4.933	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	11.6	52.5	4.933	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	4.2	52.5	4.933	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	5.78	52.5	4.933	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	4.2	52.5	4.933	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306009

Client Sample ID: 1S13092C - N1-S1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1]

Laboratory Sample ID: 1306009-03
Date Sampled: 06/04/13 12:00
Moisture: 6.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	28. J	ug/kg	4.2	52.5	4.933	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	4.2	52.5	4.933	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	4.2	52.5	4.933	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	5.78	52.5	4.933	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	4.2	52.5	4.933	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	11	52.5	4.933	PCI	06/10/13
100-41-4	ETHYLBENZENE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	5.78	52.5	4.933	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	8.93	52.5	4.933	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	105	263	4.933	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
99-87-8	4-ISOPROPYLTOLUENE	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	105	263	4.933	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	9.46	52.5	4.933	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	9.98	52.5	4.933	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	11	52.5	4.933	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	21	52.5	4.933	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	7.88	52.5	4.933	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	6.83	52.5	4.933	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	3.68	52.5	4.933	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	4.73	52.5	4.933	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	8.41	52.5	4.933	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	5.78	52.5	4.933	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	6.83	52.5	4.933	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	4.2	52.5	4.933	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	11.6	52.5	4.933	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	6.3	52.5	4.933	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	105	263	4.933	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	3.15	52.5	4.933	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	10.5	52.5	4.933	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	5.25	52.5	4.933	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	122	%			4.933	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	95.9	%			4.933	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	111	%			4.933	PCI	06/10/13
2037-26-5	TOLUENE-D8	91.1	%			4.933	PCI	06/10/13

Printed: 07/03/13 08:33

Listing of Results by Sample

Sample Delivery Group: 1306009

Client Sample ID: 1S13092C - N1-S1 | **Laboratory Sample ID:** 1306009-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 12:00
Moisture: 6.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.1 J	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	98.9	%			1	KMS	06/14/13

Client Sample ID: 1S13092D - N1-S2 | **Laboratory Sample ID:** 1306009-04
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N1] | **Date Sampled:** 06/04/13 12:15
Moisture: 9.7%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.11	4.43	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.7	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11.1	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.2	11.1	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.76	ug/g	0.06	0.28	1	MTB	06/19/13
7440-43-9	CADMIUM	0.6	ug/g	0.1	0.6	1	MTB	06/19/13
7440-47-3	CHROMIUM	27.7	ug/g	1.1	5.5	1	MTB	06/19/13
7440-50-8	COPPER	38.5	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	63.3	ug/g	2.2	11.1	1	MTB	06/19/13
7440-02-0	NICKEL	12.7	ug/g	0.6	2.8	1	MTB	06/19/13
7762-49-2	SELENIUM	U	ug/g	3.3	16.6	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/19/13
7440-66-6	ZINC	79.3	ug/g	1.1	5.5	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.17 J	mg/kg	0.04	0.22	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	97.3	%			1	KMS	06/14/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

1306009

Client Name ATK: Bacchus SDG No 06 WSF 06/13 → 1306008 Date 06/05/13

Carrier Al Lee Carrier Number Initials WSF

Hand delivered, no cooler ✓ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red / White

Condition of Shipping Container: ✓ Good Fair Not Applicable Damaged (explain)

Cooler Sealed (taped): Yes ✓ No Not Applicable

Custody Seals Present: Yes ✓ No Not Applicable

Intact Broken Seal Number

Coolant: ✓ Ice Blue Ice None Other

State of Coolant: ✓ Frozen Partially Frozen Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: Yes ✓ No

Packing Description: Bottle in cooler covered with Bagged ice

Chain-Of-Custody Information:

COC Present: ✓ Yes No Other:

COC Number(s): —

COC signed (relinquished and received): ✓ Yes No Not Applicable

COC or LWI agrees with sample labels: ✓ Yes No Not Applicable

Notes:

Sample Information:

Samples included in cooler:

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

→ 34 x 250 ml WMG ; 2 x 40 ml VOA vial glass

1306011 — 13 x 40 ml glass VOA vial

Custody Seals Present: Yes ✓ No Other

Intact Broken Seal Number(s)

Sample containers intact: ✓ Yes No Notes:

Samples in proper containers: ✓ Yes No

Sufficient sample volume: ✓ Yes No

All samples received in hold time: ✓ Yes No

Water – VOA's have zero headspace: Yes No ✓ Not Applicable

Pre-preserved with HCl: Pre-preserved with $Na_2S_2O_3$: Non-Preserved:

Notes:

Water – pH acceptable upon receipt: Yes Adjusted (see comments below) ✓ Not Applicable

HNO_3 = H_2SO_4 = NaOH = ZnAC /NaOH = HCL =

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 H_2SO_4 NaOH ZnAC HCl

$Na_2SO_2O_3$ Other

Notes:

SOP-102 Form A

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin WSF 06/05/13	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	~~N2~~ and N8 per telecon w/Ron Bowlin			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13092A	6/4/2013	1130	Grab	1 - 8 oz. 1 – 40 ml VOA	4C	**Priority Pollutant Metals: 6010B/7471A** (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) **Explosives: 8330M** (NG, HMX, RDX) **Perchlorate: 314.0** **Volatile Organics: 8260C (see Note)**	N1-C1
1S13092B	6/4/2013	1145	Grab	1 - 8 oz.	4C		N1-C2
1S13092C	6/4/2013	1200	Comp	1 - 8 oz. 1 – 40 ml VOA	4C		N1-S1
1S13092D	6/4/2013	1215	Comp	1 - 8 oz.	4C		N1-S2
1S13093A	6/4/2013	1245	Grab	1 - 8 oz.	4C	**Priority Pollutant Metals: 6010B/7471A** (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) **Explosives: 8330M** (NG, HMX, RDX) **Perchlorate: 314.0**	N8-C1
1S13093B	6/4/2013	1300	Comp	1 - 8 oz.	4C		N8-S1

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:** Volatile organics only on 092A and 092 C.

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[illegible]	[illegible]	6/4/13	1800
[illegible]	W. Scott Fraser	06/05/13	0945

1306009

FORM FQA-0287 (REV 10-09)

N-4

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306005

Sample Delivery Group: 1306005

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306005-01	1S13087A - N4-C1		06/05/13	6/3/2013 10:00:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306005-02	1S13087B - N4-C2		06/05/13	6/3/2013 10:15:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306005-03	1S13087C - N4-C3		06/05/13	6/3/2013 10:30:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306005-04	1S13087D - N4-C4		06/05/13	6/3/2013 10:45:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306005-05	1S13087E - N4-C5-4		06/05/13	6/3/2013 10:50:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Sample Delivery Group: 1306005

Sample No.	Client No.	Received	Collect Date/Time
Test Requested	**Sample Description**	**Matrix**	
1306005-06	1S13087F - N4-S1	06/05/13	6/3/2013 11:00:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306005-07	1S13087G - N4-S2	06/05/13	6/3/2013 11:15:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306005-08	1S13087H - N4-S3	06/05/13	6/3/2013 11:30:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	

Sample Delivery Group: 1306005

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306005-08	1S13087H - N4-S3		06/05/13	6/3/2013 11:30:00
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

07/03/2013

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306005

Client Sample ID: 1S13087A - N4-C1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4]
Laboratory Sample ID: 1306005-01
Date Sampled: 06/03/13 10:00
Moisture: 4.8%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.8	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.53	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	0.7	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	33.3	ug/g	1.1	5.3	1	MTB	06/13/13
7440-50-8	COPPER	26.6	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	39.	ug/g	2.1	10.5	1	MTB	06/13/13
7440-02-0	NICKEL	10.9	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.8	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/13/13
7440-66-6	ZINC	70.9	ug/g	1.1	5.3	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1290.	mg/kg	42	210	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	105	210	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	96.7	%			1	KMS	06/13/13

Client Sample ID: 1S13087B - N4-C2
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4]
Laboratory Sample ID: 1306005-02
Date Sampled: 06/03/13 10:15
Moisture: 5.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.3	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.54	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.3	ug/g	0.1	0.5	1	MTB	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306005

Client Sample ID: 1S13087B - N4-C2 | **Laboratory Sample ID:** 1306005-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 10:15
Moisture: 5.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	34.1	ug/g	1.1	5.3	1	MTB	06/13/13
7440-50-8	COPPER	24.7	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	170.	ug/g	2.1	10.6	1	MTB	06/13/13
7440-02-0	NICKEL	11.	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.8	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/13/13
7440-66-6	ZINC	99.5	ug/g	1.1	5.3	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2280.	mg/kg	42.2	211	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	106	211	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	95.1	%			1	KMS	06/13/13

Client Sample ID: 1S13087C - N4-C3 | **Laboratory Sample ID:** 1306005-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 10:30
Moisture: 7.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.6	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.8	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.58	ug/g	0.05	0.27	1	MTB	06/13/13
7440-43-9	CADMIUM	0.6	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	33.2	ug/g	1.1	5.4	1	MTB	06/13/13
7440-50-8	COPPER	10.5	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	5.7 J	ug/g	2.2	10.8	1	MTB	06/13/13
7440-02-0	NICKEL	12.6	ug/g	0.5	2.7	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.2	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/13/13
7440-66-6	ZINC	58.9	ug/g	1.1	5.4	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	U	mg/kg	0.03	0.1	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306005

Client Sample ID: 1S13087C - N4-C3 | **Laboratory Sample ID:** 1306005-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 10:30
Moisture: 7.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	47.5	mg/kg	0.43	2.16	10	KMS	06/13/13
121-82-4	RDX	U	mg/kg	1.08	2.16	10	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	99.1	%			1	KMS	06/13/13

Client Sample ID: 1S13087D - N4-C4 | **Laboratory Sample ID:** 1306005-04
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 10:45
Moisture: 9.%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.6	ug/g	0.05	0.28	1	MTB	06/13/13
7440-43-9	CADMIUM	0.7	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	36.	ug/g	1.1	5.5	1	MTB	06/13/13
7440-50-8	COPPER	12.6	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	13.	ug/g	2.2	11	1	MTB	06/13/13
7440-02-0	NICKEL	12.7	ug/g	0.5	2.8	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/13/13
7440-66-6	ZINC	58.7	ug/g	1.1	5.5	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	U	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	84.5	mg/kg	0.44	2.2	10	KMS	06/13/13
121-82-4	RDX	U	mg/kg	1.1	2.2	10	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	98.9	%			1	KMS	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306005

Client Sample ID: 1S13087E - N4-C5-4 | **Laboratory Sample ID:** 1306005-05
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 10:50
Moisture: 8.7%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.7	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.62	ug/g	0.05	0.27	1	MTB	06/13/13
7440-43-9	CADMIUM	0.6	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	38.2	ug/g	1.1	5.5	1	MTB	06/13/13
7440-50-8	COPPER	12.7	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	13.9	ug/g	2.2	11	1	MTB	06/13/13
7440-02-0	NICKEL	13.7	ug/g	0.5	2.7	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.4	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/13/13
7440-66-6	ZINC	62.1	ug/g	1.1	5.5	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	U	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	90.3	mg/kg	0.44	2.19	10	KMS	06/13/13
121-82-4	RDX	U	mg/kg	1.1	2.19	10	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	97.3	%			1	KMS	06/13/13

Client Sample ID: 1S13087F - N4-S1 | **Laboratory Sample ID:** 1306005-06
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 11:00
Moisture: 7.7%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/16/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.7	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.8	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.66	ug/g	0.05	0.27	1	MTB	06/13/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306005

Client Sample ID: 1S13087F - N4-S1 | **Laboratory Sample ID:** 1306005-06
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 11:00
Moisture: 7.7%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	43.4	ug/g	1.1	5.4	1	MTB	06/13/13
7440-50-8	COPPER	56.1	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	49.4	ug/g	2.2	10.8	1	MTB	06/13/13
7440-02-0	NICKEL	12.1	ug/g	0.5	2.7	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/13/13
7440-66-6	ZINC	78.3	ug/g	1.1	5.4	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	249.	mg/kg	4.33	21.7	100	KMS	06/13/13
121-82-4	RDX	U	mg/kg	10.8	21.7	100	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	96.4	%			1	KMS	06/13/13

Client Sample ID: 1S13087G - N4-S2 | **Laboratory Sample ID:** 1306005-07
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4] | **Date Sampled:** 06/03/13 11:15
Moisture: 4.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.4	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.69	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	45.9	ug/g	1.1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	63.0	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	122.	ug/g	2.1	10.5	1	MTB	06/13/13
7440-02-0	NICKEL	13.2	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.7	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	104.	ug/g	1.1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.09	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306005

Client Sample ID: 1S13087G - N4-S2
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4]
Laboratory Sample ID: 1306005-07
Date Sampled: 06/03/13 11:15
Moisture: 4.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2350.	mg/kg	41.8	209	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	105	209	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	95.9	%			1	KMS	06/13/13

Client Sample ID: 1S13087H - N4-S3
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N4]
Laboratory Sample ID: 1306005-08
Date Sampled: 06/03/13 11:30
Moisture: 2.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.1	0.41	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	2.4	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.2	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.2	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.63	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	43.6	ug/g	1	5.1	1	MTB	06/13/13
7440-50-8	COPPER	59.4	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	86.	ug/g	2.1	10.2	1	MTB	06/13/13
7440-02-0	NICKEL	12.5	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.4	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.1	1	MTB	06/13/13
7440-66-6	ZINC	92.4	ug/g	1	5.1	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2070.	mg/kg	41	205	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	102	205	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	96.9	%			1	KMS	06/13/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SOG No. 1306005 Date: 06/05/13

Carrier: AL Lee Carrier Number: — Initials: WSF

☐ Hand delivered, no cooler ☑ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red / White

Condition of Shipping Container: ☑ Good ☐ Fair ☐ Not Applicable Damaged (explain) ____

Cooler Sealed (taped): ☐ Yes ☑ No ☐ Not Applicable

Custody Seals Present: ☐ Yes ☑ No ☐ Not Applicable

☐ Intact ☐ Broken Seal Number: ____

Coolant: ☑ Ice ☐ Blue Ice ☐ None Other: ____

State of Coolant: ☑ Frozen ☐ Partially Frozen ☐ Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: ☐ Yes ☑ No

Packing Description: Bottle in cooler covered with Bagged ice

Chain-Of-Custody Information:

COC Present: ☑ Yes ☐ No Other: ____

COC Number(s): —

COC signed (relinquished and received): ☑ Yes ☐ No ☐ Not Applicable

COC or LWI agrees with sample labels: ☑ Yes ☐ No ☐ Not Applicable

Notes: ____

Sample Information:

Samples included in cooler:

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

→ 34 x 250 mL WMG ; 2 x 40 mL VOA vial glass

1306011 — 13 x 40 mL glass VOA vial

Custody Seals Present: ☐ Yes ☑ No Other ____

☐ Intact ☐ Broken Seal Number(s) ____

Sample containers intact: ☑ Yes ☐ No Notes: ____

Samples in proper containers: ☑ Yes ☐ No

Sufficient sample volume: ☑ Yes ☐ No

All samples received in hold time: ☑ Yes ☐ No

Water – VOA's have zero headspace: ☐ Yes ☐ No ☑ Not Applicable

☐ Pre-preserved with HCl: ☐ Pre-preserved with $Na_2S_2O_3$: ☐ Non-Preserved:

Notes: ____

Water – pH acceptable upon receipt: ☐ Yes ☐ Adjusted (see comments below) ☑ Not Applicable

HNO_3 = ____ H_2SO_4 = ____ NaOH = ____ ZnAC /NaOH = ____ HCL = ____

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 ____ H_2SO_4 ____ NaOH ____ ZnAC ____ HCl ____

$Na_2SO_2O_3$ ____ Other ____

Notes: ____

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	N4			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13087A	6/3/2013	1000	Grab	1 - 8 oz.	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	C1
1S13087B	6/3/2013	1015	Grab	1 - 8 oz.	4C		C2
1S13087C	6/3/2013	1030	Grab	1 - 8 oz.	4C		C3
1S13087D	6/3/2013	1045	Grab	1 - 8 oz.	4C		C4
1S13087E	6/3/2013	1050	Grab	1 - 8 oz.	4C		C5-4
1S13087F	6/3/2013	1100	Comp	1 - 8 oz.	4C		S1
1S13087G	6/3/2013	1115	Comp	1 - 8 oz.	4C		S2
1S13087H	6/3/2013	1130	Comp	1 - 8 oz.	4C		S3

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[illegible]	[illegible]	6/4/13	1800
[illegible]	W. Scott Fraser	06/05/13	0945

1306005

N-5

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306006

Sample Delivery Group: 1306006

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306006-01	1S13089A - N5-C1		06/05/13	6/3/2013 12:00:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306006-02	1S13089B - N5-C2		06/05/13	6/3/2013 12:15:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306006-03	1S13089C - N5-C3		06/05/13	6/3/2013 12:30:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306006-04	1S13089D - N5-C4-1		06/05/13	6/3/2013 12:45:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306006-05	1S13089E - N5-S1		06/05/13	6/3/2013 13:00:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Sample Delivery Group: 1306006

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306006-06	1S13089F - N5-S2		06/05/13	6/3/2013 13:15:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306006-07	1S13089G - N5-S3		06/05/13	6/3/2013 13:30:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	

Sample Delivery Group: 1306006

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
1306006-07	1S13089G - N5-S3		06/05/13	6/3/2013 13:30:00
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Test Requested / **Matrix**

Certified By: W. Scott Fraser, Quality Assurance Officer — 07/03/2013 Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306006

Client Sample ID: 1S13089A - N5-C1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]
Laboratory Sample ID: 1306006-01
Date Sampled: 06/03/13 12:00
Moisture: 4.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.6	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.6	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	35.1	ug/g	1.1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	15.9	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	322.	ug/g	2.1	10.5	1	MTB	06/13/13
7440-02-0	NICKEL	11.6	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.7	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	64.	ug/g	1.1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	5590.	mg/kg	41.9	210	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	105	210	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	94.7	%			1	KMS	06/13/13

Client Sample ID: 1S13089B - N5-C2
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]
Laboratory Sample ID: 1306006-02
Date Sampled: 06/03/13 12:15
Moisture: 2.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.1	0.41	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	2.5	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.3	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.3	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.64	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.5	1	MTB	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306006

Client Sample ID: 1S13089B - N5-C2 **Laboratory Sample ID:** 1306006-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5] **Date Sampled:** 06/03/13 12:15
Moisture: 2.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	37.7	ug/g	1	5.1	1	MTB	06/13/13
7440-50-8	COPPER	17.4	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	253.	ug/g	2.1	10.3	1	MTB	06/13/13
7440-02-0	NICKEL	13.1	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.4	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.1	1	MTB	06/13/13
7440-66-6	ZINC	71.8	ug/g	1	5.1	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	5710.	mg/kg	41	205	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	103	205	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	98.4	%			1	KMS	06/13/13

Client Sample ID: 1S13089C - N5-C3 **Laboratory Sample ID:** 1306006-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5] **Date Sampled:** 06/03/13 12:30
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.1	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.82	ug/g	0.05	0.27	1	MTB	06/13/13
7440-43-9	CADMIUM	1.7	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	44.5	ug/g	1.1	5.4	1	MTB	06/13/13
7440-50-8	COPPER	48.9	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	305.	ug/g	2.2	10.9	1	MTB	06/13/13
7440-02-0	NICKEL	16.2	ug/g	0.5	2.7	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/13/13
7440-66-6	ZINC	107.	ug/g	1.1	5.4	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.05 J	mg/kg	0.03	0.1	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306006

Client Sample ID: 1S13089C - N5-C3
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]
Laboratory Sample ID: 1306006-03
Date Sampled: 06/03/13 12:30
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	5270.	mg/kg	43.5	218	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	109	218	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	99.0	%			1	KMS	06/13/13

Client Sample ID: 1S13089D - N5-C4-1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]
Laboratory Sample ID: 1306006-04
Date Sampled: 06/03/13 12:45
Moisture: 5.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.3	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.61	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	40.8	ug/g	1.1	5.3	1	MTB	06/13/13
7440-50-8	COPPER	17.5	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	257.	ug/g	2.1	10.6	1	MTB	06/13/13
7440-02-0	NICKEL	11.9	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.8	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/13/13
7440-66-6	ZINC	66.6	ug/g	1.1	5.3	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	4830.	mg/kg	42.2	211	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	106	211	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	93.2	%			1	KMS	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306006

Client Sample ID: 1S13089E - N5-S1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]
Laboratory Sample ID: 1306006-05
Date Sampled: 06/03/13 13:00
Moisture: 5.8%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.8	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.64	ug/g	0.05	0.27	1	MTB	06/13/13
7440-43-9	CADMIUM	1.2	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	37.5	ug/g	1.1	5.3	1	MTB	06/13/13
7440-50-8	COPPER	33.7	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	273.	ug/g	2.1	10.6	1	MTB	06/13/13
7440-02-0	NICKEL	12.7	ug/g	0.5	2.7	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.9	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/13/13
7440-66-6	ZINC	83.	ug/g	1.1	5.3	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	15400.	mg/kg	425	2120	10000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	1060	2120	10000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	97.3	%			1	KMS	06/13/13

Client Sample ID: 1S13089F - N5-S2
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]
Laboratory Sample ID: 1306006-06
Date Sampled: 06/03/13 13:15
Moisture: 4.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.4	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.64	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.5	1	MTB	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306006

Client Sample ID: 1S13089F - N5-S2 | **Laboratory Sample ID:** 1306006-06
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5] | **Date Sampled:** 06/03/13 13:15
Moisture: 4.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	43.7	ug/g	1.1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	33.6	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	87.2	ug/g	2.1	10.5	1	MTB	06/13/13
7440-02-0	NICKEL	13.4	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.7	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	75.5	ug/g	1.1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	4460.	mg/kg	41.8	209	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	105	209	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	94.8	%			1	KMS	06/13/13

Client Sample ID: 1S13089G - N5-S3 | **Laboratory Sample ID:** 1306006-07
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5] | **Date Sampled:** 06/03/13 13:30
Moisture: 8.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/18/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.2	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.81	ug/g	0.05	0.27	1	MTB	06/13/13
7440-43-9	CADMIUM	1.9	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	41.1	ug/g	1.1	5.5	1	MTB	06/13/13
7440-50-8	COPPER	49.5	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	338.	ug/g	2.2	10.9	1	MTB	06/13/13
7440-02-0	NICKEL	15.5	ug/g	0.5	2.7	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/13/13
7440-66-6	ZINC	107.	ug/g	1.1	5.5	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.08 J	mg/kg	0.03	0.1	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306006

Client Sample ID: 1S13089G - N5-S3
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N5]

Laboratory Sample ID: 1306006-07
Date Sampled: 06/03/13 13:30
Moisture: 8.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/12/2013				1	KMS	06/12/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	6000.	mg/kg	43.6	218	1000	KMS	06/13/13
121-82-4	RDX	U	mg/kg	109	218	1000	KMS	06/13/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/13/13
99-08-1	3-NITROTOLUENE	98.6	%			1	KMS	06/13/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SOG No: 1306006 Date: 06/05/13

Carrier: AL Lee Carrier Number: — Initials: WSF

Hand delivered, no cooler ✓ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red/White

Condition of Shipping Container: ✓ Good Fair Not Applicable Damaged (explain)

Cooler Sealed (taped): Yes ✓ No Not Applicable

Custody Seals Present: Yes ✓ No Not Applicable

Intact Broken Seal Number:

Coolant: ✓ Ice Blue Ice None Other:

State of Coolant: ✓ Frozen Partially Frozen Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: Yes ✓ No

Packing Description: Bottle in cooler covered with Bagged ice

Chain-Of-Custody Information:

COC Present: ✓ Yes No Other:

COC Number(s): —

COC signed (relinquished and received): ✓ Yes No Not Applicable

COC or LWI agrees with sample labels: ✓ Yes No Not Applicable

Notes:

Sample Information:

Samples included in cooler:

34 x 250 mL WMG ; 2 x 40 mL VOA vial glass

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

1306011 — 13 X 40 mL glass VOA vial

Custody Seals Present: Yes ✓ No Other

Intact Broken Seal Number(s)

Sample containers intact: ✓ Yes No Notes:

Samples in proper containers: ✓ Yes No

Sufficient sample volume: ✓ Yes No

All samples received in hold time: ✓ Yes No

Water – VOA's have zero headspace: Yes No ✓ Not Applicable

Pre-preserved with HCl: Pre-preserved with $Na_2S_2O_3$: Non-Preserved:

Notes:

Water – pH acceptable upon receipt: Yes Adjusted (see comments below) ✓ Not Applicable

HNO_3 = H_2SO_4 = NaOH = ZnAC /NaOH = HCL =

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 H_2SO_4 NaOH ZnAC HCl

$Na_2SO_2O_3$ Other

Notes:

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB: M53	COLLECTED BY: R. Bowlin	COMPANY: ATK LAUNCH SYSTEMS	TITLE: ENVIRO ENG
P.O. NO:	COLLECTION LOCATION: N5		CONTACT: R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG: 98CP LS333	MATERIAL SAMPLED: Soil		EMAIL: ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13089A	6/3/2013	1200	Grab	1 - 8 oz.	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	C1
1S13089B	6/3/2013	1215	Grab	1 - 8 oz.	4C		C2
1S13089C	6/3/2013	1230	Grab	1 - 8 oz.	4C		C3
1S13089D	6/3/2013	1245	Grab	1 - 8 oz.	4C		C4-1
1S13089E	6/3/2013	1300	Comp	1 - 8 oz.	4C		S1
1S13089F	6/3/2013	1315	Comp	1 - 8 oz.	4C		S2
1S13089G	6/3/2013	1330	Comp	1 - 8 oz.	4C		S3

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R.C. Bowlin	Allen B. Rae	6/4/13	1800
Allen B. Rae	W. Scott Fraser	06/05/13	0945

1306006

N-6

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306007

Sample Delivery Group: 1306007

Sample No.	Client No. / Test Requested	Sample Description	Received	Collect Date/Time / Matrix
1306007-01	1S13090A - N6-C1		06/05/13	6/3/2013 14:00:00
	EPA 314.0	Perchlorate - Ion Chromatography		Soil
	MOISTURE	Percent Moisture		Soil
	SW-846, 3050B	ICP/GFAA Metals Digestion		Soil
	SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010		Soil
	SW-846, 7471A	Mercury Analysis		Soil
	SW-846, 8330A	Explosives Extraction		Soil
	SW-846, 8330A Mod (Solids)	Explosives Analysis		Soil
1306007-02	1S13090B - N6-C2		06/05/13	6/3/2013 14:15:00
	EPA 314.0	Perchlorate - Ion Chromatography		Soil
	MOISTURE	Percent Moisture		Soil
	SW-846, 3050B	ICP/GFAA Metals Digestion		Soil
	SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010		Soil
	SW-846, 7471A	Mercury Analysis		Soil
	SW-846, 8330A	Explosives Extraction		Soil
	SW-846, 8330A Mod (Solids)	Explosives Analysis		Soil
1306007-03	1S13090C - N6-C3		06/05/13	6/3/2013 14:30:00
	EPA 314.0	Perchlorate - Ion Chromatography		Soil
	MOISTURE	Percent Moisture		Soil
	SW-846, 3050B	ICP/GFAA Metals Digestion		Soil
	SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010		Soil
	SW-846, 7471A	Mercury Analysis		Soil
	SW-846, 8330A	Explosives Extraction		Soil
	SW-846, 8330A Mod (Solids)	Explosives Analysis		Soil
1306007-04	1S13090D - N6-C4		06/05/13	6/3/2013 14:45:00
	EPA 314.0	Perchlorate - Ion Chromatography		Soil
	MOISTURE	Percent Moisture		Soil
	SW-846, 3050B	ICP/GFAA Metals Digestion		Soil
	SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010		Soil
	SW-846, 7471A	Mercury Analysis		Soil
	SW-846, 8330A	Explosives Extraction		Soil
	SW-846, 8330A Mod (Solids)	Explosives Analysis		Soil
1306007-05	1S13090E - N6-C5-1		06/05/13	6/3/2013 14:50:00
	EPA 314.0	Perchlorate - Ion Chromatography		Soil
	MOISTURE	Percent Moisture		Soil
	SW-846, 3050B	ICP/GFAA Metals Digestion		Soil
	SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010		Soil
	SW-846, 7471A	Mercury Analysis		Soil
	SW-846, 8330A	Explosives Extraction		Soil
	SW-846, 8330A Mod (Solids)	Explosives Analysis		Soil

Sample Delivery Group: 1306007

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306007-06	1S13090F - N6-S1		06/05/13	6/3/2013 15:00:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306007-07	1S13090G - N6-S2		06/05/13	6/3/2013 15:15:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306007-08	1S13090F - N6-S3		06/05/13	6/3/2013 15:30:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	

Sample Delivery Group: 1306007

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
1306007-08	1S13090F - N6-S3		06/05/13	6/3/2013 15:30:00
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Test Requested **Matrix**

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

07/03/2013

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306007

Client Sample ID: 1S13090A - N6-C1 | **Laboratory Sample ID:** 1306007-01
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 14:00
Moisture: 4.%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.04	4.17	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.65	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	47.7	ug/g	1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	75.1	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	215.	ug/g	2.1	10.4	1	MTB	06/13/13
7440-02-0	NICKEL	15.7	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.6	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	102.	ug/g	1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.08 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	4450.	mg/kg	41.7	208	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	104	208	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	92.6	%			1	KMS	06/14/13

Client Sample ID: 1S13090B - N6-C2 | **Laboratory Sample ID:** 1306007-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 14:15
Moisture: 3.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.04	4.15	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	3.5	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.66	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306007

Client Sample ID: 1S13090B - N6-C2 | **Laboratory Sample ID:** 1306007-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 14:15
Moisture: 3.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	34.2	ug/g	1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	24.1	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	19.3	ug/g	2.1	10.4	1	MTB	06/13/13
7440-02-0	NICKEL	12.1	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.5	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	65.5	ug/g	1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.03 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	521.	mg/kg	41.5	207	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	104	207	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	95.5	%			1	KMS	06/14/13

Client Sample ID: 1S13090C - N6-C3 | **Laboratory Sample ID:** 1306007-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 14:30
Moisture: 2.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.02	4.09	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	2.2	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2	10.2	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2	10.2	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.52	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.4	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	45.1	ug/g	1	5.1	1	MTB	06/13/13
7440-50-8	COPPER	44.8	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	175.	ug/g	2	10.2	1	MTB	06/13/13
7440-02-0	NICKEL	12.3	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.3	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-26-0	THALLIUM	U	ug/g	1	5.1	1	MTB	06/13/13
7440-66-6	ZINC	83.2	ug/g	1	5.1	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.46	mg/kg	0.03	0.09	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306007

Client Sample ID: 1S13090C - N6-C3 | **Laboratory Sample ID:** 1306007-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 14:30
Moisture: 2.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	5580.	mg/kg	40.9	204	1000	KMS	08/14/13
121-82-4	RDX	U	mg/kg	102	204	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.2	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	91.9	%			1	KMS	06/14/13

Client Sample ID: 1S13090D - N6-C4 | **Laboratory Sample ID:** 1306007-04
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 14:45
Moisture: 2.8%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.03	4.12	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	2.8	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.3	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.3	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.56	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	0.8	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	66.9	ug/g	1	5.1	1	MTB	06/13/13
7440-50-8	COPPER	19.4	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	6. J	ug/g	2.1	10.3	1	MTB	06/13/13
7440-02-0	NICKEL	13.5	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.4	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.1	1	MTB	06/13/13
7440-66-6	ZINC	67.8	ug/g	1	5.1	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	110.	mg/kg	4.12	20.6	100	KMS	06/14/13
121-82-4	RDX	U	mg/kg	10.3	20.6	100	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	97.6	%			1	KMS	06/14/13

Listing of Results by Sample

Sample Delivery Group: 1306007

Client Sample ID: 1S13090E - N6-C5-1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6]
Laboratory Sample ID: 1306007-05
Date Sampled: 06/03/13 14:50
Moisture: 4.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.04	4.18	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.2	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.61	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	44.5	ug/g	1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	70.5	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	201.	ug/g	2.1	10.4	1	MTB	06/13/13
7440-02-0	NICKEL	14.1	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.7	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	99.2	ug/g	1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.07 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	4610.	mg/kg	41.8	209	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	104	209	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	92.1	%			1	KMS	06/14/13

Client Sample ID: 1S13090F - N6-S1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6]
Laboratory Sample ID: 1306007-06
Date Sampled: 06/03/13 15:00
Moisture: 5.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.06	4.22	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.3	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.55	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.5	1	MTB	06/13/13

Listing of Results by Sample

Sample Delivery Group: 1306007

Client Sample ID: 1S13090F - N6-S1 | **Laboratory Sample ID:** 1306007-06
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 15:00
Moisture: 5.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	45.2	ug/g	1.1	5.3	1	MTB	06/13/13
7440-50-8	COPPER	42.4	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	109.	ug/g	2.1	10.6	1	MTB	06/13/13
7440-02-0	NICKEL	13.4	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.8	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/13/13
7440-66-6	ZINC	80.1	ug/g	1.1	5.3	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.06 J	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2960.	mg/kg	42.2	211	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	106	211	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	95.5	%			1	KMS	06/14/13

Client Sample ID: 1S13090G - N6-S2 | **Laboratory Sample ID:** 1306007-07
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 15:15
Moisture: 4.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.04	4.17	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	4.1	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.4	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.59	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	46.3	ug/g	1	5.2	1	MTB	06/13/13
7440-50-8	COPPER	71.2	ug/g	0.2	1	1	MTB	06/13/13
7439-92-1	LEAD	204.	ug/g	2.1	10.4	1	MTB	06/13/13
7440-02-0	NICKEL	14.9	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.6	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1	5.2	1	MTB	06/13/13
7440-66-6	ZINC	100.	ug/g	1	5.2	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.08 J	mg/kg	0.03	0.09	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306007

Client Sample ID: 1S13090G - N6-S2 | **Laboratory Sample ID:** 1306007-07
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 15:15
Moisture: 4.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	4570.	mg/kg	41.7	209	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	104	209	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	94.2	%			1	KMS	06/14/13

Client Sample ID: 1S13090F - N6-S3 | **Laboratory Sample ID:** 1306007-08
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N6] | **Date Sampled:** 06/03/13 15:30
Moisture: 5.%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.05	4.21	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/11/2013				1	MTB	06/11/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.5	1	MTB	06/13/13
7440-41-7	BERYLLIUM	0.52	ug/g	0.05	0.26	1	MTB	06/13/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/13/13
7440-47-3	CHROMIUM	39.9	ug/g	1.1	5.3	1	MTB	06/13/13
7440-50-8	COPPER	40.3	ug/g	0.2	1.1	1	MTB	06/13/13
7439-92-1	LEAD	104.	ug/g	2.1	10.5	1	MTB	06/13/13
7440-02-0	NICKEL	12.6	ug/g	0.5	2.6	1	MTB	06/13/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.8	1	MTB	06/13/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/13/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/13/13
7440-66-6	ZINC	74.8	ug/g	1.1	5.3	1	MTB	06/13/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.05 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2440.	mg/kg	42.1	211	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	105	211	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	94.6	%			1	KMS	06/14/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SDG No: 1306007 Date: 06/05/13

Carrier: AL Lee Carrier Number: — Initials: WSF

☐ Hand delivered, no cooler ☑ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red/White

Condition of Shipping Container: ☑ Good ☐ Fair ☐ Not Applicable Damaged (explain)

Cooler Sealed (taped): ☐ Yes ☑ No ☐ Not Applicable

Custody Seals Present: ☐ Yes ☑ No ☐ Not Applicable

☐ Intact ☐ Broken Seal Number:

Coolant: ☑ Ice ☐ Blue Ice ☐ None Other:

State of Coolant: ☑ Frozen ☐ Partially Frozen ☐ Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: ☐ Yes ☑ No

Packing Description: Bottle in cooler covered with Bagged ice

Chain-Of-Custody Information:

COC Present: ☑ Yes ☐ No Other:

COC Number(s): —

COC signed (relinquished and received): ☑ Yes ☐ No ☐ Not Applicable

COC or LWI agrees with sample labels: ☑ Yes ☐ No ☐ Not Applicable

Notes:

Sample Information:

Samples included in cooler:

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

→ 34 x 250 ml WMG ; 2 x 40 ml VOA vial glass

1306011 — 13 x 40 ml glass VOA vial

Custody Seals Present: ☐ Yes ☑ No Other

☐ Intact ☐ Broken Seal Number(s)

Sample containers intact: ☑ Yes ☐ No Notes:

Samples in proper containers: ☑ Yes ☐ No

Sufficient sample volume: ☑ Yes ☐ No

All samples received in hold time: ☑ Yes ☐ No

Water – VOA's have zero headspace: ☐ Yes ☐ No ☑ Not Applicable

☐ Pre-preserved with HCl: ☐ Pre-preserved with $Na_2S_2O_3$: ☐ Non-Preserved:

Notes:

Water – pH acceptable upon receipt: ☐ Yes ☐ Adjusted (see comments below) ☑ Not Applicable

HNO_3 = ____ H_2SO_4 = ____ NaOH = ____ ZnAC /NaOH = ____ HCL = ____

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 ____ H_2SO_4 ____ NaOH ____ ZnAC ____ HCl ____

$Na_2SO_2O_3$ ____ Other ____

Notes:

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	N6			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13090A	6/3/2013	1400	Grab	1 - 8 oz.	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	C1
1S13090B	6/3/2013	1415	Grab	1 - 8 oz.	4C		C2
1S13090C	6/3/2013	1430	Grab	1 - 8 oz.	4C		C3
1S13090D	6/3/2013	1445	Grab	1 - 8 oz.	4C		C4
1S13090E	6/3/2013	1450	Grab	1 - 8 oz.	4C		C5-1
1S13090F	6/3/2013	1500	Comp	1 - 8 oz.	4C		S1
1S13090G	6/3/2013	1515	Comp	1 - 8 oz.	4C		S2
1S13090H	6/3/2013	1530	Comp	1 - 8 oz.	4C		S3

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
RL Bowlin	Allen Lee	6/4/13	1800
Allen Lee	W. Scott Fraser	06/05/13	0945

1306007

FORM FQA-0287 (REV 10-09)

N-7

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306008

Sample Delivery Group: 1306008

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306008-01	1S13091A - N7-C1		06/05/13	6/3/2013 16:00:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306008-02	1S13091B - N7-C2		06/05/13	6/3/2013 16:15:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306008-03	1S13091C - N7-S1		06/05/13	6/3/2013 16:30:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306008-04	1S13091D - N7-T1		06/05/13	6/3/2013 16:45:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306008-05	1S13091E - N7-TS		06/05/13	6/3/2013 17:00:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	

Sample Delivery Group: 1306008

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306008-05	1S13091E - N7-TS		06/05/13	6/3/2013 17:00:00
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

07/03/2013

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306008

Client Sample ID: 1S13091A - N7-C1 | **Laboratory Sample ID:** 1306008-01
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7] | **Date Sampled:** 06/03/13 16:00
Moisture: 6.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.07	4.26	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.2	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/19/13
7440-41-7	BERYLLIUM	1.02	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	35.7	ug/g	1.1	5.3	1	MTB	06/19/13
7440-50-8	COPPER	49.7	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	555.	ug/g	2.1	10.7	1	MTB	06/19/13
7440-02-0	NICKEL	16.4	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	16	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/19/13
7440-66-6	ZINC	94.6	ug/g	1.1	5.3	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.12	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	3.13	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-83-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	96.5	%			1	KMS	06/14/13

Client Sample ID: 1S13091B - N7-C2 | **Laboratory Sample ID:** 1306008-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7] | **Date Sampled:** 06/03/13 16:15
Moisture: 6.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.07	4.26	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.2	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.98	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/19/13

Listing of Results by Sample

Sample Delivery Group: 1306008

Client Sample ID: 1S13091B - N7-C2 | **Laboratory Sample ID:** 1306008-02
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7] | **Date Sampled:** 06/03/13 16:15
Moisture: 6.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	32.3	ug/g	1.1	5.3	1	MTB	06/19/13
7440-50-8	COPPER	48.5	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	483.	ug/g	2.1	10.7	1	MTB	06/19/13
7440-02-0	NICKEL	16.5	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	16	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/19/13
7440-66-6	ZINC	94.6	ug/g	1.1	5.3	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.13	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.43	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	98.5	%			1	KMS	06/14/13

Client Sample ID: 1S13091C - N7-S1 | **Laboratory Sample ID:** 1306008-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7] | **Date Sampled:** 06/03/13 16:30
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.07	4.28	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.6	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.99	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	35.8	ug/g	1.1	5.4	1	MTB	06/19/13
7440-50-8	COPPER	50.0	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	543.	ug/g	2.1	10.7	1	MTB	06/19/13
7440-02-0	NICKEL	16.6	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.1	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/19/13
7440-66-6	ZINC	96.4	ug/g	1.1	5.4	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.19	mg/kg	0.03	0.1	1	MDP	

Listing of Results by Sample

Sample Delivery Group: 1306008

Client Sample ID: 1S13091C - N7-S1 | **Laboratory Sample ID:** 1306008-03
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7] | **Date Sampled:** 06/03/13 16:30
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.94	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	96.6	%			1	KMS	06/14/13

Client Sample ID: 1S13091D - N7-T1 | **Laboratory Sample ID:** 1306008-04
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7] | **Date Sampled:** 06/03/13 16:45
Moisture: 5.8%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.06	4.25	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.8	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	08/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/19/13
7440-41-7	BERYLLIUM	1.02	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	0.7	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	36.8	ug/g	1.1	5.3	1	MTB	06/19/13
7440-50-8	COPPER	43.9	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	464.	ug/g	2.1	10.6	1	MTB	06/19/13
7440-02-0	NICKEL	16.5	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.9	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/19/13
7440-66-6	ZINC	91.5	ug/g	1.1	5.3	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.12	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.45	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	96.8	%			1	KMS	06/14/13

Listing of Results by Sample

Sample Delivery Group: 1306008

Client Sample ID: 1S13091E - N7-TS
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N7]

Laboratory Sample ID: 1306008-05
Date Sampled: 06/03/13 17:00
Moisture: 5.8%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.06	4.25	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.6	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/19/13
7440-36-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.97	ug/g	0.05	0.27	1	MTB	06/19/13
7440-43-9	CADMIUM	0.7	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	32.7	ug/g	1.1	5.3	1	MTB	06/19/13
7440-50-6	COPPER	42.4	ug/g	0.2	1.1	1	MTB	06/19/13
7439-92-1	LEAD	487.	ug/g	2.1	10.6	1	MTB	06/19/13
7440-02-0	NICKEL	16.6	ug/g	0.5	2.7	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.9	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/19/13
7440-66-6	ZINC	88.3	ug/g	1.1	5.3	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.11	mg/kg	0.03	0.1	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.72	mg/kg	0.04	0.21	1	KMS	06/14/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	97.8	%			1	KMS	06/14/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SDG No: 1306008 Date: 06/05/13

Carrier: Al Lee Carrier Number: — Initials: WSF

Hand delivered, no cooler ✓ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red / White

Condition of Shipping Container: ✓ Good Fair Not Applicable Damaged (explain)

Cooler Sealed (taped): Yes ✓ No Not Applicable

Custody Seals Present: Yes ✓ No Not Applicable

Intact Broken Seal Number:

Coolant: ✓ Ice Blue Ice None Other:

State of Coolant: ✓ Frozen Partially Frozen Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: Yes ✓ No

Packing Description: Bottle in cooler covered with Bagged ice

Chain-Of-Custody Information:

COC Present: ✓ Yes No Other:

COC Number(s): —

COC signed (relinquished and received): ✓ Yes No Not Applicable

COC or LWI agrees with sample labels: ✓ Yes No Not Applicable

Notes:

Sample Information:

Samples included in cooler:

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

→ 34 x 250 mL WMG ; 2 x 40 mL VOA vial glass

1306011 — 13 x 40 mL glass VOA vial

Custody Seals Present: Yes ✓ No Other

Intact Broken Seal Number(s)

Sample containers intact: ✓ Yes No Notes:

Samples in proper containers: ✓ Yes No

Sufficient sample volume: ✓ Yes No

All samples received in hold time: ✓ Yes No

Water – VOA's have zero headspace: Yes No ✓ Not Applicable

Pre-preserved with HCl: Pre-preserved with $Na_2S_2O_3$: Non-Preserved:

Notes:

Water – pH acceptable upon receipt: Yes Adjusted (see comments below) ✓ Not Applicable

HNO_3 = ____ H_2SO_4 = ____ NaOH = ____ ZnAC /NaOH = ____ HCL = ____

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 ____ H_2SO_4 ____ NaOH ____ ZnAC ____ HCl ____

$Na_2SO_2O_3$ ____ Other ____

Notes:

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	N7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13091A	6/3/2013	1600	Grab	1 - 8 oz.	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	C1
1S13091B	6/3/2013	1615	Grab	1 - 8 oz.	4C		C2
1S13091C	6/3/2013	1630	Comp	1 - 8 oz.	4C		S1
1S13091D	6/3/2013	1645	Comp	1 - 8 oz.	4C		T1
1S13091E	6/3/2013	1700	Comp	1 - 8 oz.	4C		TS

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R A Bowlin	Allen B Rice	6/4/13	1800
Allen B Rice	W. Scott Fraser	06/05/13	0945

1306008

N-8

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306010

Sample Delivery Group: 1306010

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
1306010-01	1S13093A - N8-C1		06/05/13	6/4/2013 12:45:00

Test Requested		Matrix
EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

1306010-02	1S13093B - N8-S1		06/05/13	6/4/2013 13:00:00

EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil

Sample Delivery Group: 1306010

Sample No.	Client No.	Received	Collect Date/Time
1306010-02	1S13093B - N8-S1	06/05/13	6/4/2013 13:00:00

Test Requested	Sample Description	Matrix
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

Certified By: W. Scott Fraser, Quality Assurance Officer — 07/03/2013 Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306010

Client Sample ID: 1S13093A - N8-C1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N8]
Laboratory Sample ID: 1306010-01
Date Sampled: 06/04/13 12:45
Moisture: 1.%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.01	4.04	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	1.	%			1	MDP	06/12/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2	10.1	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2	10.1	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.37	ug/g	0.05	0.25	1	MTB	06/19/13
7440-43-9	CADMIUM	0.2 J	ug/g	0.1	0.5	1	MTB	06/19/13
7440-47-3	CHROMIUM	14.	ug/g	1	5.1	1	MTB	06/19/13
7440-50-8	COPPER	16.8	ug/g	0.2	1	1	MTB	06/19/13
7439-92-1	LEAD	11.2	ug/g	2	10.1	1	MTB	06/19/13
7440-02-0	NICKEL	9.4	ug/g	0.5	2.5	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3	15.2	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1	5.1	1	MTB	06/19/13
7440-66-6	ZINC	31.3	ug/g	1	5.1	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	U	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	610.	mg/kg	4.04	20.2	100	KMS	06/14/13
121-82-4	RDX	U	mg/kg	10.1	20.2	100	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.2	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	98.7	%			1	KMS	06/14/13

Client Sample ID: 1S13093B - N8-S1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N8]
Laboratory Sample ID: 1306010-02
Date Sampled: 06/04/13 13:00
Moisture: 1.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	1.02	4.08	100	JMM	06/19/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	1.9	%			1	MDP	
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/17/2013				1	MTB	06/17/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2	10.2	1	MTB	06/19/13
7440-38-2	ARSENIC	U	ug/g	2	10.2	1	MTB	06/19/13
7440-41-7	BERYLLIUM	0.93	ug/g	0.05	0.26	1	MTB	06/19/13
7440-43-9	CADMIUM	1.	ug/g	0.1	0.5	1	MTB	06/19/13

Listing of Results by Sample

Sample Delivery Group: 1306010

Client Sample ID: 1S13093B - N8-S1
Sample Description: ATK-Bacchus - NIROP Sump Remediation [N8]

Laboratory Sample ID: 1306010-02
Date Sampled: 06/04/13 13:00
Moisture: 1.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	27.6	ug/g	1	5.1	1	MTB	06/19/13
7440-50-8	COPPER	127.0	ug/g	0.2	1	1	MTB	06/19/13
7439-92-1	LEAD	72.1	ug/g	2	10.2	1	MTB	06/19/13
7440-02-0	NICKEL	14.7	ug/g	0.5	2.6	1	MTB	06/19/13
7782-49-2	SELENIUM	U	ug/g	3.1	15.3	1	MTB	06/19/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/19/13
7440-28-0	THALLIUM	U	ug/g	1	5.1	1	MTB	06/19/13
7440-66-6	ZINC	92.4	ug/g	1	5.1	1	MTB	06/19/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.09	1	MDP	
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/13/2013				1	KMS	06/13/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	3490.	mg/kg	40.8	204	1000	KMS	06/14/13
121-82-4	RDX	U	mg/kg	102	204	1000	KMS	06/14/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.2	1	KMS	06/14/13
99-08-1	3-NITROTOLUENE	98.5	%			1	KMS	06/14/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SDG No: 1306010 Date: 06/05/13

Carrier: Al Lee Carrier Number: — Initials: WSF

Hand delivered, no cooler ✓ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red / White

Condition of Shipping Container: ✓ Good Fair Not Applicable Damaged (explain)

Cooler Sealed (taped): Yes ✓ No Not Applicable

Custody Seals Present: Yes ✓ No Not Applicable

Intact Broken Seal Number:

Coolant: ✓ Ice Blue Ice None Other:

State of Coolant: ✓ Frozen Partially Frozen Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: Yes ✓ No

Packing Description: Bottle in cooler covered with Bugged ice

Chain-Of-Custody Information:

COC Present: ✓ Yes No Other:

COC Number(s): —

COC signed (relinquished and received): ✓ Yes No Not Applicable

COC or LWI agrees with sample labels: ✓ Yes No Not Applicable

Notes:

Sample Information:

Samples included in cooler:

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

→ 34 x 250 ml WMG ; 2 x 40 ml VOA vial glass

1306011 — 13 x 40 ml glass VOA vial

Custody Seals Present: Yes ✓ No Other

Intact Broken Seal Number(s)

Sample containers intact: ✓ Yes No Notes:

Samples in proper containers: ✓ Yes No

Sufficient sample volume: ✓ Yes No

All samples received in hold time: ✓ Yes No

Water – VOA's have zero headspace: Yes No ✓ Not Applicable

Pre-preserved with HCl: Pre-preserved with $Na_2S_2O_3$: Non-Preserved:

Notes:

Water – pH acceptable upon receipt: Yes Adjusted (see comments below) ✓ Not Applicable

HNO_3 = ____ H_2SO_4 = ____ NeOH = ____ ZnAC /NaOH = ____ HCL = ____

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 ____ H_2SO_4 ____ NaOH ____ ZnAC ____ HCl ____

$Na_2SO_2O_3$ ____ Other ____

Notes:

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin WSF 06/05/13	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	N2 and N8 per telecon w/ Ron Bowlin			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13092A	6/4/2013	1130	Grab	1 - 8 oz. 1 – 40 ml VOA	4C	**Priority Pollutant Metals: 6010B/7471A** (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) **Explosives: 8330M** (NG, HMX, RDX) **Perchlorate: 314.0** **Volatile Organics: 8260C (see Note)**	N1-C1
1S13092B	6/4/2013	1145	Grab	1 - 8 oz.	4C		N1-C2
1S13092C	6/4/2013	1200	Comp	1 - 8 oz. 1 – 40 ml VOA	4C		N1-S1
1S13092D	6/4/2013	1215	Comp	1 - 8 oz.	4C		N1-S2
1S13093A	6/4/2013	1245	Grab	1 - 8 oz.	4C	**Priority Pollutant Metals: 6010B/7471A** (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) **Explosives: 8330M** (NG, HMX, RDX) **Perchlorate: 314.0**	N8-C1
1S13093B	6/4/2013	1300	Comp	1 - 8 oz.	4C		N8-S1

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:** Volatile organics only on 092A and 092 C.

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[signature]	[signature]	6/4/13	1800
[signature]	W. Scott Fraser	06/05/13	0945

1306010

FORM FQA-0287 (REV 10-09)

BW-7

VOCs

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306011

Sample Delivery Group: 1306011

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306011-01	1S13095A - BW7-1-1		06/05/13	6/4/2013 14:48:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-02	1S13095B - BW7-1-3		06/05/13	6/4/2013 14:55:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-03	1S13096A - BW7-2-1		06/05/13	6/4/2013 15:02:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-04	1S13096B - BW7-2-1		06/05/13	6/4/2013 15:09:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-05	1S13097A - BW7-2-2		06/05/13	6/4/2013 15:19:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-06	1S13097B - BW7-3-2		06/05/13	6/4/2013 15:25:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-07	1S13097C - BW7-3-4		06/05/13	6/4/2013 15:31:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-08	1S13098A - BW7-4-3		06/05/13	6/4/2013 15:37:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-09	1S13098B - BW7-4-4		06/05/13	6/4/2013 15:44:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-10	1S13099A - BW7-5-1		06/05/13	6/4/2013 15:50:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-11	1S13099B - BW7-5-2		06/05/13	6/4/2013 15:57:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	
1306011-12	1S13099C - BW7-5-3		06/05/13	6/4/2013 16:04:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	

Sample Delivery Group: 1306011

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306011-13	1S13099D - BW7-6-1		06/05/13	6/4/2013 17:00:00
SW-846, 8260B (Solids)		Volatile Organics Appendix 9	Soil	

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

07/03/2013

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13095A - BW7-1-1 | **Laboratory Sample ID:** 1306011-01

Date Sampled: 06/04/13 14:48

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	8.7	17	1.741	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	0.9	17	1.741	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1	17	1.741	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1	17	1.741	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	5.4	17	1.741	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	2.1	17	1.741	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	35	87	1.741	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	3	17	1.741	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	2.1	17	1.741	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1	17	1.741	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	1	17	1.741	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	3	17	1.741	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	3.7	17	1.741	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1	17	1.741	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	0.9	17	1.741	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	1.9	17	1.741	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	2.1	17	1.741	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	8.9	17	1.741	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	4	17	1.741	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	1.9	17	1.741	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	2.1	17	1.741	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
108-46-7	1,4-DICHLOROBENZENE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
110-57-8	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1	17	1.741	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
158-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	1.9	17	1.741	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	3.7	17	1.741	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13095A - BW7-1-1 | **Laboratory Sample ID:** 1306011-01

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 14:48

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.2	17	1.741	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	1.9	17	1.741	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	3	17	1.741	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	35	87	1.741	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	2.1	17	1.741	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	35	87	1.741	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	3.1	17	1.741	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	3.3	17	1.741	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	3.7	17	1.741	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	7	17	1.741	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	2.6	17	1.741	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	2.3	17	1.741	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.2	17	1.741	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	1.6	17	1.741	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	2.8	17	1.741	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	1.9	17	1.741	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	2.3	17	1.741	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.4	17	1.741	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	3.8	17	1.741	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	2.1	17	1.741	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	2.1	17	1.741	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	35	87	1.741	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1	17	1.741	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	3.5	17	1.741	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	1.7	17	1.741	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	140	%			1.741	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	96.5	%			1.741	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	110	%			1.741	PCI	06/10/13
2037-26-5	TOLUENE-D8	95	%			1.741	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13095B - BW7-1-3 **Laboratory Sample ID:** 1306011-02

Date Sampled: 06/04/13 14:55

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	11	22	2.171	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	1.1	22	2.171	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	2	22	2.171	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	2	22	2.171	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1.3	22	2.171	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1.3	22	2.171	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	6.7	22	2.171	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	2.6	22	2.171	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	43	110	2.171	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	3.7	22	2.171	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	2.6	22	2.171	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	2	22	2.171	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1.3	22	2.171	PCI	06/10/13
106-90-7	CHLOROBENZENE	U	ug/kg	1.3	22	2.171	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	3.7	22	2.171	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	4.6	22	2.171	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1.3	22	2.171	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	1.1	22	2.171	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	2.4	22	2.171	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	2.6	22	2.171	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	11	22	2.171	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	5	22	2.171	PCI	06/10/13
124-46-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	2.4	22	2.171	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	2.6	22	2.171	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	2	22	2.171	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	2	22	2.171	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1.3	22	2.171	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	2	22	2.171	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	2.4	22	2.171	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	4.6	22	2.171	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13095B - BW7-1-3 | **Laboratory Sample ID:** 1306011-02

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 14:55

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	2	22	2.171	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.5	22	2.171	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	2	22	2.171	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	2.4	22	2.171	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	3.7	22	2.171	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	43	110	2.171	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	2	22	2.171	PCI	06/10/13
99-67-6	4-ISOPROPYLTOLUENE	U	ug/kg	2.6	22	2.171	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	43	110	2.171	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	3.9	22	2.171	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	4.1	22	2.171	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	4.6	22	2.171	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	8.7	22	2.171	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	3.3	22	2.171	PCI	06/10/13
127-16-4	TETRACHLOROETHENE	U	ug/kg	2.8	22	2.171	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.5	22	2.171	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	2	22	2.171	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	3.5	22	2.171	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	2.4	22	2.171	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	2.8	22	2.171	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.7	22	2.171	PCI	06/10/13
98-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	4.6	22	2.171	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	2.6	22	2.171	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	2.6	22	2.171	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	43	110	2.171	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1.3	22	2.171	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	4.3	22	2.171	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	2.2	22	2.171	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	138	%			2.171	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	97.5	%			2.171	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	111	%			2.171	PCI	06/10/13
2037-26-5	TOLUENE-D8	94.6	%			2.171	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13096A - BW7-2-1 **Laboratory Sample ID:** 1306011-03

Date Sampled: 06/04/13 15:02

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	3	15	1.497	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	7.5	15	1.497	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	3	15	1.497	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	0.8	15	1.497	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	0.9	15	1.497	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	0.9	15	1.497	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	4.6	15	1.497	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	1.8	15	1.497	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	30	75	1.497	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	2.5	15	1.497	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	1.8	15	1.497	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1	15	1.497	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	0.9	15	1.497	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	0.9	15	1.497	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	2.5	15	1.497	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	3.1	15	1.497	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	0.9	15	1.497	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1	15	1.497	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	0.8	15	1.497	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	1.6	15	1.497	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	1.8	15	1.497	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	7.6	15	1.497	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	3	15	1.497	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.2	15	1.497	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	1.6	15	1.497	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	1.8	15	1.497	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.2	15	1.497	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	3	15	1.497	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	4.1 J	ug/kg	1.2	15	1.497	PCI	08/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1	15	1.497	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	0.9	15	1.497	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.2	15	1.497	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1	15	1.497	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1	15	1.497	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.2	15	1.497	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	1.6	15	1.497	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.2	15	1.497	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	3.1	15	1.497	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13096A - BW7-2-1 | **Laboratory Sample ID:** 1306011-03

Date Sampled: 06/04/13 15:02

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1	15	1.497	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	1.6	15	1.497	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	3	15	1.497	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	2.5	15	1.497	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	30	75	1.497	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	1.8	15	1.497	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	3	15	1.497	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	30	75	1.497	PCI	08/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	2.7	15	1.497	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	3	15	1.497	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1	15	1.497	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	2.8	15	1.497	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	3.1	15	1.497	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	6	15	1.497	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	2.2	15	1.497	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	1.9	15	1.497	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1	15	1.497	PCI	08/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1	15	1.497	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	1.3	15	1.497	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	2.4	15	1.497	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	1.6	15	1.497	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	1.9	15	1.497	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.2	15	1.497	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	3.3	15	1.497	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	1.8	15	1.497	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	1.8	15	1.497	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	30	75	1.497	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	0.9	15	1.497	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	3	15	1.497	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	1.5	15	1.497	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	124	%			1.497	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	109	%			1.497	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	112	%			1.497	PCI	06/10/13
2037-26-5	TOLUENE-D8	90.8	%			1.497	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13096B - BW7-2-1 | **Laboratory Sample ID:** 1306011-04

Date Sampled: 06/04/13 15:09

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	14	28	2.794	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	1.4	28	2.794	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1.7	28	2.794	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1.7	28	2.794	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	8.7	28	2.794	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	3.4	28	2.794	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	56	140	2.794	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	4.7	28	2.794	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	3.4	28	2.794	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	2	28	2.794	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1.7	28	2.794	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	1.7	28	2.794	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	4.7	28	2.794	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	5.9	28	2.794	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1.7	28	2.794	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	2	28	2.794	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	1.4	28	2.794	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	3.1	28	2.794	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	3.4	28	2.794	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	14	28	2.794	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	6	28	2.794	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	3.1	28	2.794	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	3.4	28	2.794	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	2	28	2.794	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1.7	28	2.794	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	2	28	2.794	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	2	28	2.794	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	3.1	28	2.794	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	5.9	28	2.794	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13096B - BW7-2-1 | **Laboratory Sample ID:** 1306011-04

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 15:09

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	2	28	2.794	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	3.1	28	2.794	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	4.7	28	2.794	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	56	140	2.794	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	3.4	28	2.794	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	56	140	2.794	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	5	28	2.794	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	2	28	2.794	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	5.3	28	2.794	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	5.9	28	2.794	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	11	28	2.794	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	4.2	28	2.794	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	3.6	28	2.794	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	2	28	2.794	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	2	28	2.794	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	2.5	28	2.794	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	4.5	28	2.794	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	3.1	28	2.794	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	3.6	28	2.794	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	2.2	28	2.794	PCI	06/10/13
98-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	6.1	28	2.794	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	3.4	28	2.794	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	3.4	28	2.794	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	56	140	2.794	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1.7	28	2.794	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	5.6	28	2.794	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	2.8	28	2.794	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	134	%			2.794	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	109	%			2.794	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	109	%			2.794	PCI	06/10/13
2037-26-5	TOLUENE-D8	94.6	%			2.794	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13097A - BW7-2-2 | **Laboratory Sample ID:** 1306011-05

Date Sampled: 06/04/13 15:19

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	3	15	1.484	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	7.4	15	1.484	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	3	15	1.484	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	0.7	15	1.484	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	0.9	15	1.484	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	0.9	15	1.484	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	4.6	15	1.484	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	1.8	15	1.484	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	30	74	1.484	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	2.5	15	1.484	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	1.8	15	1.484	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1	15	1.484	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	0.9	15	1.484	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	0.9	15	1.484	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	2.5	15	1.484	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	3.1	15	1.484	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	0.9	15	1.484	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1	15	1.484	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	0.7	15	1.484	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	1.6	15	1.484	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	1.8	15	1.484	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	7.6	15	1.484	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	3	15	1.484	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	1.6	15	1.484	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	1.8	15	1.484	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	3	15	1.484	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1	15	1.484	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	0.9	15	1.484	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1	15	1.484	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1	15	1.484	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	1.6	15	1.484	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	3.1	15	1.484	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13097A - BW7-2-2 | **Laboratory Sample ID:** 1306011-05

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 15:19

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1	15	1.484	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	1.6	15	1.484	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	3	15	1.484	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	2.5	15	1.484	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	30	74	1.484	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	1.8	15	1.484	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	3	15	1.484	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	30	74	1.484	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	2.7	15	1.484	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	3	15	1.484	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1	15	1.484	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	2.8	15	1.484	PCI	08/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	3.1	15	1.484	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	5.9	15	1.484	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	2.2	15	1.484	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	1.9	15	1.484	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1	15	1.464	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1	15	1.484	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	1.3	15	1.484	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	2.4	15	1.484	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	1.6	15	1.484	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	1.9	15	1.484	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.2	15	1.484	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	3.3	15	1.464	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	1.8	15	1.464	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	1.8	15	1.484	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	30	74	1.484	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	0.9	15	1.484	PCI	08/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	3	15	1.484	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	1.5	15	1.484	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	159	%			1.484	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	104	%			1.484	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	113	%			1.484	PCI	06/10/13
2037-26-5	TOLUENE-D8	99.5	%			1.484	PCI	08/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13097B - BW7-3-2 | **Laboratory Sample ID:** 1306011-06

Date Sampled: 06/04/13 15:25

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	8.2	16	1.644	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	0.8	16	1.644	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1	16	1.644	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1	16	1.644	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	5.1	16	1.644	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	2	16	1.644	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	33	82	1.644	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	2.8	16	1.644	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	2	16	1.644	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1	16	1.644	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	1	16	1.644	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	2.8	16	1.644	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	3.5	16	1.644	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1	16	1.644	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	0.8	16	1.644	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	1.8	16	1.644	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	2	16	1.644	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	8.4	16	1.644	PCI	06/10/13
98-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	4	16	1.644	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	1.8	16	1.644	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	2	16	1.644	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1	16	1.644	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	1.8	16	1.644	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	3.5	16	1.644	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13097B - BW7-3-2 | **Laboratory Sample ID:** 1306011-06

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 15:25

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.2	16	1.644	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	1.8	16	1.644	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	2.8	16	1.644	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	33	82	1.644	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	2	16	1.644	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	33	82	1.644	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	3	16	1.644	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	3.1	16	1.644	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	3.5	16	1.644	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	6.6	16	1.644	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	2.5	16	1.644	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	2.1	16	1.644	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.2	16	1.644	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	1.5	16	1.644	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	2.6	16	1.644	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	1.8	16	1.644	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	2.1	16	1.644	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.3	16	1.644	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	3.6	16	1.644	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	2	16	1.644	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	2	16	1.644	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	33	82	1.644	PCI	08/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1	16	1.844	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	3.3	16	1.644	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	1.6	16	1.644	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	124	%			1.644	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	109	%			1.644	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	109	%			1.644	PCI	06/10/13
2037-26-5	TOLUENE-D8	95.8	%			1.644	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13097C - BW7-3-4 | **Laboratory Sample ID:** 1306011-07

Date Sampled: 06/04/13 15:31

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	9.5	19	1.9	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	1	19	1.9	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1.1	19	1.9	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1.1	19	1.9	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	5.9	19	1.9	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	2.3	19	1.9	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	38	95	1.9	PCI	06/10/13
76-93-3	2-BUTANONE	U	ug/kg	3.2	19	1.9	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	2.3	19	1.9	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1.1	19	1.9	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	1.1	19	1.9	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	3.2	19	1.9	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	4	19	1.9	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1.1	19	1.9	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	1	19	1.9	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	2.1	19	1.9	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	2.3	19	1.9	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	9.7	19	1.9	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	4	19	1.9	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	2.1	19	1.9	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	2.3	19	1.9	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1.1	19	1.9	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	2.1	19	1.9	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	4	19	1.9	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13097C - BW7-3-4 | **Laboratory Sample ID:** 1306011-07

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 15:31

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.3	19	1.9	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	2.1	19	1.9	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	3.2	19	1.9	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	38	95	1.9	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	2.3	19	1.9	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	38	95	1.9	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	3.4	19	1.9	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	3.6	19	1.9	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	4	19	1.9	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	7.6	19	1.9	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	2.9	19	1.9	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	2.5	19	1.9	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.3	19	1.9	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	1.7	19	1.9	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	3	19	1.9	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	2.1	19	1.9	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	2.5	19	1.9	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.5	19	1.9	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	4.2	19	1.9	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	2.3	19	1.9	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	2.3	19	1.9	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	38	95	1.9	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1.1	19	1.9	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	3.8	19	1.9	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	1.9	19	1.9	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	127	%			1.9	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	109	%			1.9	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	111	%			1.9	PCI	06/10/13
2037-26-5	TOLUENE-D8	95.2	%			1.9	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13098A - BW7-4-3 | **Laboratory Sample ID:** 1306011-08

Date Sampled: 06/04/13 15:37

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	12	23	2.302	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	1.2	23	2.302	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1.4	23	2.302	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1.4	23	2.302	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	7.1	23	2.302	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	2.8	23	2.302	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	46	120	2.302	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	3.9	23	2.302	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	2.8	23	2.302	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1.4	23	2.302	PCI	06/10/13
106-90-7	CHLOROBENZENE	U	ug/kg	1.4	23	2.302	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	3.9	23	2.302	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	4.8	23	2.302	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1.4	23	2.302	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.6	23	2.302	PCI	08/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	1.2	23	2.302	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	2.5	23	2.302	PCI	08/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	2.8	23	2.302	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	12	23	2.302	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	5	23	2.302	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.8	23	2.302	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	2.5	23	2.302	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	2.8	23	2.302	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.8	23	2.302	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	13. J	ug/kg	1.8	23	2.302	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1.4	23	2.302	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.8	23	2.302	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.8	23	2.302	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	2.5	23	2.302	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.8	23	2.302	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	4.8	23	2.302	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13098A - BW7-4-3 | **Laboratory Sample ID:** 1306011-08

Date Sampled: 06/04/13 15:37

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.6	23	2.302	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	2.5	23	2.302	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	3.9	23	2.302	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	46	120	2.302	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	2.8	23	2.302	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	46	120	2.302	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	4.1	23	2.302	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	4.4	23	2.302	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	4.8	23	2.302	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	9.2	23	2.302	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	3.5	23	2.302	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	3	23	2.302	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.6	23	2.302	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	2.1	23	2.302	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	3.7	23	2.302	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	2.5	23	2.302	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	3	23	2.302	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.8	23	2.302	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	5.1	23	2.302	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	2.8	23	2.302	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	2.8	23	2.302	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	46	120	2.302	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1.4	23	2.302	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	4.6	23	2.302	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	2.3	23	2.302	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	172	%			2.302	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	113	%			2.302	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	110	%			2.302	PCI	06/10/13
2037-26-5	TOLUENE-D8	108	%			2.302	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13098B - BW7-4-4 | **Laboratory Sample ID:** 1306011-09

Date Sampled: 06/04/13 15:44

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	13	26	2.604	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	1.3	26	2.604	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	6.1	26	2.604	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	3.1	26	2.604	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	52	130	2.604	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	4.4	26	2.604	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	3.1	26	2.604	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	4.4	26	2.604	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	5.5	26	2.604	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1.6	26	2.604	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	1.3	26	2.604	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	2.9	26	2.604	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	3.1	26	2.604	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	13	26	2.604	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	6	26	2.604	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	2.9	26	2.604	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	3.1	26	2.604	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
142-26-9	1,3-DICHLOROPROPANE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	2.9	26	2.604	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	5.5	26	2.604	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13098B - BW7-4-4 | **Laboratory Sample ID:** 1306011-09

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 15:44

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.6	26	2.604	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	2.9	26	2.604	PCI	06/10/13
87-66-3	HEXACHLOROBUTADIENE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
591-76-6	2-HEXANONE	U	ug/kg	4.4	26	2.604	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	52	130	2.604	PCI	06/10/13
96-62-6	ISOPROPYLBENZENE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
99-67-6	4-ISOPROPYLTOLUENE	U	ug/kg	3.1	26	2.604	PCI	06/10/13
106-10-1	4-METHYL-2-PENTANONE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
78-63-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	52	130	2.604	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	4.7	26	2.604	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	4.9	26	2.604	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	5.5	26	2.604	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	10	26	2.604	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	3.9	26	2.604	PCI	06/10/13
127-16-4	TETRACHLOROETHENE	U	ug/kg	3.4	26	2.604	PCI	06/10/13
108-86-3	TOLUENE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.8	26	2.604	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	2.3	26	2.604	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	4.2	26	2.604	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	2.9	26	2.604	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	3.4	26	2.604	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	2.1	26	2.604	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	5.7	26	2.604	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	3.1	26	2.604	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	3.1	26	2.604	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	52	130	2.604	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1.6	26	2.604	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	5.2	26	2.604	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	2.6	26	2.604	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	149	%			2.604	PCI	06/10/13
1668-53-7	DIBROMOFLUOROMETHANE	97.1	%			2.604	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	112	%			2.604	PCI	06/10/13
2037-26-5	TOLUENE-D8	98.7	%			2.604	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099A - BW7-5-1 **Laboratory Sample ID:** 1306011-10

Date Sampled: 06/04/13 15:50

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	20	39	3.911	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	2	39	3.911	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	2.3	39	3.911	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	2.3	39	3.911	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	12	39	3.911	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	4.7	39	3.911	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	78	200	3.911	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	6.6	39	3.911	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	4.7	39	3.911	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	2.3	39	3.911	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	2.3	39	3.911	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	6.6	39	3.911	PCI	08/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	8.2	39	3.911	PCI	08/10/13
67-66-3	CHLOROFORM	U	ug/kg	2.3	39	3.911	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	2	39	3.911	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	4.3	39	3.911	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	4.7	39	3.911	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	20	39	3.911	PCI	06/10/13
96-12-6	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	9	39	3.911	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	3.1	39	3.911	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	4.3	39	3.911	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	4.7	39	3.911	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	3.1	39	3.911	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	16. J	ug/kg	3.1	39	3.911	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	2.3	39	3.911	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	3.1	39	3.911	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	3.1	39	3.911	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	4.3	39	3.911	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	3.1	39	3.911	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	6.2	39	3.911	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099A - BW7-5-1 | **Laboratory Sample ID:** 1306011-10

Date Sampled: 06/04/13 15:50

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	2.7	39	3.911	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	4.3	39	3.911	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	6.6	39	3.911	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	78	200	3.911	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	4.7	39	3.911	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	78	200	3.911	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	7	39	3.911	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	7.4	39	3.911	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	8.2	39	3.911	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	16	39	3.911	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	5.9	39	3.911	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	5.1	39	3.911	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	2.7	39	3.911	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	3.5	39	3.911	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	6.3	39	3.911	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	4.3	39	3.911	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	5.1	39	3.911	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	3.1	39	3.911	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	8.6	39	3.911	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	4.7	39	3.911	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	4.7	39	3.911	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	78	200	3.911	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	2.3	39	3.911	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	7.8	39	3.911	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	3.9	39	3.911	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	147	%			3.911	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	96.3	%			3.911	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	106	%			3.911	PCI	06/10/13
2037-26-5	TOLUENE-D8	98.2	%			3.911	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099B - BW7-5-2 **Laboratory Sample ID:** 1306011-11

Date Sampled: 06/04/13 15:57

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	17	84	8.401	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	42	84	8.401	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	17	84	8.401	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	4.2	84	8.401	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	5	84	8.401	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	5	84	8.401	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	26	84	8.401	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	10	84	8.401	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	170	420	8.401	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	14	84	8.401	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	10	84	8.401	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	5	84	8.401	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	5	84	8.401	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	14	84	8.401	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	18	84	8.401	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	5	84	8.401	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	4.2	84	8.401	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	9.2	84	8.401	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	10	84	8.401	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	43	84	8.401	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	19	84	8.401	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	6.7	84	8.401	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	9.2	84	8.401	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	10	84	8.401	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	6.7	84	8.401	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	17	84	8.401	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	25. J	ug/kg	6.7	84	8.401	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	5	84	8.401	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	6.7	84	8.401	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	6.7	84	8.401	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	9.2	84	8.401	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	6.7	84	8.401	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	18	84	8.401	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099B - BW7-5-2 | **Laboratory Sample ID:** 1306011-11

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 15:57

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	5.9	84	8.401	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	9.2	84	8.401	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	17	84	8.401	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	14	84	8.401	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	170	420	8.401	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	10	84	8.401	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	17	84	8.401	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	170	420	8.401	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	15	84	8.401	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	17	84	8.401	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	16	84	8.401	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	18	84	8.401	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	34	84	8.401	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	13	84	8.401	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	11	84	8.401	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	5.9	84	8.401	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	7.6	84	8.401	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	13	84	8.401	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	9.2	84	8.401	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	11	84	8.401	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	6.7	84	8.401	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	18	84	8.401	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	10	84	8.401	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	10	84	8.401	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	170	420	8.401	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	5	84	8.401	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	17	84	8.401	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	8.4	84	8.401	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	166	%			8.401	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	111	%			8.401	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	109	%			8.401	PCI	06/10/13
2037-26-5	TOLUENE-D8	99.7	%			8.401	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099C - BW7-5-3 **Laboratory Sample ID:** 1306011-12

Date Sampled: 06/04/13 16:04

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	8.8	18	1.763	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	0.9	18	1.763	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
106-86-1	BROMOBENZENE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	1.1	18	1.763	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	1.1	18	1.763	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	5.5	18	1.763	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	2.1	18	1.763	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	35	88	1.763	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	3	18	1.763	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	2.1	18	1.763	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	1.1	18	1.763	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	1.1	18	1.763	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	3	18	1.763	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	3.7	18	1.763	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	1.1	18	1.763	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	1.2	18	1.763	PCI	08/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	0.9	18	1.763	PCI	08/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	1.9	18	1.763	PCI	08/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	2.1	18	1.763	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	9	18	1.763	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	4	18	1.763	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	1.4	18	1.763	PCI	08/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	1.9	18	1.763	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	2.1	18	1.763	PCI	08/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	1.4	18	1.763	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	9.6 J	ug/kg	1.4	18	1.763	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	1.1	18	1.763	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	1.4	18	1.763	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	1.4	18	1.763	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	1.9	18	1.763	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	1.4	18	1.763	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	3.7	18	1.763	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099C - BW7-5-3 | **Laboratory Sample ID:** 1306011-12

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/04/13 16:04

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	1.2	18	1.763	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	1.9	18	1.763	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	3	18	1.763	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	35	88	1.763	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	2.1	18	1.763	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	35	88	1.763	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	3.2	18	1.763	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	3.3	18	1.763	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	3.7	18	1.763	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	7.1	18	1.763	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	2.6	18	1.763	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	2.3	18	1.763	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	1.2	18	1.763	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	1.6	18	1.763	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	2.8	18	1.763	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	1.9	18	1.763	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	2.3	18	1.763	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	1.4	18	1.763	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	3.9	18	1.763	PCI	06/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	2.1	18	1.763	PCI	08/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	2.1	18	1.763	PCI	08/10/13
108-05-4	VINYL ACETATE	U	ug/kg	35	88	1.763	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	1.1	18	1.763	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	3.5	18	1.763	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	1.8	18	1.763	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	198	%			1.763	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	113	%			1.763	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	111	%			1.763	PCI	06/10/13
2037-26-5	TOLUENE-D8	109	%			1.763	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099D - BW7-6-1 **Laboratory Sample ID:** 1306011-13

Date Sampled: 06/04/13 17:00

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
67-64-1	ACETONE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
107-02-8	ACROLEIN	U	ug/kg	16	33	3.297	PCI	06/10/13
107-13-1	ACRYLONITRILE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
107-05-1	ALLYL CHLORIDE	U	ug/kg	1.6	33	3.297	PCI	06/10/13
71-43-2	BENZENE	U	ug/kg	3	33	3.297	PCI	06/10/13
108-86-1	BROMOBENZENE	U	ug/kg	3	33	3.297	PCI	06/10/13
74-97-5	BROMOCHLOROMETHANE	U	ug/kg	2	33	3.297	PCI	06/10/13
75-27-4	BROMODICHLOROMETHANE	U	ug/kg	2	33	3.297	PCI	06/10/13
74-83-9	BROMOMETHANE	U	ug/kg	10	33	3.297	PCI	06/10/13
75-25-2	BROMOFORM	U	ug/kg	4	33	3.297	PCI	06/10/13
71-36-3	1-BUTANOL	U	ug/kg	66	160	3.297	PCI	06/10/13
78-93-3	2-BUTANONE	U	ug/kg	5.6	33	3.297	PCI	06/10/13
104-51-8	N-BUTYLBENZENE	U	ug/kg	4	33	3.297	PCI	06/10/13
135-98-8	SEC-BUTYLBENZENE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
98-06-6	TERT-BUTYLBENZENE	U	ug/kg	3	33	3.297	PCI	06/10/13
75-15-0	CARBON DISULFIDE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
56-23-5	CARBON TETRACHLORIDE	U	ug/kg	2	33	3.297	PCI	06/10/13
108-90-7	CHLOROBENZENE	U	ug/kg	2	33	3.297	PCI	06/10/13
75-00-3	CHLOROETHANE	U	ug/kg	5.6	33	3.297	PCI	06/10/13
110-75-8	2-CHLOROETHYLVINYL ETHER	U	ug/kg	6.9	33	3.297	PCI	06/10/13
67-66-3	CHLOROFORM	U	ug/kg	2	33	3.297	PCI	06/10/13
74-87-3	CHLOROMETHANE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
126-99-8	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	U	ug/kg	1.6	33	3.297	PCI	06/10/13
95-49-8	2-CHLOROTOLUENE	U	ug/kg	3.6	33	3.297	PCI	06/10/13
106-43-4	4-CHLOROTOLUENE	U	ug/kg	4	33	3.297	PCI	06/10/13
108-94-1	CYCLOHEXANONE	U	ug/kg	17	33	3.297	PCI	06/10/13
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	U	ug/kg	7	33	3.297	PCI	06/10/13
124-48-1	DIBROMOCHLOROMETHANE	U	ug/kg	2.6	33	3.297	PCI	06/10/13
106-93-4	1,2-DIBROMOETHANE	U	ug/kg	3.6	33	3.297	PCI	06/10/13
74-95-3	DIBROMOMETHANE	U	ug/kg	4	33	3.297	PCI	06/10/13
95-50-1	1,2-DICHLOROBENZENE	U	ug/kg	2.6	33	3.297	PCI	06/10/13
541-73-1	1,3-DICHLOROBENZENE	U	ug/kg	3	33	3.297	PCI	06/10/13
106-46-7	1,4-DICHLOROBENZENE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
110-57-6	TRANS-1,4-DICHLORO-2-BUTENE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
75-71-8	DICHLORODIFLUOROMETHANE	13, J	ug/kg	2.6	33	3.297	PCI	06/10/13
75-34-3	1,1-DICHLOROETHANE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
107-06-2	1,2-DICHLOROETHANE	U	ug/kg	3	33	3.297	PCI	06/10/13
75-35-4	1,1-DICHLOROETHENE	U	ug/kg	2	33	3.297	PCI	06/10/13
156-60-5	TRANS-1,2-DICHLOROETHENE	U	ug/kg	2.6	33	3.297	PCI	06/10/13
156-59-4	CIS-1,2-DICHLOROETHENE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
78-87-5	1,2-DICHLOROPROPANE	U	ug/kg	3	33	3.297	PCI	06/10/13
142-28-9	1,3-DICHLOROPROPANE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
590-20-7	2,2-DICHLOROPROPANE	U	ug/kg	2.6	33	3.297	PCI	06/10/13
563-58-6	1,1-DICHLOROPROPENE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
10061-01-5	CIS-1,3-DICHLOROPROPENE	U	ug/kg	3.6	33	3.297	PCI	06/10/13
10061-02-6	TRANS-1,3-DICHLOROPROPENE	U	ug/kg	2.6	33	3.297	PCI	06/10/13
141-78-6	ETHYL ACETATE	U	ug/kg	6.9	33	3.297	PCI	06/10/13

Listing of Results by Sample

Sample Delivery Group: 1306011

Client Sample ID: 1S13099D - BW7-6-1 | **Laboratory Sample ID:** 1306011-13

Date Sampled: 06/04/13 17:00

Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

CAS Number	Test Parameter	Result	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8260B (Solids)* Volatile Organics Appendix 9							
100-41-4	ETHYLBENZENE	U	ug/kg	3	33	3.297	PCI	06/10/13
60-29-7	ETHYL ETHER	U	ug/kg	2.3	33	3.297	PCI	06/10/13
97-63-2	ETHYL METHACRYLATE	U	ug/kg	3	33	3.297	PCI	06/10/13
76-13-1	FREON 113	U	ug/kg	3.6	33	3.297	PCI	06/10/13
87-68-3	HEXACHLOROBUTADIENE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
591-78-6	2-HEXANONE	U	ug/kg	5.6	33	3.297	PCI	06/10/13
67-63-0	ISOPROPYL ALCOHOL	U	ug/kg	66	160	3.297	PCI	06/10/13
98-82-8	ISOPROPYLBENZENE	U	ug/kg	3	33	3.297	PCI	06/10/13
99-87-6	4-ISOPROPYLTOLUENE	U	ug/kg	4	33	3.297	PCI	06/10/13
108-10-1	4-METHYL-2-PENTANONE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
78-83-1	2-METHYL-1-PROPANOL (ISOBUTYL ALCOHOL)	U	ug/kg	66	160	3.297	PCI	06/10/13
126-98-7	METHACRYLONITRILE	U	ug/kg	5.9	33	3.297	PCI	06/10/13
74-88-4	METHYL IODIDE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
80-62-6	METHYL METHACRYLATE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
75-09-2	METHYLENE CHLORIDE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
91-20-3	NAPHTHALENE	U	ug/kg	6.3	33	3.297	PCI	06/10/13
79-46-9	2-NITROPROPANE	U	ug/kg	6.9	33	3.297	PCI	06/10/13
107-12-0	PROPIONITRILE	U	ug/kg	13	33	3.297	PCI	06/10/13
103-65-1	N-PROPYLBENZENE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
100-42-5	STYRENE	U	ug/kg	4.9	33	3.297	PCI	06/10/13
127-18-4	TETRACHLOROETHENE	U	ug/kg	4.3	33	3.297	PCI	06/10/13
108-88-3	TOLUENE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
71-55-6	1,1,1-TRICHLOROETHANE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
79-01-6	TRICHLOROETHENE	U	ug/kg	2.3	33	3.297	PCI	06/10/13
75-69-4	TRICHLOROFLUOROMETHANE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
630-20-6	1,1,1,2-TETRACHLOROETHANE	U	ug/kg	3	33	3.297	PCI	06/10/13
79-34-5	1,1,2,2-TETRACHLOROETHANE	U	ug/kg	5.3	33	3.297	PCI	06/10/13
87-61-6	1,2,3-TRICHLOROBENZENE	U	ug/kg	3.6	33	3.297	PCI	06/10/13
120-82-1	1,2,4-TRICHLOROBENZENE	U	ug/kg	4.3	33	3.297	PCI	06/10/13
79-00-5	1,1,2-TRICHLOROETHANE	U	ug/kg	2.6	33	3.297	PCI	06/10/13
96-18-4	1,2,3-TRICHLOROPROPANE	U	ug/kg	7.3	33	3.297	PCI	08/10/13
95-63-6	1,2,4-TRIMETHYLBENZENE	U	ug/kg	4	33	3.297	PCI	06/10/13
108-67-8	1,3,5-TRIMETHYLBENZENE	U	ug/kg	4	33	3.297	PCI	06/10/13
108-05-4	VINYL ACETATE	U	ug/kg	66	160	3.297	PCI	06/10/13
75-01-4	VINYL CHLORIDE	U	ug/kg	2	33	3.297	PCI	06/10/13
1330-20-7	m,p-XYLENE	U	ug/kg	6.6	33	3.297	PCI	06/10/13
95-47-6	o-XYLENE	U	ug/kg	3.3	33	3.297	PCI	06/10/13
460-00-4	BROMOFLUOROBENZENE	135	%			3.297	PCI	06/10/13
1868-53-7	DIBROMOFLUOROMETHANE	110	%			3.297	PCI	06/10/13
17060-07-0	1,2-DICHLOROETHANE-D4	110	%			3.297	PCI	06/10/13
2037-26-5	TOLUENE-D8	94.4	%			3.297	PCI	06/10/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SDG No: 1306011 Date: 06/05/13

Carrier: AL Lee Carrier Number: — Initials: WSF

Hand delivered, no cooler ✓ Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Large Red/White

Condition of Shipping Container: ✓ Good Fair Not Applicable Damaged (explain)

Cooler Sealed (taped): Yes ✓ No Not Applicable

Custody Seals Present: Yes ✓ No Not Applicable

Intact Broken Seal Number:

Coolant: ✓ Ice Blue Ice None Other:

State of Coolant: ✓ Frozen Partially Frozen Melted

Thermometer ID: 51397380 Reading: 6 °C CF: — Corrected Temp: 6 °C Temp Blank Included: Yes ✓ No

Packing Description: Bottle in cooler covered with Bagged ice

Chain-Of-Custody Information:

COC Present: ✓ Yes No Other:

COC Number(s): —

COC signed (relinquished and received): ✓ Yes No Not Applicable

COC or LWI agrees with sample labels: ✓ Yes No Not Applicable

Notes:

Sample Information:

Samples included in cooler:

34 x 250 mL WMG ; 2 x 40 mL VOA vial glass

1306011 — 13 x 40 mL glass VOA vial

1306005 (8)
1306006 (7)
1306007 (8)
1306008 (5)
1306009 (4)
1306010 (2)

Custody Seals Present: Yes ✓ No Other

Intact Broken Seal Number(s)

Sample containers intact: ✓ Yes No Notes:

Samples in proper containers: ✓ Yes No

Sufficient sample volume: ✓ Yes No

All samples received in hold time: ✓ Yes No

Water – VOA's have zero headspace: Yes No ✓ Not Applicable

Pre-preserved with HCl: Pre-preserved with $Na_2S_2O_3$: Non-Preserved:

Notes:

Water – pH acceptable upon receipt: Yes Adjusted (see comments below) ✓ Not Applicable

HNO_3 = ____ H_2SO_4 = ____ NaOH = ____ ZnAC /NaOH = ____ HCL = ____

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 ____ H_2SO_4 ____ NaOH ____ ZnAC ____ HCl ____

$Na_2SO_2O_3$ ____ Other ____

Notes:

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	BW7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13095A	6/4/2013	1448	Grab	1 – 40 ml VOA	4C	Volatile Organics: 8260C	1-1
1S13095B	6/4/2013	1455	Grab	1 – 40 ml VOA	4C		1-3
1S13096A	6/4/2013	1502	Grab	1 – 40 ml VOA	4C		2-1
1S13096B	6/4/2013	1509	Grab	1 – 40 ml VOA	4C		2-2
1S13097A	6/4/2013	1519	Grab	1 – 40 ml VOA	4C		3-2
1S13097B	6/4/2013	1525	Grab	1 – 40 ml VOA	4C		3-6
1S13097C	6/4/2013	1531	Grab	1 – 40 ml VOA	4C		3-4

Report Basis: ☐ As Received ☒ ~~Dry Weight~~ ☐ % Moisture **NOTE:**
N/A WSF 06/05/13

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[illegible]	[illegible]	6/4/13	1800
[illegible]	W. Scott Fraser	06/05/13	0945

1306011

6/4/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	BW7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13098A	6/4/2013	1537	Grab	1 – 40 ml VOA	4C	Volatile Organics: 8260C	4-3
1S13098B	6/4/2013	1544	Grab	1 – 40 ml VOA	4C		4-4
1S13099A	6/4/2013	1550	Grab	1 – 40 ml VOA	4C		5-1
1S13099B	6/4/2013	1557	Grab	1 – 40 ml VOA	4C		5-2
1S13099C	6/4/2013	1604	Grab	1 – 40 ml VOA	4C		5-3
1S13099D	6/4/2013	1700	Grab	1 – 40 ml VOA	4C		6-1

Report Basis: ☐ As Received ☒ ~~Dry Weight~~ ☐ % Moisture NOTE:
N/A WSF 06/05/13

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R. Bowlin	[illegible]	6/4/13	1800
[illegible]	W. Scott Fraser	06/05/13	0945

1306011

BW-7

Dioxin/Furans

2013

July 08, 2013

Service Request No: E1300736

Ronald Bowlin
ATK -Launch Systems
P.O. Box 98
Magna, UT 84044

Laboratory Results for: Method 8290

Dear Ronald:

Enclosed are the results of the sample(s) submitted to our laboratory on June 7, 2013. For your reference, these analyses have been assigned our service request number **E1300736.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the final complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the TNI 2009 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2959. You may also contact me via email at Arthi.Kodur@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Digitally signed by Arthi Kodur
Date: 2013.07.09 15:58:49 -05'00'

Arthi Kodur
Project Manager

For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com.

ADDRESS 19408 Park Row, Houston Texas 77084 USA | PHONE +1 713 266 1599 | FAX +1 713 266 0130
ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1S99 Fax (713)266-0130
www.alsglobal.com

RIGHT SOLUTIONS . RIGHT PARTNER

ALS ENVIRONMENTAL

Client:	ATK - Alliant Techsystems Inc	**Service Request No.:**	E1300736
Project:	Method 8290	**Date Received:**	6/7/13
Sample Matrix:	Soil		

ALS ENVIRONMENTAL NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier III. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six soil samples were received for analysis at ALS Environmental on 6/7/13

The following discrepancies were noted upon initial sample inspection: no custody seals on cooler. The exceptions are also noted on the cooler receipt and preservation form included in this data package.

The samples were received at 3°C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Data Validation Notes and Discussion

B flags – Method Blanks

The Method Blank EQ1300337-01 contained low levels of various analytes at or below the Method Reporting Limit (MRL).

The associated compounds in the samples are flagged with 'B' flags.

MS/MSD

EQ1300337: Laboratory Control Spike (LCS) sample was analyzed and reported in addition to an MS/MSD for this extraction batch. The LCS (EQ1300337-02) is reported above the method acceptance criteria for method 8290 for 1,2,3,7,8-PeCDF. The laboratory has identified an upward trend in the matrix spiking standard used in these control samples. This upward trend appears as a nominally high bias. This bias would not affect the accuracy of the results for the associated samples. This issue has been document in the laboratory's corrective action system.

The batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report.

C flags – 2378-TCDF Confirmation

Samples E1300736-001 (1S13100), 002 (1S13101), 003 (1S13102), 004 (1S13103), 005(1S13104) and 006 (1S13105) had 2,3,7,8-TCDF detections above the MRL on the initial analysis on the DB-5 column. These results were confirmed on the DB-225 column. The results were qualified with a C-qualifier indicating that the valid result is reported from the confirmation column. The confirmation result was used in the final TEQ calculation

Y flags – Labeled Standards

Samples that had recoveries of labeled standards outside the acceptance limits are flagged with 'Y' flags on the Labeled Compound summary pages. In all cases, all other identification criteria for the labeled standards were met.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS ENVIRONMENTAL/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- 2378-TCDF from the DB-225 column, when confirmation required
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests.

Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ATK -Launch Systems
Project: Method 8290

Service Request: E1300736

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E1300736-001	1S13100	6/5/13	09:44
E1300736-002	1S13101	6/5/13	10:03
E1300736-003	1S13102	6/5/13	10:25
E1300736-004	1S13103	6/5/13	10:41
E1300736-005	1S13104	6/5/13	10:52
E1300736-006	1S13105	6/5/13	16:05

Superset Summary

Service Request: E1300736 **SuperSet Reference:** 13-0000253170 rev 00

8290/PCDD PCDF

Calibrations: 05/03/12 05/21/13 10/29/12

Data Files:

Raw Data	*Begin CCAL*	*Method Blank*	*Lab ID*
P164905	P164902	P223307	E1300736-001.R01
P164906	P164902	P223307	E1300736-002.R01
P223307	P223305	P223307	EQ1300337-01
P223323	P223312	P223307	EQ1300337-02
P223483	P223478	P223307	E1300736-003.R01
P223484	P223478	P223307	E1300736-004
P223485	P223478	P223307	E1300736-005
P223486	P223478	P223307	E1300736-006.R01
U146574	U146571	U146573	E1300736-001
U146575	U146571	U146573	E1300736-002
U146647	U146644	U146645	E1300736-003
U146649	U146644	U146645	E1300736-006

Laboratory Certifications
2013-2014

STATE/PROGRAM	AGENCY	CERT#	EXP DATE	CERTIFIED?
ARIZONA	AZ-DHS	AZ0725	05/27/14	Yes
ARKANSAS	ADEQ	12-035-0	06/16/13	Yes
CALIFORNIA	CA-ELAP	2452	02/28/15	Yes
DoD ELAP	A2LA	2897.01	11/30/13	Yes
FLORIDA/NELAP	FL-DOHS	E87611	06/30/13	Yes
HAWAII	HI-DOH	N/A	06/30/13	Yes
ILLINOIS/NELAP	IL-EPA	003004	10/06/13	Yes
ISO 17025	A2LA	2897.01	11/30/13	Yes
KANSAS	KS-DHE	E-10406	01/31/14	Yes
LOUISIANA/NELAP	LELAP	03048	06/30/13	Yes
LOUISIANA/NELAP	LDHH	LA120014	12/31/13	Yes
MAINE	ME-DOHS	2012017	06/05/14	Yes
MARYLAND	MDE	343	06/30/13	Yes
MICHIGAN	MIDEQ	9971	06/30/13	Yes
MINNESOTA	MDH	048-999-427	12/31/13	Yes
NEVADA	NDEP	TX014112013A	07/31/13	Yes
NEW JERSEY	NJDEP	TX008	06/30/13	Yes
NEW MEXICO	NMED-DWB	N/A	06/30/13	Yes
NEW YORK/NELAP	NY-DOH	11707	04/01/14	Yes
OKLAHOMA	OKDEQ	2012-133	08/31/13	Yes
OREGON/NELAP	ORELAP	TX200002-009	03/24/14	Yes
PENNSYLVANIA/NELAP	PLAP	004	06/30/13	Yes
SOIL IMPORT PERMIT	USDA	P330-12-00002	01/13/15	Yes
TENNESSEE	TNDEC	TN04016	06/30/13	Yes
TEXAS/NELAP	TCEQ	T104704216-12-3	06/30/13	Yes
UTAH/NELAP	UTELCP	TX014112013-2	06/30/13	Yes
WASHINGTON/NELAP	WA-Ecology	C819-12	11/14/13	Yes
WEST VIRGINIA	WVDEP	347	06/30/13	Yes

Abbreviations, Acronyms & Definitions

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

Data Qualifier Flags – Dioxin/Furans

- **B** Indicates the associated analyte is found in the method blank, as well as in the sample.

- **C** Confirmation of the TCDF compound: When 2378-TCDF is detected on the DB-5 column, confirmation analyses are performed on a second column (DB-225). The results from both the DB-5 column and the DB-225 column are included in this data package. The results from the DB-225 analyses should be used to evaluate the 2378-TCDF in the samples. The confirmed result should be used in determining the TEQ value for TCDF.

- **E** Indicates an estimated value – used when the analyte concentration exceeds the upper end of the linear calibration range.

- **J** Indicates an estimated value – used when the analyte concentration is below the method reporting limit (MRL) and above the estimated detection limit (EDL).

- **K** EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

- **U** Indicates the compound was analyzed and not detected

- **Y** Samples that had recoveries of labeled standards outside the acceptance limits are flagged with 'Y'. In all cases, the signal-to-noise ratios are greater than 10:1, making these data acceptable.

- **ND** Indicates concentration is reported as 'Not Detected.'

- **S** Peak is saturated; data not reportable.

- **Q** Lock-mass interference by ether compounds.

ALS ENVIRONMENTAL – Houston

Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1300736 (DB-5) DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
07/03/13	JC	-001, -002

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
07/06/13	UM	001, 002

PEER REVIEW PAGE.DOC

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1300736 (DB-5) DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
07/08/13	JC	003 – 006

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
07/08/13	UK	003 – 006

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1300736 DB-5 DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
07/05/13		001,002

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
07/05/13		001,002

PEER REVIEW PAGE

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1300736 DB-5 DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	07/08/13	Analyst:		Samples:	003, 004, 006

Second Level - Data Review – to be filled by person doing peer review

Date:	07/08/13	Analyst:		Samples:	003, 006

PEER REVIEW PAGE

ALS Environmental

Analytical Results

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 0944
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13100	**Units:**	ng/Kg
Lab Code:	E1300736-001	**Basis:**	Dry
		Percent Solids:	91.1

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/3/13 1145
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.275g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P164905	**Blank File Name:**	P223307
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P164902

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**1.06**	K	0.311	0.534	0.62	1.001	1
1,2,3,7,8-PeCDD	**3.13**	BK	0.791	2.67	1.81	1.000	1
1,2,3,4,7,8-HxCDD	**2.86**	B	1.25	2.67	1.18	1.000	1
1,2,3,6,7,8-HxCDD	**6.89**	B	1.63	2.67	1.32	1.000	1
1,2,3,7,8,9-HxCDD	**8.41**	B	1.38	2.67	1.35	1.007	1
1,2,3,4,6,7,8-HpCDD	**63.0**	B	1.99	2.67	1.11	1.000	1
OCDD	**357**	B	2.12	5.34	0.89	1.000	1
2,3,7,8-TCDF	**52.1**	C	0.127	0.534	0.74	1.002	1
1,2,3,7,8-PeCDF	**13.2**	B	0.573	2.67	1.53	1.000	1
2,3,4,7,8-PeCDF	**19.0**	B	0.521	2.67	1.57	1.000	1
1,2,3,4,7,8-HxCDF	**66.7**	B	0.400	2.67	1.20	1.000	1
1,2,3,6,7,8-HxCDF	**20.2**	B	0.321	2.67	1.23	1.000	1
1,2,3,7,8,9-HxCDF	**0.993**	BJK	0.579	2.67	1.60	1.001	1
2,3,4,6,7,8-HxCDF	**24.6**	B	0.378	2.67	1.29	1.000	1
1,2,3,4,6,7,8-HpCDF	**96.2**	B	0.589	2.67	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	**5.98**	B	0.797	2.67	1.03	1.000	1
OCDF	**70.7**	B	0.558	5.34	0.91	1.004	1
Total Tetra-Dioxins	**39.3**		0.311	0.534	0.76		1
Total Penta-Dioxins	**53.2**		0.791	2.67	1.52		1
Total Hexa-Dioxins	**92.6**		1.42	2.67	1.23		1
Total Hepta-Dioxins	**131**		1.99	2.67	1.00		1
Total Tetra-Furans	**279**		0.127	0.534	0.69		1
Total Penta-Furans	**289**		0.547	2.67	1.57		1
Total Hexa-Furans	**237**		0.403	2.67	1.14		1
Total Hepta-Furans	**141**		0.686	2.67	1.03		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 0944
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13100	**Units:**	Percent
Lab Code:	E1300736-001	**Basis:**	Dry
		Percent Solids:	91.1

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/3/13 1145
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.275g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P164905	**Blank File Name:**	P223307
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P164902

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1282.388	64		40-135	0.78	1.007
13C-1,2,3,7,8-PeCDD	2000	1390.329	70		40-135	1.56	1.160
13C-1,2,3,4,7,8-HxCDD	2000	1238.436	62		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1151.287	58		40-135	1.27	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1041.158	52		40-135	1.11	1.068
13C-OCDD	4000	1208.768	30	Y	40-135	0.93	1.150
13C-2,3,7,8-TCDF	2000	1239.045	62		40-135	0.74	0.980
13C-1,2,3,7,8-PeCDF	2000	1202.029	60		40-135	1.52	1.124
13C-2,3,4,7,8-PeCDF	2000	1236.391	62		40-135	1.52	1.148
13C-1,2,3,4,7,8-HxCDF	2000	1032.057	52		40-135	0.50	0.973
13C-1,2,3,6,7,8-HxCDF	2000	1216.589	61		40-135	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1053.723	53		40-135	0.49	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1180.094	59		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1147.882	57		40-135	0.44	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1340.306	67		40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	700.253	88		40-135	NA	1.007

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 0944
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13100	**Units:**	ng/Kg
Lab Code:	E1300736-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	1.06	0.311	0.534	1	1	1.06
1,2,3,7,8-PeCDD	**3.13**	0.791	2.67	1	1	3.13
1,2,3,4,7,8-HxCDD	**2.86**	1.25	2.67	1	0.1	0.286
1,2,3,6,7,8-HxCDD	**6.89**	1.63	2.67	1	0.1	0.689
1,2,3,7,8,9-HxCDD	**8.41**	1.38	2.67	1	0.1	0.841
1,2,3,4,6,7,8-HpCDD	**63.0**	1.99	2.67	1	0.01	0.630
OCDD	**357**	2.12	5.34	1	0.0003	0.107
2,3,7,8-TCDF	**8.52**	0.493	0.534	1	0.1	0.852
1,2,3,7,8-PeCDF	**13.2**	0.573	2.67	1	0.03	0.396
2,3,4,7,8-PeCDF	**19.0**	0.521	2.67	1	0.3	5.70
1,2,3,4,7,8-HxCDF	**66.7**	0.400	2.67	1	0.1	6.67
1,2,3,6,7,8-HxCDF	**20.2**	0.321	2.67	1	0.1	2.02
1,2,3,7,8,9-HxCDF	**0.993**	0.579	2.67	1	0.1	0.0993
2,3,4,6,7,8-HxCDF	**24.6**	0.378	2.67	1	0.1	2.46
1,2,3,4,6,7,8-HpCDF	**96.2**	0.589	2.67	1	0.01	0.962
1,2,3,4,7,8,9-HpCDF	**5.98**	0.797	2.67	1	0.01	0.0598
OCDF	**70.7**	0.558	5.34	1	0.0003	0.0212
		Total TEQ				26.0

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 0944
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13100	**Units:**	ng/Kg
Lab Code:	E1300736-001	**Basis:**	Dry
		Percent Solids:	91.1

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/3/13 1750
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.275g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-225
Data File Name:	U146574	**Blank File Name:**	U146573
ICAL Date:	05/21/13	**Cal Ver. File Name:**	U146571

Confirmation/Dilution Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	**8.52**		0.493	0.534	0.80	1.001	1

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	1375.066	69		40-135	0.78	1.064
37Cl-2,3,7,8-TCDD	800	678.186	85		40-135	NA	0.991

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 0944
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
		Date Analyzed:	6/20/13 15:06
Sample Name:	IS13100	**Units:**	Percent
Lab Code:	E1300736-001	**Basis:**	As Received

Total Solids Run Create

Analytical Method:	CAS SOP	**Analysis Lot:**	344833
Data File Name:		**Instrument Name:**	E-Balance-01
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
	Total Solids	91.1				

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1003
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13101	**Units:**	ng/Kg
Lab Code:	E1300736-002	**Basis:**	Dry
		Percent Solids:	90.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/3/13 1233
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.359g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P164906	**Blank File Name:**	P223307
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P164902

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.275	0.533			1
1,2,3,7,8-PeCDD	**0.698**	BJK	0.490	2.66	1.13	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.663	2.66			1
1,2,3,6,7,8-HxCDD	**2.14**	BJK	0.883	2.66	1.53	1.000	1
1,2,3,7,8,9-HxCDD	**1.77**	BJK	0.740	2.66	0.87	1.008	1
1,2,3,4,6,7,8-HpCDD	**39.1**	B	1.73	2.66	1.07	1.000	1
OCDD	**393**	B	1.27	5.33	0.90	1.000	1
2,3,7,8-TCDF	**6.25**	C	0.0784	0.533	0.80	1.002	1
1,2,3,7,8-PeCDF	**1.63**	BJ	0.120	2.66	1.55	1.000	1
2,3,4,7,8-PeCDF	**2.37**	BJ	0.110	2.66	1.36	1.000	1
1,2,3,4,7,8-HxCDF	**8.10**	B	0.202	2.66	1.09	1.000	1
1,2,3,6,7,8-HxCDF	**2.32**	BJ	0.159	2.66	1.42	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.288	2.66			1
2,3,4,6,7,8-HxCDF	**3.03**	B	0.185	2.66	1.05	1.000	1
1,2,3,4,6,7,8-HpCDF	**15.9**	B	0.242	2.66	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	**1.04**	BJK	0.358	2.66	0.67	1.000	1
OCDF	**35.1**	B	0.735	5.33	0.80	1.004	1
Total Tetra-Dioxins	**5.29**		0.275	0.533	0.81		1
Total Penta-Dioxins	**6.37**		0.490	2.66	1.54		1
Total Hexa-Dioxins	**8.93**		0.764	2.66	1.11		1
Total Hepta-Dioxins	**72.9**		1.73	2.66	1.16		1
Total Tetra-Furans	**25.5**		0.0784	0.533	0.75		1
Total Penta-Furans	**32.7**		0.115	2.66	1.41		1
Total Hexa-Furans	**29.7**		0.199	2.66	1.23		1
Total Hepta-Furans	**34.8**		0.293	2.66	0.98		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Teehsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1003
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13101	**Units:**	Percent
Lab Code:	E1300736-002	**Basis:**	Dry
		Percent Solids:	90.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/3/13 1233
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.359g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5
Data File Name:	P164906	**Blank File Name:**	P223307
ICAL Date:	10/29/12	**Cal Ver. File Name:**	P164902

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1192.790	60		40-135	0.80	1.007
13C-1,2,3,7,8-PeCDD	2000	1358.207	68		40-135	1.56	1.160
13C-1,2,3,4,7,8-HxCDD	2000	1130.809	57		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1024.059	51		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1012.419	51		40-135	1.09	1.068
13C-OCDD	4000	1338.862	33	Y	40-135	0.85	1.150
13C-2,3,7,8-TCDF	2000	1165.410	58		40-135	0.74	0.980
13C-1,2,3,7,8-PeCDF	2000	1147.184	57		40-135	1.53	1.124
13C-2,3,4,7,8-PeCDF	2000	1154.076	58		40-135	1.52	1.148
13C-1,2,3,4,7,8-HxCDF	2000	904.097	45		40-135	0.50	0.973
13C-1,2,3,6,7,8-HxCDF	2000	1086.642	54		40-135	0.50	0.975
13C-1,2,3,7,8,9-HxCDF	2000	894.921	45		40-135	0.50	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1037.749	52		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1059.227	53		40-135	0.42	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1124.715	56		40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	646.423	81		40-135	NA	1.007

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1003
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13101	**Units:**	ng/Kg
Lab Code:	E1300736-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.275	0.533	1	1	
1,2,3,7,8-PeCDD	**0.698**	0.490	2.66	1	1	0.698
1,2,3,4,7,8-HxCDD	ND	0.663	2.66	1	0.1	
1,2,3,6,7,8-HxCDD	**2.14**	0.883	2.66	1	0.1	0.214
1,2,3,7,8,9-HxCDD	**1.77**	0.740	2.66	1	0.1	0.177
1,2,3,4,6,7,8-HpCDD	**39.1**	1.73	2.66	1	0.01	0.391
OCDD	**393**	1.27	5.33	1	0.0003	0.118
2,3,7,8-TCDF	**1.34**	0.187	0.533	1	0.1	0.134
1,2,3,7,8-PeCDF	**1.63**	0.120	2.66	1	0.03	0.0489
2,3,4,7,8-PeCDF	**2.37**	0.110	2.66	1	0.3	0.711
1,2,3,4,7,8-HxCDF	**8.10**	0.202	2.66	1	0.1	0.810
1,2,3,6,7,8-HxCDF	**2.32**	0.159	2.66	1	0.1	0.232
1,2,3,7,8,9-HxCDF	ND	0.288	2.66	1	0.1	
2,3,4,6,7,8-HxCDF	**3.03**	0.185	2.66	1	0.1	0.303
1,2,3,4,6,7,8-HpCDF	**15.9**	0.242	2.66	1	0.01	0.159
1,2,3,4,7,8,9-HpCDF	**1.04**	0.358	2.66	1	0.01	0.0104
OCDF	**35.1**	0.735	5.33	1	0.0003	0.0105
		Total TEQ				4.02

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1003
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13101	**Units:**	ng/Kg
Lab Code:	E1300736-002	**Basis:**	Dry
		Percent Solids:	90.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/3/13 1827
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.359g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-225
Data File Name:	U146575	**Blank File Name:**	U146573
ICAL Date:	05/21/13	**Cal Ver. File Name:**	U146571

Confirmation/Dilution Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	**1.34**		0.187	0.533	0.83	1.001	1

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	1255.116	63		40-135	0.79	1.063
37Cl-2,3,7,8-TCDD	800	625.313	78		40-135	NA	0.990

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1003
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
		Date Analyzed:	6/20/13 15:06
Sample Name:	1S13101	**Units:**	Percent
Lab Code:	E1300736-002	**Basis:**	As Received

Total Solids Run Create

Analytical Method:	CAS SOP	**Analysis Lot:**	344833
Data File Name:		**Instrument Name:**	E-Balance-01
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
	Total Solids	90.6				

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1025
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13102	**Units:**	ng/Kg
Lab Code:	E1300736-003	**Basis:**	Dry
		Percent Solids:	91.7

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 1738
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.132g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223483	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**0.261**	JK	0.0947	0.538	0.38	1.001	1
1,2,3,7,8-PeCDD	**0.657**	BJ	0.0779	2.69	1.72	1.000	1
1,2,3,4,7,8-HxCDD	**0.677**	BJ	0.0563	2.69	1.25	1.000	1
1,2,3,6,7,8-HxCDD	**1.40**	BJ	0.0654	2.69	1.10	1.000	1
1,2,3,7,8,9-HxCDD	**2.05**	BJ	0.0597	2.69	1.12	1.008	1
1,2,3,4,6,7,8-HpCDD	**12.8**	B	0.182	2.69	1.00	1.000	1
OCDD	**49.0**	B	0.185	5.38	0.89	1.000	1
2,3,7,8-TCDF	**7.10**	C	0.131	0.538	0.73	1.002	1
1,2,3,7,8-PeCDF	**2.13**	BJ	0.0726	2.69	1.59	1.001	1
2,3,4,7,8-PeCDF	**3.02**	B	0.0715	2.69	1.54	1.001	1
1,2,3,4,7,8-HxCDF	**12.2**	B	0.118	2.69	1.24	1.000	1
1,2,3,6,7,8-HxCDF	**3.60**	B	0.0994	2.69	1.24	1.000	1
1,2,3,7,8,9-HxCDF	**0.246**	BJK	0.139	2.69	0.93	1.000	1
2,3,4,6,7,8-HxCDF	**5.09**	B	0.108	2.69	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	**24.9**	B	0.0947	2.69	1.05	1.000	1
1,2,3,4,7,8,9-HpCDF	**2.11**	BJ	0.126	2.69	0.95	1.000	1
OCDF	**21.5**	B	0.161	5.38	0.91	1.004	1
Total Tetra-Dioxins	**9.87**		0.0947	0.538	0.80		1
Total Penta-Dioxins	**13.8**		0.0779	2.69	1.54		1
Total Hexa-Dioxins	**16.8**		0.0604	2.69	1.18		1
Total Hepta-Dioxins	**25.5**		0.182	2.69	1.00		1
Total Tetra-Furans	**40.2**		0.131	0.538	0.79		1
Total Penta-Furans	**43.4**		0.0722	2.69	1.61		1
Total Hexa-Furans	**42.8**		0.115	2.69	1.23		1
Total Hepta-Furans	**36.1**		0.109	2.69	1.05		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1025
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13102	**Units:**	Percent
Lab Code:	E1300736-003	**Basis:**	Dry
		Percent Solids:	91.7

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 1738
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.132g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223483	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1482.288	74		40-135	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1276.388	64		40-135	1.58	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1264.110	63		40-135	1.27	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1150.273	58		40-135	1.28	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1303.950	65		40-135	1.07	1.069
13C-OCDD	4000	2375.598	59		40-135	0.91	1.148
13C-2,3,7,8-TCDF	2000	1360.211	68		40-135	0.79	0.977
13C-1,2,3,7,8-PeCDF	2000	1268.647	63		40-135	1.59	1.138
13C-2,3,4,7,8-PeCDF	2000	1234.582	62		40-135	1.60	1.165
13C-1,2,3,4,7,8-HxCDF	2000	1096.288	55		40-135	0.52	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1259.684	63		40-135	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1239.362	62		40-135	0.53	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1275.207	64		40-135	0.53	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1489.989	74		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1660.003	83		40-135	0.45	1.079
37Cl-2,3,7,8-TCDD	800	751.923	94		40-135	NA	1.009

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Teehsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1025
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13102	**Units:**	ng/Kg
Lab Code:	E1300736-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.261**	0.0947	0.538	1	1	0.261
1,2,3,7,8-PeCDD	**0.657**	0.0779	2.69	1	1	0.657
1,2,3,4,7,8-HxCDD	**0.677**	0.0563	2.69	1	0.1	0.0677
1,2,3,6,7,8-HxCDD	**1.40**	0.0654	2.69	1	0.1	0.140
1,2,3,7,8,9-HxCDD	**2.05**	0.0597	2.69	1	0.1	0.205
1,2,3,4,6,7,8-HpCDD	**12.8**	0.182	2.69	1	0.01	0.128
OCDD	**49.0**	0.185	5.38	1	0.0003	0.0147
2,3,7,8-TCDF	**1.27**	0.192	0.538	1	0.1	0.127
1,2,3,7,8-PeCDF	**2.13**	0.0726	2.69	1	0.03	0.0639
2,3,4,7,8-PeCDF	**3.02**	0.0715	2.69	1	0.3	0.906
1,2,3,4,7,8-HxCDF	**12.2**	0.118	2.69	1	0.1	1.22
1,2,3,6,7,8-HxCDF	**3.60**	0.0994	2.69	1	0.1	0.360
1,2,3,7,8,9-HxCDF	**0.246**	0.139	2.69	1	0.1	0.0246
2,3,4,6,7,8-HxCDF	**5.09**	0.108	2.69	1	0.1	0.509
1,2,3,4,6,7,8-HpCDF	**24.9**	0.0947	2.69	1	0.01	0.249
1,2,3,4,7,8,9-HpCDF	**2.11**	0.126	2.69	1	0.01	0.0211
OCDF	**21.5**	0.161	5.38	1	0.0003	0.00645
		Total TEQ				4.96

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1025
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13102	**Units:**	ng/Kg
Lab Code:	E1300736-003	**Basis:**	Dry
		Percent Solids:	91.7

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/6/13 1229
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.132g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-225
Data File Name:	U146647	**Blank File Name:**	U146644
ICAL Date:	05/21/13	**Cal Ver. File Name:**	U146645

Confirmation/Dilution Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	1.27		0.192	0.538	0.81	1.001	1

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	1269.484	63		40-135	0.78	1.063
37Cl-2,3,7,8-TCDD	800	639.131	80		40-135	NA	0.990

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1025
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
		Date Analyzed:	6/20/13 15:06
Sample Name:	1S13102	**Units:**	Percent
Lab Code:	E1300736-003	**Basis:**	As Received

Total Solids Run Create

Analytical Method:	CAS SOP	**Analysis Lot:**	344833
Data File Name:		**Instrument Name:**	E-Balance-01
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
	Total Solids	91.7				

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1041
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13103	**Units:**	ng/Kg
Lab Code:	E1300736-004	**Basis:**	Dry
		Percent Solids:	91.7

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 1826
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.329g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223484	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0778	0.528			1
1,2,3,7,8-PeCDD	ND	U	0.0518	2.64			1
1,2,3,4,7,8-HxCDD	**0.0927**	BJK	0.0509	2.64	0.72	1.000	1
1,2,3,6,7,8-HxCDD	**0.213**	BJK	0.0550	2.64	0.93	1.000	1
1,2,3,7,8,9-HxCDD	**0.253**	BJ	0.0520	2.64	1.06	1.008	1
1,2,3,4,6,7,8-HpCDD	**2.83**	B	0.0707	2.64	1.08	1.000	1
OCDD	**20.2**	B	0.0776	5.28	0.93	1.000	1
2,3,7,8-TCDF	**0.435**	JK	0.0779	0.528	0.91	1.002	1
1,2,3,7,8-PeCDF	**0.211**	BJ	0.0488	2.64	1.38	1.001	1
2,3,4,7,8-PeCDF	**0.277**	BJ	0.0482	2.64	1.50	1.001	1
1,2,3,4,7,8-HxCDF	**0.745**	BJ	0.0646	2.64	1.06	1.000	1
1,2,3,6,7,8-HxCDF	**0.280**	BJ	0.0538	2.64	1.29	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.0788	2.64			1
2,3,4,6,7,8-HxCDF	**0.393**	BJK	0.0589	2.64	1.04	1.000	1
1,2,3,4,6,7,8-HpCDF	**2.05**	BJ	0.0535	2.64	0.93	1.000	1
1,2,3,4,7,8,9-HpCDF	**0.374**	BJ	0.0738	2.64	1.11	1.000	1
OCDF	**5.64**	B	0.150	5.28	0.93	1.004	1
Total Tetra-Dioxins	**0.159**	J	0.0778	0.528	0.68		1
Total Penta-Dioxins	**0.328**	J	0.0518	2.64	1.57		1
Total Hexa-Dioxins	**0.955**	J	0.0526	2.64	1.38		1
Total Hepta-Dioxins	**5.17**		0.0707	2.64	1.04		1
Total Tetra-Furans	**1.06**		0.0779	0.528	0.82		1
Total Penta-Furans	**1.60**	J	0.0486	2.64	1.62		1
Total Hexa-Furans	**2.54**	J	0.0629	2.64	1.07		1
Total Hepta-Furans	**4.05**		0.0627	2.64	0.93		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1041
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13103	**Units:**	Percent
Lab Code:	E1300736-004	**Basis:**	Dry
		Percent Solids:	91.7

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 1826
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.329g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223484	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1488.741	74		40-135	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1335.789	67		40-135	1.58	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1337.069	67		40-135	1.27	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1242.091	62		40-135	1.28	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1391.897	70		40-135	1.06	1.069
13C-OCDD	4000	2656.230	66		40-135	0.90	1.148
13C-2,3,7,8-TCDF	2000	1388.661	69		40-135	0.79	0.977
13C-1,2,3,7,8-PeCDF	2000	1322.669	66		40-135	1.59	1.138
13C-2,3,4,7,8-PeCDF	2000	1302.831	65		40-135	1.60	1.165
13C-1,2,3,4,7,8-HxCDF	2000	1169.080	58		40-135	0.52	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1345.194	67		40-135	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1258.975	63		40-135	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1334.532	67		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1567.838	78		40-135	0.44	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1672.881	84		40-135	0.45	1.079
37Cl-2,3,7,8-TCDD	800	781.055	98		40-135	NA	1.009

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1041
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13103	**Units:**	ng/Kg
Lab Code:	E1300736-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0778	0.528	1	1	
1,2,3,7,8-PeCDD	ND	0.0518	2.64	1	1	
1,2,3,4,7,8-HxCDD	**0.0927**	0.0509	2.64	1	0.1	0.00927
1,2,3,6,7,8-HxCDD	**0.213**	0.0550	2.64	1	0.1	0.0213
1,2,3,7,8,9-HxCDD	**0.253**	0.0520	2.64	1	0.1	0.0253
1,2,3,4,6,7,8-HpCDD	**2.83**	0.0707	2.64	1	0.01	0.0283
OCDD	**20.2**	0.0776	5.28	1	0.0003	0.00606
2,3,7,8-TCDF	**0.435**	0.0779	0.528	1	0.1	0.0435
1,2,3,7,8-PeCDF	**0.211**	0.0488	2.64	1	0.03	0.00633
2,3,4,7,8-PeCDF	**0.277**	0.0482	2.64	1	0.3	0.0831
1,2,3,4,7,8-HxCDF	**0.745**	0.0646	2.64	1	0.1	0.0745
1,2,3,6,7,8-HxCDF	**0.280**	0.0538	2.64	1	0.1	0.0280
1,2,3,7,8,9-HxCDF	ND	0.0788	2.64	1	0.1	
2,3,4,6,7,8-HxCDF	**0.393**	0.0589	2.64	1	0.1	0.0393
1,2,3,4,6,7,8-HpCDF	**2.05**	0.0535	2.64	1	0.01	0.0205
1,2,3,4,7,8,9-HpCDF	**0.374**	0.0738	2.64	1	0.01	0.00374
OCDF	**5.64**	0.150	5.28	1	0.0003	0.00169
		Total TEQ				0.391

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1041
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
		Date Analyzed:	6/20/13 15:06
Sample Name:	1S13103	**Units:**	Percent
Lab Code:	E1300736-004	**Basis:**	As Received

Total Solids Run Create

Analytical Method:	CAS SOP	**Analysis Lot:**	344833
Data File Name:		**Instrument Name:**	E-Balance-01
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
	Total Solids	91.7				

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1052
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13104	**Units:**	ng/Kg
Lab Code:	E1300736-005	**Basis:**	Dry
		Percent Solids:	91.4

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 1915
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.141g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223485	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.124	0.539			1
1,2,3,7,8-PeCDD	ND	U	0.0552	2.70			1
1,2,3,4,7,8-HxCDD	ND	U	0.0663	2.70			1
1,2,3,6,7,8-HxCDD	**0.129**	BJ	0.0697	2.70	1.39	1.000	1
1,2,3,7,8,9-HxCDD	**0.164**	BJ	0.0668	2.70	1.37	1.008	1
1,2,3,4,6,7,8-HpCDD	**1.04**	BJ	0.0672	2.70	0.97	1.000	1
OCDD	**5.32**	BJ	0.124	5.39	0.91	1.000	1
2,3,7,8-TCDF	ND	U	0.0716	0.539			1
1,2,3,7,8-PeCDF	ND	U	0.0669	2.70			1
2,3,4,7,8-PeCDF	ND	U	0.0678	2.70			1
1,2,3,4,7,8-HxCDF	**0.304**	BJ	0.0431	2.70	1.15	1.000	1
1,2,3,6,7,8-HxCDF	**0.130**	BJK	0.0362	2.70	1.81	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.0529	2.70			1
2,3,4,6,7,8-HxCDF	**0.154**	BJ	0.0387	2.70	1.25	1.000	1
1,2,3,4,6,7,8-HpCDF	**0.868**	BJ	0.0276	2.70	1.02	1.000	1
1,2,3,4,7,8,9-HpCDF	**0.129**	BJ	0.0379	2.70	0.88	1.000	1
OCDF	**2.75**	BJ	0.120	5.39	0.89	1.004	1
Total Tetra-Dioxins	**0.312**	J	0.124	0.539	0.76		1
Total Penta-Dioxins	ND	U	0.0552	2.70			1
Total Hexa-Dioxins	**0.461**	J	0.0676	2.70	1.24		1
Total Hepta-Dioxins	**1.89**	J	0.0672	2.70	1.00		1
Total Tetra-Furans	ND	U	0.0716	0.539			1
Total Penta-Furans	ND	U	0.0674	2.70			1
Total Hexa-Furans	**0.889**	J	0.0419	2.70	1.34		1
Total Hepta-Furans	**1.93**	J	0.0323	2.70	1.02		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1052
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13104	**Units:**	Percent
Lab Code:	E1300736-005	**Basis:**	Dry
		Percent Solids:	91.4

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 1915
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.141g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223485	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1326.524	66		40-135	0.79	1.009
13C-1,2,3,7,8-PeCDD	2000	1142.050	57		40-135	1.57	1.178
13C-1,2,3,4,7,8-HxCDD	2000	1128.697	56		40-135	1.27	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1155.272	58		40-135	1.25	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1260.317	63		40-135	1.07	1.069
13C-OCDD	4000	2244.412	56		40-135	0.90	1.148
13C-2,3,7,8-TCDF	2000	1225.647	61		40-135	0.80	0.977
13C-1,2,3,7,8-PeCDF	2000	1128.069	56		40-135	1.58	1.138
13C-2,3,4,7,8-PeCDF	2000	1111.956	56		40-135	1.59	1.165
13C-1,2,3,4,7,8-HxCDF	2000	1018.246	51		40-135	0.53	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1222.259	61		40-135	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1141.172	57		40-135	0.53	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1222.181	61		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1416.030	71		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1529.784	76		40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	692.393	87		40-135	NA	1.009

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1052
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13104	**Units:**	ng/Kg
Lab Code:	E1300736-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.124	0.539	1	1	
1,2,3,7,8-PeCDD	ND	0.0552	2.70	1	1	
1,2,3,4,7,8-HxCDD	ND	0.0663	2.70	1	0.1	
1,2,3,6,7,8-HxCDD	**0.129**	0.0697	2.70	1	0.1	0.0129
1,2,3,7,8,9-HxCDD	**0.164**	0.0668	2.70	1	0.1	0.0164
1,2,3,4,6,7,8-HpCDD	**1.04**	0.0672	2.70	1	0.01	0.0104
OCDD	**5.32**	0.124	5.39	1	0.0003	0.00160
2,3,7,8-TCDF	ND	0.0716	0.539	1	0.1	
1,2,3,7,8-PeCDF	ND	0.0669	2.70	1	0.03	
2,3,4,7,8-PeCDF	ND	0.0678	2.70	1	0.3	
1,2,3,4,7,8-HxCDF	**0.304**	0.0431	2.70	1	0.1	0.0304
1,2,3,6,7,8-HxCDF	**0.130**	0.0362	2.70	1	0.1	0.0130
1,2,3,7,8,9-HxCDF	ND	0.0529	2.70	1	0.1	
2,3,4,6,7,8-HxCDF	**0.154**	0.0387	2.70	1	0.1	0.0154
1,2,3,4,6,7,8-HpCDF	**0.868**	0.0276	2.70	1	0.01	0.00868
1,2,3,4,7,8,9-HpCDF	**0.129**	0.0379	2.70	1	0.01	0.00129
OCDF	**2.75**	0.120	5.39	1	0.0003	0.000825
		Total TEQ				0.111

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1052
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
		Date Analyzed:	6/20/13 15:06
Sample Name:	1S13104	**Units:**	Percent
Lab Code:	E1300736-005	**Basis:**	As Received

Total Solids Run Create

Analytical Method:	CAS SOP	**Analysis Lot:**	344833
Data File Name:		**Instrument Name:**	E-Balance-01
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
	Total Solids	91.4				

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1605
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13105	**Units:**	ng/Kg
Lab Code:	E1300736-006	**Basis:**	Dry
		Percent Solids:	90.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 2003
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.164g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223486	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.111	0.543			1
1,2,3,7,8-PeCDD	**2.57**	BJ	0.0808	2.71	1.39	1.000	1
1,2,3,4,7,8-HxCDD	**2.33**	BJ	0.0798	2.71	1.25	1.000	1
1,2,3,6,7,8-HxCDD	**4.55**	B	0.0855	2.71	1.28	1.000	1
1,2,3,7,8,9-HxCDD	**2.69**	BJ	0.0812	2.71	1.15	1.008	1
1,2,3,4,6,7,8-HpCDD	**68.4**	B	0.531	2.71	1.04	1.000	1
OCDD	**634**	B	0.556	5.43	0.90	1.000	1
2,3,7,8-TCDF	**5.05**	C	0.0773	0.543	0.80	1.002	1
1,2,3,7,8-PeCDF	**1.61**	BJ	0.0844	2.71	1.57	1.001	1
2,3,4,7,8-PeCDF	**2.13**	BJ	0.0832	2.71	1.55	1.001	1
1,2,3,4,7,8-HxCDF	**6.68**	B	0.160	2.71	1.34	1.000	1
1,2,3,6,7,8-HxCDF	**2.24**	BJ	0.136	2.71	1.27	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.185	2.71			1
2,3,4,6,7,8-HxCDF	**2.61**	BJ	0.143	2.71	1.23	1.000	1
1,2,3,4,6,7,8-HpCDF	**21.8**	B	0.113	2.71	1.04	1.000	1
1,2,3,4,7,8,9-HpCDF	**1.43**	BJ	0.140	2.71	1.01	1.000	1
OCDF	**83.2**	B	0.273	5.43	0.89	1.004	1
Total Tetra-Dioxins	**5.64**		0.111	0.543	0.73		1
Total Penta-Dioxins	**10.6**		0.0808	2.71	1.52		1
Total Hexa-Dioxins	**22.0**		0.0821	2.71	1.24		1
Total Hepta-Dioxins	**119**		0.531	2.71	1.05		1
Total Tetra-Furans	**28.3**		0.0773	0.543	0.82		1
Total Penta-Furans	**29.5**		0.0839	2.71	1.50		1
Total Hexa-Furans	**31.3**		0.154	2.71	1.19		1
Total Hepta-Furans	**61.0**		0.126	2.71	1.04		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1605
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13105	**Units:**	Percent
Lab Code:	E1300736-006	**Basis:**	Dry
		Percent Solids:	90.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/5/13 2003
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.164g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223486	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223478

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1406.909	70		40-135	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1173.394	59		40-135	1.58	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1163.643	58		40-135	1.38	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1140.219	57		40-135	1.18	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1163.139	58		40-135	1.06	1.069
13C-OCDD	4000	2114.978	53		40-135	0.92	1.148
13C-2,3,7,8-TCDF	2000	1313.389	66		40-135	0.79	0.977
13C-1,2,3,7,8-PeCDF	2000	1160.996	58		40-135	1.59	1.138
13C-2,3,4,7,8-PeCDF	2000	1163.441	58		40-135	1.60	1.165
13C-1,2,3,4,7,8-HxCDF	2000	1058.044	53		40-135	0.52	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1195.867	60		40-135	0.53	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1188.406	59		40-135	0.53	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1225.355	61		40-135	0.53	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1326.829	66		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1540.822	77		40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	763.929	95		40-135	NA	1.009

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1605
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13105	**Units:**	ng/Kg
Lab Code:	E1300736-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.111	0.543	1	1	
1,2,3,7,8-PeCDD	**2.57**	0.0808	2.71	1	1	2.57
1,2,3,4,7,8-HxCDD	**2.33**	0.0798	2.71	1	0.1	0.233
1,2,3,6,7,8-HxCDD	**4.55**	0.0855	2.71	1	0.1	0.455
1,2,3,7,8,9-HxCDD	**2.69**	0.0812	2.71	1	0.1	0.269
1,2,3,4,6,7,8-HpCDD	**68.4**	0.531	2.71	1	0.01	0.684
OCDD	**634**	0.556	5.43	1	0.0003	0.190
2,3,7,8-TCDF	**0.923**	0.151	0.543	1	0.1	0.0923
1,2,3,7,8-PeCDF	**1.61**	0.0844	2.71	1	0.03	0.0483
2,3,4,7,8-PeCDF	**2.13**	0.0832	2.71	1	0.3	0.639
1,2,3,4,7,8-HxCDF	**6.68**	0.160	2.71	1	0.1	0.668
1,2,3,6,7,8-HxCDF	**2.24**	0.136	2.71	1	0.1	0.224
1,2,3,7,8,9-HxCDF	ND	0.185	2.71	1	0.1	
2,3,4,6,7,8-HxCDF	**2.61**	0.143	2.71	1	0.1	0.261
1,2,3,4,6,7,8-HpCDF	**21.8**	0.113	2.71	1	0.01	0.218
1,2,3,4,7,8,9-HpCDF	**1.43**	0.140	2.71	1	0.01	0.0143
OCDF	**83.2**	0.273	5.43	1	0.0003	0.0250
		Total TEQ				6.59

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1605
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
Sample Name:	1S13105	**Units:**	ng/Kg
Lab Code:	E1300736-006	**Basis:**	Dry
		Percent Solids:	90.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	7/6/13 1343
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.164g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-225
Data File Name:	U146649	**Blank File Name:**	U146644
ICAL Date:	05/21/13	**Cal Ver. File Name:**	U146645

Confirmation/Dilution Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	**0.923**		0.151	0.543	0.72	1.001	1

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	1228.075	61		40-135	0.78	1.063
37Cl-2,3,7,8-TCDD	800	670.750	84		40-135	NA	0.990

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	6/ 5/13 1605
Sample Matrix:	Soil	**Date Received:**	6/ 7/13
		Date Analyzed:	6/20/13 15:06
Sample Name:	1S13105	**Units:**	Percent
Lab Code:	E1300736-006	**Basis:**	As Received

Total Solids Run Create

Analytical Method:	CAS SOP	**Analysis Lot:**	344833
Data File Name:		**Instrument Name:**	E-Balance-01
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
	Total Solids	90.6				

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Teehsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ1300337-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	6/28/13 1141
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.238g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223307	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223305

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0679	0.488			1
1,2,3,7,8-PeCDD	**0.104**	J	0.0325	2.44	1.61	1.001	1
1,2,3,4,7,8-HxCDD	**0.123**	J	0.0360	2.44	1.33	1.000	1
1,2,3,6,7,8-HxCDD	**0.107**	J	0.0380	2.44	1.33	0.999	1
1,2,3,7,8,9-HxCDD	**0.117**	J	0.0364	2.44	1.28	1.008	1
1,2,3,4,6,7,8-HpCDD	**0.424**	J	0.0432	2.44	1.02	1.000	1
OCDD	**2.40**	J	0.131	4.88	0.83	1.000	1
2,3,7,8-TCDF	ND	U	0.0277	0.488			1
1,2,3,7,8-PeCDF	**0.127**	JK	0.0376	2.44	1.01	1.001	1
2,3,4,7,8-PeCDF	**0.124**	J	0.0369	2.44	1.34	1.001	1
1,2,3,4,7,8-HxCDF	**0.116**	J	0.0441	2.44	1.20	1.000	1
1,2,3,6,7,8-HxCDF	**0.113**	J	0.0366	2.44	1.09	1.000	1
1,2,3,7,8,9-HxCDF	**0.0903**	JK	0.0544	2.44	1.71	1.000	1
2,3,4,6,7,8-HxCDF	**0.110**	J	0.0391	2.44	1.12	1.001	1
1,2,3,4,6,7,8-HpCDF	**0.153**	JK	0.0287	2.44	1.57	1.000	1
1,2,3,4,7,8,9-HpCDF	**0.130**	J	0.0396	2.44	0.95	1.000	1
OCDF	**0.435**	J	0.0892	4.88	1.01	1.004	1
Total Tetra-Dioxins	ND	U	0.0679	0.488			1
Total Penta-Dioxins	**0.104**	J	0.0325	2.44	1.61		1
Total Hexa-Dioxins	**0.330**	J	0.0368	2.44	1.33		1
Total Hepta-Dioxins	**0.745**	J	0.0432	2.44	1.06		1
Total Tetra-Furans	ND	U	0.0277	0.488			1
Total Penta-Furans	**0.124**	J	0.0373	2.44	1.34		1
Total Hexa-Furans	**0.440**	J	0.0426	2.44	1.18		1
Total Hepta-Furans	**0.374**	J	0.0345	2.44	0.90		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ1300337-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	6/28/13 1141
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.238g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223307	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223305

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1306.870	65		40-135	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1057.312	53		40-135	1.56	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1102.044	55		40-135	1.28	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1225.947	61		40-135	1.29	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1132.960	57		40-135	1.08	1.069
13C-OCDD	4000	2013.159	50		40-135	0.91	1.148
13C-2,3,7,8-TCDF	2000	1233.319	62		40-135	0.79	0.977
13C-1,2,3,7,8-PeCDF	2000	1041.180	52		40-135	1.56	1.138
13C-2,3,4,7,8-PeCDF	2000	1020.114	51		40-135	1.57	1.164
13C-1,2,3,4,7,8-HxCDF	2000	1017.658	51		40-135	0.54	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1243.476	62		40-135	0.51	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1141.339	57		40-135	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1238.737	62		40-135	0.53	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1292.700	65		40-135	0.45	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1379.579	69		40-135	0.44	1.079
37Cl-2,3,7,8-TCDD	800	690.306	86		40-135	NA	1.009

ALS Environmental

Accuracy and Precision

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ATK - Alliant Techsystems Inc
Project: Method 8290
Sample Matrix: Soil

Service Request: E1300736
Date Analyzed: 6/29/13

Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Units: ng/Kg
Basis: Dry

Extraction Lot: 185101

Lab Control Sample
EQ1300337-02

Analyte Name	Result	Spike Amount	% Rec		% Rec Limits
2,3,7,8-TCDD	21.6	19.4	111		67 - 158
1,2,3,7,8-PeCDD	123	97.1	127		70 - 142
1,2,3,4,7,8-HxCDD	116	97.1	119		70 - 164
1,2,3,6,7,8-HxCDD	122	97.1	126		76 - 134
1,2,3,7,8,9-HxCDD	118	97.1	121		64 - 162
1,2,3,4,6,7,8-HpCDD	113	97.1	116		70 - 140
OCDD	238	194	123		78 - 144
2,3,7,8-TCDF	23.6	19.4	121		75 - 158
1,2,3,7,8-PeCDF	135	97.1	139	*	80 - 134
2,3,4,7,8-PeCDF	133	97.1	136		68 - 160
1,2,3,4,7,8-HxCDF	127	97.1	130		72 - 134
1,2,3,6,7,8-HxCDF	113	97.1	116		84 - 130
1,2,3,7,8,9-HxCDF	121	97.1	125		78 - 130
2,3,4,6,7,8-HxCDF	120	97.1	124		70 - 156
1,2,3,4,6,7,8-HpCDF	95.1	97.1	98		82 - 122
1,2,3,4,7,8,9-HpCDF	91.9	97.1	95		78 - 138
OCDF	233	194	120		63 - 170

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1300337-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	6/29/13 0034
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.295g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223323	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223312

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**21.6**		0.108	0.486	0.77	1.001	1
1,2,3,7,8-PeCDD	**123**		0.0339	2.43	1.57	1.001	1
1,2,3,4,7,8-HxCDD	**116**		0.0301	2.43	1.25	1.000	1
1,2,3,6,7,8-HxCDD	**122**		0.0329	2.43	1.25	1.000	1
1,2,3,7,8,9-HxCDD	**118**		0.0309	2.43	1.21	1.008	1
1,2,3,4,6,7,8-HpCDD	**113**		0.0386	2.43	1.07	1.001	1
OCDD	**238**		0.612	4.86	0.89	1.000	1
2,3,7,8-TCDF	**23.6**		0.0489	0.486	0.78	1.000	1
1,2,3,7,8-PeCDF	**135**		0.0493	2.43	1.56	1.001	1
2,3,4,7,8-PeCDF	**133**		0.0496	2.43	1.56	1.001	1
1,2,3,4,7,8-HxCDF	**127**		0.0293	2.43	1.25	1.000	1
1,2,3,6,7,8-HxCDF	**113**		0.0242	2.43	1.24	1.000	1
1,2,3,7,8,9-HxCDF	**121**		0.0358	2.43	1.26	1.000	1
2,3,4,6,7,8-HxCDF	**120**		0.0264	2.43	1.24	1.000	1
1,2,3,4,6,7,8-HpCDF	**95.1**		0.174	2.43	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	**91.9**		0.245	2.43	1.03	1.000	1
OCDF	**233**		0.765	4.86	0.89	1.004	1
Total Tetra-Dioxins	**21.6**		0.108	0.486	0.77		1
Total Penta-Dioxins	**123**		0.0339	2.43	1.57		1
Total Hexa-Dioxins	**356**		0.0313	2.43	1.25		1
Total Hepta-Dioxins	**113**		0.0386	2.43	1.02		1
Total Tetra-Furans	**24.2**		0.0489	0.486	0.66		1
Total Penta-Furans	**268**		0.0495	2.43	1.38		1
Total Hexa-Furans	**481**		0.0284	2.43	1.25		1
Total Hepta-Furans	**187**		0.212	2.43	1.03		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Teehsystems Ine	**Service Request:**	E1300736
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1300337-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	8290	**Date Analyzed:**	6/29/13 0034
Prep Method:	Method	**Date Extracted:**	6/14/13
Sample Amount:	10.295g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P223323	**Blank File Name:**	P223307
ICAL Date:	05/03/12	**Cal Ver. File Name:**	P223312

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1277.077	64		40-135	0.78	1.008
13C-1,2,3,7,8-PeCDD	2000	1114.554	56		40-135	1.56	1.177
13C-1,2,3,4,7,8-HxCDD	2000	1131.738	57		40-135	1.26	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1072.162	54		40-135	1.27	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1066.401	53		40-135	1.04	1.068
13C-OCDD	4000	1689.399	42		40-135	0.91	1.148
13C-2,3,7,8-TCDF	2000	1140.586	57		40-135	0.78	0.977
13C-1,2,3,7,8-PeCDF	2000	1054.640	53		40-135	1.58	1.138
13C-2,3,4,7,8-PeCDF	2000	1038.178	52		40-135	1.60	1.164
13C-1,2,3,4,7,8-HxCDF	2000	969.821	48		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1134.546	57		40-135	0.53	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1047.668	52		40-135	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1124.086	56		40-135	0.53	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1212.426	61		40-135	0.45	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1253.093	63		40-135	0.45	1.079
37Cl-2,3,7,8-TCDD	800	658.699	82		40-135	NA	1.009

ALS Environmental

Chain of Custody

ALS Environmental - Houston HRMS
19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

6/6/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB: Columbia	COLLECTED BY: R. Bowlin	COMPANY: ATK LAUNCH SYSTEMS	TITLE: ENVIRO ENG
P.O. NO: ATK-70601	COLLECTION LOCATION: BW7		CONTACT: R. Bowlin (801 251 4865)
M-53 PROJ_ID WPKG:	MATERIAL SAMPLED: Soil		EMAIL: ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13100	6/5/2013	0944	Composite	1 – 8oz glass	4C	EPA 8290: dioxin/furan	1-D
1S13101	6/5/2013	1003	Composite	1 – 8oz glass	4C		2-D
1S13102	6/5/2013	1025	Composite	1 – 8oz glass	4C		3-D
1S13103	6/5/2013	1041	Composite	1 – 8oz glass	4C		4-D
1S13104	6/5/2013	1052	Composite	1 – 8oz glass	4C		5-D
1S13105	6/5/2013	1605	Composite	1 – 8oz glass	4C		6-D

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture NOTE:

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R A Bowlin			
	[illegible]	6/7/13	950

1003 4/3
S/N: 122463441
5668 4946 7950

E1300736 5
ATK Launch Systems
Risk Assesment Method 8290

Cooler Receipt Form

Project Chemist: AK

Client/Project: ATK; 1S13100

Service Request: E1300736

Date/Time Received: 06/07/13 09:50:00

Date/Time Logged in: 06/07/13 10:57:00

Technician: AL

Technician: AL

1. Method of delivery: ○ US Mail ◉ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ◉ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ○ Yes ◉ No ○ N/A

Were they intact? ○ Yes ◉ No ○ N/A

Were they signed and dated? ○ Yes ◉ No ○ N/A

If yes, how many and where?

4. Method of delivery: ○ Inserts ☑ Baggies ☑ Bubble Wrap ○ Gel Packs ☑ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ◉ No

Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?	Filed
566849457950		Jun 7, 2013	1003	AL	4/3	☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ◉ Yes ○ No ○ N/A

7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ◉ Yes ○ No ○ N/A

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ◉ Yes ○ No ○ N/A

9. Were appropriate bottles/containers and volumes received for the requested tests? ◉ Yes ○ No ○ N/A

10. Did sample labels and tags agree with custody documents? ◉ Yes ○ No ○ N/A

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Broken	Date	Technician
			☐	☐		
			☐	☐		
			☐	☐		
			☐	☐		

Notes, Discrepancies, & Resolutions:

Print Form

Reset Form

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental - Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sample
- ✓ The COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report.

Service Request Summary

Folder #:	**E1300736**
Client Name:	ATK - Alliant Tcchsystems Inc
Project Name:	Method 8290
Project Number:	
Report To:	Ronald Bowlin ATK -Launch Systems P.O. Box 98 Magna, UT 84044
Phone Number:	801-251-4865
Cell Number:	
Fax Number:	
E-mail:	ronald.bowlin@atk.com

Project Chemist:	Arthi Kodur
Originating Lab:	HOUSTON
Logged By:	MRIVERA
Date Received:	6/ 7/13
Internal Due Date:	6/28/13
QAP:	LAB QAP
Qualifier Set:	CAS Standard
Formset:	CAS Standard
Merged?:	N
Report to MDL?:	Y
P.O. Number:	ATK-70601
EDD:	BASIC_wMB_CASNO

6 - 8 oz-Glass Jar WM AMBER Teflon Liner Unpreserved

Location: E-WIC02-Box09

CAS Samp No	Client Samp No.	Matrix	Collected		SVM 8290/ PCDD PCDF	SVM CAS SOP/ Total Solids
E1300736-001	1S13100	Soil	6/5/13	0944	IV	IV
E1300736-002	1S13101	Soil	6/5/13	1003	IV	IV
E1300736-003	1S13102	Soil	6/5/13	1025	IV	IV
E1300736-004	1S13103	Soil	6/5/13	1041	IV	IV
E1300736-005	1S13104	Soil	6/5/13	1052	IV	IV
E1300736-006	1S13105	Soil	6/5/13	1605	IV	IV

Folder Comments:

tier 3

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	PCDD PCDF/8290	1-6, 0	full list (ak 6/10/13)

Preparation Information Benchsheet

Prep Run#: 185101
Team: Semivoa GCMS/WMCDONOUGH

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 6/14/13 04:00 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	E1300736-001	1S13100	.01	8290/PCDD PCDF		Soil	10.275g	Brown Soil
2	E1300736-002	1S13101	.01	8290/PCDD PCDF		Soil	10.359g	Brown Soil
3	E1300736-003	1S13102	.01	8290/PCDD PCDF		Soil	10.132g	Brown and Black Soil
4	E1300736-004	1S13103	.01	8290/PCDD PCDF		Soil	10.329g	Dark Brown Soil
5	E1300736-005	1S13104	.01	8290/PCDD PCDF		Soil	10.141g	Brown and Black Soil
6	E1300736-006	1S13105	.01	8290/PCDD PCDF		Soil	10.164g	Brown Soil
7	E1300743-001	BJ13TR03-1-3	.01	8290A/PCDD PCDF		Soil	10.213g	Brown Mud
8	E1300743-002	BJ13TR03-3-6	.01	8290A/PCDD PCDF		Soil	10.355g	Brown Mud
9	E1300743-003	BJ13TR03-A	.01	8290A/PCDD PCDF		Soil	10.394g	Wet Brown Mud
10	E1300743-004	BJ13TR02-1-3	.01	8290A/PCDD PCDF		Soil	10.434g	Brown Mud
11	E1300743-005	BJ13TR02-3-6	.01	8290A/PCDD PCDF		Soil	10.227g	Wet Brown Mud
12	EQ1300337-01	MB		8290A/PCDD PCDF		Solid	10.238g	
13	EQ1300337-02	LCS		8290A/PCDD PCDF		Solid	10.295g	
14	EQ1300337-03	13FWA-TakuB08-CH03 MS	.01	8290A/PCDD PCDF		Solid	10.154g	
15	EQ1300337-04	13FWA-TakuB08-CH03 DMS	.01	8290A/PCDD PCDF		Solid	10.285g	
16	J1303143-001	LHS Burn Pit	.01	8290/PCDD PCDF		Soil	10.334g	Brown Soil
17	K1305437-001	13FWA-TakuB08-CH01	.01	8290A/PCDD PCDF		Soil	10.512g	Black Soil
18	K1305437-002	13FWA-TakuB08-CH02	.01	8290A/PCDD PCDF		Soil	10.471g	Black Soil
19	K1305437-003	13FWA-TakuB08-CH03	.01	8290A/PCDD PCDF		Soil	10.363g	Brown Soil
20	K1305437-004	13FWA-TakuB08-CH04	.01	8290A/PCDD PCDF		Soil	10.339g	Brown Soil
21	K1305437-005	13FWA-TakuB08-CH05	.01	8290A/PCDD PCDF		Soil	10.469g	Brown Soil
22	K1305437-006	13FWA-TakuB08-CH06	.01	8290A/PCDD PCDF		Soil	10.355g	Black and Brown Mud

BW-7

DU-1, 2, 3, 4

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306014

Sample Delivery Group: 1306014

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306014-01	1S13106 - BW7-1-1		06/13/13	6/5/2013 11:16:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-02	1S13107 - BW7-1-2		06/13/13	6/5/2013 11:25:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-03	1S13108 - BW7-1-3		06/13/13	6/5/2013 11:31:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-04	1S13109 - BW7-1-4		06/13/13	6/5/2013 11:34:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-05	1S13110 - BW7-2-1		06/13/13	6/5/2013 11:37:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Sample Delivery Group: 1306014

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306014-06	1S13111 - BW7-2-2		06/13/13	6/5/2013 13:03:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-07	1S13112 - BW7-2-3		06/13/13	6/5/2013 13:18:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-08	1S13113 - BW7-2-4		06/13/13	6/5/2013 13:30:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-09	1S13114 - BW7-3-1		06/13/13	6/5/2013 13:44:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-10	1S13115 - BW7-3-2		06/13/13	6/5/2013 13:59:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Sample Delivery Group: 1306014

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306014-11	1S13116 - BW7-3-3		06/13/13	6/5/2013 14:12:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-12	1S13118 - BW7-3-4		06/13/13	6/5/2013 14:25:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-13	1S13119 - BW7-3-5		06/13/13	6/5/2013 14:37:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-14	1S13120 - BW7-3-6		06/13/13	6/5/2013 14:42:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306014-15	1S13121 - BW7-4-1		06/13/13	6/5/2013 14:48:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Sample Delivery Group: 1306014

Sample No.	Client No.	Received	Collect Date/Time
1306014-16	1S13122 - BW7-6-2	06/13/13	6/5/2013 14:54:00

Test Requested	Sample Description	Matrix
EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

07/03/2013

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13106 - BW7-1-1 | **Laboratory Sample ID:** 1306014-01
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:16
Moisture: 8.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	1.5	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.9	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	5.4 J	ug/g	2.2	11	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.83	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.3	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	26.	ug/g	1.1	5.5	1	MTB	06/27/13
7440-50-8	COPPER	96.6	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	85.7	ug/g	2.2	11	1	MTB	06/27/13
7440-02-0	NICKEL	16.6	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/27/13
7440-66-6	ZINC	159.	ug/g	1.1	5.5	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.12	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	19.	mg/kg	0.44	2.2	10	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.0	%			1	KMS	06/20/13

Client Sample ID: 1S13107 - BW7-1-2 | **Laboratory Sample ID:** 1306014-02
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:25
Moisture: 7.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	6.83	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	5.1 J	ug/g	2.2	10.8	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.77	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.4	ug/g	0.1	0.5	1	MTB	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13107 - BW7-1-2 | **Laboratory Sample ID:** 1306014-02
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:25
Moisture: 7.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	24.7	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	410.0	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	70.2	ug/g	2.2	10.8	1	MTB	06/27/13
7440-02-0	NICKEL	12.7	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.2	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	251.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.63	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	10.9	mg/kg	0.43	2.16	10	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	98.3	%			1	KMS	08/20/13

Client Sample ID: 1S13108 - BW7-1-3 | **Laboratory Sample ID:** 1306014-03
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:31
Moisture: 7.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	2.97	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	5.3 J	ug/g	2.2	10.8	1	MTB	08/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.2	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.6	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	26.3	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	77.6	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	137.	ug/g	2.2	10.8	1	MTB	06/27/13
7440-02-0	NICKEL	14.1	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.2	1	MTB	06/27/13
7440-22-4	SILVER	1.3	ug/g	0.1	0.5	1	MTB	08/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	173.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.16	mg/kg	0.03	0.1	1	MDP	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13108 - BW7-1-3 | **Laboratory Sample ID:** 1306014-03
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:31
Moisture: 7.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	6.77	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	97.0	%			1	KMS	06/20/13

Client Sample ID: 1S13109 - BW7-1-4 | **Laboratory Sample ID:** 1306014-04
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:34
Moisture: 7.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	1.5	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.4	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	5.8 J	ug/g	2.2	10.8	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.08	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.3	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	26.	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	59.2	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	102.	ug/g	2.2	10.8	1	MTB	06/27/13
7440-02-0	NICKEL	14.3	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.2	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	280.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.24	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	3.87	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	98.9	%			1	KMS	06/20/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13110 - BW7-2-1 | **Laboratory Sample ID:** 1306014-05
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 11:37
Moisture: 7.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	2.45	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.5	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	4.6 J	ug/g	2.2	10.8	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.76	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	29.9	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	87.5	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	55.2	ug/g	2.2	10.8	1	MTB	06/27/13
7440-02-0	NICKEL	14.7	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.2	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	147.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.32	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.96	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.3	%			1	KMS	06/20/13

Client Sample ID: 1S13111 - BW7-2-2 | **Laboratory Sample ID:** 1306014-06
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:03
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	3.5	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.75	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	0.7	ug/g	0.1	0.5	1	MTB	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13111 - BW7-2-2 | **Laboratory Sample ID:** 1306014-06
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:03
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	28.7	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	40.7	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	18.5	ug/g	2.1	10.7	1	MTB	06/27/13
7440-02-0	NICKEL	14.7	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.1	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	76.4	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.05 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.63	mg/kg	0.04	0.21	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	100	%			1	KMS	06/20/13

Client Sample ID: 1S13112 - BW7-2-3 | **Laboratory Sample ID:** 1306014-07
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:18
Moisture: 9.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	1.99	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.4	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/27/13
7440-36-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.72	ug/g	0.06	0.28	1	MTB	06/27/13
7440-43-9	CADMIUM	0.6	ug/g	0.1	0.6	1	MTB	06/27/13
7440-47-3	CHROMIUM	30.6	ug/g	1.1	5.5	1	MTB	06/27/13
7440-50-8	COPPER	49.4	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	19.	ug/g	2.2	11	1	MTB	06/27/13
7440-02-0	NICKEL	13.5	ug/g	0.6	2.8	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.6	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/27/13
7440-66-6	ZINC	78.3	ug/g	1.1	5.5	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.06 J	mg/kg	0.03	0.1	1	MDP	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13112 - BW7-2-3 | **Laboratory Sample ID:** 1306014-07
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:18
Moisture: 9.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.49	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.0	%			1	KMS	06/20/13

Client Sample ID: 1S13113 - BW7-2-4 | **Laboratory Sample ID:** 1306014-08
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:30
Moisture: 7.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.9	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.62	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	31.6	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	54.9	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	16.6	ug/g	2.2	10.9	1	MTB	06/27/13
7440-02-0	NICKEL	12.7	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	70.1	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.66	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.5	%			1	KMS	06/20/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13114 - BW7-3-1 | **Laboratory Sample ID:** 1306014-09
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:44
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.04	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	0.7	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	25.6	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	23.8	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	8.5 J	ug/g	2.1	10.7	1	MTB	06/27/13
7440-02-0	NICKEL	15.5	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.1	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	81.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.77	mg/kg	0.04	0.21	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	98.8	%			1	KMS	06/20/13

Client Sample ID: 1S13115 - BW7-3-2 | **Laboratory Sample ID:** 1306014-10
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:59
Moisture: 7.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.5	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.8	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.8	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.6	ug/g	0.1	0.5	1	MTB	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13115 - BW7-3-2 | **Laboratory Sample ID:** 1306014-10
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 13:59
Moisture: 7.5%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	25.4	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	118.0	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	90.2	ug/g	2.2	10.8	1	MTB	06/27/13
7440-02-0	NICKEL	16.2	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.2	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-26-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	122.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.17	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.25	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	101	%			1	KMS	06/20/13

Client Sample ID: 1S13116 - BW7-3-3 | **Laboratory Sample ID:** 1306014-11
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 14:12
Moisture: 7.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	7.9	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.04	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	26.4	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-6	COPPER	77.2	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	79.7	ug/g	2.2	10.9	1	MTB	06/27/13
7440-02-0	NICKEL	15.6	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-26-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	100.	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.08 J	mg/kg	0.03	0.1	1	MDP	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13116 - BW7-3-3 | **Laboratory Sample ID:** 1306014-11
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 14:12
Moisture: 7.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.37	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.2	%			1	KMS	06/20/13

Client Sample ID: 1S13118 - BW7-3-4 | **Laboratory Sample ID:** 1306014-12
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 14:25
Moisture: 5.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.9	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.97	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.3	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	25.4	ug/g	1.1	5.3	1	MTB	06/27/13
7440-50-8	COPPER	78.0	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	46.3	ug/g	2.1	10.6	1	MTB	06/27/13
7440-02-0	NICKEL	15.6	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.9	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/27/13
7440-66-6	ZINC	85.4	ug/g	1.1	5.3	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.15	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.58	mg/kg	0.04	0.21	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	100	%			1	KMS	06/20/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13119 - BW7-3-5
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]
Laboratory Sample ID: 1306014-13
Date Sampled: 06/05/13 14:37
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.03	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.3	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	25.9	ug/g	1.1	5.4	1	MTB	06/27/13
7440-50-8	COPPER	71.1	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	41.2	ug/g	2.1	10.7	1	MTB	06/27/13
7440-02-0	NICKEL	15.8	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	16.1	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/27/13
7440-66-6	ZINC	84.4	ug/g	1.1	5.4	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.12	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.25	mg/kg	0.04	0.21	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.3	%			1	KMS	06/20/13

Client Sample ID: 1S13120 - BW7-3-6
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]
Laboratory Sample ID: 1306014-14
Date Sampled: 06/05/13 14:42
Moisture: 8.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.2	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.09	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	0.8	ug/g	0.1	0.5	1	MTB	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13120 - BW7-3-6 | **Laboratory Sample ID:** 1306014-14
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 14:42
Moisture: 8.2%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	26.9	ug/g	1.1	5.5	1	MTB	06/27/13
7440-50-8	COPPER	22.8	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	7.3 J	ug/g	2.2	10.9	1	MTB	06/27/13
7440-02-0	NICKEL	16.1	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/27/13
7440-66-6	ZINC	83.3	ug/g	1.1	5.5	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	3.16	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.1	%			1	KMS	06/20/13

Client Sample ID: 1S13121 - BW7-4-1 | **Laboratory Sample ID:** 1306014-15
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/05/13 14:48
Moisture: 5.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.42	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	5.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.6	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.6	1	MTB	06/27/13
7440-41-7	BERYLLIUM	0.99	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	1.8	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	25.4	ug/g	1.1	5.3	1	MTB	06/27/13
7440-50-8	COPPER	148.0	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	93.3	ug/g	2.1	10.6	1	MTB	06/27/13
7440-02-0	NICKEL	15.6	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.2	15.9	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.3	1	MTB	06/27/13
7440-66-6	ZINC	96.8	ug/g	1.1	5.3	1	MTB	08/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.21	mg/kg	0.03	0.1	1	MDP	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306014

Client Sample ID: 1S13121 - BW7-4-1
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]
Laboratory Sample ID: 1306014-15
Date Sampled: 06/05/13 14:48
Moisture: 5.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.22	mg/kg	0.04	0.21	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.06	0.21	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.8	%			1	KMS	06/20/13

Client Sample ID: 1S13122 - BW7-6-2
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]
Laboratory Sample ID: 1306014-16
Date Sampled: 06/05/13 14:54
Moisture: 8.7%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.7	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/27/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/27/13
7440-41-7	BERYLLIUM	1.17	ug/g	0.05	0.27	1	MTB	06/27/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/27/13
7440-47-3	CHROMIUM	27.1	ug/g	1.1	5.5	1	MTB	06/27/13
7440-50-8	COPPER	23.3	ug/g	0.2	1.1	1	MTB	06/27/13
7439-92-1	LEAD	7.4 J	ug/g	2.2	11	1	MTB	06/27/13
7440-02-0	NICKEL	16.2	ug/g	0.5	2.7	1	MTB	06/27/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.4	1	MTB	06/27/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/27/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/27/13
7440-66-6	ZINC	81.9	ug/g	1.1	5.5	1	MTB	06/27/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/19/2013				1	KMS	06/19/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	3.16	mg/kg	0.04	0.22	1	KMS	06/20/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/20/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/20/13
99-08-1	3-NITROTOLUENE	99.6	%			1	KMS	06/20/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SDG No. 1306014 Date: 6/13/13

Carrier: A1 Cee Carrier Number: — Initials: [illegible]

Hand delivered, no cooler : Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Red cooler

Condition of Shipping Container: ✓ Good Fair Not Applicable Damaged (explain)

Cooler Sealed (taped): Yes ✓ No Not Applicable

Custody Seals Present: Yes ✓ No Not Applicable

Intact Broken Seal Number:

Coolant: ✓ Ice Blue Ice None Other:

State of Coolant: ✓ Frozen Partially Frozen Melted

Thermometer ID: S-1397380 Reading: 7 °C CF: — Corrected Temp: 7 °C Temp Blank Included: Yes ✓ No

Packing Description:

Chain-Of-Custody Information:

COC Present: ✓ Yes No Other:

COC Number(s): —

COC signed (relinquished and received): ✓ Yes No Not Applicable

COC or LWI agrees with sample labels: ✓ Yes No Not Applicable

Notes:

Sample Information:

Samples included in cooler: 37 x 250 mL glass wide mouth

1513106 – 1513116, 1513118 – 1513143

1306014 = 16 samples

1306015 = 13 samples

1306016 = 8 samples

Custody Seals Present: Yes ✓ No Other

Intact Broken Seal Number(s)

Sample containers intact: ✓ Yes No Notes:

Samples in proper containers: ✓ Yes No

Sufficient sample volume: ✓ Yes No

All samples received in hold time: ✓ Yes No

Water – VOA's have zero headspace: Yes No ✓ Not Applicable

Pre-preserved with HCl: Pre-preserved with $Na_2S_2O_3$: Non-Preserved:

Notes:

Water – pH acceptable upon receipt: Yes Adjusted (see comments below) ✓ Not Applicable

HNO_3 = H_2SO_4 = NaOH = ZnAC /NaOH = HCL =

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 H_2SO_4 NaOH ZnAC HCl

$Na_2SO_2O_3$ Other

Notes:

6/6/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	BW7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13106	6/5/2013	1116	Composite	1 – 8 oz glass	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	1-1
1S13107	6/5/2013	1125	Composite	1 – 8 oz glass	4C		1-2
1S13108	6/5/2013	1131	Composite	1 – 8 oz glass	4C		1-3
1S13109	6/5/2013	1134	Composite	1 – 8 oz glass	4C		1-4
1S13110	6/5/2013	1137	Composite	1 – 8 oz glass	4C		2-1
1S13111	6/5/2013	1303	Composite	1 – 8 oz glass	4C		2-2
1S13112	6/5/2013	1318	Composite	1 – 8 oz glass	4C		2-3
1S13113	6/5/2013	1330	Composite	1 – 8 oz glass	4C		2-4

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[signature]	[signature]	6/13/13	1720
[signature]	[signature]	6/13/13	1215

1306014

FORM FQA-0287 (REV 10-09)

 WSF 06/13/13

6/6/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	BW7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

WSF 06/13/13

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13114	6/5/2013	~~1110~~ 1344	Composite	1 – 8 oz glass	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	3-1
1S13115	6/5/2013	~~1125~~ 1359	Composite	1 – 8 oz glass	4C		3-2
1S13116	6/5/2013	~~1131~~ 1413	Composite	1 – 8 oz glass	4C		3-3
1S13118	6/5/2013	~~1134~~ 1425	Composite	1 – 8 oz glass	4C		3-4
1S13119	6/5/2013	~~1137~~ 1437	Composite	1 – 8 oz glass	4C		3-5
1S13120	6/5/2013	~~1305~~ 1442	Composite	1 – 8 oz glass	4C		3-6
1S13121	6/5/2013	~~1318~~ 1448	Composite	1 – 8 oz glass	4C		4-1
1S13122	6/5/2013	~~1330~~ 1454	Composite	1 – 8 oz glass	4C		6-2

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:** There is no 1S13117.

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[illegible]	[illegible]	6/13/13	1720
[illegible]	[illegible]	6/13/13	1215

1306014

FORM FQA-0287 (REV 10-09)

BW-7

DU-4, 5

2013

CERTIFICATE OF ANALYSIS
Listing of Sample Information and Testing Requested

Wednesday, July 03, 2013

TESTED FOR:

ATK: Bacchus
Environmental Compliance M/S M7H7
Magna, UT 84044-0098

ANALYZED BY:

ATK Launch Systems
Analytical Chemistry Laboratory
P.O. Box 707, M/S 245
Brigham City, UT 84302-0707
435-863-3732
435-863-8080

Contact Name: Ron Bowlin

Project: Lab Analysis - Rem - Soil - Bacchus

Sample Delivery Group: 1306015

Sample Delivery Group: 1306015

Sample No.	Client No.	Sample Description	Received	Collect Date/Time
Test Requested			**Matrix**	
1306015-01	1S13123 - BW7-4-2		06/13/13	6/6/2013 09:24:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306015-02	1S13124 - BW7-4-3		06/13/13	6/6/2013 09:37:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306015-03	1S13125 - BW7-4-4		06/13/13	6/6/2013 09:47:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306015-04	1S13126 - BW7-4-5		06/13/13	6/6/2013 10:13:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	
1306015-05	1S13127 - BW7-4-6		06/13/13	6/6/2013 10:33:00
EPA 314.0		Perchlorate - Ion Chromatography	Soil	
MOISTURE		Percent Moisture	Soil	
SW-846, 3050B		ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)		Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A		Mercury Analysis	Soil	
SW-846, 8330A		Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)		Explosives Analysis	Soil	

Sample Delivery Group: 1306015

Sample No.	Client No.	Received	Collect Date/Time
1306015-06	1S13128 - BW7-6-3	06/13/13	6/6/2013 10:35:00

Test Requested	Sample Description	Matrix
EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

1306015-07	1S13129 - BW7-5-1	06/13/13	6/6/2013 10:46:00

EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

1306015-08	1S13130 - BW7-5-2	06/13/13	6/6/2013 11:02:00

EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

1306015-09	1S13131 - BW7-5-3	06/13/13	6/6/2013 11:18:00

EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

1306015-10	1S13132 - BW7-5-4	06/13/13	6/6/2013 11:30:00

EPA 314.0	Perchlorate - Ion Chromatography	Soil
MOISTURE	Percent Moisture	Soil
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil
SW-846, 7471A	Mercury Analysis	Soil
SW-846, 8330A	Explosives Extraction	Soil
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil

Sample Delivery Group: 1306015

Sample No.	Client No.	Received	Collect Date/Time
Test Requested	**Sample Description**	**Matrix**	
1306015-11	1S13133 - BW7-5-5	06/13/13	6/6/2013 12:49:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306015-12	1S13134 - BW7-6-4	06/13/13	6/6/2013 11:18:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	
1306015-13	1S13135 - BW7-6-5	06/13/13	6/6/2013 12:51:00
EPA 314.0	Perchlorate - Ion Chromatography	Soil	
MOISTURE	Percent Moisture	Soil	
SW-846, 3050B	ICP/GFAA Metals Digestion	Soil	
SW-846, 6010B (Solids)	Metals Analysis by ICP - 6010	Soil	
SW-846, 7471A	Mercury Analysis	Soil	
SW-846, 8330A	Explosives Extraction	Soil	

Sample Delivery Group: 1306015

Sample No.	Client No.	Received	Collect Date/Time
Test Requested	**Sample Description**	**Matrix**	
1306015-13	1S13135 - BW7-6-5	06/13/13	6/6/2013 12:51:00
SW-846, 8330A Mod (Solids)	Explosives Analysis	Soil	

Certified By: W. Scott Fraser

W. Scott Fraser, Quality Assurance Officer

07/03/2013

Date

This certifies that the following data meets the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise annotated:

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13123 - BW7-4-2 | **Laboratory Sample ID:** 1306015-01
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 09:24
Moisture: 6.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.43	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.1	10.7	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.1	10.7	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.04	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	1.8	ug/g	0.1	0.5	1	MTB	06/28/13
7440-47-3	CHROMIUM	25.7	ug/g	1.1	5.4	1	MTB	06/28/13
7440-50-8	COPPER	155.0	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	96.5	ug/g	2.1	10.7	1	MTB	06/28/13
7440-02-0	NICKEL	15.6	ug/g	0.5	2.7	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.2	18.1	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/28/13
7440-66-6	ZINC	121.	ug/g	1.1	5.4	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.2	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.32	mg/kg	0.04	0.21	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.21	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.08	0.21	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	96.0	%			1	KMS	06/25/13

Client Sample ID: 1S13124 - BW7-4-3 | **Laboratory Sample ID:** 1306015-02
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 09:37
Moisture: 9.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.3	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.06	ug/g	0.06	0.28	1	MTB	06/28/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.6	1	MTB	06/28/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13124 - BW7-4-3 | **Laboratory Sample ID:** 1306015-02
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 09:37
Moisture: 9.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	25.2	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	100.0	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	64.1	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	15.8	ug/g	0.6	2.8	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/26/13
7440-66-6	ZINC	94.3	ug/g	1.1	5.5	1	MTB	06/26/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.15	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	3.34	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	92.7	%			1	KMS	06/25/13

Client Sample ID: 1S13125 - BW7-4-4 | **Laboratory Sample ID:** 1306015-03
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 09:47
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	2.12	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.1	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/28/13
7440-41-7	BERYLLIUM	0.96	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	1.7	ug/g	0.1	0.5	1	MTB	06/26/13
7440-47-3	CHROMIUM	24.	ug/g	1.1	5.4	1	MTB	06/26/13
7440-50-6	COPPER	143.0	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	91.4	ug/g	2.2	10.9	1	MTB	06/28/13
7440-02-0	NICKEL	15.	ug/g	0.5	2.7	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/28/13
7440-66-6	ZINC	98.3	ug/g	1.1	5.4	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.19	mg/kg	0.03	0.1	1	MDP	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13125 - BW7-4-4 | **Laboratory Sample ID:** 1306015-03
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 09:47
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	0.38	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	95.6	%			1	KMS	06/25/13

Client Sample ID: 1S13126 - BW7-4-5 | **Laboratory Sample ID:** 1306015-04
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 10:13
Moisture: 8.7%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.7	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.11	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/28/13
7440-47-3	CHROMIUM	25.2	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	95.5	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	59.8	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	16.	ug/g	0.5	2.7	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.4	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	94.2	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.15	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.59	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	95.3	%			1	KMS	06/25/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13127 - BW7-4-6 | **Laboratory Sample ID:** 1306015-05
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 10:33
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	< EQL	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	6.1	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.01	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/28/13
7440-47-3	CHROMIUM	24.6	ug/g	1.1	5.4	1	MTB	06/28/13
7440-50-8	COPPER	105.0	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	65.1	ug/g	2.2	10.9	1	MTB	06/28/13
7440-02-0	NICKEL	15.6	ug/g	0.5	2.7	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/28/13
7440-66-6	ZINC	91.6	ug/g	1.1	5.4	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	U	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.03	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	95.1	%			1	KMS	06/25/13

Client Sample ID: 1S13128 - BW7-6-3 | **Laboratory Sample ID:** 1306015-06
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 10:35
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.1	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	10.9	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	10.9	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.07	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/28/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13128 - BW7-6-3 | **Laboratory Sample ID:** 1306015-06
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 10:35
Moisture: 8.1%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	25.2	ug/g	1.1	5.4	1	MTB	06/26/13
7440-50-6	COPPER	109.0	ug/g	0.2	1.1	1	MTB	06/26/13
7439-92-1	LEAD	65.4	ug/g	2.2	10.9	1	MTB	06/26/13
7440-02-0	NICKEL	15.8	ug/g	0.5	2.7	1	MTB	06/26/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.3	1	MTB	06/26/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/26/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.4	1	MTB	06/28/13
7440-66-6	ZINC	93.1	ug/g	1.1	5.4	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.16	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extrection						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.04	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-06-1	3-NITROTOLUENE	95.5	%			1	KMS	06/25/13

Client Sample ID: 1S13129 - BW7-5-1 | **Laboratory Sample ID:** 1306015-07
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 10:46
Moisture: 9.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.6	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11.1	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11.1	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.11	ug/g	0.06	0.28	1	MTB	06/28/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.6	1	MTB	06/28/13
7440-47-3	CHROMIUM	25.1	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	33.2	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	13.9	ug/g	2.2	11.1	1	MTB	06/28/13
7440-02-0	NICKEL	15.9	ug/g	0.6	2.8	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.6	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	66.	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.06 J	mg/kg	0.03	0.1	1	MDP	06/27/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13129 - BW7-5-1 | **Laboratory Sample ID:** 1306015-07
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 10:46
Moisture: 9.6%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.97	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	93.8	%			1	KMS	06/25/13

Client Sample ID: 1S13130 - BW7-5-2 | **Laboratory Sample ID:** 1306015-08
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 11:02
Moisture: 9.%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.16	ug/g	0.05	0.28	1	MTB	06/28/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/28/13
7440-47-3	CHROMIUM	25.5	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	28.1	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	10. J	ug/g	2.2	11	1	MTB	06/26/13
7440-02-0	NICKEL	16.	ug/g	0.5	2.8	1	MTB	06/26/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	84.4	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.42	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	92.4	%			1	KMS	06/25/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13131 - BW7-5-3
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]
Laboratory Sample ID: 1306015-09
Date Sampled: 06/06/13 11:18
Moisture: 9.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.3	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.09	ug/g	0.06	0.28	1	MTB	06/28/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.6	1	MTB	06/28/13
7440-47-3	CHROMIUM	24.5	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	51.6	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	32.4	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	16.1	ug/g	0.6	2.8	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	86.9	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.09 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.69	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	93.7	%			1	KMS	06/25/13

Client Sample ID: 1S13132 - BW7-5-4
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]
Laboratory Sample ID: 1306015-10
Date Sampled: 06/06/13 11:30
Moisture: 8.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.9	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/26/2013				1	MTB	06/26/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	0.94	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	1.5	ug/g	0.1	0.5	1	MTB	06/28/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13132 - BW7-5-4 | **Laboratory Sample ID:** 1306015-10
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 11:30
Moisture: 8.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-47-3	CHROMIUM	23.1	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	112.0	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	72.2	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	14.3	ug/g	0.5	2.7	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	89.8	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.17	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.63	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	91.1	%			1	KMS	06/25/13

Client Sample ID: 1S13133 - BW7-5-5 | **Laboratory Sample ID:** 1306015-11
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 12:49
Moisture: 9.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.4	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.05	ug/g	0.06	0.28	1	MTB	06/28/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.6	1	MTB	06/28/13
7440-47-3	CHROMIUM	24.4	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	23.2	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	7.8 J	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	15.5	ug/g	0.6	2.8	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.6	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	78.1	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	08/27/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13133 - BW7-5-5 | **Laboratory Sample ID:** 1306015-11
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 12:49
Moisture: 9.4%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.03	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	92.9	%			1	KMS	06/25/13

Client Sample ID: 1S13134 - BW7-6-4 | **Laboratory Sample ID:** 1306015-12
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7] | **Date Sampled:** 06/06/13 11:18
Moisture: 9.3%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	9.3	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.05	ug/g	0.06	0.28	1	MTB	06/28/13
7440-43-9	CADMIUM	1.1	ug/g	0.1	0.6	1	MTB	06/28/13
7440-47-3	CHROMIUM	23.	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	49.3	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	31.	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	15.2	ug/g	0.6	2.8	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.6	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	83.5	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.1	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	2.47	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	94.1	%			1	KMS	06/25/13

Listing of Results by Sample

Sample Delivery Group: 1306015

Client Sample ID: 1S13135 - BW7-6-5
Sample Description: ATK-Bacchus - Group 4A Interim Corrective Measure [BW7]

Laboratory Sample ID: 1306015-13
Date Sampled: 06/06/13 12:51
Moisture: 8.9%

CAS Number	Test Parameter	Result (Dry Wt)	Units	MDL	EQL	Dilution Factor	Analyst	Test Date
Test Method:	*EPA 314.0*	Perchlorate - Ion Chromatography						
014797-73-0	PERCHLORATE	U	mg/kg	0.11	0.44	10	MTB	06/28/13
Test Method:	*MOISTURE*	Percent Moisture						
	MOISTURE	8.9	%			1	MDP	06/24/13
Test Method:	*SW-846, 3050B*	ICP/GFAA Metals Digestion						
	3050B ACID DIGESTION DATE	06/25/2013				1	MTB	06/25/13
Test Method:	*SW-846, 6010B (Solids)*	Metals Analysis by ICP - 6010						
7440-36-0	ANTIMONY	U	ug/g	2.2	11	1	MTB	06/28/13
7440-38-2	ARSENIC	U	ug/g	2.2	11	1	MTB	06/28/13
7440-41-7	BERYLLIUM	1.02	ug/g	0.05	0.27	1	MTB	06/28/13
7440-43-9	CADMIUM	0.9	ug/g	0.1	0.5	1	MTB	06/28/13
7440-47-3	CHROMIUM	23.9	ug/g	1.1	5.5	1	MTB	06/28/13
7440-50-8	COPPER	22.6	ug/g	0.2	1.1	1	MTB	06/28/13
7439-92-1	LEAD	7.5 J	ug/g	2.2	11	1	MTB	06/28/13
7440-02-0	NICKEL	15.1	ug/g	0.5	2.7	1	MTB	06/28/13
7782-49-2	SELENIUM	U	ug/g	3.3	16.5	1	MTB	06/28/13
7440-22-4	SILVER	U	ug/g	0.1	0.5	1	MTB	06/28/13
7440-28-0	THALLIUM	U	ug/g	1.1	5.5	1	MTB	06/28/13
7440-66-6	ZINC	77.2	ug/g	1.1	5.5	1	MTB	06/28/13
Test Method:	*SW-846, 7471A*	Mercury Analysis						
7439-97-6	MERCURY	0.04 J	mg/kg	0.03	0.1	1	MDP	06/27/13
Test Method:	*SW-846, 8330A*	Explosives Extraction						
	DATE COMPLETED	06/20/2013				1	KMS	06/20/13
Test Method:	*SW-846, 8330A Mod (Solids)*	Explosives Analysis						
2691-41-0	HMX	1.44	mg/kg	0.04	0.22	1	KMS	06/25/13
121-82-4	RDX	U	mg/kg	0.11	0.22	1	KMS	06/25/13
55-63-0	NITROGLYCERIN	U	mg/kg	0.07	0.22	1	KMS	06/25/13
99-08-1	3-NITROTOLUENE	95.2	%			1	KMS	06/25/13

Data Reporting Qualifiers

U	Indicates that the analyte concentration is less than the MDL.
B	This flag is used when an analyte is found in the blank as well as the sample.
J	Indicates an extimated value. This flag is used either when estimating a concentration for tentatively identified compounds or when the data indicated the presence of a compound that meets the identification criteria but the result is less than the EQL (e.g. 3 J with an EQL of 10).
MDL	Method Detection Limit: The minimum concentration of a substance that can be confidently measured and reported. The laboratory has demonstrated that the MDL can be achieved in a laboratory reagent blank, but does not guarantee it can be achieved in all sample matrices.
EQL	Estimated Quantitation Limit: The EQL generally is 5 to 10 times the MDL. For many analytes the EQL is selected as the value of the lowest standard in the calibration curve.
Dilution Factor	Dilution Factor: The prepared sample was diluted by this factor because the sample was too concentrated or due to other interferences in the sample matrix. Any dilution factor causes a corresponding increase in the MDL and EQL.

ATK Space Systems Group
Environmental Laboratory

Sample Receipt Checklist

Client Name: ATK: Bacchus SDG No. 1306015 Date: 6/13/13

Carrier: A1 Cre Carrier Number: — Initials: [illegible]

Hand delivered, no cooler : Hand delivered, sample(s) taken out at receiving counter

Cooler Information:

Cooler Number/ID: Red cooler

Condition of Shipping Container: ✓Good Fair Not Applicable Damaged (explain) ____

Cooler Sealed (taped): :Yes ✓No :Not Applicable

Custody Seals Present: :Yes ✓No :Not Applicable

Intact :Broken Seal Number: ____

Coolant: ✓Ice :Blue Ice :None Other: ____

State of Coolant: ✓Frozen :Partially Frozen :Melted

Thermometer ID: S13973810 Reading: 7 °C CF: — Corrected Temp: 7 °C Temp Blank Included: :Yes ✓No

Packing Description:

Chain-Of-Custody Information:

COC Present: ✓Yes :No Other: ____

COC Number(s): —

COC signed (relinquished and received): ✓Yes :No :Not Applicable

COC or LWI agrees with sample labels: ✓Yes :No :Not Applicable

Notes: ____

Sample Information:

Samples included in cooler: 37 x 250 mL glass wide mouth

1513106 – 1513116, 1513118 - 1513143

1306014 = 16 samples

1306015 = 13 samples

1306016 = 8 samples

Custody Seals Present: :Yes ✓No Other ____

:Intact :Broken Seal Number(s) ____

Sample containers intact: ✓Yes :No Notes: ____

Samples in proper containers: ✓Yes :No

Sufficient sample volume: ✓Yes :No

All samples received in hold time: ✓Yes :No

Water – VOA's have zero headspace: :Yes :No ✓Not Applicable

:Pre-preserved with HCl: :Pre-preserved with $Na_2S_2O_3$: :Non-Preserved:

Notes:

Water – pH acceptable upon receipt: :Yes :Adjusted (see comments below) ✓Not Applicable

HNO_3 = ____ H_2SO_4 = ____ NaOH = ____ ZnAC /NaOH = ____ HCL = ____

Water - pH adjusted: (mfg. & Lot No.)

HNO_3 ____ H_2SO_4 ____ NaOH ____ ZnAC ____ HCl ____

$Na_2SO_2O_3$ ____ Other ____

Notes:

6/10/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	BW7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13129	6/6/2013	1046	Composite	1 – 8 oz glass	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	5-1
1S13130	6/6/2013	1102	Composite	1 – 8 oz glass	4C		5-2
1S13131	6/6/2013	1118	Composite	1 – 8 oz glass	4C		5-3
1S13132	6/6/2013	1130	Composite	1 – 8 oz glass	4C		5-4
1S13133	6/6/2013	1249	Composite	1 – 8 oz glass	4C		5-5
1S13134	6/6/2013	1118	Composite	1 – 8 oz glass	4C		6-4
1S13135	6/6/2013	1251	Composite	1 – 8 oz glass	4C		6-5

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[illegible]	[illegible]	6/13/13	1720
[illegible]	[illegible]	6/13/13	1215

1306015

FORM FQA-0287 (REV 10-09)

 WSF 06/13/13

6/10/2013

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	M53	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:		COLLECTION LOCATION:	BW7			CONTACT:	R. Bowlin (801.251.4865)
M-53 PROJ_ID WPKG:	98CP LS333	MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S13123	6/6/2013	0924	Composite	1 – 8 oz glass	4C	Priority Pollutant Metals: 6010B/7471A (Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn) Explosives: 8330M (NG, HMX, RDX) Perchlorate: 314.0	4-2
1S13124	6/6/2013	0937	Composite	1 – 8 oz glass	4C		4-3
1S13125	6/6/2013	0947	Composite	1 – 8 oz glass	4C		4-4
1S13126	6/6/2013	1013	Composite	1 – 8 oz glass	4C		4-5
1S13127	6/6/2013	1033	Composite	1 – 8 oz glass	4C		4-6
1S13128	6/6/2013	1035	Composite	1 – 8 oz glass	4C		6-3

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture **NOTE:**

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
[signature]	[signature]	6/13/13	1720
[signature]	[signature]	6/13/13	1215

1306015

FORM FQA-0287 (REV 10-09)

 WSF 06/13/13

NIROP Sumps

N-4, 5, 6, 7, 8

ISM Results

2014

Sump No.	Sample No.	Date	VOA	SDG No.	Metals	SDG No.	Energetics	SDG No.	Dioxin	SDG No.	Comments
N1											
N2	1S14165A	16-Jul-14					X	K1407378_ALS			
	1S14165B	16-Jul-14					X	K1407378_ALS			
N4	1S14161A	16-Jul-14					X	K1407378_ALS			
	1S14161B	16-Jul-14					X	K1407378_ALS			
N5	1S14162A	16-Jul-14			X	K1407378_ALS	X	K1407378_ALS			
	1S14162B	16-Jul-14			X	K1407378_ALS	X	K1407378_ALS			
	1S14162C	16-Jul-14			X	K1407378_ALS	X	K1407378_ALS			
N6	1S14163A	15-Jul-14					X	K1407378_ALS			
	1S14163B	15-Jul-14					X	K1407378_ALS			
N7	1S14164A	15-Jul-14			X	K1407378_ALS					
	1S14164B	15-Jul-14			X	K1407378_ALS					
N8	1S14166A	16-Jul-14					X	K1407378_ALS			
	1S14166B	16-Jul-14					X	K1407378_ALS			
BW-7	1S14166A	16-Jul-14							X	E1400845_ALS	Accidently repeated 166
	1S14166B	16-Jul-14							X	E1400845_ALS	rather than using 167.
	1S14166C	16-Jul-14							X	E1400845_ALS	

ALS Environmental
ALS Group USA, Corp.
1317 South 13th Avenue
Kelso, WA 98626
T: +1 360 577 7222
F: +1 360 636 1068
www.alsglobal.com

September 3, 2014

Analytical Report for Service Request No: K1407378

Ronald Bowlin
ATK -Launch Systems
P.O. Box 98
Magna, UT 84044

RE: NIROP Sumps

Dear Ronald:

Enclosed are the results of the samples submitted to our laboratory on July 18, 2014. For your reference, these analyses have been assigned our service request number K1407378.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376. You may also contact me via Email at Gregory.Salata@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Client Services Manager

GS/kd

RIGHT SOLUTIONS | RIGHT PARTNER

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
  DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
  DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
  DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	ATK - Alliant Techsystems Inc.	**Service Request No.:**	K1407378
Project:	NIROP Sumps	**Date Received:**	07/18/14
Sample Matrix:	Soil		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Thirteen soil samples were received for analysis at ALS Environmental on 07/18/14. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory. Samples were processed using incremental sampling techniques prior to analysis by the laboratory.

Total Metals

No anomalies associated with the analysis of these samples were observed.

Explosives by EPA Method 8330

Matrix Spike Recovery Exceptions:
The control criteria for matrix spike recovery of HMX for samples 1S14162A, and 1S14162B were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Elevated Detection Limits:
Due to contamination of extracts during the initial cleanup, extracts were re-processed at a dilution. Several samples required additional dilutions due to the presence of elevated levels of target analytes. The reporting limits were adjusted to reflect the dilution.

No other anomalies associated with the analysis of these samples were observed.

Approved by_____

ALS Environmental

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

K1407378 7/16/2014

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	ALS Global	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:	ATK-70601	COLLECTION LOCATION:	NIROP SUMPS			CONTACT:	Ron Bowlin [801 251 4865]
M-53 PROJ_ID WPKG:		MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S14163A	7/15/2014	0800	ISM Composite	1 – gallon plastic For each sample	4C	EPA Method 8330A; HMX/RDX	N-6, DU-1
1S14163B	7/15/2014	0845				EPA Method 8330A; HMX/RDX	N-6, DU-2
1S14164A	7/15/2014	1000				EPA Method 6010B; RCRA Metals	N-7, DU-1
1S14164B	7/15/2014	1030				EPA Method 6010B; RCRA Metals	N-7, DU-2
1S14161A	7/16/2014	0800				EPA Method 8330A; HMX/RDX	N-4, DU-1
1S14161B	7/16/2014	0830				EPA Method 8330A; HMX/RDX	N-4, DU-2

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture

NOTE: ISM PREPARATION PRIOR TO EXTRACTION/ANALYSIS. NOTE SAMPLES COLLECTED ON TWO DIFFERENT DAYS, AND SAMPLE NUMBERS ARE NOT CONSECUTIVE.

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R Bowlin	S Hokkanen ALS	7-18-14	9:30

K1407378 7/16/2014

ATK Launch Systems
P.O. BOX 98 MAGNA, UTAH 84404

Environmental Lab Work Request

GENERAL INFORMATION

LAB:	ALS Global	COLLECTED BY:	R. Bowlin	COMPANY:	ATK LAUNCH SYSTEMS	TITLE:	ENVIRO ENG
P.O. NO:	ATK-70601	COLLECTION LOCATION:	NIROP SUMPS			CONTACT:	Ron Bowlin [801.251.4865]
M-53 PROJ_ID WPKG:		MATERIAL SAMPLED:	Soil			EMAIL:	ronald.bowlin@atk.com

SAMPLE INFORMATION

SAMPLE NUMBER	DATE	TIME	METHOD	BOTTLE	PRESERVATIVE	ANALYSIS REQUESTED	NOTE
1S14162A	7/16/2014	1000	ISM Composite	1 – gallon plastic For each sample	4C	EPA Method 8330A; HMX/RDX EPA Method 6010B; RCRA Metals	N-5; DU-1
1S14162B	7/16/2014	1030				EPA Method 8330A; HMX/RDX EPA Method 6010B; RCRA Metals	N-5; DU-2
1S14162C	7/16/2014	1100				EPA Method 8330A; HMX/RDX EPA Method 6010B; RCRA Metals	N-5; DU-3
1S14165A	7/16/2014	1130				EPA Method 8330A; HMX/RDX	N-2; DU-1
1S14165B	7/16/2014	1200				EPA Method 8330A; HMX/RDX	N-2; DU-2
1S14166A	7/16/2014	1300				EPA Method 8330A; HMX/RDX	N-8; DU-1
1S14166B	7/16/2014	1330				EPA Method 8330A; HMX/RDX	N-8; DU-2

Report Basis: ☐ As Received ☒ Dry Weight ☒ % Moisture

NOTE: ISM PREPARATION PRIOR TO EXTRACTION/ANALYSIS. NOTE SAMPLES COLLECTED ON TWO DIFFERENT DAYS, AND SAMPLE NUMBERS ARE NOT CONSECUTIVE.

CHAIN OF CUSTODY

RELINQUISHED BY	RECEIVED BY	DATE	TIME
R A Bowlin	D Hekkenen	7-16-14	9:30

FORM FQA-0287 (REV 10-09)

PC 65

Cooler Receipt and Preservation Form

Client / Project: ATK Service Request K14 7378

Received: 7-18-14 Opened: 7-18-14 By: GH Unloaded: 7-18-14 By: GH

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
7.4	7.4	—	—	0	336	1	5668 4946 1047	
5.7	5.7	—	—	0	351	2	5668 4946 1036	
				GH 7/18/14				

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Page ____ *of* ____

ALS Environmental

Total Solids

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/15/14 - 07/16/14
Sample Matrix:	Soil	**Date Received:**	07/18/14
Analysis Method:	160.3 Modified	**Units:**	Percent
Prep Method:	None	**Basis:**	As Received

Solids, Total

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
1S14163A	K1407378-001	**98.3**	-	1	07/25/14 13:32	7/25/14	
1S14163B	K1407378-002	**98.1**	-	1	07/25/14 13:32	7/25/14	
1S14164A	K1407378-003	**97.5**	-	1	07/25/14 13:32	7/25/14	
1S14164B	K1407378-004	**97.6**	-	1	07/25/14 13:32	7/25/14	
1S14161A	K1407378-005	**98.0**	-	1	07/25/14 13:32	7/25/14	
1S14161B	K1407378-006	**98.7**	-	1	07/25/14 13:32	7/25/14	
1S14162A	K1407378-007	**98.0**	-	1	07/25/14 13:32	7/25/14	
1S14162B	K1407378-008	**98.2**	-	1	07/25/14 13:32	7/25/14	
1S14162C	K1407378-009	**97.8**	-	1	07/25/14 13:32	7/25/14	
1S14165A	K1407378-010	**99.1**	-	1	07/25/14 13:32	7/25/14	
1S14165B	K1407378-011	**98.9**	-	1	07/25/14 13:32	7/25/14	
1S14166A	K1407378-012	**98.8**	-	1	07/25/14 13:32	7/25/14	
1S14166B	K1407378-013	**99.4**	-	1	07/25/14 13:32	7/25/14	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project	NIROP Sumps	**Date Collected:**	07/16/14
Sample Matrix:	Soil	**Date Received:**	07/18/14
Analysis Method:	160.3 Modified	**Units:**	Percent
Prep Method:	None	**Basis:**	As Received

Replieate Sample Summary
Solids, Total

Sample Name:	Lab Code:	MRL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
1S14162A	K1407378-007DUP	-	98.0	97.9	98.0	<1	20	07/25/14
1S14162B	K1407378-008DUP	-	98.2	98.2	98.2	<1	20	07/25/14

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental

Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

Metals
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: ATK - Alliant Techsystems Inc
Project No.: NA
Project Name: NIROP Sumps
Matrix: SOIL

Service Request: K1407378
Date Collected: 07/15/14
Date Received: 07/18/14
Units: mg/Kg
Basis: DRY

Sample Name: 1S14164A
Lab Code: K1407378-003

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6020A	0.5	5.0	08/01/14	08/01/14	12.3		
Barium	6020A	0.05	5.0	08/01/14	08/01/14	112		
Cadmium	6020A	0.02	5.0	08/01/14	08/01/14	0.52		
Chromium	6020A	0.2	5.0	08/01/14	08/01/14	27.4		
Lead	6020A	0.05	5.0	08/01/14	08/01/14	73.8		
Mercury	7471B	0.02	1.0	07/30/14	07/31/14	0.03		
Selenium	6020A	1.0	5.0	08/01/14	08/01/14	1.0	U	
Silver	6020A	0.02	5.0	08/01/14	08/01/14	0.07		

% Solids: 97.5

Comments:

Metals
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: ATK - Alliant Techsystems Inc
Service Request: K1407378
Project No.: NA
Date Collected: 07/15/14
Project Name: NIROP Sumps
Date Received: 07/18/14
Matrix: SOIL
Units: mg/Kg
Basis: DRY

Sample Name: 1S14164B
Lab Code: K1407378-004

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6020A	0.5	5.0	08/01/14	08/01/14	12.8		
Barium	6020A	0.05	5.0	08/01/14	08/01/14	110		
Cadmium	6020A	0.02	5.0	08/01/14	08/01/14	0.50		
Chromium	6020A	0.2	5.0	08/01/14	08/01/14	23.1		
Lead	6020A	0.05	5.0	08/01/14	08/01/14	61.2		
Mercury	7471B	0.02	1.0	07/30/14	07/31/14	0.03		
Selenium	6020A	1.0	5.0	08/01/14	08/01/14	1.0	U	
Silver	6020A	0.02	5.0	08/01/14	08/01/14	0.06		

% Solids: 97.6

Comments:

Metals
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project No.:	NA	**Date Collected:**	07/16/14
Project Name:	NIROP Sumps	**Date Received:**	07/18/14
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: 1S14162A **Lab Code:** K1407378-007

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6020A	0.5	5.0	08/01/14	08/01/14	11.8		
Barium	6020A	0.05	5.0	08/01/14	08/01/14	73.7		
Cadmium	6020A	0.02	5.0	08/01/14	08/01/14	0.81		
Chromium	6020A	0.2	5.0	08/01/14	08/01/14	30.1		
Lead	6020A	0.05	5.0	08/01/14	08/01/14	13.5		
Mercury	7471B	0.02	1.0	07/30/14	07/31/14	0.03		
Selenium	6020A	1.0	5.0	08/01/14	08/01/14	1.0	U	
Silver	6020A	0.02	5.0	08/01/14	08/01/14	0.04		

% Solids: 98.0

Comments:

Metals
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: ATK - Alliant Techsystems Inc
Service Request: K1407378
Project No.: NA
Date Collected: 07/16/14
Project Name: NIROP Sumps
Date Received: 07/18/14
Matrix: SOIL
Units: mg/Kg
Basis: DRY

Sample Name: 1S14162B
Lab Code: K1407378-008

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6020A	0.5	5.0	08/01/14	08/01/14	12.1		
Barium	6020A	0.05	5.0	08/01/14	08/01/14	84.8		
Cadmium	6020A	0.02	5.0	08/01/14	08/01/14	0.76		
Chromium	6020A	0.2	5.0	08/01/14	08/01/14	31.3		
Lead	6020A	0.05	5.0	08/01/14	08/01/14	15.7		
Mercury	7471B	0.02	1.0	07/30/14	07/31/14	0.03		
Selenium	6020A	1.0	5.0	08/01/14	08/01/14	1.0	U	
Silver	6020A	0.02	5.0	08/01/14	08/01/14	0.05		

% Solids: 98.2

Comments:

Metals
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project No.:	NA	**Date Collected:**	07/16/14
Project Name:	NIROP Sumps	**Date Received:**	07/18/14
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: 1S14162C **Lab Code:** K1407378-009

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6020A	0.5	5.0	08/01/14	08/01/14	11.9		
Barium	6020A	0.05	5.0	08/01/14	08/01/14	76.8		
Cadmium	6020A	0.02	5.0	08/01/14	08/01/14	0.78		
Chromium	6020A	0.2	5.0	08/01/14	08/01/14	31.1		
Lead	6020A	0.05	5.0	08/01/14	08/01/14	14.2		
Mercury	7471B	0.02	1.0	07/30/14	07/31/14	0.03		
Selenium	6020A	1.0	5.0	08/01/14	08/01/14	1.0	U	
Silver	6020A	0.02	5.0	08/01/14	08/01/14	0.05		

% Solids: 97.8

Comments:

Metals
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Date Collected:**

Project Name: NIROP Sumps **Date Received:**

Matrix: SOIL **Units:** mg/Kg

Basis: DRY

Sample Name: K1407378-MB **Lab Code:** K1407378-MB

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	6020A	0.5	5.0	08/01/14	08/01/14	0.5	U	
Barium	6020A	0.05	5.0	08/01/14	08/01/14	0.05	U	
Cadmium	6020A	0.02	5.0	08/01/14	08/01/14	0.02	U	
Chromium	6020A	0.2	5.0	08/01/14	08/01/14	0.2	U	
Lead	6020A	0.05	5.0	08/01/14	08/01/14	0.05	U	
Mercury	7471B	0.02	1.0	07/30/14	07/31/14	0.02	U	
Selenium	6020A	1.0	5.0	08/01/14	08/01/14	1.0	U	
Silver	6020A	0.02	5.0	08/01/14	08/01/14	0.02	U	

% Solids: 100.0

Comments:

Metals
- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICV Source: Inorganic Ventures CCV Source: ALS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	25.0	26.1	104	25.0	25.0	100	25.2	101	6020A
Barium	100.0	97.8	98	25.0	25.6	102	25.5	102	6020A
Cadmium	12.5	12.9	103	25.0	25.0	100	24.9	100	6020A
Chromium	10.0	9.8	98	25.0	25.3	101	25.3	101	6020A
Lead	25.0	25.5	102	25.0	25.2	101	25.4	102	6020A
Selenium	25.0	25.3	101	25.0	24.7	99	24.8	99	6020A
Silver	12.5	12.0	96	25.0	25.0	100	24.7	99	6020A

Metals
- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICV Source: Inorganic Ventures CCV Source: ALS MIXED

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	Method
Arsenic				25.0	25.1	100	25.1	100	6020A
Barium				25.0	25.0	100	25.1	100	6020A
Cadmium				25.0	24.8	99	25.0	100	6020A
Chromium				25.0	25.3	101	25.3	101	6020A
Lead				25.0	25.4	102	25.5	102	6020A
Selenium				25.0	24.9	100	24.8	99	6020A
Silver				25.0	24.8	99	24.6	98	6020A

Metals
- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICV Source: Inorganic Ventures CCV Source: ALS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	Method
Arsenic				25.0	25.5	102	25.3	101	6020A
Barium				25.0	25.5	102	25.6	102	6020A
Cadmium				25.0	25.0	100	24.9	100	6020A
Chromium				25.0	25.4	102	25.3	101	6020A
Lead				25.0	25.5	102	25.2	101	6020A
Selenium				25.0	25.0	100	25.0	100	6020A
Silver				25.0	24.9	100	24.6	98	6020A

Metals
- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICV Source: Inorganic Ventures CCV Source: ALS MIXED

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					Method
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	5.00	4.90	98	5.00	5.00	100	5.10	102	7471B

ALS Group USA, Corp.
dba ALS Environmental

Metals

- 2a -

LOW LEVEL INITIAL CALIBRATION AND LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Client: ATK - Alliant Techsystems Inc **SDG No.:** K1407378

Contract: **Lab Code:** CASK **Case No.:** **SAS No.:**

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: ALS MIXED

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV1									
	Arsenic	1.02	1.0	102	70.0 - 130.0	M	08/01/14	10:58	080114A
	Barium	0.123	0.10	123	70.0 - 130.0	M	08/01/14	10:58	080114A
	Cadmium	0.039	0.04	98	70.0 - 130.0	M	08/01/14	10:58	080114A
	Chromium	0.41	0.4	102	70.0 - 130.0	M	08/01/14	10:58	080114A
	Lead	0.103	0.10	103	70.0 - 130.0	M	08/01/14	10:58	080114A
	Selenium	1.99	2.0	100	70.0 - 130.0	M	08/01/14	10:58	080114A
	Silver	0.048	0.04	120	70.0 - 130.0	M	08/01/14	10:58	080114A
LLCCV1									
	Arsenic	0.97	1.0	97	70.0 - 130.0	M	08/01/14	12:21	080114A
	Barium	0.128	0.10	128	70.0 - 130.0	M	08/01/14	12:21	080114A
	Cadmium	0.040	0.04	100	70.0 - 130.0	M	08/01/14	12:21	080114A
	Chromium	0.40	0.4	100	70.0 - 130.0	M	08/01/14	12:21	080114A
	Lead	0.097	0.10	97	70.0 - 130.0	M	08/01/14	12:21	080114A
	Selenium	1.96	2.0	98	70.0 - 130.0	M	08/01/14	12:21	080114A
	Silver	0.036	0.04	90	70.0 - 130.0	M	08/01/14	12:21	080114A
LLCCV2									
	Arsenic	0.97	1.0	97	70.0 - 130.0	M	08/01/14	13:24	080114A
	Barium	0.090	0.10	90	70.0 - 130.0	M	08/01/14	13:24	080114A
	Cadmium	0.044	0.04	110	70.0 - 130.0	M	08/01/14	13:24	080114A
	Chromium	0.38	0.4	95	70.0 - 130.0	M	08/01/14	13:24	080114A
	Lead	0.104	0.10	104	70.0 - 130.0	M	08/01/14	13:24	080114A
	Selenium	2.00	2.0	100	70.0 - 130.0	M	08/01/14	13:24	080114A
	Silver	0.039	0.04	98	70.0 - 130.0	M	08/01/14	13:24	080114A
LLCCV3									
	Arsenic	1.03	1.0	103	70.0 - 130.0	M	08/01/14	14:22	080114A
	Barium	0.092	0.10	92	70.0 - 130.0	M	08/01/14	14:22	080114A
	Cadmium	0.043	0.04	108	70.0 - 130.0	M	08/01/14	14:22	080114A
	Chromium	0.42	0.4	105	70.0 - 130.0	M	08/01/14	14:22	080114A
	Lead	0.103	0.10	103	70.0 - 130.0	M	08/01/14	14:22	080114A
	Selenium	1.94	2.0	97	70.0 - 130.0	M	08/01/14	14:22	080114A
	Silver	0.040	0.04	100	70.0 - 130.0	M	08/01/14	14:22	080114A

ALS Group USA, Corp.
dba ALS Environmental

Metals

- 2a -

LOW LEVEL INITIAL CALIBRATION AND LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Client: ATK - Alliant Techsystems Inc **SDG No.:** K1407378

Contract: **Lab Code:** CASK **Case No.:** **SAS No.:**

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: ALS MIXED

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV4									
	Arsenic	0.94	1.0	94	70.0 - 130.0	M	08/01/14	16:23	080114A
	Barium	0.117	0.10	117	70.0 - 130.0	M	08/01/14	16:23	080114A
	Cadmium	0.042	0.04	105	70.0 - 130.0	M	08/01/14	16:23	080114A
	Chromium	0.42	0.4	105	70.0 - 130.0	M	08/01/14	16:23	080114A
	Lead	0.116	0.10	116	70.0 - 130.0	M	08/01/14	16:23	080114A
	Selenium	1.96	2.0	98	70.0 - 130.0	M	08/01/14	16:23	080114A
	Silver	0.043	0.04	108	70.0 - 130.0	M	08/01/14	16:23	080114A

Metals

- 2b -

CRDL STANDARD FOR AA AND ICP

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury				0.20	0.210	105		

Metals

- 3 -

BLANKS

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Method
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U	6020A
Barium	0.10	U	0.10	U	0.10	U	0.10	U	6020A
Cadmium	0.04	U	0.04	U	0.04	U	0.04	U	6020A
Chromium	0.4	U	0.4	U	0.4	U	0.4	U	6020A
Lead	0.10	U	0.10	U	0.10	U	0.10	U	6020A
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	6020A
Silver	0.04	U	0.04	U	0.04	U	0.04	U	6020A

Metals

-3-

BLANKS

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Method
Arsenic			1.0	U	1.0	U	1.0	U	6020A
Barium			0.10	U	0.10	U	0.10	U	6020A
Cadmium			0.04	U	0.04	U	0.04	U	6020A
Chromium			0.4	U	0.4	U	0.4	U	6020A
Lead			0.10	U	0.10	U	0.10	U	6020A
Selenium			2.0	U	2.0	U	2.0	U	6020A
Silver			0.04	U	0.04	U	0.04	U	6020A

Metals

-3-

BLANKS

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Method
Mercury	0.20	U	0.20	U	0.20	U			7471B

Metals

ICP INTERFERENCE CHECK SAMPLE

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICP ID Number: Agilent ICPMS **ICS Source:** Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	25.0	0	25.3	101			
Barium			4	4				
Cadmium		25	0	25	100			
Chromium		50	0	51	102			
Lead			0	0				
Selenium		25	0	25	100			
Silver		13	0	12	96			

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: ATK - Alliant Techsystems Inc Service Request: K1407378

Project No.: NA Units: MG/KG

Project Name: NIROP Sumps Basis: DRY

Matrix: SOIL % Solids: 98.0

Sample Name: 1S14162AS Lab Code: K1407378-007S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Arsenic	75 - 125	116.9		11.8		102.0	103.0		6020A
Barium	75 - 125	494.23		73.73		408.2	103.0		6020A
Cadmium	75 - 125	10.71		0.80		10.2	97.2		6020A
Chromium	75 - 125	74.0		30.1		40.8	107.6		6020A
Lead	75 - 125	116.27		13.46		102.0	100.8		6020A
Mercury	80 - 120	0.53		0.03		0.50	100.0		7471B
Selenium	75 - 125	101.2		1.0	U	102.0	99.2		6020A
Silver	75 - 125	9.76		0.04		10.2	95.3		6020A

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Units:** MG/KG

Project Name: NIROP Sumps **Basis:** DRY

Matrix: SOIL **% Solids:** 98.0

Sample Name: 1S14162ASD **Lab Code:** K1407378-007SD

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Arsenic	75 - 125	113.8		11.8		102.0	100.0		6020A
Barium	75 - 125	495.55		73.73		408.2	103.3		6020A
Cadmium	75 - 125	10.80		0.80		10.2	98.0		6020A
Chromium	75 - 125	74.0		30.1		40.8	107.6		6020A
Lead	75 - 125	117.25		13.46		102.0	101.8		6020A
Selenium	75 - 125	100.0		1.0	U	102.0	98.0		6020A
Silver	75 - 125	9.81		0.04		10.2	95.8		6020A

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Units:** MG/KG

Project Name: NIROP Sumps **Basis:** DRY

Matrix: SOIL **% Solids:** 98.2

Sample Name: 1S14162BS **Lab Code:** K1407378-008S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Arsenic	75 - 125	112.8		12.1		101.8	98.9		6020A
Barium	75 - 125	498.54		84.83		407.3	101.6		6020A
Cadmium	75 - 125	10.74		0.76		10.2	97.8		6020A
Chromium	75 - 125	72.6		31.3		40.7	101.5		6020A
Lead	75 - 125	115.06		15.71		101.8	97.6		6020A
Selenium	75 - 125	99.9		1.0	U	101.8	98.1		6020A
Silver	75 - 125	9.63		0.05		10.2	93.9		6020A

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Units:** MG/KG

Project Name: NIROP Sumps **Basis:** DRY

Matrix: SOIL **% Solids:** 98.2

Sample Name: 1S14162BSD **Lab Code:** K1407378-008SD

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Arsenic	75 - 125	114.5		12.1		101.8	100.6		6020A
Barium	75 - 125	498.92		84.83		407.3	101.7		6020A
Cadmium	75 - 125	10.83		0.76		10.2	98.7		6020A
Chromium	75 - 125	73.1		31.3		40.7	102.7		6020A
Lead	75 - 125	116.61		15.71		101.8	99.1		6020A
Selenium	75 - 125	100.3		1.0	U	101.8	98.5		6020A
Silver	75 - 125	9.69		0.05		10.2	94.5		6020A

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5B -

POST SPIKE SAMPLE RECOVERY

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Units:** UG/L

Project Name: NIROP Sumps **Basis:** DRY

Matrix: WATER

Sample Name: 1S14162AA **Lab Code:** K1407378-007A

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Arsenic	80 - 120	71.7		23.1		50.0	97.2		6020A
Barium	80 - 120	191.17		144.52		50.0	93.3		6020A
Cadmium	80 - 120	48.23		1.58		50.0	93.3		6020A
Chromium	80 - 120	107.0		59.0		50.0	96.0		6020A
Lead	80 - 120	73.02		26.37		50.0	93.3		6020A
Selenium	80 - 120	48.4		2.0		50.0	96.8		6020A
Silver	80 - 120	9.48		0.08		10.0	94.0		6020A

Metals

- 6 -

DUPLICATES

Client:	ATK - Alliant Techsystems Inc	Service Request:	K1407378
Project No.:	NA	Units:	MG/KG
Project Name:	NIROP Sumps	Basis:	DRY
Matrix:	SOIL	% Solids:	98.0

Sample Name: 1S14162AD Lab Code: K1407378-007D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury		0.03		0.03		0.0		7471B

An empty field in the Control Limit column indicates the control limit is not applicable.

ALS Group USA, Corp.
dba ALS Environmental

Metals

- 6 -

DUPLICATES

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project No.:	NA	**Units:**	MG/KG
Project Name:	NIROP Sumps	**Basis:**	DRY
Matrix:	SOIL	**% Solids:**	98.0

Sample Name: 1S14162ASD **Lab Code:** K1407378-007SD

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Arsenic	20	116.9		113.8		2.7		6020A
Barium	20	494.23		495.55		0.3		6020A
Cadmium	20	10.71		10.80		0.8		6020A
Chromium	20	74.0		74.0		0.0		6020A
Lead	20	116.27		117.25		0.8		6020A
Selenium	20	101.2		100.0		1.2		6020A
Silver	20	9.76		9.81		0.5		6020A

An empty field in the Control Limit column indicates the control limit is not applicable.

ALS Group USA, Corp.
dba ALS Environmental

Metals

- 6 -

DUPLICATES

Client:	ATK - Alliant Techsystems Inc	Service Request:	K1407378
Project No.:	NA	Units:	MG/KG
Project Name:	NIROP Sumps	Basis:	DRY
Matrix:	SOIL	% Solids:	98.2

Sample Name: 1S14162BSD Lab Code: K1407378-008SD

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Arsenic	20	112.8		114.5		1.5		6020A
Barium	20	498.54		498.92		0.1		6020A
Cadmium	20	10.74		10.83		0.8		6020A
Chromium	20	72.6		73.1		0.7		6020A
Lead	20	115.06		116.61		1.3		6020A
Selenium	20	99.9		100.3		0.4		6020A
Silver	20	9.63		9.69		0.6		6020A

An empty field in the Control Limit column indicates the control limit is not applicable.

ALS Group USA, Corp.
dba ALS Environmental

Metals
- 7 -
LABORATORY CONTROL SAMPLE

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Aqueous LCS Source: ALS MIXED **Solid LCS Source:** ERA D080-540

Analyte	Aqueous (ug/L) True	Aqueous (ug/L) Found	Aqueous (ug/L) %R	Solid (mg/kg) True	Solid (mg/kg) Found	Solid (mg/kg) C	Solid (mg/kg) Limits	Solid (mg/kg) %R
Arsenic	1000	1000	100.0					
Barium	4000	4100	102.5					
Cadmium	100	101	101.0					
Chromium	400	407	101.8					
Lead	1000	1020	102.0					
Selenium	1000	984	98.4					
Silver	100	99	99.0					

ALS Group USA, Corp.
dba ALS Environmental

Metals
- 7 -
LABORATORY CONTROL SAMPLE

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Aqueous LCS Source: ALS MIXED **Solid LCS Source:** ERA D080-540

Analyte	Aqueous (ug/L) True	Aqueous (ug/L) Found	Aqueous (ug/L) %R	Solid (mg/kg) True	Solid (mg/kg) Found	Solid (mg/kg) C	Solid (mg/kg) Limits		Solid (mg/kg) %R
Mercury				19.9	19.3		51	148	97.0

Metals

- 9 -

ICP SERIAL DILUTIONS

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Units:** UG/L

Project Name: NIROP Sumps

Sample Name: 1S14162AL **Lab Code:** K1407378-007L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Arsenic	23.1		22.8		1.3		M
Barium	145.00		144.00		0.7		M
Cadmium	1.58		1.64		3.8		M
Chromium	59.0		59.4		0.7		M
Lead	26.40		27.50		4.2		M
Selenium	2.0	U	10.0	U			M
Silver	0.08		0.20	U	100.0		M

Metals

- 10 -

DETECTION LIMITS

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICP/ICP-MS ID #:

GFAA ID #: **AA ID #:**

Analyte	Wave-length (nm)	Back-ground	MRL ug/L	MDL ug/L	M
Mercury	253.7		0.20	0.20	CV

Comments:

Metals

- 10 -

DETECTION LIMITS

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICP/ICP-MS ID #: Agilent ICPMS

GFAA ID #: **AA ID #:**

Analyte	Isotope	Back-ground	MRL ug/L	MDL ug/L	M
Arsenic	75		1.0	1.0	M
Barium	137		0.10	0.10	M
Cadmium	111		0.04	0.04	M
Chromium	52		0.4	0.4	M
Lead	208		0.10	0.10	M
Selenium	78		2.0	2.0	M
Silver	107		0.04	0.04	M

Comments:

Metals
-12-
ICP LINEAR RANGES (QUARTERLY)

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

ICP ID Number: Agilent ICPMS

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic	1.000	2700	6020A
Barium	0.300	2700	6020A
Cadmium	1.000	2700	6020A
Chromium	0.300	2700	6020A
Lead	0.300	2700	6020A
Selenium	1.000	2700	6020A
Silver	0.300	225	6020A

Comments:

Metals
-13-
PREPARATION LOG

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Method: CV

Sample ID	Preparation Date	Initial Weight (g)	Final Volume(mL)
K1407378-003	07/30/14	0.50	50.0
K1407378-004	07/30/14	0.50	50.0
K1407378-007	07/30/14	0.50	50.0
K1407378-007D	07/30/14	0.50	50.0
K1407378-007S	07/30/14	0.51	50.0
K1407378-008	07/30/14	0.50	50.0
K1407378-009	07/30/14	0.50	50.0
K1407378-MB	07/30/14	0.50	50.0
LCSS	07/30/14	0.25	50.0

Metals
-13-
PREPARATION LOG

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA

Project Name: NIROP Sumps

Method: MS

Sample ID	Preparation Date	Initial Weight (g)	Final Volume(mL)
K1407378-003	08/01/14	1.00	100.0
K1407378-004	08/01/14	1.00	100.0
K1407378-007	08/01/14	1.00	100.0
K1407378-007S	08/01/14	1.00	100.0
K1407378-007SD	08/01/14	1.00	100.0
K1407378-008	08/01/14	1.00	100.0
K1407378-008S	08/01/14	1.00	100.0
K1407378-008SD	08/01/14	1.00	100.0
K1407378-009	08/01/14	1.00	100.0
K1407378-MB	08/01/14	1.00	100.0
LCSW	08/01/14	50.0	50.0

ALS Group USA, Corp.
dba ALS Environmental

Metals
- 14 -
ANALYSIS RUN LOG

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Run Number:** 073114B HG2

Project Name: NIROP Sumps

Instrument ID Number: K-CVAA-02 **Method:** CV

Start Date: 07/31/14 **End Date:** 07/31/14

Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Calibration Blank	1.0	09:21																X									
Standard #1	1.0	09:23																X									
Standard #2	1.0	09:25																X									
Standard #3	1.0	09:26																X									
Standard #4	1.0	09:28																X									
Standard #5	1.0	09:29																X									
ICV1	1.0	09:31																X									
ICB1	1.0	09:33																X									
CRDL1	1.0	09:34																X									
CCV1	1.0	09:36																X									
CCB1	1.0	09:38																X									
K1407378-MB	1.0	09:39																X									
LCSS	50.0	09:41																X									
K1407378-003	1.0	09:42																X									
K1407378-004	1.0	09:44																X									
K1407378-007	1.0	09:46																X									
K1407378-007D	1.0	09:47																X									
K1407378-007S	1.0	09:49																X									
K1407378-008	1.0	09:50																X									
K1407378-009	1.0	09:52																X									
ZZZZZZ	1.0	09:54																									
CCV2	1.0	09:55																X									
CCB2	1.0	09:57																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

ALS Group USA, Corp.
dba ALS Environmental

Metals
- 14 -
ANALYSIS RUN LOG

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Run Number:** 080114A

Project Name: NIROP Sumps

Instrument ID Number: Agilent ICPMS **Method:** M

Start Date: 08/01/14 **End Date:** 08/01/14

Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Blank	1.0	10:31				X	X		X		X				X						X	X					
25ppb	1.0	10:36				X	X		X		X				X						X	X					
ICV	1.0	10:40				X	X		X		X				X						X	X					
CCV1	1.0	10:45				X	X		X		X				X						X	X					
ICB1	1.0	10:49				X	X		X		X				X						X	X					
CCB1	1.0	10:54				X	X		X		X				X						X	X					
LLICV1	1.0	10:58				X	X		X		X				X						X	X					
ICS-A1	1.0	11:02				X	X		X		X				X						X	X					
ICS-AB1	1.0	11:07				X	X		X		X				X						X	X					
ZZZZZZ	1.0	11:46																									
ZZZZZZ	1.0	11:50																									
ZZZZZZ	1.0	11:54																									
ZZZZZZ	1.0	11:59																									
ZZZZZZ	1.0	12:03																									
ZZZZZZ	1.0	12:08																									
CCV2	1.0	12:12				X	X		X		X				X						X	X					
CCB2	1.0	12:16				X	X		X		X				X						X	X					
LLCCV1	1.0	12:21				X	X		X		X				X						X	X					
ZZZZZZ	1.0	12:44																									
ZZZZZZ	1.0	12:48																									
ZZZZZZ	1.0	12:53																									
ZZZZZZ	5.0	12:57																									
ZZZZZZ	1.0	13:01																									
ZZZZZZ	1.0	13:06																									
ZZZZZZ	1.0	13:10																									
CCV3	1.0	13:15				X	X		X		X				X						X	X					
CCB3	1.0	13:19				X	X		X		X				X						X	X					
LLCCV2	1.0	13:24				X	X		X		X				X						X	X					
ZZZZZZ	1.0	13:41																									
ZZZZZZ	1.0	13:47																									
ZZZZZZ	1.0	13:51																									
ZZZZZZ	5.0	13:56																									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

ALS Group USA, Corp.
dba ALS Environmental

Metals
- 14 -
ANALYSIS RUN LOG

Client: ATK - Alliant Techsystems Inc Service Request: K1407378

Project No.: NA Run Number: 080114A

Project Name: NIROP Sumps

Instrument ID Number: Agilent ICPMS Method: M

Start Date: 08/01/14 End Date: 08/01/14

Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.0	14:00																									
ZZZZZZ	1.0	14:05																									
ZZZZZZ	1.0	14:09																									
CCV4	1.0	14:14				X	X		X		X				X						X	X					
CCB4	1.0	14:18				X	X		X		X				X						X	X					
LLCCV3	1.0	14:22				X	X		X		X				X						X	X					
ZZZZZZ	1.0	14:32																									
K1407378-MB	5.0	14:36				X	X		X		X				X						X	X					
K1407378-003	5.0	14:41				X	X		X		X				X						X	X					
K1407378-004	5.0	14:45				X	X		X		X				X						X	X					
K1407378-007	5.0	14:49				X	X		X		X				X						X	X					
K1407378-007L	5.0	14:54				X	X		X		X				X						X	X					
K1407378-007A	5.0	14:58				X	X		X		X				X						X	X					
K1407378-007S	5.0	15:03				X	X		X		X				X						X	X					
K1407378-007SD	5.0	15:07				X	X		X		X				X						X	X					
LCSW	20.0	15:11				X	X		X		X				X						X	X					
K1407378-008	5.0	15:16				X	X		X		X				X						X	X					
CCV5	1.0	15:20				X	X		X		X				X						X	X					
CCB5	1.0	15:25				X	X		X		X				X						X	X					
K1407378-008S	5.0	15:29				X	X		X		X				X						X	X					
K1407378-008SD	5.0	15:33				X	X		X		X				X						X	X					
K1407378-009	5.0	15:38				X	X		X		X				X						X	X					
ZZZZZZ	1.0	15:43																									
ZZZZZZ	1.0	15:47																									
ZZZZZZ	1.0	15:52																									
ZZZZZZ	5.0	15:56																									
ZZZZZZ	1.0	16:00																									
ZZZZZZ	1.0	16:05																									
ZZZZZZ	1.0	16:09																									
CCV6	1.0	16:14				X	X		X		X				X						X	X					
CCB6	1.0	16:18				X	X		X		X				X						X	X					
LLCCV4	1.0	16:23				X	X		X		X				X						X	X					

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

ALS Group USA, Corp.
dba ALS Environmental

Metals
- 14 -
ANALYSIS RUN LOG

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project No.: NA **Run Number:** 080114A

Project Name: NIROP Sumps

Instrument ID Number: Agilent ICPMS **Method:** M

Start Date: 08/01/14 **End Date:** 08/01/14

Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.0	16:31																									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Metals

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: ALS Group USA, Corp. Contract: _____

Lab Code: CASK Case No.: _____ NRAS No.: _____ SDG NO.: K1407378

ICP-MS Instrument ID: Agilent ICPMS Start Date: 08/01/2014 End Date: 08/01/2014

Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Ge 72_He	Q	Element Ge 72_He	Q	Element In115_He	Q	Element Lu175_He	Q	Element	Q	Element	Q
Blank	Blank	1031	100		100		100		100					
25ppb	25ppb	1036	101		103		103		105					
ICV	ICV	1040	99		100		101		102					
CCV1	CCV	1045	98		98		98		100					
ICB1	ICB	1049	98		96		96		99					
CCB1	CCB	1054	100		99		100		101					
LLICV1	LLICV1	1058	103		101		102		102					
ICS-A1	ICSA	1102	97		98		96		101					
ICS-AB1	ICSAB	1107	95		96		95		101					
ZZZZZZ	ZZZZZZ	1146												
ZZZZZZ	ZZZZZZ	1150												
ZZZZZZ	ZZZZZZ	1154												
ZZZZZZ	ZZZZZZ	1159												
ZZZZZZ	ZZZZZZ	1203												
ZZZZZZ	ZZZZZZ	1208												
CCV2	CCV	1212	94		94		97		100					
CCB2	CCB	1216	94		94		96		99					
LLCCV1	LLCCV1	1221	93		94		96		99					
ZZZZZZ	ZZZZZZ	1244												
ZZZZZZ	ZZZZZZ	1248												
ZZZZZZ	ZZZZZZ	1253												
ZZZZZZ	ZZZZZZ	1257												
ZZZZZZ	ZZZZZZ	1301												
ZZZZZZ	ZZZZZZ	1306												
ZZZZZZ	ZZZZZZ	1310												
CCV3	CCV	1315	93		93		96		98					
CCB3	CCB	1319	93		93		95		99					
LLCCV2	LLCCV2	1324	93		94		95		98					
ZZZZZZ	ZZZZZZ	1341												
ZZZZZZ	ZZZZZZ	1347												
ZZZZZZ	ZZZZZZ	1351												
ZZZZZZ	ZZZZZZ	1356												
ZZZZZZ	ZZZZZZ	1400												
ZZZZZZ	ZZZZZZ	1405												
ZZZZZZ	ZZZZZZ	1409												
CCV4	CCV	1414	92		93		96		98					
CCB4	CCB	1418	92		91		95		97					
LLCCV3	LLCCV3	1422	92		92		95		99					
ZZZZZZ	ZZZZZZ	1432												
K1407378-MB	K1407378-MB	1436	92		92		96		98					
K1407378-003	1S14164A	1441	91		92		93		99					
K1407378-004	1S14164B	1445	90		91		94		99					
K1407378-007	1S14162A	1449	91		91		93		98					
K1407378-007L	1S14162AL	1454	93		93		96		99					

Metals

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: ALS Group USA, Corp. Contract: _____

Lab Code: CASK Case No.: _____ NRAS No.: _____ SDG NO.: K1407378

ICP-MS Instrument ID: Agilent ICPMS Start Date: 08/01/2014 End Date: 08/01/2014

Sample No.	Client ID	Time	Internal Standards %RI For:											
			Element Ge 72_H2	Q	Element Ge 72_He	Q	Element In115_He	Q	Element Lu175_He	Q	Element	Q	Element	Q
K1407378-007A	1S14162AA	1458	92		91		93		99					
K1407378-007S	1S14162AS	1503	91		91		93		100					
K1407378-007SD	1S14162ASD	1507	92		92		93		98					
LCSW	LCSW	1511	92		93		94		97					
K1407378-008	1S14162B	1516	89		91		93		98					
CCV5	CCV	1520	91		91		94		96					
CCB5	CCB	1525	90		90		93		96					
K1407378-008S	1S14162BS	1529	90		91		92		99					
K1407378-008SD	1S14162BSD	1533	91		92		93		99					
K1407378-009	1S14162C	1538	91		91		94		99					
ZZZZZZ	ZZZZZZ	1543												
ZZZZZZ	ZZZZZZ	1547												
ZZZZZZ	ZZZZZZ	1552												
ZZZZZZ	ZZZZZZ	1556												
ZZZZZZ	ZZZZZZ	1600												
ZZZZZZ	ZZZZZZ	1605												
ZZZZZZ	ZZZZZZ	1609												
CCV6	CCV	1614	89		90		93		96					
CCB6	CCB	1618	89		89		92		95					
LLCCV4	LLCCV4	1623	89		89		93		95					
ZZZZZZ	ZZZZZZ	1631												

ALS Environmental

Nitroaromatics and Nitramines

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps

Service Request: K1407378

Cover Page - Organic Analysis Data Package
Nitroaromatics and Nitramines (Explosives)

Sample Name	Lab Code	Date Collected	Date Received
1S14163A	K1407378-001	07/15/2014	07/18/2014
1S14163B	K1407378-002	07/15/2014	07/18/2014
1S14161A	K1407378-005	07/16/2014	07/18/2014
1S14161B	K1407378-006	07/16/2014	07/18/2014
1S14162A	K1407378-007	07/16/2014	07/18/2014
1S14162B	K1407378-008	07/16/2014	07/18/2014
1S14162C	K1407378-009	07/16/2014	07/18/2014
1S14165A	K1407378-010	07/16/2014	07/18/2014
1S14165B	K1407378-011	07/16/2014	07/18/2014
1S14166A	K1407378-012	07/16/2014	07/18/2014
1S14166B	K1407378-013	07/16/2014	07/18/2014
1S14162AMS	KWG1410590-1	07/16/2014	07/18/2014
1S14162ADMS	KWG1410590-2	07/16/2014	07/18/2014
1S14162BMS	KWG1410590-3	07/16/2014	07/18/2014
1S14162BDMS	KWG1410590-4	07/16/2014	07/18/2014

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Teehsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/15/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14163A	**Units:**	mg/Kg
Lab Code:	K1407378-001	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	65	C	0.20	1	07/29/14	08/19/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	90	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/15/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14163B	**Units:**	mg/Kg
Lab Code:	K1407378-002	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	96	DC	1.0	5	07/29/14	08/25/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	95	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Teehsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14161A	**Units:**	mg/Kg
Lab Code:	K1407378-005	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	29	C	0.20	1	07/29/14	08/19/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	92	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14161B	**Units:**	mg/Kg
Lab Code:	K1407378-006	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	68	C	0.20	1	07/29/14	08/19/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	82	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14162A	**Units:**	mg/Kg
Lab Code:	K1407378-007	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	**160**	DC	2.0	10	07/29/14	08/25/14	KWG1410590	
RDX	**0.27**	C	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	95	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14162B	**Units:**	mg/Kg
Lab Code:	K1407378-008	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	120	DC	1.0	5	07/29/14	08/25/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	89	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14162C	**Units:**	mg/Kg
Lab Code:	K1407378-009	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	**130**	DC	2.0	10	07/29/14	08/25/14	KWG1410590	
RDX	**0.25**	C	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	93	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14165A	**Units:**	mg/Kg
Lab Code:	K1407378-010	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	**11**	C	0.20	1	07/29/14	08/19/14	KWG1410590	
RDX	**20**	C	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	93	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14165B	**Units:**	mg/Kg
Lab Code:	K1407378-011	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	7.1	C	0.20	1	07/29/14	08/19/14	KWG1410590	
RDX	12	C	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	94	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14166A	**Units:**	mg/Kg
Lab Code:	K1407378-012	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	100	DC	1.0	5	07/29/14	08/26/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	65	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	07/16/2014
Sample Matrix:	Soil	**Date Received:**	07/18/2014

Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14166B	**Units:**	mg/Kg
Lab Code:	K1407378-013	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	**0.93**	C	0.20	1	07/29/14	08/19/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/19/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	92	34-135	08/19/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Nitroaromatics and Nitramines (Explosives)

Sample Name:	Method Blank	**Units:**	mg/Kg
Lab Code:	KWG1410590-6	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
HMX	ND	U	0.20	1	07/29/14	08/18/14	KWG1410590	
RDX	ND	U	0.20	1	07/29/14	08/18/14	KWG1410590	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1-Chloro-3-nitrobenzene	59	34-135	08/18/14	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps
Sample Matrix: Soil

Service Request: K1407378

Surrogate Recovery Summary
Nitroaromatics and Nitramines (Explosives)

Extraction Method: METHOD
Analysis Method: 8330B

Units: Percent
Level: Low

Sample Name	Lab Code	Sur1
1S14163A	K1407378-001	90
1S14163B	K1407378-002	95
1S14161A	K1407378-005	92
1S14161B	K1407378-006	82
1S14162A	K1407378-007	95
1S14162B	K1407378-008	89
1S14162C	K1407378-009	93
1S14165A	K1407378-010	93
1S14165B	K1407378-011	94
1S14166A	K1407378-012	65
1S14166B	K1407378-013	92
Method Blank	KWG1410590-6	59
1S14162AMS	KWG1410590-1	94
1S14162ADMS	KWG1410590-2	97
1S14162BMS	KWG1410590-3	87
1S14162BDMS	KWG1410590-4	93
Lab Control Sample	KWG1410590-5	66

Surrogate Recovery Control Limits (%)

Sur1 = 1-Chloro-3-nitrobenzene 34-135

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Extracted:**	07/29/2014
Sample Matrix:	Soil	**Date Analyzed:**	08/19/2014 - 08/25/2014

Matrix Spike/Duplicate Matrix Spike Summary
Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14162A	**Units:**	mg/Kg
Lab Code:	K1407378-007	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B	**Extraction Lot:**	KWG1410590

		1S14162AMS KWG1410590-1 Matrix Spike			1S14162ADMS KWG1410590-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
HMX	160	127	2.00	-1494 #	135	2.00	-1122 #	61-130	6	40
RDX	0.27	2.21	2.00	97	2.13	2.00	93	16-121	3	40

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Extracted:**	07/29/2014
Sample Matrix:	Soil	**Date Analyzed:**	08/19/2014 - 08/25/2014

Matrix Spike/Duplicate Matrix Spike Summary
Nitroaromatics and Nitramines (Explosives)

Sample Name:	1S14162B	**Units:**	mg/Kg
Lab Code:	K1407378-008	**Basis:**	Dry
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B	**Extraction Lot:**	KWG1410590

		1S14162BMS KWG1410590-3 Matrix Spike			1S14162BDMS KWG1410590-4 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
HMX	120	111	2.00	-681 #	120	1.99	-219 #	61-130	8	40
RDX	ND	1.89	2.00	95	2.02	1.99	102	16-121	7	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Extracted:**	07/29/2014
Sample Matrix:	Soil	**Date Analyzed:**	08/18/2014

Lab Control Spike Summary
Nitroaromatics and Nitramines (Explosives)

Extraction Method:	METHOD	**Units:**	mg/Kg
Analysis Method:	8330B	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1410590

	Lab Control Sample KWG1410590-5 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
HMX	1.56	2.00	78	61-130
RDX	1.47	2.00	73	16-121

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Extracted:**	07/29/2014
Sample Matrix:	Soil	**Date Analyzed:**	08/18/2014
		Time Analyzed:	21:05

Method Blank Summary
Nitroaromatics and Nitramines (Explosives)

Sample Name:	Method Blank	**Instrument ID:**	LC10
Lab Code:	KWG1410590-6	**File ID:**	J:\LC10\DATA\081814X\254\0818000108.D
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B	**Extraction Lot:**	KWG1410590

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1410590-5	J:\LC10\DATA\081814X\254\0818000109.D	08/18/14	21:53
1S14163A	K1407378-001	J:\LC10\DATA\081814X\254\0818000113.D	08/19/14	01:04
1S14163B	K1407378-002	J:\LC10\DATA\081814X\254\0818000114.D	08/19/14	01:52
1S14161A	K1407378-005	J:\LC10\DATA\081814X\254\0818000115.D	08/19/14	02:40
1S14161B	K1407378-006	J:\LC10\DATA\081814X\254\0818000116.D	08/19/14	03:27
1S14162A	K1407378-007	J:\LC10\DATA\081814X\254\0818000119.D	08/19/14	05:51
1S14162AMS	KWG1410590-1	J:\LC10\DATA\081814X\254\0818000120.D	08/19/14	06:38
1S14162ADMS	KWG1410590-2	J:\LC10\DATA\081814X\254\0818000121.D	08/19/14	07:26
1S14162B	K1407378-008	J:\LC10\DATA\081814X\254\0818000122.D	08/19/14	08:14
1S14162BMS	KWG1410590-3	J:\LC10\DATA\081814X\254\0818000123.D	08/19/14	09:02
1S14162BDMS	KWG1410590-4	J:\LC10\DATA\081814X\254\0818000124.D	08/19/14	09:50
1S14162C	K1407378-009	J:\LC10\DATA\081814X\254\0818000127.D	08/19/14	12:13
1S14165A	K1407378-010	J:\LC10\DATA\081814X\254\0818000128.D	08/19/14	13:01
1S14165B	K1407378-011	J:\LC10\DATA\081814X\254\0818000129.D	08/19/14	13:49
1S14166A	K1407378-012	J:\LC10\DATA\081814X\254\0818000130.D	08/19/14	14:36
1S14166B	K1407378-013	J:\LC10\DATA\081814X\254\0818000131.D	08/19/14	15:24
1S14163B	K1407378-002	J:\LC10\DATA\082514X\0825000104.D	08/25/14	14:30
1S14162A	K1407378-007	J:\LC10\DATA\082514X\0825000106.D	08/25/14	16:05
1S14162AMS	KWG1410590-1	J:\LC10\DATA\082514X\0825000107.D	08/25/14	16:53
1S14162ADMS	KWG1410590-2	J:\LC10\DATA\082514X\0825000108.D	08/25/14	17:41
1S14162B	K1407378-008	J:\LC10\DATA\082514X\0825000109.D	08/25/14	18:28
1S14162BMS	KWG1410590-3	J:\LC10\DATA\082514X\0825000110.D	08/25/14	19:16
1S14162BDMS	KWG1410590-4	J:\LC10\DATA\082514X\0825000111.D	08/25/14	20:04
1S14162C	K1407378-009	J:\LC10\DATA\082514X\0825000114.D	08/25/14	22:27
1S14166A	K1407378-012	J:\LC10\DATA\082514X\0825000117.D	08/26/14	00:51

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Extracted:**	07/29/2014
Sample Matrix:	Soil	**Date Analyzed:**	08/18/2014
		Time Analyzed:	21:53

Lab Control Sample Summary
Nitroaromatics and Nitramines (Explosives)

Sample Name:	Lab Control Sample	**Instrument ID:**	LC10
Lab Code:	KWG1410590-5	**File ID:**	J:\LC10\DATA\081814X\254\0818000109.D
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8330B	**Extraction Lot:**	KWG1410590

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1410590-6	J:\LC10\DATA\081814X\254\0818000108.D	08/18/14	21:05
IS14163A	K1407378-001	J:\LC10\DATA\081814X\254\0818000113.D	08/19/14	01:04
IS14163B	K1407378-002	J:\LC10\DATA\081814X\254\0818000114.D	08/19/14	01:52
IS14161A	K1407378-005	J:\LC10\DATA\081814X\254\0818000115.D	08/19/14	02:40
IS14161B	K1407378-006	J:\LC10\DATA\081814X\254\0818000116.D	08/19/14	03:27
IS14162A	K1407378-007	J:\LC10\DATA\081814X\254\0818000119.D	08/19/14	05:51
IS14162AMS	KWG1410590-1	J:\LC10\DATA\081814X\254\0818000120.D	08/19/14	06:38
IS14162ADMS	KWG1410590-2	J:\LC10\DATA\081814X\254\0818000121.D	08/19/14	07:26
IS14162B	K1407378-008	J:\LC10\DATA\081814X\254\0818000122.D	08/19/14	08:14
IS14162BMS	KWG1410590-3	J:\LC10\DATA\081814X\254\0818000123.D	08/19/14	09:02
IS14162BDMS	KWG1410590-4	J:\LC10\DATA\081814X\254\0818000124.D	08/19/14	09:50
IS14162C	K1407378-009	J:\LC10\DATA\081814X\254\0818000127.D	08/19/14	12:13
IS14165A	K1407378-010	J:\LC10\DATA\081814X\254\0818000128.D	08/19/14	13:01
IS14165B	K1407378-011	J:\LC10\DATA\081814X\254\0818000129.D	08/19/14	13:49
IS14166A	K1407378-012	J:\LC10\DATA\081814X\254\0818000130.D	08/19/14	14:36
IS14166B	K1407378-013	J:\LC10\DATA\081814X\254\0818000131.D	08/19/14	15:24
IS14163B	K1407378-002	J:\LC10\DATA\082514X\0825000104.D	08/25/14	14:30
IS14162A	K1407378-007	J:\LC10\DATA\082514X\0825000106.D	08/25/14	16:05
IS14162AMS	KWG1410590-1	J:\LC10\DATA\082514X\0825000107.D	08/25/14	16:53
IS14162ADMS	KWG1410590-2	J:\LC10\DATA\082514X\0825000108.D	08/25/14	17:41
IS14162B	K1407378-008	J:\LC10\DATA\082514X\0825000109.D	08/25/14	18:28
IS14162BMS	KWG1410590-3	J:\LC10\DATA\082514X\0825000110.D	08/25/14	19:16
IS14162BDMS	KWG1410590-4	J:\LC10\DATA\082514X\0825000111.D	08/25/14	20:04
IS14162C	K1407378-009	J:\LC10\DATA\082514X\0825000114.D	08/25/14	22:27
IS14166A	K1407378-012	J:\LC10\DATA\082514X\0825000117.D	08/26/14	00:51

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps

Service Request: K1407378
Calibration Date: 02/06/2014

Initial Calibration Summary
Nitroaromatics and Nitramines (Explosives)

Calibration ID: CAL13118
Instrument ID: LC10

Column: Synergi Hydro R

Level ID	File ID	Level ID	File ID
A	J:\LC10\Data\020614aX\254\0206A000105.D	G	J:\LC10\Data\020614aX\254\0206A000111.D
B	J:\LC10\Data\020614aX\254\0206A000106.D	H	J:\LC10\Data\020614aX\254\0206A000112.D
C	J:\LC10\Data\020614aX\254\0206A000107.D	I	J:\LC10\Data\020614aX\254\0206A000113.D
D	J:\LC10\Data\020614aX\254\0206A000108.D	J	J:\LC10\Data\020614aX\254\0206A000114.D
E	J:\LC10\Data\020614aX\254\0206A000109.D		
F	J:\LC10\Data\020614aX\254\0206A000110.D		

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
HMX	A	20	15300	B	50	15100	C	100	14900	D	200	14800	E	500	14800
	F	1000	15200	G	2000	14300	H	5000	14700	I	10000	15500	J	20000	15000
RDX	A	20	22100	B	50	20300	C	100	19600	D	200	19300	E	500	18900
	F	1000	19300	G	2000	18200	H	5000	18900	I	10000	20000	J	20000	19500
1-Chloro-3-nitrobenzene	A	20	29400	B	50	29100	C	100	28000	D	200	27700	E	500	27800
	F	1000	28600	G	2000	27000	H	5000	27900	I	10000	29300	J	20000	28800

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps

Service Request: K1407378
Calibration Date: 02/06/2014

Initial Calibration Summary
Nitroaromatics and Nitramines (Explosives)

Calibration ID: CAL13118
Instrument ID: LC10

Column: Synergi Hydro R

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
HMX	MS	AverageRF	% RSD	2.3		≤20
RDX	MS	AverageRF	% RSD	5.3		≤20
1-Chloro-3-nitrobenzene	SURR	AverageRF	% RSD	2.8		≤20

sults flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps

Service Request: K1407378
Calibration Date: 02/06/2014
Date Analyzed: 02/07/2014

Second Source Calibration Verification
Nitroaromatics and Nitramines (Explosives)

Calibration Type: External Standard
Analysis Method: 8330B

Calibration ID: CAL13118
Units: ug/L

File ID: J:\LC10\Data\020614aX\254\0206A000116.D
J:\LC10\Data\020614aX\254\0206A000203.D

Column ID: Synergi Hydro R

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	890	15000	13400	-11	NA	± 20 %	AverageRF
RDX	1000	850	19600	16700	-15	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound ‡ CCC Compound

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/18/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412039
		Units:	ug/L
File ID:	J:\LC10\DATA\081814X\254\0818000103.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	940	15000	14000	-6	NA	± 20 %	AverageRF
RDX	1000	910	19600	17900	-9	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	930	28400	26400	-7	NA	± 20 %	AverageRF

sults flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Teehsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/19/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412039
		Units:	ug/L
File ID:	J:\LC10\DATA\081814X\254\0818000117.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	950	15000	14200	-5	NA	± 20 %	AverageRF
RDX	1000	920	19600	18000	-8	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	930	28400	26400	-7	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/19/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412039
		Units:	ug/L
File ID:	J:\LC10\DATA\081814X\254\0818000125.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	950	15000	14200	-5	NA	± 20 %	AverageRF
RDX	1000	920	19600	18000	-8	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	930	28400	26300	-7	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Teehsystems Ine	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/19/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412039
		Units:	ug/L
File ID:	J:\LC10\DATA\081814X\254\0818000132.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	950	15000	14200	-5	NA	± 20 %	AverageRF
RDX	1000	920	19600	18100	-8	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	940	28400	26800	-6	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/25/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412118
		Units:	ug/L
File ID:	J:\LC10\DATA\082514X\0825000103.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	1000	15000	14900	0	NA	± 20 %	AverageRF
RDX	1000	960	19600	18800	-4	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	990	28400	28000	-1	NA	± 20 %	AverageRF

sults flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/25/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412118
		Units:	ug/L
File ID:	J:\LC10\DATA\082514X\0825000112.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	1000	15000	14900	0	NA	± 20 %	AverageRF
RDX	1000	970	19600	18900	-3	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	990	28400	28000	-1	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client:	ATK - Alliant Teehsystems Ine	**Service Request:**	K1407378
Project:	NIROP Sumps	**Date Analyzed:**	08/26/2014

Continuing Calibration Verification Summary
Nitroaromatics and Nitramines (Explosives)

Calibration Type:	External Standard	**Calibration Date:**	02/06/2014
Analysis Method:	8330B	**Calibration ID:**	CAL13118
		Analysis Lot:	KWG1412118
		Units:	ug/L
File ID:	J:\LC10\DATA\082514X\0825000119.D	**Column ID:**	Synergi Hydro R

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
HMX	1000	990	15000	14900	-1	NA	± 20 %	AverageRF
RDX	1000	960	19600	18900	-4	NA	± 20 %	AverageRF
1-Chloro-3-nitrobenzene	1000	990	28400	28100	-1	NA	± 20 %	AverageRF

sults flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Teehsystems Inc
Project: NIROP Sumps

Service Request: K1407378

Analysis Run Log
Nitroaromatics and Nitramines (Explosives)

Analysis Method: 8330B

Analysis Lot: KWG1412039
Instrument ID: LC10
Column: Synergi Hydro R

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
18000102.D	Instrument Blank	KWG1412039-6	8/18/2014	16:18		8/18/2014	17:00
18000103.D	Continuing Calibration Verification	KWG1412039-1	8/18/2014	17:06		8/18/2014	17:48
18000104.D	ZZZZZZ	ZZZZZZ	8/18/2014	17:54		8/18/2014	18:36
18000105.D	ZZZZZZ	ZZZZZZ	8/18/2014	18:42		8/18/2014	19:24
18000106.D	ZZZZZZ	ZZZZZZ	8/18/2014	19:30		8/18/2014	20:12
18000107.D	ZZZZZZ	ZZZZZZ	8/18/2014	20:17		8/18/2014	20:59
18000108.D	Method Blank	KWG1410590-6	8/18/2014	21:05		8/18/2014	21:47
18000109.D	Lab Control Sample	KWG1410590-5	8/18/2014	21:53		8/18/2014	22:35
18000110.D	ZZZZZZ	ZZZZZZ	8/18/2014	22:41		8/18/2014	23:23
18000111.D	ZZZZZZ	ZZZZZZ	8/18/2014	23:28		8/19/2014	00:10
18000112.D	ZZZZZZ	ZZZZZZ	8/19/2014	00:16		8/19/2014	00:58
18000113.D	1S14163A	K1407378-001	8/19/2014	01:04		8/19/2014	01:46
18000114.D	1S14163B	K1407378-002	8/19/2014	01:52		8/19/2014	02:34
18000115.D	1S14161A	K1407378-005	8/19/2014	02:40		8/19/2014	03:22
18000116.D	1S14161B	K1407378-006	8/19/2014	03:27		8/19/2014	04:09
18000117.D	Continuing Calibration Verification	KWG1412039-2	8/19/2014	04:15		8/19/2014	04:57
18000118.D	Instrument Blank	KWG1412039-7	8/19/2014	05:03		8/19/2014	05:45
18000119.D	1S14162A	K1407378-007	8/19/2014	05:51		8/19/2014	06:33
18000120.D	1S14162AMS	KWG1410590-1	8/19/2014	06:38		8/19/2014	07:20
18000121.D	1S14162ADMS	KWG1410590-2	8/19/2014	07:26		8/19/2014	08:08
18000122.D	1S14162B	K1407378-008	8/19/2014	08:14		8/19/2014	08:56
18000123.D	1S14162BMS	KWG1410590-3	8/19/2014	09:02		8/19/2014	09:44
18000124.D	1S14162BDMS	KWG1410590-4	8/19/2014	09:50		8/19/2014	10:32
18000125.D	Continuing Calibration Verification	KWG1412039-5	8/19/2014	10:37		8/19/2014	11:19
18000126.D	Instrument Blank	KWG1412039-8	8/19/2014	11:25		8/19/2014	12:07
18000127.D	1S14162C	K1407378-009	8/19/2014	12:13		8/19/2014	12:55
18000128.D	1S14165A	K1407378-010	8/19/2014	13:01		8/19/2014	13:43
18000129.D	1S14165B	K1407378-011	8/19/2014	13:49		8/19/2014	14:31
18000130.D	1S14166A	K1407378-012	8/19/2014	14:36		8/19/2014	15:18
18000131.D	1S14166B	K1407378-013	8/19/2014	15:24		8/19/2014	16:06
18000132.D	Continuing Calibration Verification	KWG1412039-3	8/19/2014	16:12		8/19/2014	16:54
18000133.D	Instrument Blank	KWG1412039-9	8/19/2014	17:23		8/19/2014	18:05
18000134.D	ZZZZZZ	ZZZZZZ	8/19/2014	18:34		8/19/2014	19:16
18000135.D	ZZZZZZ	ZZZZZZ	8/19/2014	19:44		8/19/2014	20:26
18000136.D	ZZZZZZ	ZZZZZZ	8/19/2014	20:55		8/19/2014	21:37

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378

Project: NIROP Sumps

Analysis Run Log
Nitroaromatics and Nitramines (Explosives)

Analysis Method: 8330B

Analysis Lot: KWG1412039
Instrument ID: LC10
Column: Synergi Hydro R

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
18000137.D	Continuing Calibration Verification	KWG1412039-4	8/19/2014	22:06		8/19/2014	22:48
18000138.D	Instrument Blank	KWG1412039-10	8/19/2014	23:17		8/19/2014	23:59

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Techsystems Inc **Service Request:** K1407378
Project: NIROP Sumps

Analysis Run Log
Nitroaromatics and Nitramines (Explosives)

Analysis Method: 8330B

Analysis Lot: KWG1412118
Instrument ID: LC10
Column: Synergi Hydro R

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
25000102.D	Instrument Blank	KWG1412118-4	8/25/2014	12:54		8/25/2014	13:36
25000103.D	Continuing Calibration Verification	KWG1412118-1	8/25/2014	13:42		8/25/2014	14:24
25000104.D	1S14163B	K1407378-002	8/25/2014	14:30		8/25/2014	15:12
25000105.D	ZZZZZZ	ZZZZZZ	8/25/2014	15:17		8/25/2014	15:59
25000106.D	1S14162A	K1407378-007	8/25/2014	16:05		8/25/2014	16:47
25000107.D	1S14162AMS	KWG1410590-1	8/25/2014	16:53		8/25/2014	17:35
25000108.D	1S14162ADMS	KWG1410590-2	8/25/2014	17:41		8/25/2014	18:23
25000109.D	1S14162B	K1407378-008	8/25/2014	18:28		8/25/2014	19:10
25000110.D	1S14162BMS	KWG1410590-3	8/25/2014	19:16		8/25/2014	19:58
25000111.D	1S14162BDMS	KWG1410590-4	8/25/2014	20:04		8/25/2014	20:46
25000112.D	Continuing Calibration Verification	KWG1412118-2	8/25/2014	20:52		8/25/2014	21:34
25000113.D	Instrument Blank	KWG1412118-5	8/25/2014	21:40		8/25/2014	22:22
25000114.D	1S14162C	K1407378-009	8/25/2014	22:27		8/25/2014	23:09
25000115.D	ZZZZZZ	ZZZZZZ	8/25/2014	23:15		8/25/2014	23:57
25000116.D	ZZZZZZ	ZZZZZZ	8/26/2014	00:03		8/26/2014	00:45
25000117.D	1S14166A	K1407378-012	8/26/2014	00:51		8/26/2014	01:33
25000118.D	ZZZZZZ	ZZZZZZ	8/26/2014	01:39		8/26/2014	02:21
25000119.D	Continuing Calibration Verification	KWG1412118-3	8/26/2014	02:26		8/26/2014	03:08
25000120.D	Instrument Blank	KWG1412118-6	8/26/2014	03:14		8/26/2014	03:56

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps
Sample Matrix: Soil

Service Request: K1407378
Date Extracted: 07/29/2014

Extraction Prep Log
Nitroaromatics and Nitramines (Explosives)

Extraction Method: METHOD
Analysis Method: 8330B

Extraction Lot: KWG1410590
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
1S14163A	K1407378-001	07/15/14	07/18/14	10.03g	40ml	100	
1S14163BDL	K1407378-002	07/15/14	07/18/14	10.02g	40ml	100	
1S14163B	K1407378-002	07/15/14	07/18/14	10.02g	40ml	100	
1S14161A	K1407378-005	07/16/14	07/18/14	10.03g	40ml	100	
1S14161B	K1407378-006	07/16/14	07/18/14	10.01g	40ml	100	
1S14162ADL	K1407378-007	07/16/14	07/18/14	10.00g	40ml	100	
1S14162A	K1407378-007	07/16/14	07/18/14	10.00g	40ml	100	
1S14162BDL	K1407378-008	07/16/14	07/18/14	10.00g	40ml	100	
1S14162B	K1407378-008	07/16/14	07/18/14	10.00g	40ml	100	
1S14162C	K1407378-009	07/16/14	07/18/14	10.00g	40ml	100	
1S14162CDL	K1407378-009	07/16/14	07/18/14	10.00g	40ml	100	
1S14165A	K1407378-010	07/16/14	07/18/14	10.00g	40ml	100	
1S14165B	K1407378-011	07/16/14	07/18/14	10.01g	40ml	100	
1S14166ADL	K1407378-012	07/16/14	07/18/14	10.00g	40ml	100	
1S14166A	K1407378-012	07/16/14	07/18/14	10.00g	40ml	100	
1S14166B	K1407378-013	07/16/14	07/18/14	10.03g	40ml	100	
Method Blank	KWG1410590-6	NA	NA	10.00g	40ml	NA	
1S14162AMS	KWG1410590-1	07/16/14	07/18/14	10.00g	40ml	100	
1S14162ADMS	KWG1410590-2	07/16/14	07/18/14	10.01g	40ml	100	
1S14162BMS	KWG1410590-3	07/16/14	07/18/14	10.00g	40ml	100	
1S14162BDMS	KWG1410590-4	07/16/14	07/18/14	10.07g	40ml	100	
Lab Control Sample	KWG1410590-5	NA	NA	10.00g	40ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/15/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/22/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14163A	Units:	mg/Kg
Lab Code:	K1407378-001	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	66	66	66	0%	C
RDX	METHOD	8330B	0.0035	ND	-	NC	NC	

ALS Group USA, Corp. dba ALS Environmental

Client: ATK - Alliant Techsystems Inc
Project: NIROP Sumps//Omaha, NE.
Sample Matrix: Soil

Service Request: K1407378
Date Collected: 7/15/2014
Date Received: 7/18/2014
Date Extracted: 7/29/2014
Date Aualyzed Primary Column: 8/19/2014
Date Analyzed Confirmation Column: 8/22/2014

HPLC Explosives
Column Comparison

Sample Name: 1S14163B
Lab Code: K1407378-002
Test Notes:

Units: mg/Kg
Basis: Dry

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	98	97	98	1%	C
RDX	METHOD	8330B	0.0035	ND	-	NC	NC	

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/22/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14161A	Units:	mg/Kg
Lab Code:	K1407378-005	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	29	29	29	0%	C
RDX	METHOD	8330B	0.0035	ND	-	NC	NC	

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14161B	Units:	mg/Kg
Lab Code:	K1407378-006	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	69	69	69	0%	C
RDX	METHOD	8330B	0.0035	ND	-	NC	NC	

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14162A	Units:	mg/Kg ,
Lab Code:	K1407378-007	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	160	161	161	-1%	C
RDX	METHOD	8330B	0.0035	0.28	0.32	0.3	-13%	C

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14162B	Units:	mg/Kg
Lab Code:	K1407378-008	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	130	128	129	2%	C
RDX	METHOD	8330B	0.0035	0.15	0.2	0.18	-29%	C

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14162C	Units:	mg/Kg
Lab Code:	K1407378-009	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	130	131	131	-1%	C
RDX	METHOD	8330B	0.0035	0.26	0.28	0.27	-7%	C

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14165A	Units:	mg/Kg
Lab Code:	K1407378-010	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	11	11	11	0%	C
RDX	METHOD	8330B	0.0035	20	21	21	-5%	C

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14165B	Units:	mg/Kg
Lab Code:	K1407378-011	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmatiou Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	7.2	7.3	7.3	-1%	C
RDX	METHOD	8330B	0.0035	12	12	12	0%	C

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14166A	Units:	mg/Kg
Lab Code:	K1407378-012	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	100	104	102	-4%	C
RDX	METHOD	8330B	0.0035	ND	-	NC	NC	

ALS Group USA, Corp. dba ALS Environmental

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	K1407378
Project:	NIROP Sumps//Omaha, NE.	**Date Collected:**	7/16/2014
Sample Matrix:	Soil	**Date Received:**	7/18/2014
		Date Extracted:	7/29/2014
		Date Analyzed Primary Column:	8/19/2014
		Date Analyzed Confirmation Column:	8/23/2014

HPLC Explosives
Column Comparison

Sample Name:	1S14166B	Units:	mg/Kg
Lab Code:	K1407378-013	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MDL	Primary Column Result	Confirmation Column Result	Average	Relative Percent Difference	Result Notes
HMX	METHOD	8330B	0.0051	0.94	0.92	0.93	2%	C
RDX	METHOD	8330B	0.0035	ND	-	NC	NC	

BW-7

DU-1, 2

Dioxin ISM Results

2014

August 13, 2014

Service Request No:E1400845

Ronald Bowlin
ATK -Launch Systems
P.O. Box 98
Magna, UT 84044

Laboratory Results for: Method 8290

Dear Ronald,

Enclosed are the results of the sample(s) submitted to our laboratory July 23, 2014
For your reference, these analyses have been assigned our service request number **E1400845.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the final complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the TNI 2009 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2279. You may also contact me via email at Arthi.Kodur@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Arthi Kodur
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 713 266 1599 | FAX +1 713 266 0130
ALS Group USA, Corp.
dba ALS Environmental

ALS Environmental

Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	ATK - Alliant Techsystems Inc	**Service Request No.:**	E1400845
Project:	Method 8290	**Date Received:**	7/23/14
Sample Matrix:	Soil		

ALS ENVIRONMENTAL NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Three soil samples were received for analysis at ALS Environmental on 7/23/14.

The samples were initially shipped by the client to ALS-Kelso to perform incremental sampling. The samples were logged under K1407389 and shipped to ALS-Houston HRMS to perform the dioxin analysis. The samples were re-logged under E1400845.

The samples were received at 0°C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Extraction

During the extraction the entire sample jars were not used. The samples were weighed out. A non-conformance card (NCAR 0246) has been issued as a result of the error.

Data Validation Notes and Discussion

B flags – Method Blanks

The Method Blank EQ1400430-01 contained low levels of various analytes at or below the Method Reporting Limit (MRL).

The Method Blank EQ1400447-01 contained low levels of various analytes at or below the Method Reporting Limit (MRL).

The associated compounds in the samples are flagged with 'B' flags.

MS/MSD

EQ1400430: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of an MS/MSD for this extraction batch. The batch quality control criteria were met.

EQ1400447: Laboratory Control Spike (LCS) sample was analyzed and reported in addition to an MS/MSD for this extraction batch. The batch quality control criteria were met. The batch precision (MS/DMS) measurements were determined on another order in the extraction batch. The MS/DMS results are not included in this report.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions were sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted analytes is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limit were below the Method Reporting Limit.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Deteetion Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration cquals the detection limit.

The TEQ Summary results for each sample have been ealeulated by ALS ENVIRONMENTAL/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ATK - Alliant Techsystems Inc

Project: Method 8290

Service Request:E1400845

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E1400845-001	1S14166A	7/16/2014	1430
E1400845-002	1S14166B	7/16/2014	1500
E1400845-003	1S14166C	7/16/2014	1530

Service Request Summary

Folder #: E1400845
Client Name: ATK - Alliant Techsystems Inc
Project Name: Method 8290
Project Number:

Report To: Ronald Bowlin
ATK -Launeh Systems
P.O. Box 98
Magna, UT 84044
Phone Number: 801-251-4865
Cell Number:
Fax Number:
E-mail: ronald.bowlin@atk.com

Project Chemist: Arthi Kodur
Originating Lab: HOUSTON
Logged By: ALOPEZ
Date Received: 7/23/14
Internal Due Date: 8/13/14
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: N
Report to MDL?: Y
P.O. Number: ATK-70601
EDD: No EDD Specified

5 - 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
4 - 2 oz-Glass Jar WM AMBER None

Location: EHRMS-WIC 7E, EHRMS-WIC 9A

Lab Samp No.	Client Samp No.	Matrix	Collected	SVM 8290/ PCDD PCDF	SVM CAS SOP/ Total Solids
E1400845-001	1S14166A	Soil	7/16/14 1430	IV	IV
E1400845-002	1S14166B	Soil	7/16/14 1500	IV	IV
E1400845-003	1S14166C	Soil	7/16/14 1530	IV	IV

Folder Comments:

ISM performed at Kelso (KK1407389)
Samples logged under Houston Lims (ak 7/23/14)

Test Comments:

Group	Test/Method	Samples	Comments
Semivoa GCMS	PCDD PCDF/8290	1-3	ISM samples,use the enitre jar (ak 7/23/14) For total solids use entire jar full list
Semivoa GCMS	Total Solids/CAS SOP	1-3	ISM samples,use the enitre jar (ak 7/23/14) For total solids use entire jar full list

Data Qualifier Flags – Dioxin/Furans

B Indicates the associated analyte is found in the method blank, as well as in the sample

C 2378-TCDF is detected on the DB-5 column above the MRL, confirmation analysis was performed on a second column (DB-225.) The results from both the DB-5 column and the DB-225 column are included in this data package. The results from the DB-225 analyses should be used to evaluate the 2378-TCDF in the samples. The confirmed result are used in determining the TEQ value for TCDF.

E The reported result is above the instrument calibration range and is an estimated value.

J Indicates an estimated value – used when the analyte concentration is below the method reporting limit (MRL) and above the estimated detection limit (EDL)

K Ion abundance ratios between the primary and secondary ions were outside of theoretical acceptance limits. The reported result is an estimated maximum possible concentration (EMPC)

i The associated MRL/MDL has been elevated due to matrix interference.

U Indicates the compound was analyzed for, but not detected (ND)

Y C13-Labeled standard percent recoveries are outside of method acceptance limits

S Peak is saturated; data not reportable

P Indicates chlorodiphenyl ether interference present at the retention time of the target compound.

X See case narrative

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Florida Department of Health	E87611	6/30/2015
California Department of Health Services	2452	2/28/2015
Washington Department of Health	c819	11/14/2014
Arizona Department of Health Services	AZ0793	5/27/2015
Minnesota Department of Health	TX02694	12/31/2014
Oregon Environmental Laboratory Accreditation Program	TX200002	3/24/2015
Utah Department of Health Environmental Laboratory Certification	TX02694	7/31/2015
Louisiana Department of Environmental Quality	03048	12/31/2014
Texas Commision on Environmental Quality	TX104704216-14-5	6/30/2015
Pennsylvania Department of Environmental Protection	68-03441	6/30/2015
New Jersey Department of Environmental Protection	NLC140001	6/30/2015
New York Department of Health	11707	4/1/2015
United States Department of Agriculture	P330-14-00067	2/21/2017
American Association for Laboratory Accreditation	2897.01	11/30/2014
Arkansas Department of Environmental Quality	14-038-0	6/16/2015
Hawaii Department of Health	TX02694	6/30/2015
Kansas Department of Health and Environment	E-10406	1/31/2015
Louisiana Department of Health and Hospitals	TX2694	6/30/2015
Maryland Department of the Environment	343	6/30/2015
Michigan Depratment of Environmental Quality	9971	6/30/2015
New Mexico Environment Department	TX02694	6/30/2015
Nevada Department of Concervation and Natural Resources	TX014112013-2	7/31/2015
Oklahoma Department of Environmental Quality	2013-132	8/31/2014
Tennessee Department of Environment and Concervation	04016	6/30/2015
West Virginia Department of Environmental Protection	347	6/30/2015
Nebraska Department of Health and Human Services	NE-OS-25-13	6/30/2015
Illinois Environmental Protection Agency	200057	10/6/2014

ALS Environmental – Houston HRMS
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1400845 DB-5MSUI DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
08/11/14	JC	-001, -002

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
08/11/14	MM	001, 002

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1400845 DB-5 DB-5MSUI DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date:	Analyst:	Samples:
08/13/14	gc	003

Second Level - Data Review – to be filled by person doing peer review

Date:	Analyst:	Samples:
08/13/14	LKL	003

ALS Environmental

Chain of Custody

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Environmental Chain of Custody

1317 South 13th Avenue • Kelso, WA 98626 • 1-360-577-7222 • FAX 1-360-636-1068

ALS Contact: Gregory Salata, Ph.D.

Project Number: K1407389
Project Manager: Gregory Salata, Ph.D.

Lab Code	Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Lab ID	Relinquish 2 None
K1407389-001	1S14166A	5	Soil	7/16/14	1430	~~Salt Lake City~~ HOUSTON ALS	X
K1407389-002	1S14166B	2	Soil	7/16/14	1500	~~Salt Lake City~~ HOUSTON ALS	X
K1407389-003	1S14166C	2	Soil	7/16/14	1530	~~Salt Lake City~~ HOUSTON ALS	X

log under ATK

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
Please provide the electronic (PDF and EDD) report to the following e-mail address: ALKLS.Data@alsglobal.com	___ RUSH (Surcharges Apply)	___ I. Results Only	
	PLEASE CIRCLE WORK DAYS 1 2 3 4 5	___ II. Results + QC Summaries	PO# K1407389
	___ STANDARD	___ III. Results + QC and Calibration Summaries	
		___ IV. Data Validation Report with Raw Data	
H - Test is On Hold P - Test is Authorized for Prep Only	Requested FAX Date: ___	PQL/MDL/J N	Bill to
	Requested Report Date: 07/24/14	EDD Y	

Relinquished By: E1400845 [signature] 7/22/14 Received By: [signature] 7/23/14 Airbill Number: ___

Cooler Receipt Form

ALS Environmental

Project Chemist: AK

Client/Project: ATK

Thermometer ID: SMO

Date/Time Received: 7/23/14 942 Initials: AL

Date/Time Logged in: 7/23/14 Initials: AL

1. Method of delivery: ○ US Mail ✓ Fed Ex ○ UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ✓ Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ✓ Yes ○ No
   Were they intact? ✓ Yes ○ No ○ N/A
   Were they signed and dated? ✓ Yes ○ No ○ N/A

   If yes, how many and where? 1 seal

4. Packing Material: ○ Inserts ○ Baggies ✓ Bubble Wrap ✓ Gel Packs ○ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ✓ No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
5478 9735 4748		7/23/14	1035	AL	0/0	☐
						☐
						☐
						☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ✓ Yes ○ No
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ✓ Yes ○ No
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ✓ Yes ○ No
9. Were appropriate bottles/containers and volumes received for the requested tests? ✓ Yes ○ No
10. Did sample labels and tags agree with custody documents? ✓ Yes ○ No

Notes, Discrepancies, & Resolutions:

# of containers on COC:

# of containers received:

Service request Label: E1400845 5
ATK Launch Systems
Risk Assessment Method 8290

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 713 266 1599
F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report

Preparation Information Benchsheet

Prep Run#: 214614
Team: Semivoa GCMS/DEDWARDS

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/4/14 09:45 AM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	E1400840-010	BJ10LAA02-SW-2-D	.01	8290A/PCDD PCDF		Soil	10.083g	Rocks,Dirt Rocks
2	E1400840-011	BJ10LAA02-SW-3	.01	8290A/PCDD PCDF		Soil	10.391g	Rocks,Dirt Rocks
3	E1400840-012	BJ10LAA02-SW-4	.01	8290A/PCDD PCDF		Soil	10.093g	Rocks,Dirt Rocks
4	E1400840-013	BJ10LAA02-SW-5	.01	8290A/PCDD PCDF		Soil	10.078g	Rocks,Dirt Rocks
5	E1400840-014	BJ10LAA02-SW-6	.01	8290A/PCDD PCDF		Soil	10.407g	Rocks,Dirt Rocks
6	E1400840-015	BJ10LAA02-SW-7	.01	8290A/PCDD PCDF		Soil	10.044g	Rocks,Dirt Rocks
7	E1400840-016	BJ10LAA02-SW-8	.01	8290A/PCDD PCDF		Soil	10.344g	Rocks,Dirt Rocks
8	E1400840-017	BJ10LAA02-SW-9	.01	8290A/PCDD PCDF		Soil	10.213g	Clumpy Clay, Dark Brown
9	E1400840-018	BJ10LAA02-SW-10	.01	8290A/PCDD PCDF		Soil	10.336g	Rocks,Dirt Rocks
10	E1400840-019	BJ10LAA02-SW-11	.01	8290A/PCDD PCDF		Soil	10.426g	Rocks,Dirt Rocks
11	E1400840-020	BJ10LAA02-SW-12	.01	8290A/PCDD PCDF		Soil	10.459g	Rocks,Dirt Rocks
12	E1400840-021	BJ10LAA02-SW-12-D	.01	8290A/PCDD PCDF		Soil	10.136g	Rocks,Dirt Rocks
13	E1400840-022	BJ10LAA02-SW-13	.01	8290A/PCDD PCDF		Soil	10.122g	Rocks,Dirt Rocks
14	E1400840-023	BJ10LAA02-SW-14	.01	8290A/PCDD PCDF		Soil	10.066g	Rocks,Dirt Rocks
15	E1400840-024	BJ10LAA02-SW-15	.01	8290A/PCDD PCDF		Soil	10.414g	Rocks,Dirt Rocks
16	E1400840-025	BJ10LAA02-SW-16	.01	8290A/PCDD PCDF		Soil	10.373g	Rocks,Dirt Rocks
17	E1400845-001	1S14166A	.01	8290/PCDD PCDF		Soil	10.274g	Small Rocks, Dirt, Brown Color
18	E1400845-002	1S14166B	.01	8290/PCDD PCDF		Soil	10.234g	Small Rocks, Dirt, Brown Color
19	E1400862-001	BG14LAA01-SP-1	.01	8290A/PCDD PCDF		Soil	10.397g	Brown Color, Dirt, Rocks
20	EQ1400430-01	MB		8290A/PCDD PCDF		Solid	10.135g	
21	EQ1400430-02	LCS		8290A/PCDD PCDF		Solid	10.194g	
22	EQ1400430-03	DLCS		8290A/PCDD PCDF		Solid	10.076g	

Preparation Information Benchsheet

Prep Run#: 214614 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/DEDWARDS **Prep Method:** Method **Prep Date/Time:** 8/4/14 09:45 AM

Spiking Solutions

Name:	1613B Labeled Working Standard	Inventory ID	72615	Logbook Ref:	2-4 ng/ml 72615 WM 7/21/14	Expires On:	07/21/2015

E1400862-001	1,000.00µL						

Name:	1613B Matrix Working Standard	Inventory ID	72907	Logbook Ref:	2-20ng/mL 72907 TL 7/29/14	Expires On:	07/29/2015

EQ1400430-02	100.00µL	EQ1400430-02	100.00µL	EQ1400430-03	100.00µL	EQ1400430-03	100.00µL

Name:	1613B Labeled Working Standard	Inventory ID	73135	Logbook Ref:	2-4 ng/ml WM 73135 8/4/14	Expires On:	08/04/2015

E1400840-010	1,000.00µL	E1400840-011	1,000.00µL	E1400840-012	1,000.00µL	E1400840-013	1,000.00µL	E1400840-014	1,000.00µL	E1400840-015	1,000.00µL
E1400840-016	1,000.00µL	E1400840-017	1,000.00µL	E1400840-018	1,000.00µL	E1400840-019	1,000.00µL	E1400840-020	1,000.00µL	E1400840-021	1,000.00µL
E1400840-022	1,000.00µL	E1400840-023	1,000.00µL	E1400840-024	1,000.00µL	E1400840-025	1,000.00µL	E1400845-001	1,000.00µL	E1400845-002	1,000.00µL
EQ1400430-01	1,000.00µL	EQ1400430-01	1,000.00µL	EQ1400430-02	1,000.00µL	EQ1400430-02	1,000.00µL	EQ1400430-03	1,000.00µL	EQ1400430-03	1,000.00µL

Name:	8290/1613B Cleanup Working Standard	Inventory ID	73163	Logbook Ref:	73163 CID 08/04/2014	Expires On:	01/31/2015

E1400840-010	100.00µL	E1400840-011	100.00µL	E1400840-012	100.00µL	E1400840-013	100.00µL	E1400840-014	100.00µL	E1400840-015	100.00µL
E1400840-016	100.00µL	E1400840-017	100.00µL	E1400840-018	100.00µL	E1400840-019	100.00µL	E1400840-020	100.00µL	E1400840-021	100.00µL
E1400840-022	100.00µL	E1400840-023	100.00µL	E1400840-024	100.00µL	E1400840-025	100.00µL	E1400845-001	100.00µL	E1400845-002	100.00µL
E1400862-001	100.00µL	EQ1400430-01	100.00µL	EQ1400430-01	100.00µL	EQ1400430-02	100.00µL	EQ1400430-02	100.00µL	EQ1400430-03	100.00µL
EQ1400430-03	100.00µL										

Preparation Materials

Carbon, High Purity	TL 7/9/14 (72330)	Ethyl Acetate 99.9% Minimum EtOAc	AL 04/01/14 (71228)	Glass Wool	AL 05/19/14 (70618)
Sulfuric Acid Reagent Grade H2SO4	73285 TL 8/6/14 (73285)	Hexanes 95%	AL 08/06/14 (73213)	Dichloromethane (Methylene Chloride) 99.9% McCl2	AL 07/30/14 (72969)
Sodium Chloride Reagent Grade NaCl	C2-65-5 (38670)	Sodium Hydroxide Reagent Grade NaOH	C2-73-7 (53023)	Sodium Sulfate Anhydrous Reagent Grade Na2SO4	AL 07/29/14 (72944)
Tridecane (n-Tridecane)	LM 7/9/14 (72332)	Silica Gel Reagent Grade	AL 05/21/14 (70718)	Toluene 99.9% Minimum	AL 07/25/14 (72861)

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	8/4/14 09:45	Started:	8/7/14 10:00	Started:	8/7/14 08:00	Started:	8/7/14 16:50
Finished:	8/5/14 04:45	Finished:	8/7/14 11:00	Finished:	8/7/14 10:10	Finished:	8/7/14 17:29
By:	WMCDONOUGH	By:	CDIAZ	By:	CDIAZ	By:	DEDWARDS
Comments		Comments		Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 214614
Team: Semivoa GCMS/DEDWARDS

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/4/14 09:45 AM

Comments:

Reviewed By: JWP 080814 Date: Spike Witness: WMCDONOUGH Date:

Chain of Custody

Relinquished By: Date:

Received By: Date:

Extracts Examined
Yes No

Preparation Information Benchsheet

Prep Run#: 215025
Team: Semivoa GCMS/DEDWARDS

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 8/8/14 10:55 AM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	E1400845-003	IS14166C	.01	8290/PCDD PCDF		Soil	10.068g	Small Rocks, Dirt, Brown Color
2	E1400873-001	SRP-SE001A-0-140717	.01	8290/PCDD PCDF		Sediment	10.067g	Brown Color,Muddy, Watery
3	E1400873-002	SRP-SE001B-0-140717	.01	8290/PCDD PCDF		Sediment	10.179g	Brown Color,Muddy, Watery
4	E1400873-003	SRP-SE001C-0-140717	.01	8290/PCDD PCDF		Sediment	10.040g	Brown Color,Muddy, Watery
5	E1400873-004	SRP-SE002-0-140718	.01	8290/PCDD PCDF		Sediment	10.157g	Brown Color,Muddy, Watery
6	E1400873-005	SRP-SE005-0-140721	.01	8290/PCDD PCDF		Sediment	10.059g	Yarn,Sticks, Brown Color, Watery
7	E1400874-001	SRP-SS001-0-140722	.01	8290/PCDD PCDF		Soil	10.309g	Light Brown, Rocks, Sandy
8	E1400874-002	SRP-SS002-0-140722	.01	8290/PCDD PCDF		Soil	10.107g	Light Brown, Rocks, Sandy
9	E1400874-003	SRP-SS004-0-140724	.01	8290/PCDD PCDF		Soil	10.290g	Sticks, Brown Color, Sandy
10	E1400874-004	SRP-SS006-0-140724	.01	8290/PCDD PCDF		Soil	10.195g	Light Brown, Rocks, Sandy
11	E1400874-005	SRP-SE011-0-140724	.01	8290/PCDD PCDF		Sediment	10.401g	Muddy,Watery, Dark Brown
12	EQ1400447-01	MB		8290/PCDD PCDF		Solid	10.441g	
13	EQ1400447-02	LCS		8290/PCDD PCDF		Solid	10.452g	
14	EQ1400447-03	SRP-SE001A-0-140717 MS	.01	8290/PCDD PCDF		Solid	10.462g	
15	EQ1400447-04	SRP-SE001A-0-140717 DMS	.01	8290/PCDD PCDF		Solid	10.241g	

Spiking Solutions

Name: 1613B Matrix Working Standard | Inventory ID 72907 | Logbook Ref: 2-20ng/mL 72907 TL 7/29/14 | Expires On: 07/29/2015

EQ1400447-02	100.00µL	EQ1400447-03	100.00µL	EQ1400447-04	100.00µL

Name: 1613B Labeled Working Standard | Inventory ID 73314 | Logbook Ref: 2-4 ng/ml 73314 WM 8/8/14 | Expires On: 08/08/2015

E1400845-003	1,000.00µL	E1400873-001	1,000.00µL	E1400873-002	1,000.00µL	E1400873-003	1,000.00µL	E1400873-004	1,000.00µL	E1400873-005	1,000.00µL
E1400874-001	1,000.00µL	E1400874-002	1,000.00µL	E1400874-003	1,000.00µL	E1400874-004	1,000.00µL	E1400874-005	1,000.00µL	EQ1400447-01	1,000.00µL
EQ1400447-02	1,000.00µL	EQ1400447-03	1,000.00µL	EQ1400447-04	1,000.00µL						

Name: 8290/1613B Cleanup Working Standard | Inventory ID 73407 | Logbook Ref: 73407 CID 08/11/2014 | Expires On: 02/07/2015

E1400845-003	100.00µL	E1400873-001	100.00µL	E1400873-002	100.00µL	E1400873-003	100.00µL	E1400873-004	100.00µL	E1400873-005	100.00µL
E1400874-001	100.00µL	E1400874-002	100.00µL	E1400874-003	100.00µL	E1400874-004	100.00µL	E1400874-005	100.00µL	EQ1400447-01	100.00µL
EQ1400447-02	100.00µL	EQ1400447-03	100.00µL	EQ1400447-04	100.00µL						

Preparation Information Benchsheet

Prep Run#: 215025 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/DEDWARDS **Prep Method:** Method **Prep Date/Time:** 8/8/14 10:55 AM

Preparation Materials

Carbon, High Purity	TL 7/9/14 (72330)	Ethyl Acetate 99.9% Minimum EtOAc	AL 04/01/14 (71228)	Glass Wool	AL 05/19/14 (70618)
Sulfuric Acid Reagent Grade H2SO4	73285 TL 8/6/14 (73285)	Hexanes 95%	AL 08/06/14 (73214)	Sodium Sulfate Anhydrous Reagent Grade Na2SO4	AL 07/29/14 (72944)
Tridecane (n-Tridecane)	LM 7/9/14 (72332)	Silica Gel Reagent Grade	AL 05/21/14 (70718)	Toluene 99.9% Minimum	AL 08/06/14 (73212)
Sodium Hydroxide Reagent Grade NaOH	C2-73-7 (53023)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	AL 05/14/14 (70509)	Sodium Chloride Reagent Grade NaCl	C2-65-5 (38670)

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	8/8/14 10:55	Started:	8/12/14 08:00	Started:	8/12/14 11:00	Started:	8/13/14 08:35
Finished:	8/8/14 12:05	Finished:	8/12/14 08:30	Finished:	8/12/14 13:30	Finished:	8/13/14 08:55
By:	DEDWARDS	By:	CDIAZ	By:	CDIAZ	By:	DEDWARDS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: JWP 081314 Date: _____ Spike Witness: LMCCRINK Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 14:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166A	**Units:**	ng/Kg
Lab Code:	E1400845-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/10/14 05:07
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.274g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5MSUI
Data File Name:	P172682	**Blank File Name:**	P172646
ICAL Date:	03/25/14	**Cal Ver. File Name:**	P172672

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**0.255**	**JK**	0.126	0.496	0.51	1.001	1
1,2,3,7,8-PeCDD	**0.762**	**J**	0.0584	2.48	1.63	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.0199	2.48			1
1,2,3,6,7,8-HxCDD	**1.00**	**J**	0.0205	2.48	1.06	1.000	1
1,2,3,7,8,9-HxCDD	**0.876**	**JK**	0.0187	2.48	0.92	1.007	1
1,2,3,4,6,7,8-HpCDD	**10.7**		0.125	2.48	0.99	1.000	1
OCDD	**54.2**		0.335	4.96	0.86	1.000	1
2,3,7,8-TCDF	**1.29**	**K**	0.0896	0.496	0.52	1.001	1
1,2,3,7,8-PeCDF	**1.53**	**JK**	0.248	2.48	2.20	1.001	1
2,3,4,7,8-PeCDF	**2.93**		0.239	2.48	1.61	1.001	1
1,2,3,4,7,8-HxCDF	**3.30**		0.398	2.48	1.10	1.000	1
1,2,3,6,7,8-HxCDF	**2.66**	**B**	0.349	2.48	1.30	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.532	2.48			1
2,3,4,6,7,8-HxCDF	**2.77**		0.414	2.48	1.37	1.000	1
1,2,3,4,6,7,8-HpCDF	**16.5**		0.168	2.48	1.15	1.000	1
1,2,3,4,7,8,9-HpCDF	**1.07**	**J**	0.212	2.48	1.06	1.000	1
OCDF	**7.98**		0.322	4.96	0.83	1.005	1
Total Tetra-Dioxins	**3.37**		0.126	0.496	0.72		1
Total Penta-Dioxins	**8.17**		0.0584	2.48	1.32		1
Total Hexa-Dioxins	**9.16**		0.0197	2.48	1.36		1
Total Hepta-Dioxins	**22.0**		0.125	2.48	1.14		1
Total Tetra-Furans	**39.0**		0.0896	0.496	0.71		1
Total Penta-Furans	**23.9**		0.0288	2.48	1.42		1
Total Hexa-Furans	**26.1**		0.414	2.48	1.15		1
Total Hepta-Furans	**22.7**		0.189	2.48	1.15		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 14:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166A	**Units:**	Percent
Lab Code:	E1400845-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/10/14 05:07
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.274g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5MSUI
Data File Name:	P172682	**Blank File Name:**	P172646
ICAL Date:	03/25/14	**Cal Ver. File Name:**	P172672

Labeled Standard Resnlts

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	913.768	46		40-135	0.75	1.021
13C-1,2,3,7,8-PeCDD	2000	1101.460	55		40-135	1.52	1.187
13C-1,2,3,4,7,8-HxCDD	2000	1321.135	66		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1299.626	65		40-135	1.24	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1014.836	51		40-135	1.05	1.066
13C-OCDD	4000	1423.334	36	Y	40-135	0.86	1.139
13C-2,3,7,8-TCDF	2000	845.262	42		40-135	0.73	0.993
13C-1,2,3,7,8-PeCDF	2000	844.147	42		40-135	1.54	1.145
13C-2,3,4,7,8-PeCDF	2000	899.002	45		40-135	1.53	1.177
13C-1,2,3,4,7,8-HxCDF	2000	1124.786	56		40-135	0.51	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1254.947	63		40-135	0.50	0.974
13C-1,2,3,7,8,9-HxCDF	2000	988.784	49		40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1117.674	56		40-135	0.50	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	881.772	44		40-135	0.42	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	903.793	45		40-135	0.41	1.078
37Cl-2,3,7,8-TCDD	800	280.548	35	Y	40-135	NA	1.022

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 14:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166A	**Units:**	ng/Kg
Lab Code:	E1400845-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analytc Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.255**	0.126	0.496	1	1	0.255
1,2,3,7,8-PeCDD	**0.762**	0.0584	2.48	1	1	0.762
1,2,3,4,7,8-HxCDD	ND	0.0199	2.48	1	0.1	
1,2,3,6,7,8-HxCDD	**1.00**	0.0205	2.48	1	0.1	0.100
1,2,3,7,8,9-HxCDD	**0.876**	0.0187	2.48	1	0.1	0.0876
1,2,3,4,6,7,8-HpCDD	**10.7**	0.125	2.48	1	0.01	0.107
OCDD	**54.2**	0.335	4.96	1	0.0003	0.0163
2,3,7,8-TCDF	**1.29**	0.0896	0.496	1	0.1	0.129
1,2,3,7,8-PeCDF	**1.53**	0.248	2.48	1	0.03	0.0459
2,3,4,7,8-PeCDF	**2.93**	0.239	2.48	1	0.3	0.879
1,2,3,4,7,8-HxCDF	**3.30**	0.398	2.48	1	0.1	0.330
1,2,3,6,7,8-HxCDF	**2.66**	0.349	2.48	1	0.1	0.266
1,2,3,7,8,9-HxCDF	ND	0.532	2.48	1	0.1	
2,3,4,6,7,8-HxCDF	**2.77**	0.414	2.48	1	0.1	0.277
1,2,3,4,6,7,8-HpCDF	**16.5**	0.168	2.48	1	0.01	0.165
1,2,3,4,7,8,9-HpCDF	**1.07**	0.212	2.48	1	0.01	0.0107
OCDF	**7.98**	0.322	4.96	1	0.0003	0.00239
		Total TEQ				3.43

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:00
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166B	**Units:**	ng/Kg
Lab Code:	E1400845-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/10/14 05:55
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.234g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5MSUI
Data File Name:	P172683	**Blank File Name:**	P172646
ICAL Date:	03/25/14	**Cal Ver. File Name:**	P172672

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.143	0.502			1
1,2,3,7,8-PeCDD	**0.151**	**JK**	0.0511	2.51	2.47	1.001	1
1,2,3,4,7,8-HxCDD	**0.224**	**JK**	0.0349	2.51	0.80	1.000	1
1,2,3,6,7,8-HxCDD	**0.641**	**J**	0.0395	2.51	1.24	1.000	1
1,2,3,7,8,9-HxCDD	**0.448**	**JK**	0.0345	2.51	0.83	1.006	1
1,2,3,4,6,7,8-HpCDD	**21.4**		0.231	2.51	0.96	1.000	1
OCDD	**210**		0.139	5.02	0.93	1.000	1
2,3,7,8-TCDF	ND	U	0.110	0.502			1
1,2,3,7,8-PeCDF	ND	U	0.0380	2.51			1
2,3,4,7,8-PeCDF	ND	U	0.0362	2.51			1
1,2,3,4,7,8-HxCDF	**0.179**	**J**	0.0642	2.51	1.19	1.000	1
1,2,3,6,7,8-HxCDF	**0.156**	**BJ**	0.0522	2.51	2.12	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.0833	2.51			1
2,3,4,6,7,8-HxCDF	**0.211**	**J**	0.0646	2.51	1.40	1.000	1
1,2,3,4,6,7,8-HpCDF	**4.04**		0.159	2.51	1.07	1.000	1
1,2,3,4,7,8,9-HpCDF	**0.325**	**JK**	0.207	2.51	1.41	1.000	1
OCDF	**11.8**		0.316	5.02	0.88	1.005	1
Total Tetra-Dioxins	ND	U	0.143	0.502			1
Total Penta-Dioxins	ND	U	0.0511	2.51			1
Total Hexa-Dioxins	**3.68**		0.0362	2.51	1.18		1
Total Hepta-Dioxins	**21.4**		0.231	2.51	0.96		1
Total Tetra-Furans	ND	U	0.110	0.502			1
Total Penta-Furans	**0.558**	**J**	0.0543	2.51	1.51		1
Total Hexa-Furans	**2.77**		0.0645	2.51	1.18		1
Total Hepta-Furans	**11.3**		0.181	2.51	1.07		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:00
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166B	**Units:**	Percent
Lab Code:	E1400845-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/10/14 05:55
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.234g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5MSUI
Data File Name:	P172683	**Blank File Name:**	P172646
ICAL Date:	03/25/14	**Cal Ver. File Name:**	P172672

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	827.198	41		40-135	0.75	1.021
13C-1,2,3,7,8-PeCDD	2000	1056.628	53		40-135	1.54	1.186
13C-1,2,3,4,7,8-HxCDD	2000	1262.965	63		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1155.530	58		40-135	1.23	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1007.710	50		40-135	1.06	1.066
13C-OCDD	4000	1471.217	37	Y	40-135	0.85	1.140
13C-2,3,7,8-TCDF	2000	764.919	38	Y	40-135	0.76	0.993
13C-1,2,3,7,8-PeCDF	2000	784.855	39	Y	40-135	1.53	1.144
13C-2,3,4,7,8-PeCDF	2000	842.133	42		40-135	1.53	1.176
13C-1,2,3,4,7,8-HxCDF	2000	1020.307	51		40-135	0.49	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1169.764	58		40-135	0.50	0.974
13C-1,2,3,7,8,9-HxCDF	2000	925.030	46		40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1022.223	51		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	825.438	41		40-135	0.41	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	840.938	42		40-135	0.41	1.079
37Cl-2,3,7,8-TCDD	800	254.798	32	Y	40-135	NA	1.022

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:00
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166B	**Units:**	ng/Kg
Lab Code:	E1400845-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.143	0.502	1	1	
1,2,3,7,8-PeCDD	**0.151**	0.0511	2.51	1	1	0.151
1,2,3,4,7,8-HxCDD	**0.224**	0.0349	2.51	1	0.1	0.0224
1,2,3,6,7,8-HxCDD	**0.641**	0.0395	2.51	1	0.1	0.0641
1,2,3,7,8,9-HxCDD	**0.448**	0.0345	2.51	1	0.1	0.0448
1,2,3,4,6,7,8-HpCDD	**21.4**	0.231	2.51	1	0.01	0.214
OCDD	**210**	0.139	5.02	1	0.0003	0.0630
2,3,7,8-TCDF	ND	0.110	0.502	1	0.1	
1,2,3,7,8-PeCDF	ND	0.0380	2.51	1	0.03	
2,3,4,7,8-PeCDF	ND	0.0362	2.51	1	0.3	
1,2,3,4,7,8-HxCDF	**0.179**	0.0642	2.51	1	0.1	0.0179
1,2,3,6,7,8-HxCDF	**0.156**	0.0522	2.51	1	0.1	0.0156
1,2,3,7,8,9-HxCDF	ND	0.0833	2.51	1	0.1	
2,3,4,6,7,8-HxCDF	**0.211**	0.0646	2.51	1	0.1	0.0211
1,2,3,4,6,7,8-HpCDF	**4.04**	0.159	2.51	1	0.01	0.0404
1,2,3,4,7,8,9-HpCDF	**0.325**	0.207	2.51	1	0.01	0.00325
OCDF	**11.8**	0.316	5.02	1	0.0003	0.00354
		Total TEQ				0.661

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166C	**Units:**	ng/Kg
Lab Code:	E1400845-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/13/14 13:10
Prep Method:	Method	**Date Extracted:**	8/8/14
Sample Amount:	10.068g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5MSUI
Data File Name:	P230489	**Blank File Name:**	P230488
ICAL Date:	08/11/14	**Cal Ver. File Name:**	P230484

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.248	0.506			1
1,2,3,7,8-PeCDD	**0.408**	**JK**	0.313	2.53	5.32	1.001	1
1,2,3,4,7,8-HxCDD	**0.739**	**JK**	0.170	2.53	2.29	1.000	1
1,2,3,6,7,8-HxCDD	**1.37**	**JK**	0.164	2.53	1.50	1.000	1
1,2,3,7,8,9-HxCDD	**1.27**	**JK**	0.149	2.53	2.05	1.008	1
1,2,3,4,6,7,8-HpCDD	**16.7**		0.185	2.53	0.97	1.000	1
OCDD	**74.3**		0.482	5.06	0.90	1.000	1
2,3,7,8-TCDF	**1.67**	**K**	0.244	0.506	0.60	0.999	1
1,2,3,7,8-PeCDF	**1.70**	**J**	0.411	2.53	1.65	1.001	1
2,3,4,7,8-PeCDF	**4.15**		0.402	2.53	1.73	1.001	1
1,2,3,4,7,8-HxCDF	**5.04**	**K**	0.565	2.53	1.60	1.000	1
1,2,3,6,7,8-HxCDF	**3.23**		0.430	2.53	1.43	1.001	1
1,2,3,7,8,9-HxCDF	**1.11**	**JK**	0.777	2.53	1.78	1.000	1
2,3,4,6,7,8-HxCDF	**3.95**	**K**	0.570	2.53	1.51	1.001	1
1,2,3,4,6,7,8-HpCDF	**20.3**		0.258	2.53	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	**1.13**	**JK**	0.405	2.53	1.22	1.000	1
OCDF	**10.2**		0.475	5.06	0.93	1.006	1
Total Tetra-Dioxins	**2.69**		0.248	0.506	0.68		1
Total Penta-Dioxins	**7.43**		0.313	2.53	1.38		1
Total Hexa-Dioxins	**13.5**		0.160	2.53	1.37		1
Total Hepta-Dioxins	**32.7**		0.185	2.53	0.95		1
Total Tetra-Furans	**14.1**		0.244	0.506	0.83		1
Total Penta-Furans	**25.9**		0.152	2.53	1.60		1
Total Hexa-Furans	**19.6**		0.579	2.53	1.18		1
Total Hepta-Furans	**28.3**		0.326	2.53	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166C	**Units:**	Percent
Lab Code:	E1400845-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/13/14 13:10
Prep Method:	Method	**Date Extracted:**	8/8/14
Sample Amount:	10.068g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5MSUI
Data File Name:	P230489	**Blank File Name:**	P230488
ICAL Date:	08/11/14	**Cal Ver. File Name:**	P230484

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	427.249	21	Y	40-135	0.71	1.024
13C-1,2,3,7,8-PeCDD	2000	511.306	26	Y	40-135	1.60	1.198
13C-1,2,3,4,7,8-HxCDD	2000	480.063	24	Y	40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	584.028	29	Y	40-135	1.31	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	443.518	22	Y	40-135	1.09	1.067
13C-OCDD	4000	748.532	19	Y	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	410.590	21	Y	40-135	0.81	0.995
13C-1,2,3,7,8-PeCDF	2000	432.662	22	Y	40-135	1.57	1.153
13C-2,3,4,7,8-PeCDF	2000	433.657	22	Y	40-135	1.58	1.188
13C-1,2,3,4,7,8-HxCDF	2000	424.690	21	Y	40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	569.515	28	Y	40-135	0.53	0.973
13C-1,2,3,7,8,9-HxCDF	2000	451.989	23	Y	40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	480.177	24	Y	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	397.494	20	Y	40-135	0.44	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	428.459	21	Y	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	364.672	46		40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166C	**Units:**	ng/Kg
Lab Code:	E1400845-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.248	0.506	1	1	
1,2,3,7,8-PeCDD	**0.408**	0.313	2.53	1	1	0.408
1,2,3,4,7,8-HxCDD	**0.739**	0.170	2.53	1	0.1	0.0739
1,2,3,6,7,8-HxCDD	**1.37**	0.164	2.53	1	0.1	0.137
1,2,3,7,8,9-HxCDD	**1.27**	0.149	2.53	1	0.1	0.127
1,2,3,4,6,7,8-HpCDD	**16.7**	0.185	2.53	1	0.01	0.167
OCDD	**74.3**	0.482	5.06	1	0.0003	0.0223
2,3,7,8-TCDF	**1.67**	0.244	0.506	1	0.1	0.167
1,2,3,7,8-PeCDF	**1.70**	0.411	2.53	1	0.03	0.0510
2,3,4,7,8-PeCDF	**4.15**	0.402	2.53	1	0.3	1.25
1,2,3,4,7,8-HxCDF	**5.04**	0.565	2.53	1	0.1	0.504
1,2,3,6,7,8-HxCDF	**3.23**	0.430	2.53	1	0.1	0.323
1,2,3,7,8,9-HxCDF	**1.11**	0.777	2.53	1	0.1	0.111
2,3,4,6,7,8-HxCDF	**3.95**	0.570	2.53	1	0.1	0.395
1,2,3,4,6,7,8-HpCDF	**20.3**	0.258	2.53	1	0.01	0.203
1,2,3,4,7,8,9-HpCDF	**1.13**	0.405	2.53	1	0.01	0.0113
OCDF	**10.2**	0.475	5.06	1	0.0003	0.00306
		Total TEQ				3.95

2005 WHO TEFs, ND = 0

ALS Gronp USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Reqnest:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ1400430-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/08/14 18:14
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5MSUI
Data File Name:	P172646	**Blank File Name:**	P172646
ICAL Date:	03/25/14	**Cal Ver. File Name:**	P172644

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.228	0.493			1
1,2,3,7,8-PeCDD	ND	U	0.149	2.47			1
1,2,3,4,7,8-HxCDD	ND	U	0.0754	2.47			1
1,2,3,6,7,8-HxCDD	ND	U	0.0837	2.47			1
1,2,3,7,8,9-HxCDD	ND	U	0.0739	2.47			1
1,2,3,4,6,7,8-HpCDD	ND	U	0.155	2.47			1
OCDD	**0.508**	**JK**	0.317	4.93	1.39	1.001	1
2,3,7,8-TCDF	ND	U	0.268	0.493			1
1,2,3,7,8-PeCDF	ND	U	0.112	2.47			1
2,3,4,7,8-PeCDF	ND	U	0.113	2.47			1
1,2,3,4,7,8-HxCDF	ND	U	0.0688	2.47			1
1,2,3,6,7,8-HxCDF	**0.385**	**J**	0.0562	2.47	1.36	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.0862	2.47			1
2,3,4,6,7,8-HxCDF	ND	U	0.0673	2.47			1
1,2,3,4,6,7,8-HpCDF	ND	U	0.194	2.47			1
1,2,3,4,7,8,9-HpCDF	ND	U	0.265	2.47			1
OCDF	ND	U	0.422	4.93			1
Total Tetra-Dioxins	ND	U	0.228	0.493			1
Total Penta-Dioxins	ND	U	0.149	2.47			1
Total Hexa-Dioxins	ND	U	0.0776	2.47			1
Total Hepta-Dioxins	ND	U	0.155	2.47			1
Total Tetra-Furans	ND	U	0.268	0.493			1
Total Penta-Furans	ND	U	0.130	2.47			1
Total Hexa-Furans	**0.385**	**J**	0.0680	2.47	1.36		1
Total Hepta-Furans	ND	U	0.226	2.47			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ1400430-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/08/14 18:14
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-03
		GC Column:	DB-5MSUI
Data File Name:	P172646	**Blank File Name:**	P172646
ICAL Date:	03/25/14	**Cal Ver. File Name:**	P172644

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	770.055	39	Y	40-135	0.76	1.021
13C-1,2,3,7,8-PeCDD	2000	860.977	43		40-135	1.50	1.186
13C-1,2,3,4,7,8-HxCDD	2000	1035.946	52		40-135	1.20	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1011.811	51		40-135	1.23	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	836.948	42		40-135	1.02	1.066
13C-OCDD	4000	1303.926	33	Y	40-135	0.88	1.139
13C-2,3,7,8-TCDF	2000	674.565	34	Y	40-135	0.75	0.993
13C-1,2,3,7,8-PeCDF	2000	668.078	33	Y	40-135	1.60	1.144
13C-2,3,4,7,8-PeCDF	2000	673.004	34	Y	40-135	1.57	1.176
13C-1,2,3,4,7,8-HxCDF	2000	845.188	42		40-135	0.50	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1016.758	51		40-135	0.49	0.974
13C-1,2,3,7,8,9-HxCDF	2000	787.454	39	Y	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	882.998	44		40-135	0.50	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	740.619	37	Y	40-135	0.43	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	692.552	35	Y	40-135	0.42	1.079
37Cl-2,3,7,8-TCDD	800	258.973	32	Y	40-135	NA	1.021

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ1400447-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/13/14 12:22
Prep Method:	Method	**Date Extracted:**	8/8/14
Sample Amount:	10.441g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5MSUI
Data File Name:	P230488	**Blank File Name:**	P230488
ICAL Date:	08/11/14	**Cal Ver. File Name:**	P230484

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.164	0.479			1
1,2,3,7,8-PeCDD	ND	U	0.141	2.39			1
1,2,3,4,7,8-HxCDD	ND	U	0.0471	2.39			1
1,2,3,6,7,8-HxCDD	ND	U	0.0443	2.39			1
1,2,3,7,8,9-HxCDD	ND	U	0.0408	2.39			1
1,2,3,4,6,7,8-HpCDD	**0.142**	**JK**	0.0595	2.39	0.62	1.001	1
OCDD	**1.03**	**J**	0.189	4.79	0.85	1.000	1
2,3,7,8-TCDF	ND	U	0.151	0.479			1
1,2,3,7,8-PeCDF	ND	U	0.125	2.39			1
2,3,4,7,8-PeCDF	ND	U	0.126	2.39			1
1,2,3,4,7,8-HxCDF	ND	U	0.0524	2.39			1
1,2,3,6,7,8-HxCDF	ND	U	0.0414	2.39			1
1,2,3,7,8,9-HxCDF	ND	U	0.0768	2.39			1
2,3,4,6,7,8-HxCDF	ND	U	0.0518	2.39			1
1,2,3,4,6,7,8-HpCDF	**0.0694**	**JK**	0.0441	2.39	1.46	1.001	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.0712	2.39			1
OCDF	ND	U	0.268	4.79			1
Total Tetra-Dioxins	ND	U	0.164	0.479			1
Total Penta-Dioxins	ND	U	0.141	2.39			1
Total Hexa-Dioxins	ND	U	0.0437	2.39			1
Total Hepta-Dioxins	ND	U	0.0595	2.39			1
Total Tetra-Furans	ND	U	0.151	0.479			1
Total Penta-Furans	ND	U	0.0879	2.39			1
Total Hexa-Furans	ND	U	0.0534	2.39			1
Total Hepta-Furans	ND	U	0.0560	2.39			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Colleeted:**	NA
Sample Matrix:	Soil	**Date Reccived:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ1400447-01	**Basis:**	Dry

Polyehlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/13/14 12:22
Prep Method:	Method	**Date Extracted:**	8/8/14
Sample Amount:	10.441g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5MSUI
Data File Name:	P230488	**Blank File Name:**	P230488
ICAL Date:	08/11/14	**Cal Ver. File Name:**	P230484

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Ree	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	741.842	37	Y	40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	919.219	46		40-135	1.60	1.198
13C-1,2,3,4,7,8-HxCDD	2000	1001.140	50		40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1109.967	55		40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	914.927	46		40-135	1.09	1.067
13C-OCDD	4000	1598.989	40		40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	714.164	36	Y	40-135	0.79	0.995
13C-1,2,3,7,8-PeCDF	2000	761.920	38	Y	40-135	1.60	1.154
13C-2,3,4,7,8-PeCDF	2000	759.680	38	Y	40-135	1.62	1.188
13C-1,2,3,4,7,8-HxCDF	2000	865.121	43		40-135	0.52	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1071.216	54		40-135	0.52	0.974
13C-1,2,3,7,8,9-HxCDF	2000	852.943	43		40-135	0.50	1.009
13C-2,3,4,6,7,8-HxCDF	2000	932.952	47		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	821.546	41		40-135	0.44	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	797.818	40		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	317.931	40		40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 14:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166A	**Units:**	Percent
Lab Code:	E1400845-001	**Basis:**	As Received

Total Solids Run Create

Analysis Method:	CAS SOP	**Date Analyzed:**	08/05/14 15:53
	4.565g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	**98.2**		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:00
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166B	**Units:**	Percent
Lab Code:	E1400845-002	**Basis:**	As Received

Total Solids Run Create

Analysis Method:	CAS SOP	**Date Analyzed:**	08/05/14 15:53
	4.515g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	97.3		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	07/16/14 15:30
Sample Matrix:	Soil	**Date Received:**	07/23/14 09:42
Sample Name:	1S14166C	**Units:**	Percent
Lab Code:	E1400845-003	**Basis:**	As Received

Total Solids Run Create

Analysis Method:	CAS SOP	**Date Analyzed:**	08/05/14 15:53
	4.827g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	**98.1**		-	-			1

ALS Environmental

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Analyzed:**	08/08/14
Sample Matrix:	Soil	**Date Extracted:**	08/04/14

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	405998

	Lab Control Sample EQ1400430-02			Duplicate Lab Control Sample EQ1400430-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2,3,7,8-TCDD	22.7	19.6	116	23.1	19.8	116	70-130	1	25
1,2,3,7,8-PeCDD	91.3	98.1	93	97.8	99.2	99	70-130	7	25
1,2,3,4,7,8-HxCDD	90.8	98.1	93	94.2	99.2	95	70-130	4	25
1,2,3,6,7,8-HxCDD	103	98.1	105	103	99.2	104	70-130	<1	25
1,2,3,7,8,9-HxCDD	97.0	98.1	99	100	99.2	101	70-130	3	25
1,2,3,4,6,7,8-HpCDD	108	98.1	110	109	99.2	110	70-130	1	25
OCDD	206	196	105	211	198	106	70-130	3	25
2,3,7,8-TCDF	22.4	19.6	114	22.8	19.8	115	70-130	2	25
1,2,3,7,8-PeCDF	120	98.1	122	122	99.2	123	70-130	2	25
2,3,4,7,8-PeCDF	115	98.1	118	120	99.2	121	70-130	4	25
1,2,3,4,7,8-HxCDF	115	98.1	117	123	99.2	124	70-130	6	25
1,2,3,6,7,8-HxCDF	105	98.1	107	110	99.2	110	70-130	5	25
1,2,3,7,8,9-HxCDF	114	98.1	116	122	99.2	123	70-130	7	25
2,3,4,6,7,8-HxCDF	116	98.1	118	116	99.2	116	70-130	<1	25
1,2,3,4,6,7,8-HpCDF	113	98.1	115	115	99.2	116	70-130	2	25
1,2,3,4,7,8,9-HpCDF	111	98.1	113	113	99.2	114	70-130	2	25
OCDF	226	196	115	224	198	113	70-130	1	25

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ATK - Alliant Techsystems Inc
Project: Method 8290
Sample Matrix: Soil

Service Request: E1400845
Date Analyzed: 8/13/14

Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 8290
Prep Method: Method

Units: ng/Kg
Basis: Dry

Extraction Lot: 215025

	Lab Control Sample EQ1400447-02			
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**% Ree Limits**
2,3,7,8-TCDD	21.8	19.1	114	70 - 130
1,2,3,7,8-PeCDD	96.2	95.7	101	70 - 130
1,2,3,4,7,8-HxCDD	94.8	95.7	99	70 - 130
1,2,3,6,7,8-HxCDD	96.5	95.7	101	70 - 130
1,2,3,7,8,9-HxCDD	94.9	95.7	99	70 - 130
1,2,3,4,6,7,8-HpCDD	97.9	95.7	102	70 - 130
OCDD	204	191	106	70 - 130
2,3,7,8-TCDF	21.4	19.1	112	70 - 130
1,2,3,7,8-PeCDF	107	95.7	112	70 - 130
2,3,4,7,8-PeCDF	102	95.7	107	70 - 130
1,2,3,4,7,8-HxCDF	104	95.7	108	70 - 130
1,2,3,6,7,8-HxCDF	93.1	95.7	97	70 - 130
1,2,3,7,8,9-HxCDF	103	95.7	107	70 - 130
2,3,4,6,7,8-HxCDF	106	95.7	110	70 - 130
1,2,3,4,6,7,8-HpCDF	100	95.7	105	70 - 130
1,2,3,4,7,8,9-HpCDF	100	95.7	105	70 - 130
OCDF	201	191	105	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1400430-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/08/14 21:42
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.194g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-5MSUI
Data File Name:	U150307	**Blank File Name:**	P172646
ICAL Date:	07/31/14	**Cal Ver. File Name:**	U150299

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**22.7**		0.857	0.857	0.80	1.001	1
1,2,3,7,8-PeCDD	**91.3**		0.459	2.45	1.68	1.001	1
1,2,3,4,7,8-HxCDD	**90.8**		0.356	2.45	1.33	1.000	1
1,2,3,6,7,8-HxCDD	**103**		0.390	2.45	1.30	1.000	1
1,2,3,7,8,9-HxCDD	**97.0**		0.345	2.45	1.28	1.007	1
1,2,3,4,6,7,8-HpCDD	**108**		0.743	2.45	1.03	1.000	1
OCDD	**206**		1.09	4.90	0.89	1.000	1
2,3,7,8-TCDF	**22.4**		0.592	0.592	0.70	1.001	1
1,2,3,7,8-PeCDF	**120**		0.446	2.45	1.62	1.000	1
2,3,4,7,8-PeCDF	**115**		0.442	2.45	1.56	1.001	1
1,2,3,4,7,8-HxCDF	**115**		0.415	2.45	1.30	1.000	1
1,2,3,6,7,8-HxCDF	**105**		0.360	2.45	1.22	1.000	1
1,2,3,7,8,9-HxCDF	**114**		0.553	2.45	1.26	1.000	1
2,3,4,6,7,8-HxCDF	**116**		0.404	2.45	1.23	1.000	1
1,2,3,4,6,7,8-HpCDF	**113**		0.577	2.45	1.05	1.000	1
1,2,3,4,7,8,9-HpCDF	**111**		0.840	2.45	1.06	1.000	1
OCDF	**226**		1.15	4.90	0.95	1.005	1
Total Tetra-Dioxins	**22.7**		0.857	0.857	0.80		1
Total Penta-Dioxins	**91.3**		0.459	2.45	1.68		1
Total Hexa-Dioxins	**291**		0.374	2.45	1.33		1
Total Hepta-Dioxins	**108**		0.743	2.45	1.03		1
Total Tetra-Furans	**22.4**		0.592	0.592	0.70		1
Total Penta-Furans	**236**		0.405	2.45			1
Total Hexa-Furans	**449**		0.424	2.45	1.30		1
Total Hepta-Furans	**224**		0.694	2.45	1.05		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1400430-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/08/14 21:42
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.194g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-5MSUI
Data File Name:	U150307	**Blank File Name:**	P172646
ICAL Date:	07/31/14	**Cal Ver. File Name:**	U150299

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	832.545	42		40-135	0.76	1.019
13C-1,2,3,7,8-PeCDD	2000	1117.928	56		40-135	1.62	1.172
13C-1,2,3,4,7,8-HxCDD	2000	1150.061	58		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1035.427	52		40-135	1.29	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	984.256	49		40-135	1.07	1.067
13C-OCDD	4000	1917.002	48		40-135	0.90	1.146
13C-2,3,7,8-TCDF	2000	806.716	40		40-135	0.81	0.994
13C-1,2,3,7,8-PeCDF	2000	870.421	44		40-135	1.61	1.133
13C-2,3,4,7,8-PeCDF	2000	889.879	44		40-135	1.62	1.163
13C-1,2,3,4,7,8-HxCDF	2000	972.459	49		40-135	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1043.128	52		40-135	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	987.396	49		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	945.127	47		40-135	0.51	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	927.756	46		40-135	0.46	1.041
13C-1,2,3,4,7,8,9-HpCDF	2000	1075.690	54		40-135	0.46	1.081
37Cl-2,3,7,8-TCDD	800	283.166	35	Y	40-135	NA	1.020

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1400447-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/13/14 14:46
Prep Method:	Method	**Date Extracted:**	8/8/14
Sample Amount:	10.452g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5MSUI
Data File Name:	P230491	**Blank File Name:**	P230488
ICAL Date:	08/11/14	**Cal Ver. File Name:**	P230484

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**21.8**		0.280	0.478	0.73	1.001	1
1,2,3,7,8-PeCDD	**96.2**		0.129	2.39	1.61	1.001	1
1,2,3,4,7,8-HxCDD	**94.8**		0.0729	2.39	1.28	1.000	1
1,2,3,6,7,8-HxCDD	**96.5**		0.0686	2.39	1.25	1.000	1
1,2,3,7,8,9-HxCDD	**94.9**		0.0630	2.39	1.28	1.007	1
1,2,3,4,6,7,8-HpCDD	**97.9**		0.0427	2.39	1.03	1.000	1
OCDD	**204**		0.175	4.78	0.93	1.000	1
2,3,7,8-TCDF	**21.4**		0.141	0.478	0.79	1.001	1
1,2,3,7,8-PeCDF	**107**		0.306	2.39	1.51	1.001	1
2,3,4,7,8-PeCDF	**102**		0.312	2.39	1.48	1.001	1
1,2,3,4,7,8-HxCDF	**104**		0.0937	2.39	1.27	1.000	1
1,2,3,6,7,8-HxCDF	**93.1**		0.0744	2.39	1.26	1.000	1
1,2,3,7,8,9-HxCDF	**103**		0.134	2.39	1.26	1.000	1
2,3,4,6,7,8-HxCDF	**106**		0.0934	2.39	1.27	1.000	1
1,2,3,4,6,7,8-HpCDF	**100**		0.406	2.39	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	**100**		0.593	2.39	1.03	1.000	1
OCDF	**201**		0.241	4.78	0.90	1.005	1
Total Tetra-Dioxins	**21.8**		0.280	0.478	0.73		1
Total Penta-Dioxins	**96.4**		0.129	2.39	1.61		1
Total Hexa-Dioxins	**286**		0.0677	2.39	1.28		1
Total Hepta-Dioxins	**97.9**		0.0427	2.39	1.03		1
Total Tetra-Furans	**21.6**		0.141	0.478	0.84		1
Total Penta-Furans	**211**		0.0929	2.39	1.69		1
Total Hexa-Furans	**405**		0.0952	2.39	1.27		1
Total Hepta-Furans	**200**		0.492	2.39	1.00		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1400447-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/13/14 14:46
Prep Method:	Method	**Date Extracted:**	8/8/14
Sample Amount:	10.452g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5MSUI
Data File Name:	P230491	**Blank File Name:**	P230488
ICAL Date:	08/11/14	**Cal Ver. File Name:**	P230484

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	847.437	42		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1039.373	52		40-135	1.62	1.198
13C-1,2,3,4,7,8-HxCDD	2000	1030.934	52		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1159.488	58		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	912.095	46		40-135	1.07	1.067
13C-OCDD	4000	1512.353	38	Y	40-135	0.92	1.140
13C-2,3,7,8-TCDF	2000	819.984	41		40-135	0.80	0.995
13C-1,2,3,7,8-PeCDF	2000	858.660	43		40-135	1.68	1.153
13C-2,3,4,7,8-PeCDF	2000	877.118	44		40-135	1.60	1.188
13C-1,2,3,4,7,8-HxCDF	2000	886.875	44		40-135	0.51	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1117.852	56		40-135	0.52	0.974
13C-1,2,3,7,8,9-HxCDF	2000	902.767	45		40-135	0.51	1.009
13C-2,3,4,6,7,8-HxCDF	2000	953.891	48		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	815.313	41		40-135	0.44	1.042
13C-1,2,3,4,7,8,9-HpCDF	2000	867.377	43		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	307.943	38	Y	40-135	NA	1.025

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1400430-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/08/14 22:31
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.076g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-5MSUI
Data File Name:	U150308	**Blank File Name:**	P172646
ICAL Date:	07/31/14	**Cal Ver. File Name:**	U150299

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**23.1**		0.870	0.870	0.78	1.001	1
1,2,3,7,8-PeCDD	**97.8**		0.555	2.48	1.62	1.000	1
1,2,3,4,7,8-HxCDD	**94.2**		0.495	2.48	1.27	1.000	1
1,2,3,6,7,8-HxCDD	**103**		0.540	2.48	1.27	1.000	1
1,2,3,7,8,9-HxCDD	**100**		0.478	2.48	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	**109**		0.757	2.48	1.07	1.000	1
OCDD	**211**		1.29	4.96	0.86	1.000	1
2,3,7,8-TCDF	**22.8**		0.694	0.694	0.75	1.001	1
1,2,3,7,8-PeCDF	**122**		0.524	2.48	1.58	1.000	1
2,3,4,7,8-PeCDF	**120**		0.504	2.48	1.54	1.000	1
1,2,3,4,7,8-HxCDF	**123**		0.470	2.48	1.26	1.000	1
1,2,3,6,7,8-HxCDF	**110**		0.404	2.48	1.25	1.000	1
1,2,3,7,8,9-HxCDF	**122**		0.640	2.48	1.33	1.000	1
2,3,4,6,7,8-HxCDF	**116**		0.460	2.48	1.26	1.000	1
1,2,3,4,6,7,8-HpCDF	**115**		0.532	2.48	1.06	1.000	1
1,2,3,4,7,8,9-HpCDF	**113**		0.825	2.48	1.00	1.000	1
OCDF	**224**		1.45	4.96	0.92	1.005	1
Total Tetra-Dioxins	**23.1**		0.870	0.870	0.78		1
Total Penta-Dioxins	**97.8**		0.555	2.48	1.62		1
Total Hexa-Dioxins	**297**		0.519	2.48	1.27		1
Total Hepta-Dioxins	**109**		0.757	2.48	1.07		1
Total Tetra-Furans	**22.8**		0.694	0.694	0.75		1
Total Penta-Furans	**242**		0.421	2.48			1
Total Hexa-Furans	**470**		0.482	2.48	1.26		1
Total Hepta-Furans	**228**		0.662	2.48	1.06		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ATK - Alliant Techsystems Inc	**Service Request:**	E1400845
Project:	Method 8290	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1400430-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290	**Date Analyzed:**	08/08/14 22:31
Prep Method:	Method	**Date Extracted:**	8/4/14
Sample Amount:	10.076g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-5MSUI
Data File Name:	U150308	**Blank File Name:**	P172646
ICAL Date:	07/31/14	**Cal Ver. File Name:**	U150299

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	726.721	36	Y	40-135	0.78	1.019
13C-1,2,3,7,8-PeCDD	2000	960.148	48		40-135	1.63	1.172
13C-1,2,3,4,7,8-HxCDD	2000	989.523	49		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	867.130	43		40-135	1.28	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	837.261	42		40-135	1.11	1.067
13C-OCDD	4000	1570.442	39	Y	40-135	0.91	1.146
13C-2,3,7,8-TCDF	2000	696.901	35	Y	40-135	0.80	0.994
13C-1,2,3,7,8-PeCDF	2000	743.473	37	Y	40-135	1.61	1.133
13C-2,3,4,7,8-PeCDF	2000	761.995	38	Y	40-135	1.57	1.163
13C-1,2,3,4,7,8-HxCDF	2000	804.405	40		40-135	0.51	0.972
13C-1,2,3,6,7,8-HxCDF	2000	884.918	44		40-135	0.52	0.974
13C-1,2,3,7,8,9-HxCDF	2000	843.598	42		40-135	0.53	1.008
13C-2,3,4,6,7,8-HxCDF	2000	814.793	41		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	790.445	40		40-135	0.44	1.041
13C-1,2,3,4,7,8,9-HpCDF	2000	911.403	46		40-135	0.47	1.081
37Cl-2,3,7,8-TCDD	800	259.928	32	Y	40-135	NA	1.020

Attachment E

RAIS Table

Resident Equation Inputs for Soil

Variable	Value
TR (target cancer risk) unitless	1.0E-6
ED_{ress} (exposure duration - resident) year	26
ED_{ressc} (exposure duration - child) year	6
ED_{ressa} (exposure duration - adult) year	20
ET_{ress} (exposure time - resident) hour	24
ET_{ressc} (exposure time - child) hour	24
ET_{ressa} (exposure time - adult) hour	24
BW_{ressa} (body weight - adult) kg	80
BW_{ressc} (body weight - child) kg	15
SA_{ressa} (skin surface area - adult) cm^2/day	6032
SA_{ressc} (skin surface area - child) cm^2/day	2690
THQ (target hazard quotient) unitless	1
LT (lifetime - resident) year	70
EF_{ress} (exposure frequency - resident) day/year	350
EF_{ressc} (exposure frequency - child) day/year	350
EF_{ressa} (exposure frequency - adult) day/year	350
IRS_{ressa} (soil intake rate - adult) mg/day	100
IRS_{ressc} (soil intake rate - child) mg/day	200
AF_{ressa} (skin adherence factor - adult) mg/cm^2	0.07
AF_{ressc} (skin adherence factor - child) mg/cm^2	0.2
$IFS_{res\text{-}adj}$ (age-adjusted soil ingestion factor) mg/kg	36750
$DFS_{res\text{-}adj}$ (age-adjusted soil dermal factor) mg/kg	112266
$IFSM_{res\text{-}adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.3
$DFSM_{res\text{-}adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	475598.7
$AF_{0\text{-}2}$ (skin adherence factor) mg/cm^2	0.2
$AF_{2\text{-}6}$ (skin adherence factor) mg/cm^2	0.2
$AF_{6\text{-}16}$ (skin adherence factor) mg/cm^2	0.07

Output generated 19JAN2015:16:35:42

Resident Equation Inputs for Soil

Variable	Value
AF_{16-30} (skin adherence factor) mg/cm^2	0.07
BW_{0-2} (body weight) kg	15
BW_{2-6} (body weight) kg	15
BW_{6-16} (body weight) kg	80
BW_{16-30} (body weight) kg	80
ED_{0-2} (exposure duration) year	2
ED_{2-6} (exposure duration) year	4
ED_{6-16} (exposure duration) year	10
ED_{16-30} (exposure duration) year	10
EF_{0-2} (exposure frequency) day/year	350
EF_{2-6} (exposure frequency) day/year	350
EF_{6-16} (exposure frequency) day/year	350
EF_{16-30} (exposure frequency) day/year	350
ET_{0-2} (exposure time) hour/day	24
ET_{2-6} (exposure time) hour/day	24
ET_{6-16} (exposure time) hour/day	24
ET_{16-30} (exposure time) hour/day	24
IRS_{0-2} (soil intake rate) mg/day	200
IRS_{2-6} (soil intake rate) mg/day	200
IRS_{6-16} (soil intake rate) mg/day	100
IRS_{16-30} (soil intake rate) mg/day	100
SA_{0-2} (skin surface area) cm^2/day	2690
SA_{2-6} (skin surface area) cm^2/day	2690
SA_{6-16} (skin surface area) cm^2/day	6032
SA_{16-30} (skin surface area) cm^2/day	6032
City (Climate Zone) PEF Selection	Salt Lake City,
A_s (acres) PEF Selection	0.5
Q/C_{wp} (g/m^2-s per kg/m^3) PEF Selection	80.64032

Output generated 19JAN2015:16:35:42

Resident Equation Inputs for Soil

Variable	Value
PEF (particulate emission factor) m^3/kg	8739876144
A (PEF Dispersion Constant)	13.2559
B (PEF Dispersion Constant)	19.2978
C (PEF Dispersion Constant)	221.3379
V (fraction of vegetative cover) unitless	0.5
U_m (mean annual wind speed) m/s	3.93
U_t (equivalent threshold value)	11.32
F(x) (function dependant on U_m/U_t) unitless	0.0441
City (Climate Zone) VF Selection	Salt Lake City,
A_c (acres) VF Selection	0.5
A (VF Dispersion Constant)	13.2559
B (VF Dispersion Constant)	19.2978
C (VF Dispersion Constant)	221.3379
Q/C_{wp} (g/m^2-s per kg/m^3) VF Selection	80.64032
foc (fraction organic carbon in soil) g/g	0.006
ρ_b (dry soil bulk density) g/cm^3	1.5
ρ_s (soil particle density) g/cm^3	2.65
θ_w (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	819936000

Output generated 19JAN2015:16:35:42

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	0.6	7.67E-03	6.58E-06
Copper	No	No	-	8.74E+09	-	38.5	1.23E-02	-
Dichlorodifluoromethane	No	Yes	9.94E+02	8.74E+09	8.45E+02	0.028	1.79E-06	2.70E-04
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.03	1.28E-03	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	0.17	4.35E-05	-
Zinc and Compounds	No	No	-	8.74E+09	-	79.3	3.38E-03	-
*Total Risk/HI			-	-	-	-	2.47E-02	2.77E-04

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
8.25E-04	8.50E-03	7.19E-04	6.58E-06	1.21E-04	8.47E-04	2.32E-03	6.58E-06	2.84E-04	2.61E-03	-	4.40E-11	-	4.40E-11
-	1.23E-02	1.15E-03	-	-	1.15E-03	3.73E-03	-	-	3.73E-03	-	-	-	-
-	2.72E-04	1.68E-07	2.70E-04	-	2.70E-04	5.42E-07	2.70E-04	-	2.71E-04	-	-	-	-
-	1.28E-03	1.20E-04	-	-	1.20E-04	3.87E-04	-	-	3.87E-04	-	-	-	-
7.02E-07	4.42E-05	4.08E-06	-	1.03E-07	4.18E-06	1.32E-05	-	2.41E-07	1.34E-05	-	-	-	-
-	3.38E-03	3.17E-04	-	-	3.17E-04	1.02E-03	-	-	1.02E-03	-	-	-	-
8.26E-04	2.58E-02	2.31E-03	2.77E-04	1.22E-04	2.71E-03	7.48E-03	2.77E-04	2.84E-04	8.04E-03	-	4.40E-11	-	4.40E-11

Output generated 19JAN2015:16:35:42

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	not used Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	1.3	1.66E-02	1.43E-05
Copper	No	No	-	8.74E+09	-	63	2.01E-02	-
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.04	1.70E-03	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	68	1.74E-02	-
Zinc and Compounds	No	No	-	8.74E+09	-	104	4.43E-03	-
*Total Risk/HI			-	-	-	-	6.03E-02	1.43E-05

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
1.79E-03	1.84E-02	1.56E-03	1.43E-05	2.63E-04	1.84E-03	5.03E-03	1.43E-05	6.15E-04	5.66E-03	-	9.54E-11	-	9.54E-11
-	2.01E-02	1.89E-03	-	-	1.89E-03	6.10E-03	-	-	6.10E-03	-	-	-	-
-	1.70E-03	1.60E-04	-	-	1.60E-04	5.16E-04	-	-	5.16E-04	-	-	-	-
2.81E-04	1.77E-02	1.63E-03	-	4.13E-05	1.67E-03	5.27E-03	-	9.65E-05	5.36E-03	-	-	-	-
-	4.43E-03	4.16E-04	-	-	4.16E-04	1.34E-03	-	-	1.34E-03	-	-	-	-
2.07E-03	6.24E-02	5.65E-03	1.43E-05	3.04E-04	5.97E-03	1.83E-02	1.43E-05	7.12E-04	1.90E-02	-	9.54E-11	-	9.54E-11

Output generated 19JAN2015:16:31:12

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	1.9	2.43E-02	2.08E-05
Copper	No	No	-	8.74E+09	-	49.5	1.58E-02	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	8.74E+09	-	0.27	1.15E-03	-
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.08	3.41E-03	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	160	4.09E-02	-
Zinc and Compounds	No	No	-	8.74E+09	-	107	4.56E-03	-
*Total Risk/HI			-	-	-	-	9.01E-02	2.08E-05

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
2.61E-03	2.69E-02	2.28E-03	2.08E-05	3.85E-04	2.68E-03	7.36E-03	2.08E-05	8.99E-04	8.28E-03	-	1.39E-10	-	1.39E-10
-	1.58E-02	1.48E-03	-	-	1.48E-03	4.79E-03	-	-	4.79E-03	-	-	-	-
4.64E-05	1.20E-03	1.08E-04	-	6.83E-06	1.15E-04	3.49E-04	-	1.60E-05	3.64E-04	4.27E-08	-	1.96E-09	4.47E-08
-	3.41E-03	3.20E-04	-	-	3.20E-04	1.03E-03	-	-	1.03E-03	-	-	-	-
6.60E-04	4.16E-02	3.84E-03	-	9.72E-05	3.93E-03	1.24E-02	-	2.27E-04	1.26E-02	-	-	-	-
-	4.56E-03	4.28E-04	-	-	4.28E-04	1.38E-03	-	-	1.38E-03	-	-	-	-
3.32E-03	9.35E-02	8.45E-03	2.08E-05	4.89E-04	8.96E-03	2.73E-02	2.08E-05	1.14E-03	2.85E-02	4.27E-08	1.39E-10	1.96E-09	4.48E-08

Output generated 19JAN2015:16:38:33

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	1.5	1.92E-02	1.65E-05
Copper	No	No	-	8.74E+09	-	75.1	2.40E-02	-
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.46	1.96E-02	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	96	2.45E-02	-
Zinc and Compounds	No	No	-	8.74E+09	-	102	4.35E-03	-
*Total Risk/HI			-	-	-	-	9.17E-02	1.65E-05

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
2.06E-03	2.13E-02	1.80E-03	1.65E-05	3.04E-04	2.12E-03	5.81E-03	1.65E-05	7.10E-04	6.53E-03	-	1.10E-10	-	1.10E-10
-	2.40E-02	2.25E-03	-	-	2.25E-03	7.27E-03	-	-	7.27E-03	-	-	-	-
-	1.96E-02	1.84E-03	-	-	1.84E-03	5.94E-03	-	-	5.94E-03	-	-	-	-
3.96E-04	2.49E-02	2.30E-03	-	5.83E-05	2.36E-03	7.44E-03	-	1.36E-04	7.57E-03	-	-	-	-
-	4.35E-03	4.08E-04	-	-	4.08E-04	1.32E-03	-	-	1.32E-03	-	-	-	-
2.46E-03	9.42E-02	8.60E-03	1.65E-05	3.62E-04	8.97E-03	2.78E-02	1.65E-05	8.46E-04	2.86E-02	-	1.10E-10	-	1.10E-10

Output generated 19JAN2015:16:41:08

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	1	1.28E-02	1.10E-05
Copper	No	No	-	8.74E+09	-	50	1.60E-02	-
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.19	8.10E-03	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	3.13	8.00E-04	-
Zinc and Compounds	No	No	-	8.74E+09	-	96.4	4.11E-03	-
*Total Risk/HI			-	-	-	-	4.18E-02	1.10E-05

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
1.38E-03	1.42E-02	1.20E-03	1.10E-05	2.02E-04	1.41E-03	3.87E-03	1.10E-05	4.73E-04	4.36E-03	-	7.34E-11	-	7.34E-11
-	1.60E-02	1.50E-03	-	-	1.50E-03	4.84E-03	-	-	4.84E-03	-	-	-	-
-	8.10E-03	7.59E-04	-	-	7.59E-04	2.45E-03	-	-	2.45E-03	-	-	-	-
1.29E-05	8.13E-04	7.50E-05	-	1.90E-06	7.69E-05	2.42E-04	-	4.44E-06	2.47E-04	-	-	-	-
-	4.11E-03	3.85E-04	-	-	3.85E-04	1.24E-03	-	-	1.24E-03	-	-	-	-
1.39E-03	4.32E-02	3.92E-03	1.10E-05	2.04E-04	4.13E-03	1.27E-02	1.10E-05	4.78E-04	1.31E-02	-	7.34E-11	-	7.34E-11

Output generated 19JAN2015:16:43:49

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	1	1.28E-02	1.10E-05
Copper	No	No	-	8.74E+09	-	127	4.06E-02	-
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.04	1.70E-03	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	100	2.56E-02	-
Zinc and Compounds	No	No	-	8.74E+09	-	92.4	3.94E-03	-
*Total Risk/HI			-	-	-	-	8.46E-02	1.10E-05

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
1.38E-03	1.42E-02	1.20E-03	1.10E-05	2.02E-04	1.41E-03	3.87E-03	1.10E-05	4.73E-04	4.36E-03	-	7.34E-11	-	7.34E-11
-	4.06E-02	3.81E-03	-	-	3.81E-03	1.23E-02	-	-	1.23E-02	-	-	-	-
-	1.70E-03	1.60E-04	-	-	1.60E-04	5.16E-04	-	-	5.16E-04	-	-	-	-
4.13E-04	2.60E-02	2.40E-03	-	6.07E-05	2.46E-03	7.74E-03	-	1.42E-04	7.89E-03	-	-	-	-
-	3.94E-03	3.69E-04	-	-	3.69E-04	1.19E-03	-	-	1.19E-03	-	-	-	-
1.79E-03	8.64E-02	7.93E-03	1.10E-05	2.63E-04	8.20E-03	2.56E-02	1.10E-05	6.15E-04	2.62E-02	-	7.34E-11	-	7.34E-11

Output generated 19JAN2015:16:46:10

Resident RISK for Soil

Chemical	Mutagen?	VOC?	Volatilization Factor (m^3/kg)	Particulate Emission Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Concentration (mg/kg)	Child Ingestion HQ	Child Inhalation HQ
Cadmium (Diet)	No	No	-	8.74E+09	-	1.8	2.30E-02	1.97E-05
Copper	No	No	-	8.74E+09	-	410	1.31E-01	-
Dichlorodifluoromethane	No	Yes	9.94E+02	8.74E+09	8.45E+02	0.025	1.60E-06	2.41E-04
Mercury, Inorganic Salts	No	No	-	8.74E+09	-	0.63	2.68E-02	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	-	8.74E+09	-	19	4.86E-03	-
Perchlorate and Perchlorate Salts	No	No	-	8.74E+09	-	6.83	1.25E-01	-
TCDD, 2,3,7,8-	No	No	-	8.74E+09	-	3.95E-6	7.21E-02	1.08E-08
Zinc and Compounds	No	No	-	8.74E+09	-	260	1.11E-02	-
*Total Risk/HI			-	-	-	-	3.94E-01	2.61E-04

Child Dermal HQ	Child Total HI	Adult Ingestion HQ	Adult Inhalation HQ	Adult Dermal HQ	Adult Total HI	Adjusted Ingestion HQ	Adjusted Inhalation HQ	Adjusted Dermal HQ	Adjusted Total HI	Ingestion Risk	Inhalation Risk	Dermal Risk	Total Risk
2.48E-03	2.55E-02	2.16E-03	1.97E-05	3.64E-04	2.54E-03	6.97E-03	1.97E-05	8.52E-04	7.84E-03	-	1.32E-10	-	1.32E-10
-	1.31E-01	1.23E-02	-	-	1.23E-02	3.97E-02	-	-	3.97E-02	-	-	-	-
-	2.43E-04	1.50E-07	2.41E-04	-	2.41E-04	4.84E-07	2.41E-04	-	2.42E-04	-	-	-	-
-	2.68E-02	2.52E-03	-	-	2.52E-03	8.13E-03	-	-	8.13E-03	-	-	-	-
7.84E-05	4.94E-03	4.55E-04	-	1.15E-05	4.67E-04	1.47E-03	-	2.70E-05	1.50E-03	-	-	-	-
-	1.25E-01	1.17E-02	-	-	1.17E-02	3.78E-02	-	-	3.78E-02	-	-	-	-
5.82E-03	7.80E-02	6.76E-03	1.08E-08	8.57E-04	7.62E-03	2.19E-02	1.08E-08	2.00E-03	2.39E-02	7.39E-07	6.12E-12	6.77E-08	8.06E-07
-	1.11E-02	1.04E-03	-	-	1.04E-03	3.36E-03	-	-	3.36E-03	-	-	-	-
8.38E-03	4.02E-01	3.69E-02	2.61E-04	1.23E-03	3.84E-02	1.19E-01	2.61E-04	2.88E-03	1.22E-01	7.39E-07	1.38E-10	6.77E-08	8.06E-07

Output generated 19JAN2015:16:51:49

Bw-7

The SAS System
Farmer Equation Inputs for Contaminated Soil

Variable	Value	Variable	Value
EF_c (exposure frequency - child) day/yr	350	LT (lifetime - resident) yr	70
EF_a (exposure frequency - adult) day/yr	350	$IRP_{fr\text{-}adj}$ (age-adjusted fruit intake rate) mg-year/kg-day	6989500
ED_{ag} (exposure duration - resident) yr	26	$IRP_{vg\text{-}adj}$ (age-adjusted vegetable intake rate) mg-year/kg-day	3949750
BW_a (body weight - adult) kg	80	IRM_{adj} (age-adjusted milk intake rate) mg-year/kg-day	90912500
BW_c (body weight - child) kg	15	IRB_{adj} (age-adjusted beef intake rate) mg-year/kg-day	13881000
ED_c (exposure duration - child) yr	6	$MLF_{produce}$ (produce plant mass loading factor) unitless	0.26
CF_p (contaminated intake fraction - fruits and vegetables) unitless	0.15	$MLF_{pasture}$ (dairy pasture plant mass loading factor) unitless	0.25
CF_m (contaminated intake fraction - milk) unitless	.	$MLF_{pasture}$ (beef pasture plant mass loading factor) unitless	0.25
CF_b (contaminated intake fraction - beef) unitless	.	$f_{p\text{-}m}$ (animal on-site fraction) unitless	1
$IRP_{vg\text{-}a}$ (vegetable intake rate - adult) mg/day	28500	$f_{s\text{-}m}$ (animal on-site food fraction) unitless	1
$IRP_{vg\text{-}c}$ (vegetable intake rate - child) mg/day	10400	$f_{p\text{-}b}$ (animal on-site fraction) unitless	1
$IRP_{fr\text{-}a}$ (fruit intake rate - adult) mg/day	56200	$f_{s\text{-}b}$ (fraction of year animal is on site) unitless	1
$IRP_{fr\text{-}c}$ (fruit intake rate - child) mg/day	14800	$Q_{p\text{-}m}$ (dairy fodder intake rate) kg/day	16.9
IRM_a (milk intake rate - adult) mg/day	615000	$Q_{p\text{-}b}$ (beef fodder intake rate) kg/day	11.77
IRM_a (milk inake rate - child) mg/day	265000	$Q_{s\text{-}m}$ (dairy soil intake rate) kg/day	0.41
IRB_a (beef intake rate - adult) mg/day	138000	$Q_{p\text{-}b}$ (beef soil intake rate) kg/day	0.39
IRB_c (beef intake rate - child) mg/day	12900		

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.55	5.12E-02	-	-	-	-	-
Copper	No	No	26.8	5.83E-02	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	0.028	2.33E-05	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.04	1.56E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	0.65	4.65E-03	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	74	3.12E-02	-	-	-	-	-
*Total Risk/HI			-	1.61E-01	-	-	-	-	-

Output generated 25FEB2015:18:02:51

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1	9.30E-02	-	-	-	-	-
Copper	No	No	59.5	1.29E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.04	1.56E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	29	2.07E-01	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	91.6	3.87E-02	-	-	-	-	-
*Total Risk/HI			-	4.84E-01	-	-	-	-	-

Output generated 25FEB2015:18:11:47

N-4a

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.85	7.91E-02	-	-	-	-	-
Copper	No	No	18.6	4.05E-02	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	-	-	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	68	4.86E-01	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	70	2.95E-02	-	-	-	-	-
*Total Risk/HI			-	6.35E-01	-	-	-	-	-

Output generated 25FEB2015:18:15:52

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.81	7.54E-02	-	-	-	-	-
Copper	No	No	38.9	8.46E-02	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	0.27	3.63E-02	-	-	3.19E-06	-	-
Mercury, Inorganic Salts	No	No	0.03	1.17E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	160	1.14E+00	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	88.5	3.74E-02	-	-	-	-	-
*Total Risk/HI			-	1.39E+00	-	-	3.19E-06	-	-

Output generated 04MAR2015:12:20:57

N-5a

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.76	7.07E-02	-	-	-	-	-
Copper	No	No	27.4	5.96E-02	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.03	1.17E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	120	8.58E-01	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	81	3.42E-02	-	-	-	-	-
*Total Risk/HI			-	1.03E+00	-	-	-	-	-

Output generated 25FEB2015:18:20:02

N-5b

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1.17	1.09E-01	-	-	-	-	-
Copper	No	No	51.3	1.12E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.06	2.34E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	65	4.65E-01	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	85	3.59E-02	-	-	-	-	-
*Total Risk/HI			-	7.45E-01	-	-	-	-	-

Output generated 25FEB2015:18:22:56

N-6a

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1.15	1.07E-01	-	-	-	-	-
Copper	No	No	40.8	8.87E-02	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.15	5.86E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	96	6.87E-01	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	80	3.38E-02	-	-	-	-	-
*Total Risk/HI			-	9.75E-01	-	-	-	-	-

Output generated 25FEB2015:18:24:52

N-6b

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.52	4.84E-02	-	-	-	-	-
Copper	No	No	50	1.09E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.03	1.17E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	1.94	1.39E-02	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	96.4	4.07E-02	-	-	-	-	-
*Total Risk/HI			-	2.23E-01	-	-	-	-	-

Output generated 25FEB2015:18:26:47

N-7a

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.5	4.65E-02	-	-	-	-	-
Copper	No	No	49	1.07E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.03	1.17E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	2.28	1.63E-02	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	94.6	3.99E-02	-	-	-	-	-
**Total Risk/HI*			-	*2.21E-01*	-	-	-	-	-

Output generated 25FEB2015:18:28:49

U-76

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1	9.30E-02	-	-	-	-	-
Copper	No	No	127	2.76E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.04	1.56E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	100	7.15E-01	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	92.4	3.90E-02	-	-	-	-	-
*Total Risk/HI			-	1.14E+00	-	-	-	-	-

Output generated 25FEB2015:18:45:16

N-8a

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	0.2	1.86E-02	-	-	-	-	-
Copper	No	No	6.8	1.48E-02	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.03	1.17E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	0.93	6.65E-03	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	-	-	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	31.3	1.32E-02	-	-	-	-	-
**Total Risk/HI*			-	*6.50E-02*	-	-	-	-	-

Output generated 25FEB2015:18:46:53

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1.4	1.30E-01	-	-	-	-	-
Copper	No	No	161	3.50E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.29	1.13E-01	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	10.1	7.22E-02	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	3.2	2.87E-01	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	3.95E-6	3.56E-01	-	-	8.60E-06	-	-
Zinc and Compounds	No	No	211	8.91E-02	-	-	-	-	-
*Total Risk/HI			-	1.40E+00	-	-	8.60E-06	-	-

Output generated 25FEB2015:18:49:31

BW-7-DV1

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1.01	9.40E-02	-	-	-	-	-
Copper	No	No	62.3	1.35E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.11	4.30E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	1.61	1.15E-02	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	0.87	7.81E-02	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	6.61E-7	5.95E-02	-	-	1.44E-06	-	-
Zinc and Compounds	No	No	93	3.93E-02	-	-	-	-	-
*Total Risk/HI			-	4.61E-01	-	-	1.44E-06	-	-

Output generated 25FEB2015:18:53:44

BW-7-D02

The SAS System
Farmer RISK for Contaminated Soil

Chemical	Mutagen?	VOC?	Soil Concentration (mg/kg)	Produce Ingestion HQ	Beef Ingestion HQ	Milk Ingestion HQ	Produce Ingestion Risk	Beef Ingestion Risk	Milk Ingestion Risk
Cadmium (Diet)	No	No	1.37	1.27E-01	-	-	-	-	-
Copper	No	No	90	1.96E-01	-	-	-	-	-
Dichlorodifluoromethane	No	Yes	0.016	1.33E-05	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	No	No	-	-	-	-	-	-	-
Mercury, Inorganic Salts	No	No	0.11	4.30E-02	-	-	-	-	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	No	No	1.69	1.21E-02	-	-	-	-	-
Perchlorate and Perchlorate Salts	No	No	0.29	2.60E-02	-	-	-	-	-
TCDD, 2,3,7,8-	No	No	-	-	-	-	-	-	-
Zinc and Compounds	No	No	93	3.93E-02	-	-	-	-	-
*Total Risk/HI			-	4.44E-01	-	-	-	-	-

Output generated 25FEB2015:18:55:27

BW-7-D03