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November 24, 2015

Sent VIA OVERNIGHT DELIVERY

Mr. Scott Anderson
Director
Division of Waste Management and Radiation Control
Utah Department of Environmental Quality
195 North 1950 West
P.O. Box 144850
Salt Lake City, UT 84114-4820

**Re: Transmittal of Annual Tailings System Wastewater Monitoring Report
Groundwater Quality Discharge Permit UGW370004 White Mesa Uranium Mill**

Dear Mr. Lundberg:

Enclosed are two copies of the White Mesa Uranium Mill Annual Tailings System Wastewater Monitoring Report for 2015 as required by the Groundwater Quality Discharge Permit UGW370004, as well as two CDs each containing a word searchable electronic copy of the report.

If you should have any questions regarding this report please contact me.

Yours very truly,

A handwritten signature in blue ink, appearing to read 'JAIME MASSEY', is written over a blue horizontal line.

ENERGY FUELS RESOURCES (USA) INC.
Jaime Massey
Regulatory Compliance Specialist

cc: Scott A. Bakken
Harold R. Roberts
David E. Turk
Kathy Weinel
Logan Shumway

White Mesa Uranium Mill

2015 Annual Tailings System Wastewater Sampling Report

**State of Utah
Groundwater Discharge Permit No. UGW370004**



Prepared by:

Energy Fuels Resources (USA) Inc.
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November 24, 2015

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2015 ANNUAL TAILINGS SYSTEM WASTEWATER SAMPLING REPORT

1.0 INTRODUCTION

This is the 2015 Annual Tailings System Wastewater Sampling Report for the Energy Fuels Resources (USA) Inc. (“EFRI”) White Mesa Mill (the “Mill”), as required under Part I.F.9 of the Mill’s State of Utah Groundwater Discharge Permit No. UGW370004 (the “Permit”) and Section 6.0 of the *Mill’s Sampling and Analysis Plan for Tailings Cells Leak Detection Systems and Slimes Drains*, Revision: 2.1, dated July 30, 2012 (the “Sampling Plan”) and approved by the State of Utah Division of Waste Management and Radiation Control (the “DWMRC” (formerly DRC)) on August 2, 2012.

Cell solution and slimes drain sampling is required under the Sampling Plan and Part I.E.10 of the Permit to be conducted on an annual basis in August of each year for the solutions in Cells 1, 3, 4A, and 4B, the solutions in the slimes drains in Cells 2, 3, 4A, and 4B (for Cells 3, 4A and 4B after the commencement of dewatering), the solutions in the leak detection system (the “LDS”) in Cell 4A and 4B and any detected solutions in the LDS in Cells 1, 2, and 3 at the time of the August Sampling event. The results of the sampling event are required to be reported to the DWMRC with the Mill’s Third Quarter Groundwater Monitoring Report due December 1, of each year.

2.0 SUMMARY OF MILL TAILINGS SYSTEM ACTIVITIES IN 2015

This section provides a brief description of the Mill’s tailings management system, and any changes that were made as a result of Mill activities during the reporting year. A description of which systems were sampled is provided in Section 3.0.

The Mill is designed not to discharge to groundwater or surface waters. Instead, the Mill tailings system utilizes tailings and evaporation cells for disposal, evaporation, and management of Mill tailings, effluents, and other wastes as indicated below:

- Cell 1: dedicated to evaporation of Mill waste solutions;
- Cell 2: contains Mill tailings, has an interim cover and is closed to future tailings disposal;
- Cell 3: contains Mill tailings and is in the final stages of filling. It also accepts other Mill wastes and 11e.(2) material from in-situ recovery (“ISR”) operations;
- Cell 4A: receives Mill tailings and is used for evaporation of Mill solutions; and
- Cell 4B: is used for evaporation of Mill solutions.

2.1 Cell 1

Cell 1 is a 55-acre impoundment built in June of 1981. It operates as an evaporation pond which receives solutions only. Cell 1 is equipped with a LDS. In 2015, Cell 1 received fluid from the Mill process, storm water run-off, and Mill laboratory waste. The LDS in Cell 1 was dry in 2015.

2.2 Cell 2

Cell 2 is a 67-acre impoundment built in May of 1980. Cell 2 was taken out of service and covered with interim cover in 2008. Cell 2 is equipped with a LDS, and a slimes drain. The LDS was dry in 2015. As part of closure activities, EFRI began monitoring the slimes drain system in 2008. The fluid from the slimes drain is pumped to Cell 4A. Cell 2 no longer receives any solutions or solids.

2.3 Cell 3

Cell 3 is a 71-acre impoundment built in September 1982. Cell 3 is nearly full of solids and is undergoing pre-closure steps. This cell is equipped with a LDS and a slimes drain. The LDS was dry in 2015 and the slimes drain system will be monitored once dewatering begins. In 2015, Cell 3 received solid Mill waste and solid 11e.2 byproduct material from in situ recovery (“ISR”) facilities.

2.4 Cell 4A

Cell 4A is a 40-acre impoundment built in 2008. This cell is equipped with a LDS and a slimes drain. The slimes drain system will be monitored once dewatering begins. The LDS in Cell 4A was sampled in 2015, as described below. In 2015, Cell 4A received solutions from the Mill process, and solid tailings sands.

2.4 Cell 4B

Cell 4B is a 40-acre impoundment built in 2011. It operates as an evaporation pond which receives solutions only. Cell 4B is equipped with a LDS. In 2015, Cell 4B received fluid from the Mill process. The LDS in Cell 4B was sampled in 2015, as described below.

3.0 SAMPLING EVENTS AND SAMPLING METHODOLOGY

3.1 Sampling Events

Samples of solutions from Cells 1, 3, 4A, and 4B, the Cell 2 slimes drain and the Cell 4A and Cell 4B LDSs were collected on August 4, 2015. In accordance with the Permit, DWMRC was notified of the August 4, 2015 sampling event, and a DWMRC representative was present for a part of the sampling. The DWMRC representative collected a split aliquot of the Cell 1 sample.

Maps showing the locations of the solution and slimes drain and, when applicable, LDS sampling locations are attached under Tab B. Table 1, included in the Tables Tab, provides an overview of all solution monitoring samples collected during the current period and includes the sampling date, laboratory report date, and the work order/lab set ID associated with the analytical data.

The Permit requires that the samples be analyzed for the water quality parameters listed in Table 2 of the Permit and Semi-Volatile Organic Compounds (“SVOCs”).

Additionally, in order to further characterize the radiological constituents and physical properties of the solution, EFRI conducted voluntary analyses on the August 4, 2015 and August 19, 2014 samples for radium-226, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, uranium-238, kinematic viscosity, and specific gravity. EFRI also conducted a voluntary sampling event on May 28, 2015 for these additional parameters and gross alpha only. It is important to note that the additional analyses conducted on the August 19, 2014 samples were completed outside of the method recommended holding time, and therefore are included in Tab C of this report for informational purposes only. The August 19, 2014 data are not displayed on the data tables. The additional data from the May 28, 2015 and August 4, 2015 are included in a separate data table in Tab D. The gross alpha results have been evaluated and are included as required. These additional data are included in this report for informational purposes only. EFRI may or may not choose to continue these analyses in future sampling events.

3.2 Field Data

Attached under Tab A are copies of all of the field data sheets recorded in association with the annual tailings system monitoring program. Sampling dates are listed in Table 1.

3.3 Sampling Methodology, Equipment and Decontamination Procedures

As noted in the DWMRC-approved Sampling Plan, Revision 2.1, dated July 30, 2012, field filtering and preservation of metals and gross alpha sample aliquots was not completed due to safety concerns associated with the filtering apparatus and the backpressure created by the increased viscosity of these samples. The gross alpha and metals aliquots were filtered and preserved as necessary by the analytical laboratory. It is important to note that field preservation of the samples is to preclude biological growth and prevent the inorganic analytes from precipitating. Based on past field data, the cell solution, LDS and slimes drain samples are at a pH of 3.0 or less at the time of collection without additional preservative. The addition of acidic preservatives in the field would add minimal if any protection from biological growth or precipitation. The VOC sample aliquots were preserved in the field.

3.3.1 Cells

Cell solution samples were collected at the cell sampling stations shown on the Figures in Tab B using a ladle as noted in the DWMRC-approved Sampling Plan, Section 3.1.2.

Disposable or dedicated sample ladles were used during this sampling event and, as such, rinsate samples were not required.

3.3.2 Cell 2 Slimes Drain

Once a tailings cell has started the dewatering procedures, a sample will be collected from the slimes drain system. At this time Cell 2 is the only slimes drain that requires sampling. The location of the slimes drain for Cell 2 is shown in Tab B. While Cells 3, 4A and 4B are equipped with slimes drain sample locations, Cells 3 and 4A are still active and Cell 4B is being used as an evaporation pond, and the slimes drains will not be pumped (and/or sampled) until dewatering operations have commenced.

The Cell 2 slimes drain, shown on the Figures in Tab B, was sampled using a disposable bailer as noted in the DWMRC-approved Sampling Plan, Section 3.1.3.

Due to the use of a disposable bailer, a rinsate sample was not required.

3.3.3 Cell 4A Leak Detection Systems

The Cell 4A LDS sample was collected from the sampling station shown on the Figures in Tab B using a dedicated stainless steel bucket and ladle as noted in the DWMRC-approved Sampling Plan, Section 3.2.1.

3.3.4 Cell 4B Leak Detection Systems

The Cell 4B LDS sample was collected from the sampling station shown on the Figures in Tab B using a dedicated stainless steel bucket and ladle as noted in the DWMRC-approved Sampling Plan, Section 3.2.1.

3.3.5 Cells 1, 2, 3,

The Cells 1, 2, 3 LDSs were not sampled during the 2015 sampling event because the systems were dry.

3.4 Field QC Samples

The field Quality Control (“QC”) samples generated during this sampling event included one duplicate and one trip blank per shipment to each laboratory which received samples for VOCs. The duplicate sample (Cell 65) was submitted blind to the analytical laboratory. As previously stated, no rinsate blanks were collected during this sampling event as only dedicated or disposable equipment was used for sample collection.

3.5 Laboratory Results

All analytical results were provided by one of the Mill's two contract analytical laboratories, GEL Laboratories ("GEL") or American West Analytical Laboratories ("AWAL").

The laboratories utilized during this investigation were certified under the Environmental Lab Certification Program administered by the UDEQ Bureau of Lab Improvement for the analyses they completed.

The analytical data as well as the laboratory Quality Assurance ("QA")/QC summaries are included under Tab C.

4.0 QUALITY ASSURANCE AND DATA EVALUATION

The Permit requires that the annual tailings system wastewater sampling program be conducted in compliance with the requirements specified in the Mill's approved White Mesa Uranium Mill Groundwater Monitoring Quality Assurance Plan ("QAP"), the approved Sampling Plan and the Permit itself. To meet these requirements, the data validation completed for the tailings system wastewater sampling program and discussed in this Section utilized the requirements outlined in the QAP, the Permit and the approved Sampling Plan as necessary. The Mill Quality Assurance Manager ("QAM") performed a QA/QC review to confirm compliance of the monitoring program with the requirements of the Permit, the QAP, and the Sampling Plan. As required, data QA includes preparation and analysis of QC samples in the field, review of field procedures, an analyte completeness review, and quality control review of laboratory data methods and data. Identification of field QC samples that were collected and analyzed is provided in Section 3.4 and 4.3.1. Discussion of adherence to the Sampling Plan is provided in Section 4.1. Analytical completeness review results are provided in Section 4.2. The steps and tests applied to check laboratory data QA/QC are discussed in Section 4.3.

The analytical laboratories have provided summary reports of the analytical QA/QC measurements necessary to maintain conformance with National Environmental Laboratory Accreditation Conference ("NELAC") certification and reporting protocol. The analytical laboratory QA/QC Summary Reports, including copies of the Chain of Custody forms for each set of Analytical Results, follow the analytical results under Tab C. Results of review of the laboratory QA/QC information are provided under Tab E and discussed in Section 4.3, below.

4.1 Adherence to Sampling Plan and Permit Requirements

On a review of adherence by Mill personnel to the QA/QC requirements, the QAM observed that QA/QC requirements established in the Permit, the QAP, and the Sampling Plan were met, as discussed below.

4.2 Analyte Completeness Review

All analyses required by the Permit Table 2 were completed. In addition, all cell solution

samples were analyzed for SVOCs as required by the Permit.

4.3 Data Validation

The QAP and the Permit identify the data validation steps and data quality control checks required for the tailings system wastewater monitoring program. Consistent with these requirements, the QAM performed the following evaluations: a field data QA/QC evaluation, a receipt temperature check, a holding time check, an analytical method check, a reporting limit check, a trip blank check, a QA/QC evaluation of sample duplicates, a gross alpha counting error evaluation and a review of each laboratory's reported QA/QC information. Each evaluation is discussed in the following sections. Data check tables indicating the results of each test are provided under Tab E.

4.3.1 Field Data QA/QC Evaluation

The QAM performs a review of all field recorded data to assess adherence with QAP, Permit, and Sampling Plan requirements. The assessment involved review of the Field Data sheets. Review of the Field Data Sheets noted that all requirements for field data collection were met.

4.3.2 Holding Time Evaluation

QAP Table 1 identifies the method holding times for each suite of parameters. Sample holding time checks are provided under Tab E. All samples were received and analyzed within the required holding time.

4.3.3 Laboratory Receipt Temperature Check

Chain of Custody sheets were reviewed to confirm compliance with the Permit. Sample receipt temperature checks are provided under Tab E. All samples were received within the required temperature limit.

4.3.4 Analytical Method Check

All analytical methods reported by both laboratories were checked against the required methods specified in Table 1 of the QAP. Analytical method check results are provided in Tab E.

4.3.5 Reporting Limit Evaluation

All analytical method reporting limits reported by both laboratories were checked against the reporting limits specified in the Permit. Section I.E.4 of the Permit requires the following Reporting Limits:

“all water quality analyses reported shall have a minimum detection limit or reporting limit that is less than or equal to the respective:

- i. Ground Water Quality Standards (“GWQS”) concentrations defined in Table 2 of this Permit,
- ii. For TDS, Sulfate, and Chloride, the Minimum Detection Limit for those constituents for Cell solution monitoring will be as follows: 1,000 mg/L, 1,000 mg/L, and 1 mg/L, respectively, and
- iii. Lower limits of quantitation for groundwater for semi-volatile organic compounds listed in Table 2 of EPA Method 8270D, Revision 4, dated February, 2007.”

Reporting limit evaluations are provided in Tab E. All analytes were measured and reported to the required reporting limits. Several sets of sample results had the reporting limit raised for at least one analyte due to sample dilution. In all cases the reported value for the analyte was higher than the increased detection limit.

4.3.6 Trip Blank Evaluation

All trip blank results were reviewed to identify any blank contamination. Trip blank evaluations are provided in Tab E. All trip blank results associated with the samples were less than the reporting limit for all VOCs.

4.3.7 QA/QC Evaluation for Sample Duplicates

Section 9.1.4 a) of the QAP states that the relative percent difference (the “RPD”) will be calculated for the comparison of duplicate and original field samples. The QAP acceptance limits for RPDs between the duplicate and original field sample is less than or equal to 20% unless the measured results are less than 5 times the required detection limit. This standard is based on the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994, 9240.1-05-01 as cited in the QAP. The RPDs are calculated for all duplicate pairs for all analytes regardless of whether or not the reported concentrations are greater than 5 times the required detection limits; however, data will be considered noncompliant only when the results are greater than 5 times the required detection limit and the RPD is greater than 20%. RPDs are also only calculated when both the sample and the duplicate report a detection for any given analyte. If only one of the pair reports a detection the RPD cannot be calculated. The additional duplicate information is provided for information purposes.

All duplicate results were within 20% RPD except for ammonia, nitrate, and gross alpha in the duplicate pair Cell 4B LDS/Cell 65. The gross alpha duplicate results are discussed in Section 4.3.8 below. The nitrate result RPD is greater than 20% (40.8%). Both of the nitrate sample results reported for Cell 4B LDS/Cell 65 were not five times greater than the reporting limit of 10 mg/L, and, as such, the deviation from the 20% RPD requirement is acceptable.

The ammonia results for the duplicate sample Cell 4B LDS/Cell 65 did not meet the duplicate comparability check with an RPD of 118%. Per the QAP, Revision 7.2, and in response to requests from DWMRC, a separate corrective action for duplicate RPDs outside of acceptance limits has been developed. The revised procedure for duplicate results outside of acceptance

limits was implemented for the ammonia results in duplicate pair Cell 4B LDS/Cell 65. The corrective actions that were taken in accordance with the revised procedure are as follows: the QAM contacted the Analytical Laboratory and requested a review of the raw data to assure that there were no transcription errors and the data were accurately reported. The laboratory noted that the data were accurate and reported correctly. Reanalysis was not completed as the RPDs above the limit are likely due to interferences caused by the matrix, as discussed below, and the samples were beyond the holding time. There is no effect on the usability of the data due to the ammonia duplicate results exceeding the comparability criteria because the matrix of the sample solution caused the noncompliance.

Results of the RPD test are provided under Tab E. The radiologic duplicates are discussed in Section 4.3.8 below.

4.3.8 Radiologic Counting Error

Section 9.14 of the QAP requires that all gross alpha analysis reported with an activity equal to or greater than the Groundwater Compliance Limit (the “GWCL”) (for the tailings system wastewater samples the GWQS will be used), shall have a counting variance that is equal to or less than 20% of the reported activity concentration. An error term may be greater than 20% of the reported activity concentration when the sum of the activity concentration and error term is less than or equal to the GWQS.

Results of routine radiologic sample QC are provided under Tab E. All tailings system wastewater radiologic sample results met the counting error requirement.

Section 9.1.4 of the QAP also requires a comparability check between the sample and field duplicate sample results utilizing the formula provided below:

$$| A-B | / (s_a^2 + s_b^2)^{1/2} \leq 2$$

The original and duplicate sample did not meet the duplicate comparability check specified in the QAP. Results of the RPD test are provided under Tab E. Per QAP, Revision 7.2, and in response to requests from DWMRC, a separate corrective action for duplicate RPDs outside of acceptance limits has been developed and is documented in the revised QAP. The revised procedure for duplicate results outside of acceptance limits was implemented for the gross alpha results in duplicate pair Cell 4B LDS/Cell 65 and the Cell 4A/Cell 65 results from the May 28, 2015 sampling event. The corrective actions that were taken in accordance with the revised procedure are as follows: the QA Manager contacted the Analytical Laboratory and requested a review of the raw data to assure that there were no transcription errors and the data were accurately reported. The laboratory noted that the data were accurate and reported correctly. Reanalysis was not completed as the RPDs above the limit are likely due to interferences caused by the matrix as discussed below.

The lack of comparability of the gross alpha results is indicative of a matrix interference and does not affect the usability of the data. Matrix interference is most likely caused by high concentrations of TDS and other constituents in the sample.

4.3.9 Laboratory Matrix QC Evaluation

Section 9.2 of the QAP requires that the laboratory's QA/QC Manager check the following items in developing data reports: (1) sample preparation information is correct and complete, (2) analysis information is correct and complete, (3) appropriate analytical laboratory procedures are followed, (4) analytical results are correct and complete, (5) QC samples are within established control limits, (6) blanks are within QC limits, (7) special sample preparation and analytical requirements have been met, and (8) documentation is complete. In addition to other laboratory checks described above, EFRI's QAM rechecks QC samples and blanks (items (5) and (6)) to confirm that the percent recovery for spikes and the relative percent difference for spike duplicates are within the method-specific required limits, or that the case narrative sufficiently explains any deviation from these limits. Results of this quantitative check are provided under Tab E. All lab QA/QC results from both CTF and GEL met these requirements. There were QC results which did not meet laboratory established acceptance limits, as identified in Tab E and described below.

A significant number of the tailings system wastewater samples had the RL raised for multiple analytes due to matrix interference and/or sample dilution. RL evaluations are discussed in Section 4.3.5.

The check samples included at least the following: a method blank, a laboratory control spike ("LCS"), a matrix spike ("MS") and a matrix spike duplicate ("MSD"), or the equivalent, where applicable. It should be noted that:

- Laboratory fortified blanks are equivalent to LCSs.
- Laboratory reagent blanks are equivalent to method blanks.
- Post digestion spikes are equivalent to MSs.
- Post digestion spike duplicates are equivalent to MSDs.
- For method E900.1, used to determine gross alpha, a sample duplicate was used instead of a MSD.

All qualifiers, and the corresponding explanations reported in the QA/QC Summary Reports for any of the check samples for any of the analytical methods were reviewed by the QAM.

The QAP Section 8.1.2 requires that a MS/MSD pair be analyzed with each analytical batch, depending upon the analytical method requirements and/or method limitations. The QAP does not specify acceptance limits for the MS/MSD pair, and the QAP does not specify that the MS/MSD pair be prepared on EFRI samples only. Acceptance limits for MS/MSDs are set by the laboratories. The review of the information provided by the laboratories in the data packages verified that the QAP requirement to analyze a MS/MSD pair with each analytical batch was

met. While the QAP does not require it, the recoveries were reviewed for compliance with the laboratory established acceptance limits. The QAP does not require this level of review, and the results of this review are provided for information only.

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for all tailings system wastewater samples were within acceptable laboratory limits for all regulated compounds except as indicated in Tab E. The recoveries and RPDs which are outside of the laboratory established acceptance limits do not affect the quality or usability of the data because the recoveries and RPDs outside of the acceptance limits are indicative of matrix interference. The recoveries outside of acceptance limits reported in these analyses were due to a matrix interference caused by high levels of metals and other inorganic constituents. The QAP requirement to analyze a MS/MSD pair with each analytical batch was met and as such the data are compliant with the QAP.

Thirteen metals MS/MSD recoveries were not calculated because the analyte level in the natural sample was 4 times greater than the spike level added by the laboratory. It is not possible to calculate the MS/MSD recovery when the sample results are significantly higher than the spike amount added. In effect, the sample results mask the spike results and the calculations are not possible. There is no effect on the quality or usability of the data.

The QAP specifies that surrogate compounds shall be employed for all organic analyses but the QAP does not specify acceptance limits for surrogate recoveries. The analytical data associated with the routine quarterly sampling met the requirement specified in the QAP. The information from the Laboratory QA/QC Summary Reports indicates that the surrogate recoveries for all tailings system wastewater samples were within acceptable laboratory limits for all surrogate compounds except as indicated in Tab E.

There are nineteen surrogate recoveries outside of acceptance limits for the SVOC analyses. In all instances the surrogate recoveries outside of acceptance limits were the result of a matrix interference. A matrix interference resulted in the surrogate compounds being outside of the acceptance limits noted in Tab E. There are other surrogate compounds used for SVOC analyses which were all within acceptance limits. As such there is no effect on the quality or usability of the data. Since surrogate compounds were added to all of the organic analyses as required by the QAP, the data are compliant with the QAP requirements.

The information from the Laboratory QA/QC Summary Reports indicates that the LCS recoveries for the quarterly samples were within acceptable laboratory limits for all LCS compounds as noted in Tab E.

The QAP Section 8.1.2 requires that each analytical batch shall be accompanied by a reagent blank. Contamination detected in analysis of reagent blanks (method blank) will be used to evaluate any analytical laboratory contamination of environmental samples. The QAP criteria for method blanks states that nonconformance will exist when blanks are within an order of magnitude of the sample results. Ammonia was reported the method blank from AWAL. The QAP criteria was met for ammonia because the method blank detections were not within an

order of magnitude of the sample results. The QAP requirement to analyze a method blank with each batch and evaluate the results has been completed as required. Method blank results are included in Tab E.

5.0 HISTORIC DATA

The historic analytical data for the tailings system wastewater sampling program are included in Tab D. In addition, the minimum and maximum concentrations compiled in the Utah Division of Radiation Control Groundwater Quality Discharge Permit, Statement of Basis for a Uranium Mining Facility at White Mesa, South of Blanding, Utah, dated December 1, 2004 are included in Tab D.

6.0 SUMMARY AND CONCLUSIONS

6.1 Cell 1

Cell 1 solutions were acidic in nature with a laboratory pH of 1.01. As expected, the solutions contained gross alpha, major ions, metals, and Volatile Organic Compounds (“VOCs”). SVOCs were not detected. Regarding major ions, chloride, fluoride, magnesium, potassium, sodium and sulfate were one or more orders of magnitude greater in concentration than the other major ions. Metals exhibiting the greatest concentration by at least one order of magnitude higher than the other metals analyzed included arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, uranium, vanadium and zinc. A slight increase in the gross alpha concentration was noted in the August 2015 sample, but it is the same order of magnitude as the 2014 sample. However, it is important to note that the May 2015 for gross alpha voluntary sample was an order of magnitude lower than the August 2014 and August 2015 samples. The variable and increased gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. This is evidenced by the results of the voluntary additional analyses conducted in May and August 2015. The results of the voluntary analyses are shown in Tab D.

With the exception of gross alpha, The concentrations reported in the 2015 sample remained within historic ranges. It is important to note that not all constituents present in the tailings fluids will exhibit the same behavior as a result of concentration of the tailings fluids and the increases in constituent results will not be linear. The individual constituent results are greatly affected by the matrix of the tailings fluids and each constituent will behave differently based on the matrix interactions and the differing solubility properties of the constituent.

6.2 Cell 3

Cell 3 solutions were acidic in nature, with a laboratory pH of 1.72. As expected, the solutions contained gross alpha, major ions, metals, and VOCs. SVOCs were not detected. Regarding major ions, chloride, fluoride, magnesium, potassium, sodium and sulfate were generally one to more orders of magnitude greater in concentration than the other major ions. Metals exhibiting

the greatest concentration by at least one order of magnitude greater than the other metals analyzed included arsenic, cadmium, chromium, cobalt, copper, iron, manganese, molybdenum, nickel, uranium, vanadium and zinc. An increase in the gross alpha concentration was noted in the August 2015 sample, but it is the same order of magnitude as the 2014 sample. However, it is important to note that the May 2015 voluntary sample for gross alpha was two orders of magnitude lower than the August 2014 and August 2015 samples. The variable and increased gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. This is evidenced by the results of the voluntary additional analyses conducted in May and August 2015. The results of the voluntary analyses are shown in Tab D.

With the exception of gross alpha, The concentrations reported in the 2015 sample remained within historic ranges. It is important to note that not all constituents present in the tailings fluids will exhibit the same behavior as a result of concentration of the tailings fluids and the increases in constituent results will not be linear. The individual constituent results are greatly affected by the matrix of the tailings fluids and each constituent will behave differently based on the matrix interactions and the differing solubility properties of the constituent.

6.3 Cell 4A

Cell 4A solutions were acidic in nature, with a laboratory pH of 1.51. As expected, the solutions contained gross alpha, major ions, metals and one VOC. SVOCs were not detected. Cell 4A fluid exhibited the highest major ion concentrations for chloride, fluoride, magnesium, potassium, sodium and sulfate. The metals arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, uranium, vanadium and zinc were one or more orders of magnitude greater than the other metals analyzed. A slight decrease in the gross alpha concentration was noted in the 2015 sample. However, it is important to note that the May 2015 voluntary sample for gross alpha was an order of magnitude lower than the August 2014 and August 2015 samples. The variable and increased gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. This is evidenced by the results of the voluntary additional analyses conducted in May and August 2015. The results of the voluntary analyses are shown in Tab D.

The concentrations reported in the 2015 sample remained within historic ranges. It is important to note that not all constituents present in the tailings fluids will exhibit the same behavior as a result of concentration of the tailings fluids and the increases in constituent results will not be linear. The individual constituent results are greatly affected by the matrix of the tailings fluids and each constituent will behave differently based on the matrix interactions and the differing solubility properties of the constituent.

Comparison of Cell 4A fluids to those of Cells 1, and 4B reveals that Cell 4A is similar in composition and concentration ratios to the fluids in Cells 1, and 4B.

6.4 Cell 4B

Cell 4B solutions were acidic in nature, with a laboratory pH of 1.35. As expected, the solutions contained gross alpha, major ions, metals and VOCs. SVOCs were not detected. Cell 4B fluid exhibited the highest major ion concentrations for chloride, fluoride, magnesium, potassium, sodium and sulfate. The metals arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, uranium, vanadium and zinc were one or more orders of magnitude greater than the other metals analyzed. An increase in the gross alpha concentration was noted in the 2015 sample, but it is the same order of magnitude as the 2014 sample. However, it is important to note that the May 2015 voluntary sample for gross alpha was an order of magnitude lower than the August 2014 and August 2015 samples. The variable and increased gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. This is evidenced by the results of the voluntary additional analyses conducted in May and August 2015. The results of the voluntary analyses are shown in Tab D.

With the exception of gross alpha, the concentrations reported in the 2015 sample remained within historic ranges. It is important to note that not all constituents present in the tailings fluids will exhibit the same behavior as a result of concentration of the tailings fluids and the increases in constituent results will not be linear. The individual constituent results are greatly affected by the matrix of the tailings fluids and each constituent will behave differently based on the matrix interactions and the differing solubility properties of the constituent.

Comparison of Cell 4B fluids to those of Cells 1, and 4A reveals that Cell 4B is similar in composition and concentration ratios to the fluids in Cells 1, and 4A.

6.5 Cell 2 Slimes Drain

Cell 2 Slimes drain fluid was acidic in nature, with a laboratory pH of 3.1. As expected, the solutions contained gross alpha, major ions, metals and VOCs. SVOCs were not detected. Major ions that were highest in concentration by one or more orders of magnitude included chloride, magnesium, sodium and sulfate. For metals, arsenic, cadmium, chromium, cobalt, copper, iron, manganese, nickel, uranium, vanadium and zinc were at least one order of magnitude greater in concentration than other metals analyzed. A slight increase in the gross alpha concentration was noted in the 2015 sample. The gross alpha result increased but is the same order of magnitude of the historic data. Overall, the concentrations reported in the 2015 sample remained approximately the same as the 2014 sample. Concentration changes noted are within the analytical accuracy of the methods used for analysis.

6.6 Cells 3, 4A and 4B Slimes Drain

In accordance with the Permit, the slimes drains for Cell 3, 4A and 4B are not required to be sampled until dewatering operations have begun. Cell 1 was designed to be used solely as an evaporation pond and does not have a slimes drain.

6.7 Cell 2 Leak Detection System

Consistent with the Permit, the Cell 2 LDS was not sampled during the 2015 sampling event. The Cell 2 LDS is now dry and covered to prevent precipitation inflow.

6.8 Cells 1 and 3 Leak Detection System

Consistent with the Permit, the Cells 1 and 3 leak detection systems were not sampled during the 2015 sampling event because the systems were dry.

6.9 Cell 4A Leak Detection System

Cell 4A LDS solutions were acidic in nature, with a laboratory pH of 2.29. As expected, the solutions contained gross alpha, major ions, metals and VOCs. SVOCs were not detected. Cell 4A LDS fluid exhibited the highest major ion concentrations for chloride, magnesium, sodium and sulfate. The metals arsenic, cadmium, chromium, cobalt, copper, iron, manganese, nickel, uranium, vanadium, and zinc were one or more orders of magnitude greater than the other metals analyzed. A slight decrease in the gross alpha concentration was noted in the 2015 sample. However, it is important to note that the May 2015 voluntary sample for gross alpha was an order of magnitude lower than the August 2014 and August 2015 samples. The variable and increased gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. This is evidenced by the results of the voluntary additional analyses conducted in May and August 2015. The results of the voluntary analyses are shown in Tab D.

The concentrations reported in the Cell 4A LDS fluid are similar to the concentrations reported for the fluid in Cell 4A. Because the Cell 4A LDS fluids are from Cell 4A, the similarities in concentration are expected. The factors affecting the Cell 4A fluid concentrations will have the same impacts and overall effects on the LDS fluid concentrations. Overall, the concentrations reported in the 2015 Cell 4A LDS sample remained within historic ranges.

6.10 Cell 4B Leak Detection System

Cell 4B LDS solutions were acidic in nature, with a laboratory pH of 1.51. As expected, the solutions contained gross alpha, major ions, metals and VOCs. SVOCs were not detected. Cell 4B LDS fluid exhibited the highest major ion concentrations for chloride, magnesium, sodium and sulfate. The metals arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, nickel, selenium, uranium, vanadium and zinc were one or more orders of magnitude greater than the other metals analyzed. An increase in the gross alpha concentration was noted in the 2015 sample, but it is the same order of magnitude as the 2014 sample. However, it is important to note that the May 2015 voluntary sample for gross alpha was an order of magnitude lower than the August 2014 and August 2015 samples. The variable and increased gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. This is evidenced by the results of the voluntary additional analyses conducted in May

and August 2015. The results of the voluntary analyses are shown in Tab D.

The concentrations reported in the Cell 4B LDS fluid are similar to the concentrations reported for the fluid in Cell 4B. Because the Cell 4B LDS fluids are from Cell 4B, the similarities in concentration are expected. The factors affecting the Cell 4B fluid concentrations will have the same impacts and overall effects on the LDS fluid concentrations. Overall, the concentrations reported in the 2015 Cell 4B LDS sample are within historic ranges.

6.11 Summary and Conclusions of Analytical Results

The metals arsenic, cadmium, chromium, cobalt, copper, iron, manganese, molybdenum, nickel, selenium, uranium, vanadium and zinc were generally present in greatest concentration for all samples. For major ions, chloride, fluoride, magnesium, sodium, and sulfate were predominant. Increases were noted for several metals and major anions as well as in the gross alpha concentrations. As a result of the increased gross alpha concentrations, EFRI conducted additional voluntary analyses (not required by the GWDP) in order to further characterize the radiological and physical properties of the tailings solution, as discussed Section 3.1 above. The results of the additional voluntary analyses for radium-226, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, uranium-238, kinematic viscosity, and specific gravity show that the increasing gross alpha results are being caused by matrix interference due to the nature of the tailings solution and are not representative of gross alpha from radium concentrations in the solution. EFRI may or may not choose to continue these additional analyses in the future. The increased concentrations of metals and major ions are indicative of a “concentration effect” and provide information relative to the system as a whole. The individual constituent results are greatly affected by the matrix of the tailings fluids and each constituent will behave differently based on the matrix interactions and the differing solubility properties of the constituent. Overall, the results of the 2015 tailings solutions are within historic ranges.

7.0 CORRECTIVE ACTION REPORT

No corrective action reports are required for the 2015 annual sampling event.

7.1 Assessment of Corrective Actions from Previous Period

No corrective action reports were required for the 2014 annual sampling event and as such there is no assessment of previous actions necessary.

7.0 SIGNATURE AND CERTIFICATION

This document was prepared by Energy Fuels Resources (USA) Inc. on November 24, 2015.

ENERGY FUELS RESOURCES (USA) INC.

By:



Scott A. Bakken
Senior Director Regulatory Affairs

Certification:

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.



Scott A. Bakken
Senior Director Regulatory Affairs
Energy Fuels Resources (USA) Inc.

TABLES

Table 1
Summary of 2015 Tailings System Wastewater Monitoring

Location	Sample Date	Date of Laboratory Report	Work Order Number/Lab Set ID
Cell 1 Solutions	8/4/2015	GEL – 9/4/2015 (<i>8/3/2015, 7/20/2015</i>)	GEL – 378920 (<i>377632, 374106</i>)
	5/28/2015*	AWAL - 8/31/2015	AWAL - 1508124
Cell 2 Slimes Drain	8/4/2015	GEL – 9/4/2015	GEL – 378920
		AWAL - 8/31/2015	AWAL - 1508124
Cell 3 Solutions	8/4/2015	GEL – 9/4/2015 (<i>8/3/2015, 7/20/2015</i>)	GEL – 378920 (<i>377632, 374106</i>)
	5/28/2015*	AWAL - 8/31/2015	AWAL - 1508124
Cell 4A Solutions	8/4/2015	GEL – 9/4/2015 (<i>8/3/2015, 7/20/2015</i>)	GEL – 378920 (<i>377632, 374106</i>)
	5/28/2015*	AWAL - 8/31/2015	AWAL - 1508124
Cell 4A LDS	8/4/2015	GEL – 9/4/2015 (<i>7/20/2015</i>)	GEL – 378920 (<i>374106</i>)
	5/28/2015*	AWAL - 8/31/2015	AWAL - 1508124
Cell 4B Solutions	8/4/2015	GEL – 9/4/2015 (<i>8/3/2015, 7/20/2015</i>)	GEL – 378920 (<i>377632, 374106</i>)
	5/28/2015*	AWAL - 8/31/2015	AWAL - 1508124
Cell 4B LDS	8/4/2015	GEL – 9/4/2015 (<i>7/20/2015</i>)	GEL – 378920 (<i>374106</i>)
	5/28/2015*	AWAL - 8/31/2015	AWAL - 1508124
Cell 65 - Duplicate of Cell 4B LDS	8/4/2015	GEL – 9/4/2015	GEL – 378920
		AWAL - 8/31/2015	AWAL - 1508124
Cell 65 - Duplicate of Cell 4A	5/28/2015*	GEL – (<i>7/20/2015</i>)	GEL – (<i>374106</i>)

Notes:

GEL = GEL Laboratories, LLC

AWAL = American West Analytical Laboratories

* - EFRI conducted a voluntary sampling event in May 2015 for specific gravity, kinematic viscosity, and additional radiological constituents only.

Dates and work order numbers in italics and parentheses reflect the date/work order number for the May 2015 sampling event. These data are not required, but are included in this report for information purposes only.

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Tab A

Tailings System Monitoring Field Sheets

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 1 Sampling Personnel: Garrin, Tamer, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA
 -Temperature (°C) 22° (outside Temp)

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologics	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

Heavy Metals Yes NO NO

QC Samples Associated with this Location:

- Rinsate Blank
- Duplicate

Duplicate Sample Name: _____

Notes: Arrived on site at 0815. Dipped ladle into pond to fill sample bottles. Samples were collected at 0825. Left site at 0838. Dean Henderson sampled site for Gross Alpha.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Slimes #2 Sampling Personnel: Garrin, Tanner, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): 35.24

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA
 -Temperature (°C) 22° (outside temp.)

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL
Other Non Radiologics	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AWAL

QC Samples Associated with this Location:

- Rinsate Blank
- Duplicate

Duplicate Sample Name: _____

Notes: Arrived on site at 0843. Used bailer to collect samples
Samples were collect at 0850. Left site at 0900.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 3 Sampling Personnel: Garcia, Tanner, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA
 -Temperature (°C) 22° (outside temp.)

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologics	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

QC Samples Associated with this Location:

- Rinsate Blank
- Duplicate

Duplicate Sample Name: _____

Notes: Arrived on site at 0906. Used ladle to collect samples. Samples were at 0915. Left site at 0920.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 4A Sampling Personnel: Garrin, Tanner, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA
 -Temperature (°C) 22° (outside Temp.)

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologics	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

QC Samples Associated with this Location:

Rinsate Blank

Duplicate

Duplicate Sample Name: _____

Notes: Arrived on site at 0929. Used ladle to collect samples. Samples were collected at 0940. Left site at 0945.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 4A LDS Sampling Personnel: Garcia, Tamer, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA
 -Temperature (°C) 22° (outside temp.)

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologics	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

QC Samples Associated with this Location:

- Rinsate Blank
- Duplicate

Duplicate Sample Name: _____

Notes: Arrived on site at 0945. Pumped solution into stainless steel bucket then used a ladle to fill sample bottles. Samples were collected at 0950. Left site at 0955. Collected ms/USD for the lab at this location.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 4B Sampling Personnel: Garrin, Tamer, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA

-Temperature (°C) 22° (outside temp)

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologics	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

QC Samples Associated with this Location:

Rinsate Blank

Duplicate

Duplicate Sample Name: _____

Notes: Arrived on site at 0955. Used ladle to fill sample bottles. Samples were collected at 0958. Left site at 1006.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 4B LDS Sampling Personnel: Garrin, Tanner, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH NA
 -Temperature (°C) Outside temp. 22°

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

QC Samples Associated with this Location:

Rinsate Blank

Duplicate

Duplicate Sample Name: Cell 65

Notes: Arrived on site at 1006. Filled stainless steel bucket with solution pumped from LDS. Ladle was then used to fill sample bottles. Samples were collected at 1010. Left site at 1025.

Field Data Record-Tailings, LDS and Slimes Drain Sampling

Location: Cell 65 Sampling Personnel: Garcia, Tanner, Dean

Is this a Slimes Drain? Yes No

If this is a Slimes Drain, measure depth to wastewater immediately before sampling.

DTW immediately before sampling (slimes only): NA

Weather Conditions at Time of Sampling: Sunny

Field Parameter Measurements:

-pH _____
 -Temperature (°C) _____

Analytical Parameters/Sample Collection Method:

Parameter	Sample Taken		Filtered		Sampling Method			Lab Name
					Peristaltic Pump	Bailer	Ladle	
VOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
THF	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Nutrients	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Other Non Radiologies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Gross Alpha	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	GEL
SVOCs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Conductivity	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL
Heavy Metals	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AWAL

QC Samples Associated with this Location:

Rinsate Blank

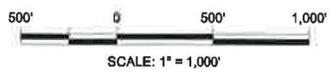
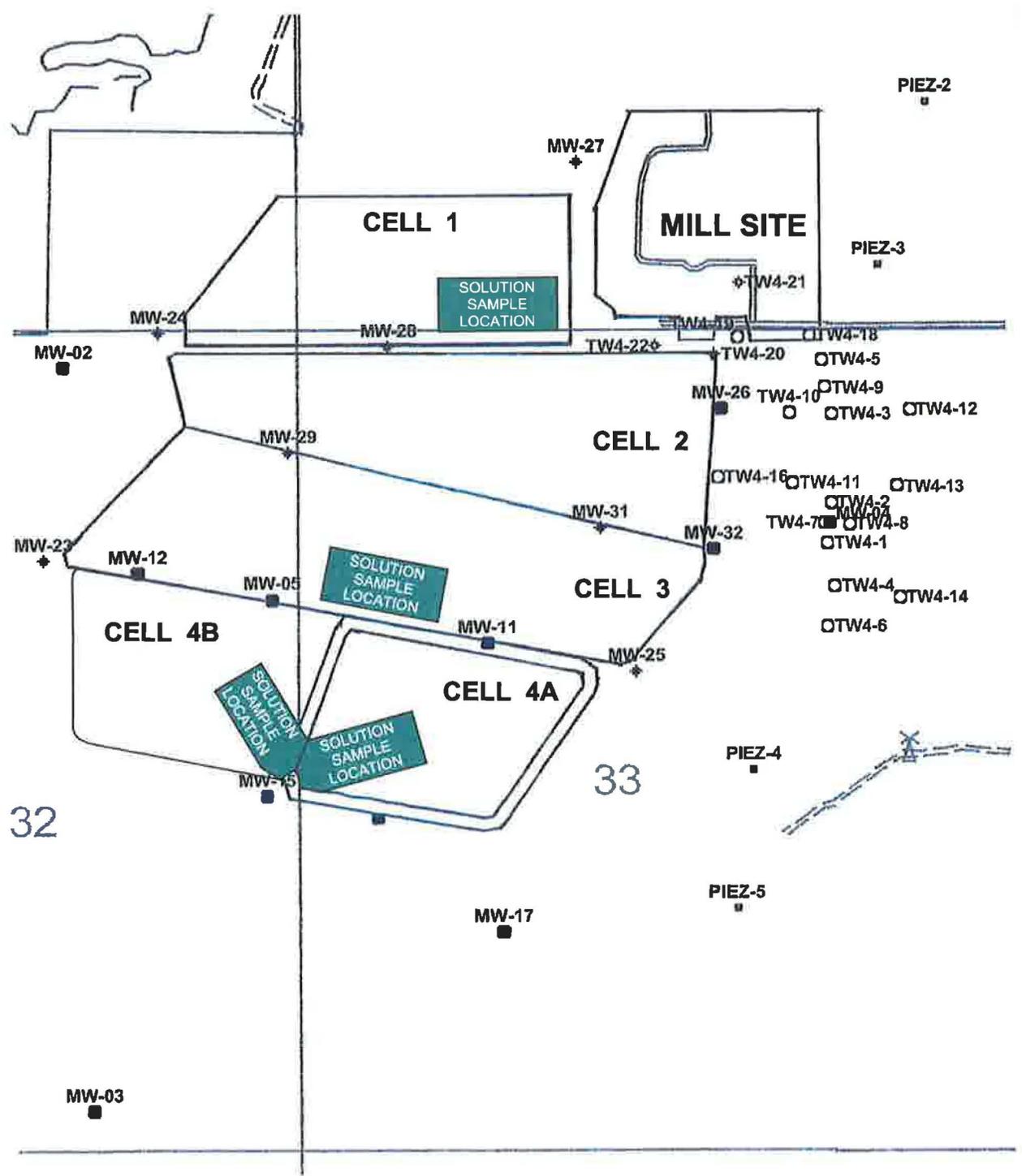
Duplicate

Duplicate Sample Name: Cell 65

Notes: Arrived on site at 1006. Duplicate of cell 4B LDS.

Tab B

Sample Location Figures



		Project: White Mesa Mill																						
		County: San Juan	State: Utah																					
<table border="1"> <thead> <tr> <th>REVISIONS</th> <th>Date</th> <th>By</th> </tr> </thead> <tbody> <tr> <td></td> <td>10/8/14</td> <td>RE</td> </tr> <tr> <td></td> <td>11/24/15</td> <td>RE</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>		REVISIONS	Date	By		10/8/14	RE		11/24/15	RE													Location: T37S, R22E	
REVISIONS	Date	By																						
	10/8/14	RE																						
	11/24/15	RE																						
Annual Tailings System, Cell Solution Sample Locations																								
Author: ---		Date: 11/24/15	Drafted By:																					

Tab C

Laboratory Analytical Reports



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-001F
Client Sample ID: Cell 1
Collection Date: 8/4/2015 825h
Received Date: 8/6/2015 1801h Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 1656h **Extracted:** 8/7/2015 927h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

3440 South 700 West
Salt Lake City, UT 84119

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 e-mail: awal@awal-labs.com
 web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-001F

Client Sample ID: Cell 1

Analyzed: 8/10/2015 1656h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-001F

Client Sample ID: Cell 1

Analyzed: 8/10/2015 1656h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	15.2	80.00	19.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	2.92	40.00	7.30	10-124	S
Surr: 2-Fluorophenol	367-12-4	7.13	80.00	8.91	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	3.67	40.00	9.18	10-180	S
Surr: Phenol-d6	13127-88-3	12.1	80.00	15.1	10-122	
Surr: Terphenyl-d14	1718-51-0	8.34	40.00	20.9	10-221	

3440 South 700 West
Salt Lake City, UT 84119

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 324mL of base and 135mL of acid during the extraction process compared to the usual 3mL normally required. This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 4, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 1	Project: DNMI00107
Sample ID: 378920001	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 08:25	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228		1310	+/-498	700	1.00	pCi/L		JXC5	08/20/15	1524	1500006	1
Thorium-230		9.91E+05	+/-12700	1220	1.00	pCi/L						
Thorium-232		6150	+/-1020	780	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		7.35E+05	+/-4230	320	1.00	pCi/L		JXC5	08/26/15	1814	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		1110	+/-33.7	14.5	1.00	pCi/L		CXP3	09/04/15	0735	1500000	3
U- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		1.41E+05	+/-3650	452	1.00	pCi/L		JXC5	08/20/15	0952	1500005	4
Uranium-235/236		8920	+/-1030	646	1.00	pCi/L						
Uranium-238		1.40E+05	+/-3640	452	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			89.1	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.8	(25%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			63.1	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 20, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 1	Project: DNMI00107
Sample ID: 374106001	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 06:50	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228		204	+/-84.2	165	1.00	pCi/L		HAKB	06/23/15	1420 1483754	1
Thorium-230		7.82E+05	+/-4620	168	1.00	pCi/L					
Thorium-232		6730	+/-429	120	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		96700	+/-1420	257	1.00	pCi/L		HAKB	07/08/15	1544 1488049	2
Uranium-235/236		5980	+/-399	285	1.00	pCi/L					
Uranium-238		1.00E+05	+/-1450	160	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
GFPC, Total Alpha Radium, Liquid "As Received"											
Gross Radium Alpha		73800	+/-80.6	2.62	1.00	pCi/L		AXM6	06/25/15	1631 1483751	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		829	+/-36.0	24.5	1.00	pCi/L		CXP3	06/23/15	0730 1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.1 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			89.7	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			77.7	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.8	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID:	Cell 1	Project:	DNMI00107
Sample ID:	378920001	Client ID:	DNMI001
Matrix:	Water		
Collect Date:	04-AUG-15 08:25		
Receive Date:	07-AUG-15		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0815	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.21	0.010	0.100	none	1	MXB3	08/10/15	1232	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 1
Sample ID: 377632001
Matrix: Water
Collect Date: 28-MAY-15 06:50
Receive Date: 30-MAY-15
Collector: Client

Project: DNMI00107
Client ID: DNMI001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time Batch	Method
Hazardous Waste										
ASTM 2983 Viscosity(Kinematic) "As Received"										
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	07/29/15	0826 1494527	1
ASTM D 5057 Specific Gravity "As Received"										
Specific Gravity		1.13	0.010	0.100	none	1	MXB3	07/28/15	0741 1494524	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	ASTM 2983 MODIFIED KINEMATIC	
	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Annual Tailings 2015
Lab Sample ID: 1508124-002
Client Sample ID: Cell 2 Slimes
Collection Date: 8/4/2015 850h
Received Date: 8/6/2015 1801h

Contact: Garrin Palmer

Analytical Results

DISSOLVED METALS

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Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	1.00	13.3	
Beryllium	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.0200	0.275	
Cadmium	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.00500	6.26	
Calcium	mg/L	8/18/2015 1129h	8/20/2015 1610h	E200.7	500	524	
Chromium	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.0250	1.84	
Cobalt	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	2.00	46.0	
Copper	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	1.00	143	
Iron	mg/L	8/18/2015 1129h	8/25/2015 1817h	E200.8	500	3,000	
Lead	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.0200	0.268	
Magnesium	mg/L	8/18/2015 1129h	8/20/2015 1610h	E200.7	500	3,810	
Manganese	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	1.00	136	
Mercury	mg/L	8/21/2015 1527h	8/24/2015 835h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	1.00	2.01	
Nickel	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	1.00	120	
Potassium	mg/L	8/18/2015 1129h	8/20/2015 1610h	E200.7	500	659	
Selenium	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.0200	0.631	
Silver	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.0200	< 0.0200	
Sodium	mg/L	8/18/2015 1129h	8/20/2015 1610h	E200.7	500	4,800	
Thallium	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.0200	0.233	
Tin	mg/L	8/18/2015 1129h	8/20/2015 159h	E200.8	0.100	< 0.100	
Uranium	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	1.00	27.2	
Vanadium	mg/L	8/18/2015 1129h	8/20/2015 1610h	E200.7	2.50	513	
Zinc	mg/L	8/18/2015 1129h	8/25/2015 1725h	E200.8	2.50	702	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt. The sample was received after the filtration holding time had expired for dissolved analysis.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-002F
Client Sample ID: Cell 2 Slimes
Collection Date: 8/4/2015 850h
Received Date: 8/6/2015 1801h Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 1719h **Extracted:** 8/7/2015 927h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

3440 South 700 West
Salt Lake City, UT 84119

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 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-002F

Client Sample ID: Cell 2 Slimes

Analyzed: 8/10/2015 1719h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-002F

Client Sample ID: Cell 2 Slimes

Analyzed: 8/10/2015 1719h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	46.2	80.00	57.7	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	12.5	40.00	31.3	10-124	
Surr: 2-Fluorophenol	367-12-4	22.7	80.00	28.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	0.630	40.00	1.58	10-180	S
Surr: Phenol-d6	13127-88-3	25.5	80.00	31.9	10-122	
Surr: Terphenyl-d14	1718-51-0	22.2	40.00	55.4	10-221	

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Salt Lake City, UT 84119

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 132mL of base and 75mL of acid during the extraction process compared to the usual 3mL normally required. This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 4, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 2 Slimes	Project: DNMI00107
Sample ID: 378920002	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 08:50	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	75.8	+/-133	484	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		6680	+/-706	533	1.00	pCi/L						
Thorium-232	U	140	+/-126	272	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		7210	+/-442	307	1.00	pCi/L		JXC5	08/26/15	1814	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		36.6	+/-7.10	13.6	1.00	pCi/L		CXP3	09/04/15	0810	1500000	3
U- 233/234, U-235/236 and U-238 "As Received"												
Uranium-233/234		11300	+/-856	357	1.00	pCi/L		JXC5	08/20/15	0952	1500005	4
Uranium-235/236		858	+/-277	382	1.00	pCi/L						
Uranium-238		10500	+/-829	357	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			71.9	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.4	(25%-125%)
Uranium-232 Tracer	U- 233/234, U-235/236 and U-238 "As Received"			94.2	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 2 Slimes Project: DNMI00107
Sample ID: 378920002 Client ID: DNMI001
Matrix: Water
Collect Date: 04-AUG-15 08:50
Receive Date: 07-AUG-15
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0836	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.09	0.010	0.100	none	1	MXB3	08/10/15	1235	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-003
Client Sample ID: Cell 3
Collection Date: 8/4/2015 915h
Received Date: 8/6/2015 1801h

Analytical Results

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	8/23/2015 1115h	8/23/2015 1411h	E350.1	0.100	8.91	B
Bicarbonate (as CaCO ₃)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO ₃)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/13/2015 1411h	E300.0	10,000	22,800	
Conductivity	µmhos/cm		8/10/2015 1056h	SM2510B	2.00	121,000	
Fluoride	mg/L		8/13/2015 2024h	E300.0	100	5,410	
Ion Balance	%		8/25/2015 1353h	Calc.	-100	-29.2	
Nitrate/Nitrite (as N)	mg/L		8/23/2015 1823h	E353.2	2.00	26.6	
pH @ 25° C	pH Units		8/6/2015 2034h	SW9040C	1.00	1.72	H
Sulfate	mg/L		8/13/2015 1246h	E300.0	100,000	158,000	
Total Anions, Measured	meq/L		8/25/2015 1353h	Calc.		3,930	
Total Cations, Measured	meq/L		8/25/2015 1353h	Calc.		2,160	
Total Dissolved Solids	mg/L		8/7/2015 1130h	SM2540C	500	238,000	
Total Dissolved Solids Ratio, Measured/Calculated			8/25/2015 1353h	Calc.		1.08	
Total Dissolved Solids, Calculated	mg/L		8/25/2015 1353h	Calc.		220,000	

B - The method blank was acceptable, as the method blank result is less than 10% of the lowest reported sample concentration.
H - Sample was received outside of the holding time.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-003F
Client Sample ID: Cell 3
Collection Date: 8/4/2015 915h
Received Date: 8/6/2015 1801h Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 1742h **Extracted:** 8/7/2015 927h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-003F

Client Sample ID: Cell 3

Analyzed: 8/10/2015 1742h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-003F

Client Sample ID: Cell 3

Analyzed: 8/10/2015 1742h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	42.8	80.00	53.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	6.75	40.00	16.9	10-124	
Surr: 2-Fluorophenol	367-12-4	13.6	80.00	17.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	2.50	40.00	6.25	10-180	S
Surr: Phenol-d6	13127-88-3	21.8	80.00	27.3	10-122	
Surr: Terphenyl-d14	1718-51-0	23.0	40.00	57.4	10-221	

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 165mL of base and 81mL of acid during the extraction process compared to the usual 3mL normally required.

This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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Salt Lake City, UT 84119

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Laboratory Director

Jose Rocha

QA Officer

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Certificate of Analysis

Report Date: September 4, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 3	Project: DNMI00107
Sample ID: 378920003	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 09:15	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	376	+/-224	611	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		1.23E+05	+/-3160	613	1.00	pCi/L						
Thorium-232		1640	+/-382	502	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		94900	+/-1720	390	1.00	pCi/L		JXC5	08/26/15	1814	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		448	+/-24.3	20.4	1.00	pCi/L		CXP3	09/04/15	0810	1500000	3
U- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		1.84E+05	+/-3500	406	1.00	pCi/L		JXC5	08/20/15	0952	1500005	4
Uranium-235/236		10300	+/-924	394	1.00	pCi/L						
Uranium-238		1.91E+05	+/-3570	319	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			70.1	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.9	(25%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			87.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: July 20, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 3	Project: DNMI00107
Sample ID: 374106002	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 07:00	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		798	+/-164	181	1.00	pCi/L		HAKB	06/23/15	1420	1483754	1
Thorium-230		1.31E+05	+/-2000	192	1.00	pCi/L						
Thorium-232		1290	+/-201	108	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		5.57E+05	+/-5910	692	1.00	pCi/L		HAKB	07/08/15	1544	1488049	2
Uranium-235/236		37900	+/-1720	232	1.00	pCi/L						
Uranium-238		5.91E+05	+/-6080	188	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		8780	+/-28.7	3.42	1.00	pCi/L		AXM6	06/25/15	1631	1483751	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		202	+/-19.3	26.5	1.00	pCi/L		CXP3	06/23/15	0730	1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
↓	DOE EML HASL-300, Th-01-RC Modified	
↓	DOE EML HASL-300, U-02-RC Modified	
↓	EPA 900.1 Modified	
↓	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			80.6	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			22.9	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			83.2	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID:	Cell 3	Project:	DNMI00107
Sample ID:	378920003	Client ID:	DNMI001
Matrix:	Water		
Collect Date:	04-AUG-15 09:15		
Receive Date:	07-AUG-15		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0847	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.21	0.010	0.100	none	1	MXB3	08/10/15	1236	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: August 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 3
Sample ID: 377632002
Matrix: Water
Collect Date: 28-MAY-15 07:00
Receive Date: 30-MAY-15
Collector: Client

Project: DNMI00107
Client ID: DNMI001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	07/29/15	0850	1494527	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.29	0.010	0.100	none	1	MXB3	07/28/15	0750	1494524	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	ASTM 2983 MODIFIED KINEMATIC	
	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-004
Client Sample ID: Cell 4A
Collection Date: 8/4/2015 940h
Received Date: 8/6/2015 1801h

Analytical Results

DISSOLVED METALS

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	1.00	82.6	2
Beryllium	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.0200	0.281	
Cadmium	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.00500	2.09	
Calcium	mg/L	8/18/2015 1129h	8/20/2015 1614h	E200.7	500	604	
Chromium	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.0250	5.46	1
Cobalt	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	2.00	26.1	2
Copper	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	1.00	477	2
Iron	mg/L	8/18/2015 1129h	8/25/2015 1823h	E200.8	500	3,090	2
Lead	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.0200	11.7	1
Magnesium	mg/L	8/18/2015 1129h	8/20/2015 1614h	E200.7	500	3,910	2
Manganese	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	1.00	181	2
Mercury	mg/L	8/21/2015 1527h	8/24/2015 828h	E245.1	0.000500	0.000990	
Molybdenum	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	1.00	35.4	2
Nickel	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	1.00	48.7	2
Potassium	mg/L	8/18/2015 1129h	8/20/2015 1614h	E200.7	500	1,020	2
Selenium	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.0200	2.40	
Silver	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.0200	0.186	
Sodium	mg/L	8/18/2015 1129h	8/20/2015 1614h	E200.7	500	9,760	2
Thallium	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.0200	0.436	
Tin	mg/L	8/18/2015 1129h	8/20/2015 205h	E200.8	0.100	0.142	
Uranium	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	1.00	171	2
Vanadium	mg/L	8/18/2015 1129h	8/20/2015 1614h	E200.7	2.50	577	2
Zinc	mg/L	8/18/2015 1129h	8/25/2015 1731h	E200.8	2.50	237	2

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

Analysis performed on a portion of the sample filtered at the laboratory upon receipt. The sample was received after the filtration holding time had expired for dissolved analysis.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-004
Client Sample ID: Cell 4A
Collection Date: 8/4/2015 940h
Received Date: 8/6/2015 1801h

Analytical Results

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 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	8/23/2015 1115h	8/23/2015 1412h	E350.1	0.500	11.0	1@B
Bicarbonate (as CaCO3)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO3)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/13/2015 1733h	E300.0	1,000	6,410	
Conductivity	µmhos/cm		8/10/2015 1056h	SM2510B	2.00	89,600	
Fluoride	mg/L		8/13/2015 1733h	E300.0	100	1,660	
Ion Balance	%		8/25/2015 1353h	Calc.	-100	-38.1	
Nitrate/Nitrite (as N)	mg/L		8/23/2015 1732h	E353.2	1.00	19.9	
pH @ 25° C	pH Units		8/6/2015 2034h	SW9040C	1.00	1.51	H
Sulfate	mg/L		8/13/2015 1535h	E300.0	10,000	77,200	
Total Anions, Measured	meq/L		8/25/2015 1353h	Calc.		1,790	
Total Cations, Measured	meq/L		8/25/2015 1353h	Calc.		803	
Total Dissolved Solids	mg/L		8/10/2015 1420h	SM2540C	500	104,000	
Total Dissolved Solids Ratio, Measured/Calculated			8/25/2015 1353h	Calc.		1.05	
Total Dissolved Solids, Calculated	mg/L		8/25/2015 1353h	Calc.		98,900	

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

B - The method blank was acceptable, as the method blank result is less than 10% of the lowest reported sample concentration.

H - Sample was received outside of the holding time.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.

Contact: Garrin Palmer

Project: Annual Tailings 2015

Lab Sample ID: 1508124-004F

Client Sample ID: Cell 4A

Collection Date: 8/4/2015 940h

Received Date: 8/6/2015 1801h

Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 1805h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	†
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	†
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	@
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	'@
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	†
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	@
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	'@
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-004F

Client Sample ID: Cell 4A

Analyzed: 8/10/2015 1805h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	@
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	@
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	@
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-004F

Client Sample ID: Cell 4A

Analyzed: 8/10/2015 1805h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	60.1	80.00	75.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	9.66	40.00	24.2	10-124	
Surr: 2-Fluorophenol	367-12-4	12.4	80.00	15.5	10-106	
Surr: Nitrobenzene-d5	4165-60-0	1.73	40.00	4.33	10-180	S
Surr: Phenol-d6	13127-88-3	18.5	80.00	23.1	10-122	
Surr: Terphenyl-d14	1718-51-0	0.700	40.00	1.75	10-221	S

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 135mL of base and 75mL of acid during the extraction process compared to the usual 3mL normally required.

This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-004A
Client Sample ID: Cell 4A
Collection Date: 8/4/2015 940h
Received Date: 8/6/2015 1801h Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/7/2015 1144h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	42.5	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	1
Tetrahydrofuran	109-99-9	1.00	< 1.00	1
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.5	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.8	50.00	104	80-152	
Surr: Dibromofluoromethane	1868-53-7	49.8	50.00	99.6	80-124	
Surr: Toluene-d8	2037-26-5	50.5	50.00	101	77-129	

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 4, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A	Project: DNMI00107
Sample ID: 378920004	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 09:40	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	345	+/-189	504	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		3.74E+05	+/-4890	508	1.00	pCi/L						
Thorium-232		3490	+/-478	317	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		1.76E+05	+/-2150	320	1.00	pCi/L		JXC5	08/27/15	1301	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		663	+/-26.8	17.1	1.00	pCi/L		CXP3	09/04/15	0810	1500000	3
U- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		57500	+/-1890	342	1.00	pCi/L		JXC5	08/20/15	0952	1500005	4
Uranium-235/236		3720	+/-540	366	1.00	pCi/L						
Uranium-238		64400	+/-2000	342	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			86.1	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.8	(25%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			89.8	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: July 20, 2015

Company: Energy Fuels Resources (USA), Inc.
 Address: 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A	Project: DNMI00107
Sample ID: 374106003	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 07:15	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228		327	+/-101	142	1.00	pCi/L		HAKB	06/23/15	1420 1483754	1
Thorium-230		4.05E+05	+/-3330	202	1.00	pCi/L					
Thorium-232		3440	+/-308	111	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		61200	+/-1200	337	1.00	pCi/L		HAKB	07/08/15	1544 1488049	2
Uranium-235/236		4030	+/-344	86.9	1.00	pCi/L					
Uranium-238		62700	+/-1210	225	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
GFPC, Total Alpha Radium, Liquid "As Received"											
Gross Radium Alpha		37800	+/-60.7	3.51	1.00	pCi/L		AXM6	06/25/15	1631 1483751	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226	U	6.36	+/-9.24	34.2	1.00	pCi/L		CXP3	06/23/15	0730 1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
†	DOE EML HASL-300, Th-01-RC Modified	
†	DOE EML HASL-300, U-02-RC Modified	
†	EPA 900.1 Modified	
†	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			85.2	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			75.5	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			83.2	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A	Project: DNMI00107
Sample ID: 378920004	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 09:40	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0859	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.11	0.010	0.100	none	1	MXB3	08/10/15	1237	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: August 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A Project: DNMI00107
Sample ID: 377632003 Client ID: DNMI001
Matrix: Water
Collect Date: 28-MAY-15 07:15
Receive Date: 30-MAY-15
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	07/29/15	0908	1494527	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.07	0.010	0.100	none	1	MXB3	07/28/15	0752	1494524	2

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
	ASTM 2983 MODIFIED KINEMATIC		
	ASTM D 5057		

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-005
Client Sample ID: Cell 4A LDS
Collection Date: 8/4/2015 950h
Received Date: 8/6/2015 1801h

Analytical Results

DISSOLVED METALS

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Salt Lake City, UT 84119

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	1.00	10.4	
Beryllium	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.0200	0.199	
Cadmium	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.00500	4.27	
Calcium	mg/L	8/18/2015 1129h	8/20/2015 1715h	E200.7	100	510	
Chromium	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.0250	1.76	
Cobalt	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	2.00	33.7	
Copper	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	1.00	160	
Iron	mg/L	8/18/2015 1129h	8/25/2015 1843h	E200.8	500	1,320	
Lead	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.0200	0.0468	
Magnesium	mg/L	8/18/2015 1129h	8/20/2015 1715h	E200.7	100	2,730	
Manganese	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	1.00	96.7	
Mercury	mg/L	8/21/2015 1527h	8/24/2015 843h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	1.00	0.278	*
Nickel	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	1.00	86.3	
Potassium	mg/L	8/18/2015 1129h	8/20/2015 1715h	E200.7	100	245	
Selenium	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.0200	0.649	
Silver	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.0200	0.0256	
Sodium	mg/L	8/18/2015 1129h	8/20/2015 1715h	E200.7	100	3,490	
Thallium	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.0200	0.218	
Tin	mg/L	8/18/2015 1129h	8/20/2015 232h	E200.8	0.100	< 0.100	
Uranium	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	1.00	25.0	
Vanadium	mg/L	8/18/2015 1129h	8/20/2015 1715h	E200.7	0.500	253	
Zinc	mg/L	8/18/2015 1129h	8/25/2015 1801h	E200.8	2.50	510	

* - Estimated value between the MDL of 0.103 mg/L and the reporting limit (PQL).

Analysis performed on a portion of the sample filtered at the laboratory upon receipt. The sample was received after the filtration holding time had expired for dissolved analysis.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-005F
Client Sample ID: Cell 4A LDS
Collection Date: 8/4/2015 950h
Received Date: 8/6/2015 1801h Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 1915h **Extracted:** 8/7/2015 927h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-005F

Client Sample ID: Cell 4A LDS

Analyzed: 8/10/2015 1915h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-005F

Client Sample ID: Cell 4A LDS

Analyzed: 8/10/2015 1915h

Extracted: 8/7/2015 927h

Units: $\mu\text{g/L}$

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	9.86	80.00	12.3	14-159	S
Surr: 2-Fluorobiphenyl	321-60-8	14.7	40.00	36.9	10-124	
Surr: 2-Fluorophenol	367-12-4	-1.25	80.00	-1.56	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	7.11	40.00	17.8	10-180	
Surr: Phenol-d6	13127-88-3	6.78	80.00	8.48	10-122	S
Surr: Terphenyl-d14	1718-51-0	25.4	40.00	63.4	10-221	

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Salt Lake City, UT 84119

Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 120mL of base and 60mL of acid during the extraction process compared to the usual 3mL normally required.

This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-005A
Client Sample ID: Cell 4A LDS
Collection Date: 8/4/2015 950h
Received Date: 8/6/2015 1801h Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/7/2015 1204h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	84.7	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	129	
Chloromethane	74-87-3	1.00	5.35	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	18.5	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.0	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.2	50.00	104	80-152	
Surr: Dibromofluoromethane	1868-53-7	50.8	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	50.8	50.00	102	77-129	

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 4, 2015

Company: Energy Fuels Resources (USA), Inc.
 Address: 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A LDS	Project: DNMI00107
Sample ID: 378920005	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 09:50	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	426	+/-203	466	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		25300	+/-1330	542	1.00	pCi/L						
Thorium-232	U	240	+/-158	393	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		17200	+/-655	187	1.00	pCi/L		JXC5	08/26/15	1817	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		19.3	+/-6.00	16.4	1.00	pCi/L		CXP3	09/04/15	0810	1500000	3
U- 233/234, U-235/236 and U-238 "As Received"												
Uranium-233/234		9380	+/-731	414	1.00	pCi/L		JXC5	08/20/15	0952	1500005	4
Uranium-235/236		504	+/-210	423	1.00	pCi/L						
Uranium-238		10800	+/-782	434	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			80.5	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.5	(25%-125%)
Uranium-232 Tracer	U- 233/234, U-235/236 and U-238 "As Received"			102	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: July 20, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A LDS	Project: DNMI00107
Sample ID: 374106004	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 07:20	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	53.2	+/-50.3	154	1.00	pCi/L		HAKB	06/23/15	1420 1483754	1
Thorium-230		16700	+/-638	153	1.00	pCi/L					
Thorium-232		240	+/-80.5	99.2	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		8940	+/-372	147	1.00	pCi/L		HAKB	07/08/15	1544 1488049	2
Uranium-235/236		569	+/-107	56.9	1.00	pCi/L					
Uranium-238		8200	+/-360	235	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
GFPC, Total Alpha Radium, Liquid "As Received"											
Gross Radium Alpha		1670	+/-12.1	2.88	1.00	pCi/L		AXM6	06/25/15	1631 1483751	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226	U	16.0	+/-6.78	19.7	1.00	pCi/L		CXP3	06/23/15	0730 1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 900.1 Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			101	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			90.7	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.0	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 4A LDS Project: DNMI00107
Sample ID: 378920005 Client ID: DNMI001
Matrix: Water
Collect Date: 04-AUG-15 09:50
Receive Date: 07-AUG-15
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0911	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.07	0.010	0.100	none	1	MXB3	08/10/15	1246	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-006F
Client Sample ID: Cell 4B
Collection Date: 8/4/2015 958h
Received Date: 8/6/2015 1801h Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 1938h **Extracted:** 8/7/2015 927h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-006F

Client Sample ID: Cell 4B

Analyzed: 8/10/2015 1938h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-006F

Client Sample ID: Cell 4B

Analyzed: 8/10/2015 1938h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	8.88	80.00	11.1	14-159	S
Surr: 2-Fluorobiphenyl	321-60-8	9.27	40.00	23.2	10-124	
Surr: 2-Fluorophenol	367-12-4	-1.17	80.00	-1.46	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	9.00	40.00	22.5	10-180	
Surr: Phenol-d6	13127-88-3	0.860	80.00	1.08	10-122	S
Surr: Terphenyl-d14	1718-51-0	15.2	40.00	38.0	10-221	

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Salt Lake City, UT 84119

Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 210mL of base and 66mL of acid during the extraction process compared to the usual 3mL normally required.

This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-006A
Client Sample ID: Cell 4B
Collection Date: 8/4/2015 958h
Received Date: 8/6/2015 1801h Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/7/2015 1223h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
2-Butanone	78-93-3	20.0	< 20.0			
Acetone	67-64-1	20.0	56.2			
Benzene	71-43-2	1.00	< 1.00			
Carbon tetrachloride	56-23-5	1.00	< 1.00			
Chloroform	67-66-3	1.00	2.34			
Chloromethane	74-87-3	1.00	3.62			
Methylene chloride	75-09-2	1.00	< 1.00			
Naphthalene	91-20-3	1.00	< 1.00			
Tetrahydrofuran	109-99-9	1.00	< 1.00			
Toluene	108-88-3	1.00	< 1.00			
Xylenes, Total	1330-20-7	1.00	< 1.00			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.7	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.7	50.00	107	80-152	
Surr: Dibromofluoromethane	1868-53-7	50.2	50.00	100	80-124	
Surr: Toluene-d8	2037-26-5	51.5	50.00	103	77-129	

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 4, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B	Project: DNMI00107
Sample ID: 378920006	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 09:58	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	242	+/-150	396	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		4.10E+05	+/-4930	496	1.00	pCi/L						
Thorium-232		2210	+/-369	334	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		2.67E+05	+/-2410	360	1.00	pCi/L		JXC5	08/26/15	1815	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		611	+/-25.2	16.4	1.00	pCi/L		CXP3	09/04/15	0845	1500000	3
U- 233/234, U-235/236 and U-238 "As Received"												
Uranium-233/234		63500	+/-2300	549	1.00	pCi/L		JXC5	08/20/15	0952	1500005	4
Uranium-235/236		3710	+/-627	309	1.00	pCi/L						
Uranium-238		67000	+/-2360	461	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			92.8	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.8	(25%-125%)
Uranium-232 Tracer	U- 233/234, U-235/236 and U-238 "As Received"			64.7	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: July 20, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B	Project: DNMI00107
Sample ID: 374106005	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 07:30	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228		122	+/-61.7	108	1.00	pCi/L		HAKB	06/23/15	1420 1483754	1
Thorium-230		3.46E+05	+/-2910	171	1.00	pCi/L					
Thorium-232		3790	+/-306	108	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		65000	+/-1050	228	1.00	pCi/L		HAKB	07/08/15	1544 1488049	2
Uranium-235/236		3870	+/-290	202	1.00	pCi/L					
Uranium-238		66100	+/-1060	209	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
GFPC, Total Alpha Radium, Liquid "As Received"											
Gross Radium Alpha		42500	+/-60.2	2.41	1.00	pCi/L		AXM6	06/25/15	1631 1483751	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		544	+/-28.8	11.6	1.00	pCi/L		CXP3	06/23/15	0730 1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 900.1 Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			96.9	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			85.7	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.4	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B Project: DNMI00107
Sample ID: 378920006 Client ID: DNMI001
Matrix: Water
Collect Date: 04-AUG-15 09:58
Receive Date: 07-AUG-15
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0922	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.12	0.010	0.100	none	1	MXB3	08/10/15	1247	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B Project: DNMI00107
Sample ID: 377632004 Client ID: DNMI001
Matrix: Water
Collect Date: 28-MAY-15 07:30
Receive Date: 30-MAY-15
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	07/29/15	0923	1494527	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.08	0.010	0.100	none	1	MXB3	07/28/15	0753	1494524	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	ASTM 2983 MODIFIED KINEMATIC	
	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-007
Client Sample ID: Cell 4B LDS
Collection Date: 8/4/2015 1010h
Received Date: 8/6/2015 1801h

Analytical Results

DISSOLVED METALS

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Jose Rocha
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	1.00	98.4	
Beryllium	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.0200	0.411	
Cadmium	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.00500	2.79	
Calcium	mg/L	8/18/2015 1129h	8/20/2015 1637h	E200.7	500	538	
Chromium	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.0250	7.32	
Cobalt	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	2.00	31.1	
Copper	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	1.00	458	
Iron	mg/L	8/18/2015 1129h	8/25/2015 1850h	E200.8	500	4,180	
Lead	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.0200	10.1	
Magnesium	mg/L	8/18/2015 1129h	8/20/2015 1637h	E200.7	500	5,190	
Manganese	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	1.00	222	
Mercury	mg/L	8/21/2015 1527h	8/24/2015 847h	E245.1	0.000500	0.00147	
Molybdenum	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	1.00	36.3	
Nickel	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	1.00	52.6	
Potassium	mg/L	8/18/2015 1129h	8/20/2015 1637h	E200.7	500	1,560	
Selenium	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.0200	5.08	
Silver	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.0200	0.179	
Sodium	mg/L	8/18/2015 1129h	8/20/2015 1637h	E200.7	500	11,900	
Thallium	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.0200	0.354	
Tin	mg/L	8/18/2015 1129h	8/20/2015 238h	E200.8	0.100	0.198	
Uranium	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	1.00	185	
Vanadium	mg/L	8/18/2015 1129h	8/20/2015 1637h	E200.7	2.50	817	
Zinc	mg/L	8/18/2015 1129h	8/25/2015 1807h	E200.8	2.50	296	

Analysis performed on a portion of the sample filtered at the laboratory upon receipt. The sample was received after the filtration holding time had expired for dissolved analysis.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-007
Client Sample ID: Cell 4B LDS
Collection Date: 8/4/2015 1010h
Received Date: 8/6/2015 1801h

Analytical Results

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Jose Rocha
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	8/23/2015 1115h	8/23/2015 1426h	E350.1	0.500	2.43	B
Bicarbonate (as CaCO ₃)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO ₃)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/13/2015 1951h	E300.0	1,000	7,960	
Conductivity	µmhos/cm		8/10/2015 1056h	SM2510B	2.00	106,000	
Fluoride	mg/L		8/13/2015 1951h	E300.0	100	1,150	
Ion Balance	%		8/25/2015 1353h	Calc.	-100	-40.4	
Nitrate/Nitrite (as N)	mg/L		8/23/2015 1755h	E353.2	10.0	16.6	
pH @ 25° C	pH Units		8/6/2015 2034h	SW9040C	1.00	1.51	H
Sulfate	mg/L		8/13/2015 1625h	E300.0	10,000	104,000	
Total Anions, Measured	meq/L		8/25/2015 1353h	Calc.		2,380	
Total Cations, Measured	meq/L		8/25/2015 1353h	Calc.		1,010	
Total Dissolved Solids	mg/L		8/7/2015 1130h	SM2540C	500	131,000	
Total Dissolved Solids Ratio, Measured/Calculated			8/25/2015 1353h	Calc.		0.998	
Total Dissolved Solids, Calculated	mg/L		8/25/2015 1353h	Calc.		131,000	

B - The method blank was acceptable, as the method blank result is less than 10% of the lowest reported sample concentration.
H - Sample was received outside of the holding time.



Lab Sample ID: 1508124-007F

Client Sample ID: Cell 4B LDS

Analyzed: 8/10/2015 2001h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-007F

Client Sample ID: Cell 4B LDS

Analyzed: 8/10/2015 2001h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	16.6	80.00	20.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	11.8	40.00	29.4	10-124	
Surr: 2-Fluorophenol	367-12-4	0.0700	80.00	0.0875	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	11.4	40.00	28.4	10-180	
Surr: Phenol-d6	13127-88-3	1.33	80.00	1.66	10-122	S
Surr: Terphenyl-d14	1718-51-0	1.09	40.00	2.73	10-221	S

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Salt Lake City, UT 84119

Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 150mL of base and 75mL of acid during the extraction process compared to the usual 3mL normally required.

This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-007A
Client Sample ID: Cell 4B LDS
Collection Date: 8/4/2015 1010h
Received Date: 8/6/2015 1801h Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/10/2015 1816h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	71.8	
Acetone	67-64-1	20.0	218	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	5.03	
Chloromethane	74-87-3	1.00	9.72	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	36.6	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	50.4	50.00	101	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.6	50.00	109	80-152	
Surr: Dibromofluoromethane	1868-53-7	45.5	50.00	91.0	80-124	
Surr: Toluene-d8	2037-26-5	56.0	50.00	112	77-129	

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Certificate of Analysis

Report Date: September 4, 2015

Company: Energy Fuels Resources (USA), Inc.
 Address: 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B LDS	Project: DNMI00107
Sample ID: 378920007	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 10:10	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	237	+/-169	495	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		4.52E+05	+/-5460	520	1.00	pCi/L						
Thorium-232		3660	+/-496	326	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		3.75E+05	+/-3580	420	1.00	pCi/L		JXC5	08/26/15	1815	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		161	+/-14.9	19.8	1.00	pCi/L		CXP3	09/04/15	0845	1500000	3
U- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		62600	+/-2170	414	1.00	pCi/L		JXC5	08/20/15	0950	1500005	4
Uranium-235/236		3890	+/-607	278	1.00	pCi/L						
Uranium-238		60900	+/-2140	359	1.00	pCi/L						

The following Analytical Methods were performed;

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			80.9	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.9	(25%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			102	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: July 20, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B LDS	Project: DNMI00107
Sample ID: 374106006	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 07:40	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228		334	+/-122	225	1.00	pCi/L		HAKB	06/23/15	1420 1483754	1
Thorium-230		4.87E+05	+/-4170	227	1.00	pCi/L					
Thorium-232		5430	+/-441	174	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		63500	+/-1160	320	1.00	pCi/L		HAKB	07/09/15	1347 1488049	2
Uranium-235/236		3900	+/-330	347	1.00	pCi/L					
Uranium-238		65500	+/-1170	200	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
GFPC, Total Alpha Radium, Liquid "As Received"											
Gross Radium Alpha		52500	+/-87.8	5.23	1.00	pCi/L		AXM6	06/25/15	1631 1483751	3
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		55.2	+/-12.2	27.4	1.00	pCi/L		CXP3	06/23/15	0815 1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
?	DOE EML HASL-300, Th-01-RC Modified	
?	DOE EML HASL-300, U-02-RC Modified	
?	EPA 900.1 Modified	
?	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			66.4	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			83.6	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			76.6	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID: Cell 4B LDS Project: DNMI00107
Sample ID: 378920007 Client ID: DNMI001
Matrix: Water
Collect Date: 04-AUG-15 10:10
Receive Date: 07-AUG-15
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0935	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.12	0.010	0.100	none	1	MXB3	08/10/15	1249	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-008
Client Sample ID: Cell 65
Collection Date: 8/4/2015 1010h
Received Date: 8/6/2015 1801h

Analytical Results

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	8/23/2015 1115h	8/23/2015 1428h	E350.1	0.500	9.42	B
Bicarbonate (as CaCO ₃)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO ₃)	mg/L		8/10/2015 940h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/13/2015 2007h	E300.0	1,000	8,030	
Conductivity	µmhos/cm		8/10/2015 1056h	SM2510B	2.00	104,000	
Fluoride	mg/L		8/13/2015 2007h	E300.0	100	1,080	
Ion Balance	%		8/25/2015 1353h	Calc.	-100	-40.3	
Nitrate/Nitrite (as N)	mg/L		8/23/2015 1756h	E353.2	10.0	25.1	
pH @ 25° C	pH Units		8/6/2015 2034h	SW9040C	1.00	1.48	H
Sulfate	mg/L		8/13/2015 1642h	E300.0	10,000	105,000	
Total Anions, Measured	meq/L		8/25/2015 1353h	Calc.		2,410	
Total Cations, Measured	meq/L		8/25/2015 1353h	Calc.		1,030	
Total Dissolved Solids	mg/L		8/7/2015 1130h	SM2540C	500	133,000	
Total Dissolved Solids Ratio, Measured/Calculated			8/25/2015 1353h	Calc.		1.00	
Total Dissolved Solids, Calculated	mg/L		8/25/2015 1353h	Calc.		132,000	

B - The method blank was acceptable, as the method blank result is less than 10% of the lowest reported sample concentration.
H - Sample was received outside of the holding time.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-008F
Client Sample ID: Cell 65
Collection Date: 8/4/2015 1010h
Received Date: 8/6/2015 1801h

Test Code: 8270-W

Analytical Results

SVOA by GC/MS Method 8270D/3510C

Analyzed: 8/10/2015 2024h **Extracted:** 8/7/2015 927h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	20.0	< 20.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Nitrophenol	88-75-5	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	



Lab Sample ID: 1508124-008F

Client Sample ID: Cell 65

Analyzed: 8/10/2015 2024h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	



Lab Sample ID: 1508124-008F

Client Sample ID: Cell 65

Analyzed: 8/10/2015 2024h

Extracted: 8/7/2015 927h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	19.3	80.00	24.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	11.2	40.00	28.1	10-124	
Surr: 2-Fluorophenol	367-12-4	-0.300	80.00	-0.375	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	10.4	40.00	26.0	10-180	
Surr: Phenol-d6	13127-88-3	1.32	80.00	1.65	10-122	S
Surr: Terphenyl-d14	1718-51-0	0.920	40.00	2.30	10-221	S

Gel-Permeation Chromatography (GPC) Cleanup, method 3640A, utilized for this sample.

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 150mL of base and 75mL of acid during the extraction process compared to the usual 3mL normally required.

This sample was analyzed for the TIC compound 4-Chlorophenol and was not detected.

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Certificate of Analysis

Report Date: September 4, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 65	Project: DNMI00107
Sample ID: 378920008	Client ID: DNMI001
Matrix: Water	
Collect Date: 04-AUG-15 10:10	
Receive Date: 07-AUG-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	242	+/-157	383	1.00	pCi/L		JXC5	08/20/15	0952	1500006	1
Thorium-230		4.36E+05	+/-5450	533	1.00	pCi/L						
Thorium-232		4000	+/-525	257	1.00	pCi/L						
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		4.12E+05	+/-3970	571	1.00	pCi/L		JXC5	08/26/15	1815	1502938	2
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		125	+/-12.7	18.3	1.00	pCi/L		CXP3	09/04/15	0845	1500000	3
U- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		62600	+/-2140	403	1.00	pCi/L		JXC5	08/20/15	1524	1500005	4
Uranium-235/236		2680	+/-502	432	1.00	pCi/L						
Uranium-238		61300	+/-2120	480	1.00	pCi/L						

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	EPA 900.1 Modified	
3	EPA 903.1 Modified	
4	DOE EML HASL-300, U-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			78.9	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96	(25%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			99.9	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 3, 2015

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: Tailings 2015 Characterization

Client Sample ID:	Cell 65	Project:	DNMI00107
Sample ID:	378920008	Client ID:	DNMI001
Matrix:	Water		
Collect Date:	04-AUG-15 10:10		
Receive Date:	07-AUG-15		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Hazardous Waste											
ASTM 2983 Viscosity(Kinematic) "As Received"											
Viscosity, Kinematic	U	10.0	10.0	10.0	cSt	1	MXB3	08/17/15	0951	1498982	1
ASTM D 5057 Specific Gravity "As Received"											
Specific Gravity		1.12	0.010	0.100	none	1	MXB3	08/10/15	1251	1498981	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	ASTM 2983 MODIFIED KINEMATIC	
2	ASTM D 5057	

Notes:

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 20, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: Tailings 2015 Characterization

Client Sample ID: Cell 65	Project: DNMI00107
Sample ID: 374106007	Client ID: DNMI001
Matrix: Water	
Collect Date: 28-MAY-15 07:15	
Receive Date: 30-MAY-15	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		265	+/-83.8	130	1.00	pCi/L		HAKB	06/23/15	1420	1483754	1
Thorium-230		3.15E+05	+/-2670	150	1.00	pCi/L						
Thorium-232		3790	+/-294	92.5	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Iranium-233/234		58600	+/-924	195	1.00	pCi/L		HAKB	07/08/15	1544	1488049	2
Iranium-235/236		3020	+/-236	138	1.00	pCi/L						
Iranium-238		58300	+/-922	209	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Total Alpha Radium, Liquid "As Received"												
Gross Radium Alpha		19700	+/-48.5	5.44	1.00	pCi/L		AXM6	06/25/15	1631	1483751	3
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		772	+/-37.2	28.0	1.00	pCi/L		CXP3	06/23/15	0815	1483752	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
2	DOE EML HASL-300, Th-01-RC Modified	
3	DOE EML HASL-300, U-02-RC Modified	
4	EPA 900.1 Modified	
4	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			110	(15%-125%)
Iranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			94.6	(15%-125%)
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.8	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Garrin Palmer
Project: Annual Tailings 2015
Lab Sample ID: 1508124-009A
Client Sample ID: Trip Blank
Collection Date: 8/4/2015
Received Date: 8/6/2015 1801h Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/7/2015 952h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	52.1	50.00	104	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.0	50.00	100	80-152	
Surr: Dibromofluoromethane	1868-53-7	49.1	50.00	98.2	80-124	
Surr: Toluene-d8	2037-26-5	49.3	50.00	98.5	77-129	



Garrin Palmer
Energy Fuels Resources, Inc.
6425 S. Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: Annual Tailings 2015

Dear Garrin Palmer:

Lab Set ID: 1508124

3440 South 700 West
Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 8/6/2015 for the analyses presented in the following report.

Phone: (801) 263-8686
Toll Free: (888) 263-8686
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e-mail: awal@awal-labs.com

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

web: www.awal-labs.com

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Approved by:

**Jose G.
Rocha**
Digitally signed by Jose G. Rocha
DN: cn=Jose G. Rocha,
o=American West Analytical
Laboratories, ou,
email=jose@awal-labs.com,
c=US
Date: 2015.08.31 15:26:05
-06'00'

Laboratory Director or designee



SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc.
Project: Annual Tailings 2015
Lab Set ID: 1508124
Date Received: 8/6/2015 1801h

Contact: Garrin Palmer

3440 South 700 West
 Salt Lake City, UT 84119

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1508124-001A	Cell 1	8/4/2015 825h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-001B	Cell 1	8/4/2015 825h	Aqueous	Anions, E300.0
1508124-001B	Cell 1	8/4/2015 825h	Aqueous	Conductivity (Specific Conductance)
1508124-001B	Cell 1	8/4/2015 825h	Aqueous	pH by 9040C
1508124-001B	Cell 1	8/4/2015 825h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-001C	Cell 1	8/4/2015 825h	Aqueous	Total Dissolved Solids, A2540C
1508124-001D	Cell 1	8/4/2015 825h	Aqueous	Ammonia, Aqueous
1508124-001D	Cell 1	8/4/2015 825h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-001E	Cell 1	8/4/2015 825h	Aqueous	ICP Metals, Dissolved
1508124-001E	Cell 1	8/4/2015 825h	Aqueous	ICPMS Metals, Dissolved
1508124-001E	Cell 1	8/4/2015 825h	Aqueous	Mercury, Drinking Water Dissolved
1508124-001E	Cell 1	8/4/2015 825h	Aqueous	Ion Balance
1508124-001F	Cell 1	8/4/2015 825h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-002A	Cell 2 Slimes	8/4/2015 850h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-002B	Cell 2 Slimes	8/4/2015 850h	Aqueous	Conductivity (Specific Conductance)
1508124-002B	Cell 2 Slimes	8/4/2015 850h	Aqueous	pH by 9040C
1508124-002B	Cell 2 Slimes	8/4/2015 850h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-002B	Cell 2 Slimes	8/4/2015 850h	Aqueous	Anions, E300.0
1508124-002C	Cell 2 Slimes	8/4/2015 850h	Aqueous	Total Dissolved Solids, A2540C
1508124-002D	Cell 2 Slimes	8/4/2015 850h	Aqueous	Ammonia, Aqueous
1508124-002D	Cell 2 Slimes	8/4/2015 850h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-002E	Cell 2 Slimes	8/4/2015 850h	Aqueous	ICP Metals, Dissolved
1508124-002E	Cell 2 Slimes	8/4/2015 850h	Aqueous	ICPMS Metals, Dissolved
1508124-002E	Cell 2 Slimes	8/4/2015 850h	Aqueous	Mercury, Drinking Water Dissolved
1508124-002E	Cell 2 Slimes	8/4/2015 850h	Aqueous	Ion Balance
1508124-002F	Cell 2 Slimes	8/4/2015 850h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-003A	Cell 3	8/4/2015 915h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-003B	Cell 3	8/4/2015 915h	Aqueous	Anions, E300.0



Client: Energy Fuels Resources, Inc.
Project: Annual Tailings 2015
Lab Set ID: 1508124
Date Received: 8/6/2015 1801h

Contact: Garrin Palmer

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Salt Lake City, UT 84119

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1508124-003B	Cell 3	8/4/2015 915h	Aqueous	Conductivity (Specific Conductance)
1508124-003B	Cell 3	8/4/2015 915h	Aqueous	pH by 9040C
1508124-003B	Cell 3	8/4/2015 915h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-003C	Cell 3	8/4/2015 915h	Aqueous	Total Dissolved Solids, A2540C
1508124-003D	Cell 3	8/4/2015 915h	Aqueous	Ammonia, Aqueous
1508124-003D	Cell 3	8/4/2015 915h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-003E	Cell 3	8/4/2015 915h	Aqueous	ICP Metals, Dissolved
1508124-003E	Cell 3	8/4/2015 915h	Aqueous	ICPMS Metals, Dissolved
1508124-003E	Cell 3	8/4/2015 915h	Aqueous	Mercury, Drinking Water Dissolved
1508124-003E	Cell 3	8/4/2015 915h	Aqueous	Ion Balance
1508124-003F	Cell 3	8/4/2015 915h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-004A	Cell 4A	8/4/2015 940h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-004B	Cell 4A	8/4/2015 940h	Aqueous	Conductivity (Specific Conductance)
1508124-004B	Cell 4A	8/4/2015 940h	Aqueous	pH by 9040C
1508124-004B	Cell 4A	8/4/2015 940h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-004B	Cell 4A	8/4/2015 940h	Aqueous	Anions, E300.0
1508124-004C	Cell 4A	8/4/2015 940h	Aqueous	Total Dissolved Solids, A2540C
1508124-004D	Cell 4A	8/4/2015 940h	Aqueous	Ammonia, Aqueous
1508124-004D	Cell 4A	8/4/2015 940h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-004E	Cell 4A	8/4/2015 940h	Aqueous	ICP Metals, Dissolved
1508124-004E	Cell 4A	8/4/2015 940h	Aqueous	ICPMS Metals, Dissolved
1508124-004E	Cell 4A	8/4/2015 940h	Aqueous	Mercury, Drinking Water Dissolved
1508124-004E	Cell 4A	8/4/2015 940h	Aqueous	Ion Balance
1508124-004F	Cell 4A	8/4/2015 940h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-005A	Cell 4A LDS	8/4/2015 950h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-005B	Cell 4A LDS	8/4/2015 950h	Aqueous	Anions, E300.0
1508124-005B	Cell 4A LDS	8/4/2015 950h	Aqueous	Conductivity (Specific Conductance)
1508124-005B	Cell 4A LDS	8/4/2015 950h	Aqueous	pH by 9040C
1508124-005B	Cell 4A LDS	8/4/2015 950h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level



Client: Energy Fuels Resources, Inc.
Project: Annual Tailings 2015
Lab Set ID: 1508124
Date Received: 8/6/2015 1801h

Contact: Garrin Palmer

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1508124-005C	Cell 4A LDS	8/4/2015 950h	Aqueous	Total Dissolved Solids, A2540C
1508124-005D	Cell 4A LDS	8/4/2015 950h	Aqueous	Ammonia, Aqueous
1508124-005D	Cell 4A LDS	8/4/2015 950h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-005E	Cell 4A LDS	8/4/2015 950h	Aqueous	ICP Metals, Dissolved
1508124-005E	Cell 4A LDS	8/4/2015 950h	Aqueous	ICPMS Metals, Dissolved
1508124-005E	Cell 4A LDS	8/4/2015 950h	Aqueous	Mercury, Drinking Water Dissolved
1508124-005E	Cell 4A LDS	8/4/2015 950h	Aqueous	Ion Balance
1508124-005F	Cell 4A LDS	8/4/2015 950h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-006A	Cell 4B	8/4/2015 958h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-006B	Cell 4B	8/4/2015 958h	Aqueous	Conductivity (Specific Conductance)
1508124-006B	Cell 4B	8/4/2015 958h	Aqueous	pH by 9040C
1508124-006B	Cell 4B	8/4/2015 958h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-006B	Cell 4B	8/4/2015 958h	Aqueous	Anions, E300.0
1508124-006C	Cell 4B	8/4/2015 958h	Aqueous	Total Dissolved Solids, A2540C
1508124-006D	Cell 4B	8/4/2015 958h	Aqueous	Ammonia, Aqueous
1508124-006D	Cell 4B	8/4/2015 958h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-006E	Cell 4B	8/4/2015 958h	Aqueous	ICP Metals, Dissolved
1508124-006E	Cell 4B	8/4/2015 958h	Aqueous	ICPMS Metals, Dissolved
1508124-006E	Cell 4B	8/4/2015 958h	Aqueous	Mercury, Drinking Water Dissolved
1508124-006E	Cell 4B	8/4/2015 958h	Aqueous	Ion Balance
1508124-006F	Cell 4B	8/4/2015 958h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-007A	Cell 4B LDS	8/4/2015 1010h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-007B	Cell 4B LDS	8/4/2015 1010h	Aqueous	Anions, E300.0
1508124-007B	Cell 4B LDS	8/4/2015 1010h	Aqueous	Conductivity (Specific Conductance)
1508124-007B	Cell 4B LDS	8/4/2015 1010h	Aqueous	pH by 9040C
1508124-007B	Cell 4B LDS	8/4/2015 1010h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-007C	Cell 4B LDS	8/4/2015 1010h	Aqueous	Total Dissolved Solids, A2540C
1508124-007D	Cell 4B LDS	8/4/2015 1010h	Aqueous	Ammonia, Aqueous
1508124-007D	Cell 4B LDS	8/4/2015 1010h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-007E	Cell 4B LDS	8/4/2015 1010h	Aqueous	ICP Metals, Dissolved



Client: Energy Fuels Resources, Inc.
Project: Annual Tailings 2015
Lab Set ID: 1508124
Date Received: 8/6/2015 1801h

Contact: Garrin Palmer

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Salt Lake City, UT 84119

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1508124-007E	Cell 4B LDS	8/4/2015 1010h	Aqueous	ICPMS Metals, Dissolved
1508124-007E	Cell 4B LDS	8/4/2015 1010h	Aqueous	Mercury, Drinking Water Dissolved
1508124-007E	Cell 4B LDS	8/4/2015 1010h	Aqueous	Ion Balance
1508124-007F	Cell 4B LDS	8/4/2015 1010h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-008A	Cell 65	8/4/2015 1010h	Aqueous	VOA by GC/MS Method 8260C/5030C
1508124-008B	Cell 65	8/4/2015 1010h	Aqueous	Conductivity (Specific Conductance)
1508124-008B	Cell 65	8/4/2015 1010h	Aqueous	pH by 9040C
1508124-008B	Cell 65	8/4/2015 1010h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1508124-008B	Cell 65	8/4/2015 1010h	Aqueous	Anions, E300.0
1508124-008C	Cell 65	8/4/2015 1010h	Aqueous	Total Dissolved Solids, A2540C
1508124-008D	Cell 65	8/4/2015 1010h	Aqueous	Ammonia, Aqueous
1508124-008D	Cell 65	8/4/2015 1010h	Aqueous	Nitrite/Nitrate (as N), E353.2
1508124-008E	Cell 65	8/4/2015 1010h	Aqueous	ICP Metals, Dissolved
1508124-008E	Cell 65	8/4/2015 1010h	Aqueous	ICPMS Metals, Dissolved
1508124-008E	Cell 65	8/4/2015 1010h	Aqueous	Mercury, Drinking Water Dissolved
1508124-008E	Cell 65	8/4/2015 1010h	Aqueous	Ion Balance
1508124-008F	Cell 65	8/4/2015 1010h	Aqueous	SVOAs by GC/MS Method 8270D/3510C
1508124-009A	Trip Blank	8/4/2015	Aqueous	VOA by GC/MS Method 8260C/5030C



Inorganic Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Garrin Palmer
Project: Annual Tailings 2015
Lab Set ID: 1508124

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 8/6/2015
Date of Collection: 8/4/2015
Sample Condition: Intact
C-O-C Discrepancies: See Chain of Custody

Holding Time and Preservation Requirements: The analysis and preparation for the samples were performed within the method holding times, with the following exceptions: all of the samples for pH analysis by method SW9040C were received outside of the holding time. The samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, DUP:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination, with the following exception: Ammonia (as N) was present in MB-38777 above the reporting limit. The method blank is acceptable, as the method blank result is less than 10% of the lowest reported sample concentration.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1508124-004B	Alkalinity	MS/MSD	Sample matrix interference
1508124-004D	Ammonia	MS/MSD/RPD	Sample matrix interference and/or sample non-homogeneity
1508124-004E	Nitrate/Nitrite	MS/MSD	Sample matrix interference
1508124-004E	As, Cu, Fe, Mg, Mn, Na, U, V, Zn	MS/MSD	High analyte concentration
1508124-004E	Chromium, Lead	MS	Sample matrix interference



1508124-004E	Co, Mo	MSD	High analyte concentration
1508124-004E	Ni, K	MS	High analyte concentration

Duplicate (DUP): The parameters that required a duplicate analysis had RPDs within the control limits.

Corrective Action: None required.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Semivolatile Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Garrin Palmer
Project: Annual Tailings 2015
Lab Set ID: 1508124

3440 South 700 West
Salt Lake City, UT 84119

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 8/6/2015
Date of Collection: 8/4/2015
Sample Condition: Intact
C-O-C Discrepancies: See Chain of Custody
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

General Set Comments: No target analytes were observed above their reporting limits.

Holding Time Requirements: The preparations and analyses of the samples were performed within respective holding times.

Preparation Requirements: The samples were prepared and analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks: No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions: The MS percent recovery, MSD percent recovery, and/or RPD were outside of the control limits for multiple analytes on sample 1508124-004F due to sample matrix interference or sample non-homogeneity.

Surrogates: All surrogate recoveries were within established limits, with the following exceptions: one or more surrogate percent recoveries were outside of the control limits on all of the samples due to sample matrix interference.

Corrective Action: None required.



Volatile Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Garrin Palmer
Project: Annual Tailings 2015
Lab Set ID: 1508124

3440 South 700 West
Salt Lake City, UT 84119

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 8/6/2015
Date of Collection: 8/4/2015
Sample Condition: Intact
C-O-C Discrepancies: See Chain of Custody
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions: the MS and/or MSD percent recoveries for Naphthalene and Tetrahydrofuran on sample 1508124-004A were outside of the control limits due to sample matrix interference.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-38670													
Date Analyzed:		08/20/2015 1551h											
Test Code:		200 7-DIS											
Date Prepared:		08/18/2015 1129h											
Calcium	9.40	mg/L	E200.7	0.0401	1.00	10.00	0	94.0	85 - 115				
Magnesium	9.27	mg/L	E200.7	0.0294	1.00	10.00	0	92.7	85 - 115				
Potassium	9.46	mg/L	E200.7	0.247	1.00	10.00	0	94.6	85 - 115				
Sodium	9.44	mg/L	E200.7	0.0330	1.00	10.00	0	94.4	85 - 115				
Vanadium	0.184	mg/L	E200.7	0.00116	0.00500	0.2000	0	92.0	85 - 115				
Lab Sample ID: LCS-38663													
Date Analyzed:		08/20/2015 152h											
Test Code:		200.8-DIS											
Date Prepared:		08/18/2015 1129h											
Beryllium	0.204	mg/L	E200.8	0.0000288	0.00200	0.2000	0	102	85 - 115				
Cadmium	0.192	mg/L	E200.8	0.000193	0.000500	0.2000	0	95.9	85 - 115				
Chromium	0.188	mg/L	E200.8	0.00154	0.00200	0.2000	0	93.8	85 - 115				
Lead	0.187	mg/L	E200.8	0.000264	0.00200	0.2000	0	93.3	85 - 115				
Selenium	0.205	mg/L	E200.8	0.0000634	0.00200	0.2000	0	103	85 - 115				
Silver	0.180	mg/L	E200.8	0.0000244	0.00200	0.2000	0	90.0	85 - 115				
Thallium	0.184	mg/L	E200.8	0.0000242	0.00200	0.2000	0	91.8	85 - 115				
Tin	0.957	mg/L	E200.8	0.000348	0.00200	1.000	0	95.7	85 - 115				
Lab Sample ID: LCS-38663													
Date Analyzed:		08/25/2015 1718h											
Test Code:		200.8-DIS											
Date Prepared:		08/18/2015 1129h											
Arsenic	0.214	mg/L	E200.8	0.0000920	0.00200	0.2000	0	107	85 - 115				
Cobalt	0.198	mg/L	E200.8	0.0000434	0.00400	0.2000	0	98.9	85 - 115				
Copper	0.202	mg/L	E200.8	0.000692	0.00200	0.2000	0	101	85 - 115				
Iron	0.983	mg/L	E200.8	0.0118	0.100	1.000	0	98.3	85 - 115				
Manganese	0.198	mg/L	E200.8	0.00153	0.00200	0.2000	0	99.0	85 - 115				
Molybdenum	0.188	mg/L	E200.8	0.000206	0.00200	0.2000	0	94.2	85 - 115				
Nickel	0.199	mg/L	E200.8	0.000754	0.00200	0.2000	0	99.3	85 - 115				
Uranium	0.191	mg/L	E200.8	0.0000112	0.00200	0.2000	0	95.7	85 - 115				
Zinc	1.02	mg/L	E200.8	0.00476	0.00500	1.000	0	102	85 - 115				



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Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-38893	Date Analyzed: 08/28/2015 2151h												
Test Code: 200.8-DIS	Date Prepared: 08/28/2015 1519h												
Silver	0.193	mg/L	E200.8	0.0000244	0.00200	0.2000	0	96.5	85 - 115				
Lab Sample ID: LCS-38752	Date Analyzed: 08/24/2015 823h												
Test Code: HG-DW-DIS-245.1	Date Prepared: 08/21/2015 1527h												
Mercury	0.00343	mg/L	E245.1	0.00000892	0.000150	0.003330	0	103	85 - 115				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-38670	Date Analyzed:		08/20/2015 1548h										
Test Code:	Date Prepared:		08/18/2015 1129h										
Calcium	< 1.00	mg/L	E200.7	0.0401	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.0294	1.00								
Potassium	< 1.00	mg/L	E200.7	0.247	1.00								
Sodium	< 1.00	mg/L	E200.7	0.0330	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00116	0.00500								
Lab Sample ID: MB-38663	Date Analyzed:		08/20/2015 149h										
Test Code:	Date Prepared:		08/18/2015 1129h										
Beryllium	< 0.00200	mg/L	E200.8	0.0000288	0.00200								
Cadmium	< 0.000500	mg/L	E200.8	0.000193	0.000500								
Chromium	< 0.00200	mg/L	E200.8	0.00154	0.00200								
Lead	< 0.00200	mg/L	E200.8	0.000264	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.0000634	0.00200								
Silver	< 0.00200	mg/L	E200.8	0.0000244	0.00200								
Thallium	< 0.00200	mg/L	E200.8	0.0000242	0.00200								
Lab Sample ID: MB-38663	Date Analyzed:		08/25/2015 1715h										
Test Code:	Date Prepared:		08/18/2015 1129h										
Arsenic	< 0.0200	mg/L	E200.8	0.000920	0.0200								
Cobalt	< 0.0400	mg/L	E200.8	0.000434	0.0400								
Copper	< 0.0200	mg/L	E200.8	0.00692	0.0200								
Iron	< 1.00	mg/L	E200.8	0.118	1.00								
Manganese	< 0.0200	mg/L	E200.8	0.0153	0.0200								
Molybdenum	< 0.0200	mg/L	E200.8	0.00206	0.0200								
Nickel	< 0.0200	mg/L	E200.8	0.00754	0.0200								
Tin	< 0.0200	mg/L	E200.8	0.00348	0.0200								
Uranium	< 0.0200	mg/L	E200.8	0.000112	0.0200								
Zinc	< 0.0500	mg/L	E200.8	0.0476	0.0500								



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Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-38893	Date Analyzed:	08/28/2015	2148h										
Test Code:	200.8-DIS	Date Prepared:	08/28/2015	1519h									
Silver	< 0.00200	mg/L	E200.8	0.0000244	0.00200								
Lab Sample ID: MB-38752	Date Analyzed:	08/24/2015	821h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	08/21/2015	1527h									
Mercury	< 0.000150	mg/L	E245.1	0.00000892	0.000150								



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004EMS													
Date Analyzed:		08/20/2015 1621h											
Test Code:		200.7-DIS											
Date Prepared:		08/18/2015 1129h											
Calcium	679	mg/L	E200.7	20.1	500	100.0	604	75.0	70 - 130				
Magnesium	3,850	mg/L	E200.7	14.7	500	100.0	3910	-60.0	70 - 130				2
Potassium	1,060	mg/L	E200.7	124	500	100.0	1020	40.0	70 - 130				2
Sodium	9,410	mg/L	E200.7	16.5	500	100.0	9760	-350	70 - 130				2
Vanadium	554	mg/L	E200.7	0.580	2.50	2.000	577	-1,150	70 - 130				2
Lab Sample ID: 1508124-004EMS													
Date Analyzed:		08/20/2015 215h											
Test Code:		200.8-DIS											
Date Prepared:		08/18/2015 1129h											
Beryllium	1.90	mg/L	E200.8	0.000288	0.0200	2.000	0.281	80.9	75 - 125				
Cadmium	3.93	mg/L	E200.8	0.00193	0.00500	2.000	2.09	92.2	75 - 125				
Chromium	6.91	mg/L	E200.8	0.0154	0.0200	2.000	5.46	72.5	75 - 125				1
Lead	13.2	mg/L	E200.8	0.00264	0.0200	2.000	11.7	74.1	75 - 125				1
Selenium	4.29	mg/L	E200.8	0.000634	0.0200	2.000	2.4	94.5	75 - 125				
Silver	1.91	mg/L	E200.8	0.000244	0.0200	2.000	0.186	86.2	75 - 125				
Thallium	2.15	mg/L	E200.8	0.000242	0.0200	2.000	0.436	85.8	75 - 125				
Tin	9.18	mg/L	E200.8	0.00348	0.0200	10.00	0.142	90.4	75 - 125				
Lab Sample ID: 1508124-004EMS													
Date Analyzed:		08/25/2015 1741h											
Test Code:		200.8-DIS											
Date Prepared:		08/18/2015 1129h											
Arsenic	80.1	mg/L	E200.8	0.0920	2.00	2.000	82.6	-123	75 - 125				2
Cobalt	27.8	mg/L	E200.8	0.0434	4.00	2.000	26.1	84.7	75 - 125				
Copper	470	mg/L	E200.8	0.692	2.00	2.000	477	-332	75 - 125				2
Manganese	180	mg/L	E200.8	1.53	2.00	2.000	181	-52.7	75 - 125				2
Molybdenum	37.1	mg/L	E200.8	0.206	2.00	2.000	35.4	83.5	75 - 125				
Nickel	49.6	mg/L	E200.8	0.754	2.00	2.000	48.7	43.0	75 - 125				2
Uranium	170	mg/L	E200.8	0.0112	2.00	2.000	171	-59.5	75 - 125				2
Zinc	242	mg/L	E200.8	4.76	5.00	10.00	237	44.1	75 - 125				2



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004EMS	Date Analyzed:	08/25/2015	1827h										
Test Code:	200.8-DIS	Date Prepared:	08/18/2015	1129h									
Iron	3,040	mg/L	E200.8	118	1,000	10.00	3090	-508	75 - 125				±
Lab Sample ID: 1508124-001EMS	Date Analyzed:	08/28/2015	2208h										
Test Code:	200.8-DIS	Date Prepared:	08/28/2015	1519h									
Silver	9,420	mg/L	E200.8	6.10	500	10,000	1.39	94.2	75 - 125				
Lab Sample ID: 1508124-004EMS	Date Analyzed:	08/24/2015	830h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	08/21/2015	1527h									
Mercury	0.0358	mg/L	E245.1	0.0000892	0.00150	0.03330	0.00099	104	85 - 115				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004EMSD													
Date Analyzed:		08/20/2015 1623h											
Test Code:		200.7-DIS											
Date Prepared:		08/18/2015 1129h											
Calcium	699	mg/L	E200.7	20.1	500	100.0	604	95.0	70 - 130	679	2.90	20	
Magnesium	3,950	mg/L	E200.7	14.7	500	100.0	3910	40.0	70 - 130	3850	2.56	20	2
Potassium	1,100	mg/L	E200.7	124	500	100.0	1020	80.0	70 - 130	1060	3.70	20	
Sodium	9,740	mg/L	E200.7	16.5	500	100.0	9760	-20.0	70 - 130	9410	3.45	20	2
Vanadium	575	mg/L	E200.7	0.580	2.50	2.000	577	-100	70 - 130	554	3.72	20	2
Lab Sample ID: 1508124-004EMSD													
Date Analyzed:		08/20/2015 219h											
Test Code:		200.8-DIS											
Date Prepared:		08/18/2015 1129h											
Beryllium	1.91	mg/L	E200.8	0.000288	0.0200	2.000	0.281	81.5	75 - 125	1.9	0.604	20	
Cadmium	3.93	mg/L	E200.8	0.00193	0.00500	2.000	2.09	92.3	75 - 125	3.93	0.0779	20	
Chromium	6.97	mg/L	E200.8	0.0154	0.0200	2.000	5.46	75.3	75 - 125	6.91	0.807	20	
Lead	13.2	mg/L	E200.8	0.00264	0.0200	2.000	11.7	75.6	75 - 125	13.2	0.227	20	
Selenium	4.30	mg/L	E200.8	0.000634	0.0200	2.000	2.4	94.7	75 - 125	4.29	0.102	20	
Silver	1.91	mg/L	E200.8	0.000244	0.0200	2.000	0.186	86.0	75 - 125	1.91	0.272	20	
Thallium	2.16	mg/L	E200.8	0.000242	0.0200	2.000	0.436	86.1	75 - 125	2.15	0.220	20	
Tin	9.01	mg/L	E200.8	0.00348	0.0200	10.00	0.142	88.7	75 - 125	9.18	1.92	20	
Lab Sample ID: 1508124-004EMSD													
Date Analyzed:		08/25/2015 1744h											
Test Code:		200.8-DIS											
Date Prepared:		08/18/2015 1129h											
Arsenic	82.8	mg/L	E200.8	0.0920	2.00	2.000	82.6	10.9	75 - 125	80.1	3.28	20	2
Cobalt	27.5	mg/L	E200.8	0.0434	4.00	2.000	26.1	69.9	75 - 125	27.8	1.07	20	2
Copper	474	mg/L	E200.8	0.692	2.00	2.000	477	-120	75 - 125	470	0.896	20	2
Manganese	178	mg/L	E200.8	1.53	2.00	2.000	181	-156	75 - 125	180	1.16	20	2
Molybdenum	36.5	mg/L	E200.8	0.206	2.00	2.000	35.4	51.1	75 - 125	37.1	1.76	20	2
Nickel	50.5	mg/L	E200.8	0.754	2.00	2.000	48.7	88.3	75 - 125	49.6	1.81	20	
Uranium	165	mg/L	E200.8	0.0112	2.00	2.000	171	-261	75 - 125	170	2.41	20	2
Zinc	242	mg/L	E200.8	4.76	5.00	10.00	237	43.8	75 - 125	242	0.0150	20	2



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QC SUMMARY REPORT

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Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: ME
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004EMSD	Date Analyzed:	08/25/2015	1840h										
Test Code:	200.8-DIS	Date Prepared:	08/18/2015	1129h									
Iron	3,010	mg/L	E200.8	118	1,000	10.00	3090	-789	75 - 125	3040	0.930	20	*
Lab Sample ID: 1508124-001EMSD	Date Analyzed:	08/28/2015	2211h										
Test Code:	200.8-DIS	Date Prepared:	08/28/2015	1519h									
Silver	9,130	mg/L	E200.8	6.10	500	10,000	1.39	91.3	75 - 125	9420	3.12	20	
Lab Sample ID: 1508124-004EMSD	Date Analyzed:	08/24/2015	831h										
Test Code:	HG-DW-DIS-245.1	Date Prepared:	08/21/2015	1527h									
Mercury	0.0352	mg/L	E245.1	0.0000892	0.00150	0.03330	0.00099	103	85 - 115	0.0358	1.64	20	

* - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004BDUP Test Code: COND-W-2510B	Date Analyzed: 08/10/2015 1056h												
Conductivity	89,400	µmhos/cm	SM2510B	0.436	2.00					89600	0.223	5	
Lab Sample ID: 1508124-001BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	1.04	pH Units	SW9040C	1.00	1.00					1.01	2.93	10	H
Lab Sample ID: 1508124-002BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	3.06	pH Units	SW9040C	1.00	1.00					3.1	1.30	10	H
Lab Sample ID: 1508124-003BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	1.70	pH Units	SW9040C	1.00	1.00					1.72	1.17	10	H
Lab Sample ID: 1508124-004BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	1.56	pH Units	SW9040C	1.00	1.00					1.51	3.26	10	H
Lab Sample ID: 1508124-005BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	2.32	pH Units	SW9040C	1.00	1.00					2.29	1.30	10	H
Lab Sample ID: 1508124-006BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	1.40	pH Units	SW9040C	1.00	1.00					1.35	3.64	10	H
Lab Sample ID: 1508124-007BDUP Test Code: PH-9040C	Date Analyzed: 08/06/2015 2034h												
pH @ 25° C	1.54	pH Units	SW9040C	1.00	1.00					1.51	1.97	10	H



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Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-008BDUP Date Analyzed: 08/06/2015 2034h													
Test Code: PH-9040C													
pH @ 25° C	1.49	pH Units	SW9040C	1.00	1.00					1.48	0.673	10	H
Lab Sample ID: 1508124-001CDUP Date Analyzed: 08/07/2015 1130h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	323,000	mg/L	SM2540C	306	500					334000	3.23	5	
Lab Sample ID: 1508124-004CDUP Date Analyzed: 08/10/2015 1420h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	100,000	mg/L	SM2540C	306	500					104000	3.71	5	

H - Sample was received outside of the holding time.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R81617 Date Analyzed: 08/13/2015 1229h													
Test Code: 300.0-W													
Chloride	4.97	mg/L	E300.0	0.00751	0.100	5.000	0	99.4	90 - 110				
Fluoride	4.86	mg/L	E300.0	0.00681	0.100	5.000	0	97.3	90 - 110				
Sulfate	4.94	mg/L	E300.0	0.0211	0.750	5.000	0	98.7	90 - 110				
Lab Sample ID: LCS-R81405 Date Analyzed: 08/10/2015 940h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	49,700	mg/L	SM2320B	0.504	1.00	50,000	0	99.4	90 - 110				
Lab Sample ID: LCS-R81409 Date Analyzed: 08/10/2015 1056h													
Test Code: COND-W-2510B													
Conductivity	996	µmhos/cm	SM2510B	0.436	2.00	1,000	0	99.6	98 - 102				
Lab Sample ID: LCS-38777 Date Analyzed: 08/23/2015 1407h													
Test Code: NH3-W-350.1 Date Prepared: 08/23/2015 000h													
Ammonia (as N)	10.3	mg/L	E350.1	0.0226	0.0500	10.00	0	103	90 - 110				
Lab Sample ID: LCS-R82034 Date Analyzed: 08/23/2015 1707h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	0.907	mg/L	E353.2	0.00833	0.0100	1.000	0	90.7	90 - 110				
Lab Sample ID: LCS-R81332 Date Analyzed: 08/06/2015 2034h													
Test Code: PH-9040C													
pH @ 25° C	9.03	pH Units	SW9040C	1.00	1.00	9.000	0	100	98 - 102				
Lab Sample ID: LCS-R81429 Date Analyzed: 08/07/2015 1130h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	208	mg/L	SM2540C	6.13	10.0	205.0	0	101	80 - 120				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R81477													
Test Code: TDS-W-2540C													
Date Analyzed: 08/10/2015 1420h													
Total Dissolved Solids	220	mg/L	SM2540C	6.13	10.0	205.0	0	107	80 - 120				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-R81617	Date Analyzed: 08/13/2015 1213h												
Test Code:	300.0-W												
Chloride	< 0.100	mg/L	E300.0	0.00751	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.00681	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.0211	0.750								
Lab Sample ID: MB-R81405	Date Analyzed: 08/10/2015 940h												
Test Code:	ALK-W-2320B-LL												
Bicarbonate (as CaCO ₃)	< 1.00	mg/L	SM2320B	0.504	1.00								
Carbonate (as CaCO ₃)	< 1.00	mg/L	SM2320B	0.504	1.00								
Lab Sample ID: MB-R81409	Date Analyzed: 08/10/2015 1056h												
Test Code:	COND-W-2510B												
Conductivity	< 2.00	µmhos/cm	SM2510B	0.436	2.00								
Lab Sample ID: MB-38777	Date Analyzed: 08/23/2015 1406h												
Test Code:	NH3-W-350.1												
Ammonia (as N)	0.0589	mg/L	E350.1	0.0226	0.0500								B
Lab Sample ID: MB-R82034	Date Analyzed: 08/23/2015 1706h												
Test Code:	NO2/NO3-W-353.2												
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00833	0.0100								
Lab Sample ID: MB-R81429	Date Analyzed: 08/07/2015 1130h												
Test Code:	TDS-W-2540C												
Total Dissolved Solids	< 10.0	mg/L	SM2540C	6.13	10.0								
Lab Sample ID: MB-R81477	Date Analyzed: 08/10/2015 1420h												
Test Code:	TDS-W-2540C												
Total Dissolved Solids	< 10.0	mg/L	SM2540C	6.13	10.0								

B - The method blank was acceptable, as the method blank result is less than 10% of the lowest reported sample concentration.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-003BMS Date Analyzed: 08/13/2015 1303h													
Test Code: 300.0-W													
Chloride	514,000	mg/L	E300.0	751	10,000	500,000	22800	98.2	90 - 110				
Fluoride	488,000	mg/L	E300.0	681	10,000	500,000	5410	96.5	90 - 110				
Sulfate	666,000	mg/L	E300.0	2,110	75,000	500,000	158000	102	90 - 110				
Lab Sample ID: 1508124-004BMS Date Analyzed: 08/13/2015 1552h													
Test Code: 300.0-W													
Chloride	55,700	mg/L	E300.0	75.1	1,000	50,000	6410	98.6	90 - 110				
Fluoride	50,900	mg/L	E300.0	68.1	1,000	50,000	1660	98.5	90 - 110				
Sulfate	127,000	mg/L	E300.0	211	7,500	50,000	77200	99.3	90 - 110				
Lab Sample ID: 1508124-004BMS Date Analyzed: 08/10/2015 940h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO ₃)	< 1.00	mg/L	SM2320B	0.504	1.00	50.00	0	0	80 - 120				
Lab Sample ID: 1508124-004DMS Date Analyzed: 08/23/2015 1413h													
Test Code: NH3-W-350.1 Date Prepared: 08/23/2015 1115h													
Ammonia (as N)	13.4	mg/L	E350.1	0.226	0.500	20.00	11	12.0	90 - 110				
Lab Sample ID: 1508124-004DMS Date Analyzed: 08/23/2015 1757h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	7.97	mg/L	E353.2	0.167	0.200	20.00	19.9	-59.7	90 - 110				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: WC
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-003BMSD Date Analyzed: 08/13/2015 1320h													
Test Code: 300.0-W													
Chloride	516,000	mg/L	E300.0	751	10,000	500,000	22800	98.7	90 - 110	514000	0.547	20	
Fluoride	491,000	mg/L	E300.0	681	10,000	500,000	5410	97.1	90 - 110	488000	0.537	20	
Sulfate	653,000	mg/L	E300.0	2,110	75,000	500,000	158000	98.9	90 - 110	666000	2.07	20	
Lab Sample ID: 1508124-004BMSD Date Analyzed: 08/13/2015 1608h													
Test Code: 300.0-W													
Chloride	55,900	mg/L	E300.0	75.1	1,000	50,000	6410	99.0	90 - 110	55700	0.322	20	
Fluoride	51,100	mg/L	E300.0	68.1	1,000	50,000	1660	99.0	90 - 110	50900	0.441	20	
Sulfate	127,000	mg/L	E300.0	211	7,500	50,000	77200	100	90 - 110	127000	0.369	20	
Lab Sample ID: 1508124-004BMSD Date Analyzed: 08/10/2015 940h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO ₃)	< 1.00	mg/L	SM2320B	0.504	1.00	50.00	0	0	80 - 120	0	0	10	
Lab Sample ID: 1508124-004DMSD Date Analyzed: 08/23/2015 1414h													
Test Code: NH3-W-350.1 Date Prepared: 08/19/2015 1200h													
Ammonia (as N)	15.2	mg/L	E350.1	0.113	0.250	10.00	11	42.2	90 - 110	13.4	12.7	10	'@
Lab Sample ID: 1508124-004DMSD Date Analyzed: 08/23/2015 1759h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	8.74	mg/L	E353.2	0.167	0.200	20.00	19.9	-55.9	90 - 110	7.97	9.15	10	'

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSSV
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-38414	Date Analyzed:		08/10/2015 1632h										
Test Code: 8270-W	Date Prepared:		08/07/2015 927h										
1,2,4-Trichlorobenzene	17.5	µg/L	SW8270D	2.55	10.0	80.00	0	21.9	10 - 104				
1,4-Dichlorobenzene	14.0	µg/L	SW8270D	2.33	10.0	80.00	0	17.5	10 - 118				
2,4,6-Trichlorophenol	42.9	µg/L	SW8270D	2.86	10.0	80.00	0	53.6	17 - 119				
2,4-Dimethylphenol	28.9	µg/L	SW8270D	4.11	10.0	80.00	0	36.2	10 - 131				
2,4-Dinitrotoluene	51.5	µg/L	SW8270D	3.28	10.0	80.00	0	64.4	15 - 209				
2-Chloronaphthalene	27.7	µg/L	SW8270D	2.55	10.0	80.00	0	34.6	23 - 126				
2-Chlorophenol	25.5	µg/L	SW8270D	2.24	10.0	80.00	0	31.9	15 - 128				
4,6-Dinitro-2-methylphenol	46.3	µg/L	SW8270D	1.09	10.0	80.00	0	57.8	30 - 198				
4-Chloro-3-methylphenol	42.0	µg/L	SW8270D	3.46	10.0	80.00	0	52.5	29 - 148				
4-Nitrophenol	23.5	µg/L	SW8270D	0.915	10.0	80.00	0	29.4	10 - 157				
Acenaphthene	34.4	µg/L	SW8270D	1.55	10.0	80.00	0	42.9	20 - 116				
Benzo(a)pyrene	51.0	µg/L	SW8270D	3.03	10.0	80.00	0	63.8	10 - 221				
N-Nitrosodi-n-propylamine	29.5	µg/L	SW8270D	3.54	10.0	80.00	0	36.9	20 - 148				
Pentachlorophenol	48.3	µg/L	SW8270D	2.40	10.0	80.00	0	60.4	21 - 153				
Phenol	18.3	µg/L	SW8270D	2.25	10.0	80.00	0	22.8	10 - 131				
Pyrene	50.2	µg/L	SW8270D	4.84	10.0	80.00	0	62.8	37 - 150				
Surr: 2,4,6-Tribromophenol	52.0	µg/L	SW8270D			80.00		65.0	10 - 165				
Surr: 2-Fluorobiphenyl	14.9	µg/L	SW8270D			40.00		37.3	10 - 118				
Surr: 2-Fluorophenol	13.0	µg/L	SW8270D			80.00		16.3	10 - 121				
Surr: Nitrobenzene-d5	13.8	µg/L	SW8270D			40.00		34.6	10 - 127				
Surr: Phenol-d6	12.1	µg/L	SW8270D			80.00		15.1	10 - 124				
Surr: Terphenyl-d14	24.7	µg/L	SW8270D			40.00		61.7	30 - 147				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-38414	Date Analyzed:		08/10/2015 1609h										
Test Code: 8270-W	Date Prepared:		08/07/2015 927h										
1,2,4-Trichlorobenzene	< 10.0	µg/L	SW8270D	2.55	10.0								
1,2-Dichlorobenzene	< 10.0	µg/L	SW8270D	2.43	10.0								
1,3-Dichlorobenzene	< 10.0	µg/L	SW8270D	2.29	10.0								
1,4-Dichlorobenzene	< 10.0	µg/L	SW8270D	2.33	10.0								
1-Methylnaphthalene	< 10.0	µg/L	SW8270D	2.85	10.0								
2,4,5-Trichlorophenol	< 10.0	µg/L	SW8270D	2.90	10.0								
2,4,6-Trichlorophenol	< 10.0	µg/L	SW8270D	2.86	10.0								
2,4-Dichlorophenol	< 10.0	µg/L	SW8270D	3.08	10.0								
2,4-Dimethylphenol	< 10.0	µg/L	SW8270D	4.11	10.0								
2,4-Dinitrophenol	< 10.0	µg/L	SW8270D	0.796	10.0								
2,4-Dinitrotoluene	< 10.0	µg/L	SW8270D	3.28	10.0								
2,6-Dinitrotoluene	< 10.0	µg/L	SW8270D	3.28	10.0								
2-Chloronaphthalene	< 10.0	µg/L	SW8270D	2.55	10.0								
2-Chlorophenol	< 10.0	µg/L	SW8270D	2.24	10.0								
2-Methylnaphthalene	< 10.0	µg/L	SW8270D	2.82	10.0								
2-Methylphenol	< 10.0	µg/L	SW8270D	2.81	10.0								
2-Nitrophenol	< 10.0	µg/L	SW8270D	3.28	10.0								
3&4-Methylphenol	< 10.0	µg/L	SW8270D	5.94	10.0								
3,3'-Dichlorobenzidine	< 10.0	µg/L	SW8270D	3.58	10.0								
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	SW8270D	1.09	10.0								
4-Bromophenyl phenyl ether	< 10.0	µg/L	SW8270D	1.40	10.0								
4-Chloro-3-methylphenol	< 10.0	µg/L	SW8270D	3.46	10.0								
4-Chlorophenyl phenyl ether	< 10.0	µg/L	SW8270D	1.51	10.0								
4-Nitrophenol	< 10.0	µg/L	SW8270D	0.915	10.0								
Acenaphthene	< 10.0	µg/L	SW8270D	1.55	10.0								
Acenaphthylene	< 10.0	µg/L	SW8270D	1.23	10.0								
Anthracene	< 10.0	µg/L	SW8270D	2.69	10.0								
Azobenzene	< 10.0	µg/L	SW8270D	1.96	10.0								



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-38414	Date Analyzed:		08/10/2015 1609h										
Test Code: 8270-W	Date Prepared:		08/07/2015 927h										
Benz(a)anthracene	< 10.0	µg/L	SW8270D	5.01	10.0								
Benzidine	< 10.0	µg/L	SW8270D	6.64	10.0								
Benzo(a)pyrene	< 10.0	µg/L	SW8270D	3.03	10.0								
Benzo(b)fluoranthene	< 10.0	µg/L	SW8270D	3.81	10.0								
Benzo(g,h,i)perylene	< 10.0	µg/L	SW8270D	4.79	10.0								
Benzo(k)fluoranthene	< 10.0	µg/L	SW8270D	6.17	10.0								
Bis(2-chloroethoxy)methane	< 10.0	µg/L	SW8270D	3.25	10.0								
Bis(2-chloroethyl) ether	< 10.0	µg/L	SW8270D	2.11	10.0								
Bis(2-chloroisopropyl) ether	< 10.0	µg/L	SW8270D	1.29	10.0								
Bis(2-ethylhexyl) phthalate	< 10.0	µg/L	SW8270D	3.08	10.0								
Butyl benzyl phthalate	< 10.0	µg/L	SW8270D	1.58	10.0								
Chrysene	< 10.0	µg/L	SW8270D	4.51	10.0								
Dibenz(a,h)anthracene	< 10.0	µg/L	SW8270D	3.21	10.0								
Diethyl phthalate	< 10.0	µg/L	SW8270D	1.08	10.0								
Dimethyl phthalate	< 10.0	µg/L	SW8270D	2.23	10.0								
Di-n-butyl phthalate	< 10.0	µg/L	SW8270D	1.97	10.0								
Di-n-octyl phthalate	< 10.0	µg/L	SW8270D	1.93	10.0								
Fluoranthene	< 10.0	µg/L	SW8270D	4.88	10.0								
Fluorene	< 10.0	µg/L	SW8270D	1.26	10.0								
Hexachlorobenzene	< 10.0	µg/L	SW8270D	1.56	10.0								
Hexachlorobutadiene	< 10.0	µg/L	SW8270D	5.58	10.0								
Hexachlorocyclopentadiene	< 10.0	µg/L	SW8270D	6.54	10.0								
Hexachloroethane	< 10.0	µg/L	SW8270D	2.04	10.0								
Indeno(1,2,3-cd)pyrene	< 10.0	µg/L	SW8270D	5.56	10.0								
Isophorone	< 10.0	µg/L	SW8270D	3.37	10.0								
Naphthalene	< 10.0	µg/L	SW8270D	2.57	10.0								
Nitrobenzene	< 10.0	µg/L	SW8270D	2.08	10.0								
N-Nitrosodimethylamine	< 10.0	µg/L	SW8270D	1.88	10.0								



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Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSSV
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-38414	Date Analyzed:		08/10/2015 1609h										
Test Code: 8270-W	Date Prepared:		08/07/2015 927h										
N-Nitrosodi-n-propylamine	< 10.0	µg/L	SW8270D	3.54	10.0								
N-Nitrosodiphenylamine	< 10.0	µg/L	SW8270D	4.48	10.0								
Pentachlorophenol	< 10.0	µg/L	SW8270D	2.40	10.0								
Phenanthrene	< 10.0	µg/L	SW8270D	2.66	10.0								
Phenol	< 10.0	µg/L	SW8270D	2.25	10.0								
Pyrene	< 10.0	µg/L	SW8270D	4.84	10.0								
Pyridine	< 10.0	µg/L	SW8270D	2.64	10.0								
Surr: 2,4,6-Tribromophenol	40.5	µg/L	SW8270D			80.00		50.6	10 - 165				
Surr: 2-Fluorobiphenyl	15.2	µg/L	SW8270D			40.00		38.1	10 - 118				
Surr: 2-Fluorophenol	16.2	µg/L	SW8270D			80.00		20.2	10 - 121				
Surr: Nitrobenzene-d5	14.6	µg/L	SW8270D			40.00		36.6	10 - 127				
Surr: Phenol-d6	13.3	µg/L	SW8270D			80.00		16.7	10 - 124				
Surr: Terphenyl-d14	25.8	µg/L	SW8270D			40.00		64.4	30 - 147				



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSSV
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004FMS	Date Analyzed:		08/10/2015 1828h										
Test Code: 8270-W	Date Prepared:		08/07/2015 927h										
1,2,4-Trichlorobenzene	8.66	µg/L	SW8270D	2.55	10.0	80.00	0	10.8	20 - 107				
1,4-Dichlorobenzene	6.01	µg/L	SW8270D	2.33	10.0	80.00	0	7.51	11 - 90				
2,4,6-Trichlorophenol	38.9	µg/L	SW8270D	2.86	10.0	80.00	0	48.6	10 - 223				
2,4-Dimethylphenol	29.4	µg/L	SW8270D	4.11	10.0	80.00	0	36.8	10 - 176				
2,4-Dinitrotoluene	< 10.0	µg/L	SW8270D	3.28	10.0	80.00	0	0	21 - 191				
2-Chloronaphthalene	16.6	µg/L	SW8270D	2.55	10.0	80.00	0	20.8	12 - 132				
2-Chlorophenol	18.0	µg/L	SW8270D	2.24	10.0	80.00	0	22.4	20 - 107				
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	SW8270D	1.09	10.0	80.00	0	0	20 - 250				
4-Chloro-3-methylphenol	43.2	µg/L	SW8270D	3.46	10.0	80.00	0	54.0	10 - 136				
4-Nitrophenol	< 10.0	µg/L	SW8270D	0.915	10.0	80.00	0	0	10 - 135				
Acenaphthene	22.2	µg/L	SW8270D	1.55	10.0	80.00	0	27.8	21 - 113				
Benzo(a)pyrene	44.0	µg/L	SW8270D	3.03	10.0	80.00	0	55.0	15 - 169				
N-Nitrosodi-n-propylamine	27.4	µg/L	SW8270D	3.54	10.0	80.00	0	34.3	10 - 133				
Pentachlorophenol	41.1	µg/L	SW8270D	2.40	10.0	80.00	0	51.3	10 - 131				
Phenol	22.6	µg/L	SW8270D	2.25	10.0	80.00	0	28.2	10 - 71				
Pyrene	44.8	µg/L	SW8270D	4.84	10.0	80.00	0	56.0	23 - 150				
Surr: 2,4,6-Tribromophenol	45.1	µg/L	SW8270D			80.00		56.4	14 - 159				
Surr: 2-Fluorobiphenyl	10.2	µg/L	SW8270D			40.00		25.4	10 - 124				
Surr: 2-Fluorophenol	12.0	µg/L	SW8270D			80.00		15.0	10 - 106				
Surr: Nitrobenzene-d5	3.33	µg/L	SW8270D			40.00		8.33	10 - 180				S
Surr: Phenol-d6	18.6	µg/L	SW8270D			80.00		23.3	10 - 122				
Surr: Terphenyl-d14	23.2	µg/L	SW8270D			40.00		57.9	10 - 221				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

S - Surrogate recoveries outside the control limits as expected due to sample matrix interference. Sample required 120mL of base and 75mL of acid during the extraction process compared to the usual 3mL normally required.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSSV
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004FMSD	Date Analyzed:		08/10/2015 1852h										
Test Code: 8270-W	Date Prepared:		08/07/2015 927h										
1,2,4-Trichlorobenzene	9.55	µg/L	SW8270D	2.55	10.0	80.00	0	11.9	20 - 107	8.66	9.77	25	#
1,4-Dichlorobenzene	6.48	µg/L	SW8270D	2.33	10.0	80.00	0	8.10	11 - 90	6.01	7.53	25	#
2,4,6-Trichlorophenol	56.6	µg/L	SW8270D	2.86	10.0	80.00	0	70.7	10 - 223	38.9	37.0	25	@
2,4-Dimethylphenol	35.8	µg/L	SW8270D	4.11	10.0	80.00	0	44.7	10 - 176	29.5	19.3	25	
2,4-Dinitrotoluene	6.99	µg/L	SW8270D	3.28	10.0	80.00	0	8.74	21 - 191	0	200	25	'@
2-Chloronaphthalene	19.7	µg/L	SW8270D	2.55	10.0	80.00	0	24.6	12 - 132	16.7	16.8	25	
2-Chlorophenol	19.4	µg/L	SW8270D	2.24	10.0	80.00	0	24.3	20 - 107	18	8.02	25	
4,6-Dinitro-2-methylphenol	< 10.0	µg/L	SW8270D	1.09	10.0	80.00	0	0	20 - 250	0	0	25	#
4-Chloro-3-methylphenol	59.5	µg/L	SW8270D	3.46	10.0	80.00	0	74.3	10 - 136	43.2	31.8	25	@
4-Nitrophenol	7.72	µg/L	SW8270D	0.915	10.0	80.00	0	9.65	10 - 135	0	200	25	'@
Acenaphthene	27.2	µg/L	SW8270D	1.55	10.0	80.00	0	34.0	21 - 113	22.2	20.4	25	
Benzo(a)pyrene	64.9	µg/L	SW8270D	3.03	10.0	80.00	0	81.1	15 - 169	44	38.4	25	@
N-Nitrosodi-n-propylamine	25.6	µg/L	SW8270D	3.54	10.0	80.00	0	32.0	10 - 133	27.4	6.94	25	
Pentachlorophenol	55.3	µg/L	SW8270D	2.40	10.0	80.00	0	69.1	10 - 131	41.1	29.5	25	@
Phenol	23.7	µg/L	SW8270D	2.25	10.0	80.00	0	29.6	10 - 71	22.6	4.93	25	
Pyrene	64.7	µg/L	SW8270D	4.84	10.0	80.00	0	80.9	23 - 150	44.8	36.3	25	@
Surr: 2,4,6-Tribromophenol	64.8	µg/L	SW8270D			80.00		81.0	14 - 159				
Surr: 2-Fluorobiphenyl	10.8	µg/L	SW8270D			40.00		27.0	10 - 124				
Surr: 2-Fluorophenol	12.4	µg/L	SW8270D			80.00		15.5	10 - 106				
Surr: Nitrobenzene-d5	4.08	µg/L	SW8270D			40.00		10.2	10 - 180				
Surr: Phenol-d6	20.1	µg/L	SW8270D			80.00		25.1	10 - 122				
Surr: Terphenyl-d14	33.5	µg/L	SW8270D			40.00		83.8	10 - 221				

@ - High RPD due to suspected sample non-homogeneity or matrix interference.

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSVOA
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-1 080715A Date Analyzed: 08/07/2015 814h													
Test Code: 8260-W-DEN100													
Benzene	20.8	µg/L	SW8260C	0.270	1.00	20.00	0	104	62 - 127				
Chloroform	21.1	µg/L	SW8260C	0.153	1.00	20.00	0	105	67 - 132				
Methylene chloride	20.8	µg/L	SW8260C	0.172	1.00	20.00	0	104	32 - 185				
Naphthalene	19.6	µg/L	SW8260C	0.587	1.00	20.00	0	98.0	28 - 136				
Tetrahydrofuran	15.6	µg/L	SW8260C	0.516	1.00	20.00	0	78.2	43 - 146				
Toluene	21.6	µg/L	SW8260C	0.183	1.00	20.00	0	108	64 - 129				
Xylenes, Total	66.0	µg/L	SW8260C	0.857	1.00	60.00	0	110	52 - 134				
Surr: 1,2-Dichloroethane-d4	52.3	µg/L	SW8260C			50.00		105	76 - 138				
Surr: 4-Bromofluorobenzene	48.6	µg/L	SW8260C			50.00		97.1	80 - 152				
Surr: Dibromofluoromethane	50.3	µg/L	SW8260C			50.00		101	67 - 128				
Surr: Toluene-d8	49.8	µg/L	SW8260C			50.00		99.6	81 - 135				
Lab Sample ID: LCS VOC-2 081015A Date Analyzed: 08/10/2015 1035h													
Test Code: 8260-W-DEN100													
Benzene	22.3	µg/L	SW8260C	0.270	1.00	20.00	0	111	62 - 127				
Chloroform	21.9	µg/L	SW8260C	0.153	1.00	20.00	0	110	67 - 132				
Methylene chloride	20.0	µg/L	SW8260C	0.172	1.00	20.00	0	100	32 - 185				
Naphthalene	21.1	µg/L	SW8260C	0.587	1.00	20.00	0	106	28 - 136				
Tetrahydrofuran	19.0	µg/L	SW8260C	0.516	1.00	20.00	0	94.9	43 - 146				
Toluene	23.9	µg/L	SW8260C	0.183	1.00	20.00	0	119	64 - 129				
Xylenes, Total	69.9	µg/L	SW8260C	0.857	1.00	60.00	0	116	52 - 134				
Surr: 1,2-Dichloroethane-d4	50.8	µg/L	SW8260C			50.00		102	76 - 138				
Surr: 4-Bromofluorobenzene	50.8	µg/L	SW8260C			50.00		102	80 - 152				
Surr: Dibromofluoromethane	51.7	µg/L	SW8260C			50.00		103	67 - 128				
Surr: Toluene-d8	53.9	µg/L	SW8260C			50.00		108	81 - 135				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-1 080715A Date Analyzed: 08/07/2015 853h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	4.11	20.0								
Acetone	< 20.0	µg/L	SW8260C	1.70	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.270	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.504	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.153	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.163	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.172	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.587	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.516	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.183	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.857	1.00								
Surr: 1,2-Dichloroethane-d4	52.2	µg/L	SW8260C			50.00		104	76 - 138				
Surr: 4-Bromofluorobenzene	50.4	µg/L	SW8260C			50.00		101	80 - 152				
Surr: Dibromofluoromethane	49.4	µg/L	SW8260C			50.00		98.8	67 - 128				
Surr: Toluene-d8	49.8	µg/L	SW8260C			50.00		99.6	81 - 135				
Lab Sample ID: MB VOC-2 081015A Date Analyzed: 08/10/2015 1114h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	4.11	20.0								
Acetone	< 20.0	µg/L	SW8260C	1.70	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.270	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.504	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.153	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.163	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.172	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.587	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.516	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.183	1.00								



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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-2 081015A	Date Analyzed: 08/10/2015 1114h												
Test Code: 8260-W-DEN100													
Xylenes, Total	< 1.00	µg/L	SW8260C	0,857	1.00								
Surr: 1,2-Dichloroethane-d4	47.1	µg/L	SW8260C			50.00		94.2	76 - 138				
Surr: 4-Bromofluorobenzene	51.5	µg/L	SW8260C			50.00		103	80 - 152				
Surr: Dibromofluoromethane	39.2	µg/L	SW8260C			50.00		78.4	67 - 128				
Surr: Toluene-d8	52.7	µg/L	SW8260C			50.00		105	81 - 135				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSVOA
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004AMS		Date Analyzed: 08/07/2015 1325h											
Test Code: 8260-W-DEN100													
Benzene	20.1	µg/L	SW8260C	0.270	1.00	20.00	0	101	66 - 145				
Chloroform	21.8	µg/L	SW8260C	0.153	1.00	20.00	0	109	50 - 146				
Methylene chloride	20.3	µg/L	SW8260C	0.172	1.00	20.00	0	102	30 - 192				
Naphthalene	34.0	µg/L	SW8260C	0.587	1.00	20.00	0	170	41 - 131				
Tetrahydrofuran	29.0	µg/L	SW8260C	0.516	1.00	20.00	0	145	43 - 146				
Toluene	21.4	µg/L	SW8260C	0.183	1.00	20.00	0	107	18 - 192				
Xylenes, Total	64.7	µg/L	SW8260C	0.857	1.00	60.00	0	108	42 - 167				
Surr: 1,2-Dichloroethane-d4	54.6	µg/L	SW8260C			50.00		109	72 - 151				
Surr: 4-Bromofluorobenzene	49.8	µg/L	SW8260C			50.00		99.6	80 - 152				
Surr: Dibromofluoromethane	50.2	µg/L	SW8260C			50.00		100	80 - 124				
Surr: Toluene-d8	50.8	µg/L	SW8260C			50.00		102	77 - 129				
Lab Sample ID: 1508096-003AMS		Date Analyzed: 08/10/2015 1617h											
Test Code: 8260-W-DEN100													
Benzene	21.0	µg/L	SW8260C	0.270	1.00	20.00	0	105	66 - 145				
Chloroform	19.7	µg/L	SW8260C	0.153	1.00	20.00	0	98.4	50 - 146				
Methylene chloride	19.9	µg/L	SW8260C	0.172	1.00	20.00	1.95	89.6	30 - 192				
Naphthalene	21.2	µg/L	SW8260C	0.587	1.00	20.00	1.21	100	41 - 131				
Tetrahydrofuran	17.9	µg/L	SW8260C	0.516	1.00	20.00	0	89.7	43 - 146				
Toluene	22.3	µg/L	SW8260C	0.183	1.00	20.00	0	111	18 - 192				
Xylenes, Total	66.5	µg/L	SW8260C	0.857	1.00	60.00	0	111	42 - 167				
Surr: 1,2-Dichloroethane-d4	50.4	µg/L	SW8260C			50.00		101	72 - 151				
Surr: 4-Bromofluorobenzene	49.6	µg/L	SW8260C			50.00		99.2	80 - 152				
Surr: Dibromofluoromethane	49.3	µg/L	SW8260C			50.00		98.6	80 - 124				
Surr: Toluene-d8	52.4	µg/L	SW8260C			50.00		105	77 - 129				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1508124
Project: Annual Tailings 2015

Contact: Garrin Palmer
Dept: MSVOA
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1508124-004AMSD Date Analyzed: 08/07/2015 1356h													
Test Code: 8260-W-DEN100													
Benzene	20.0	µg/L	SW8260C	0.270	1.00	20.00	0	99.8	66 - 145	20.1	0.699	25	
Chloroform	22.1	µg/L	SW8260C	0.153	1.00	20.00	0	111	50 - 146	21.8	1.50	25	
Methylene chloride	20.1	µg/L	SW8260C	0.172	1.00	20.00	0	100	30 - 192	20.3	1.29	25	
Naphthalene	35.2	µg/L	SW8260C	0.587	1.00	20.00	0	176	41 - 131	34	3.47	25	
Tetrahydrofuran	29.7	µg/L	SW8260C	0.516	1.00	20.00	0	148	43 - 146	29	2.46	25	
Toluene	21.1	µg/L	SW8260C	0.183	1.00	20.00	0	106	18 - 192	21.4	1.46	25	
Xylenes, Total	64.9	µg/L	SW8260C	0.857	1.00	60.00	0	108	42 - 167	64.7	0.324	25	
Surr: 1,2-Dichloroethane-d4	55.3	µg/L	SW8260C			50.00		111	72 - 151				
Surr: 4-Bromofluorobenzene	50.3	µg/L	SW8260C			50.00		101	80 - 152				
Surr: Dibromofluoromethane	50.7	µg/L	SW8260C			50.00		101	80 - 124				
Surr: Toluene-d8	50.2	µg/L	SW8260C			50.00		100	77 - 129				
Lab Sample ID: 1508096-003AMSD Date Analyzed: 08/10/2015 1637h													
Test Code: 8260-W-DEN100													
Benzene	21.5	µg/L	SW8260C	0.270	1.00	20.00	0	107	66 - 145	21	2.26	25	
Chloroform	19.8	µg/L	SW8260C	0.153	1.00	20.00	0	98.8	50 - 146	19.7	0.456	25	
Methylene chloride	19.4	µg/L	SW8260C	0.172	1.00	20.00	1.95	87.4	30 - 192	19.9	2.19	25	
Naphthalene	22.5	µg/L	SW8260C	0.587	1.00	20.00	1.21	106	41 - 131	21.3	5.63	25	
Tetrahydrofuran	18.8	µg/L	SW8260C	0.516	1.00	20.00	0	94.1	43 - 146	17.9	4.73	25	
Toluene	21.1	µg/L	SW8260C	0.183	1.00	20.00	0	106	18 - 192	22.3	5.30	25	
Xylenes, Total	65.9	µg/L	SW8260C	0.857	1.00	60.00	0	110	42 - 167	66.5	0.861	25	
Surr: 1,2-Dichloroethane-d4	49.3	µg/L	SW8260C			50.00		98.7	72 - 151				
Surr: 4-Bromofluorobenzene	50.3	µg/L	SW8260C			50.00		101	80 - 152				
Surr: Dibromofluoromethane	49.7	µg/L	SW8260C			50.00		99.4	80 - 124				
Surr: Toluene-d8	49.6	µg/L	SW8260C			50.00		99.2	77 - 129				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

American West Analytical Laboratories

UL
Denison

WORK ORDER Summary

Work Order: **1508124** Page 1 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Client ID: DEN100

Contact: Garrin Palmer

Project: Annual Tailings 2015

QC Level: III

WO Type: Project

Comments: QC 3 (Summary/No chromatograms). Use Sample #4 for MS/MSD. Use CAUTION when handling these samples. Footnote report, pH and metals filter prep received outside of hold. Project specific DL's: see COC. Run 200.8 on the Agilent. 8270 LIBRARY SEARCH: 4-Chlorophenol. EDD-Denison. Email Group.;

DB

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1508124-001A	Cell 1	8/4/2015 0825h	8/6/2015 1801h	8260-W	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>			
1508124-001B				300.0-W		DF - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		DF - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
				COND-W-2510B		DF - wc	
				PH-9040C		DF - wc	
1508124-001C				TDS-W-2540C		ww - tds	
				<i>1 SEL Analytes: TDS</i>			
1508124-001D				NH3-W-350.1		DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		DF - no2/no3 & nh3	
				NO2/NO3-W-353.2		DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1508124-001E				200.7-DIS		DIS MET/HG	2
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		DIS MET/HG	
				200.8-DIS		DIS MET/HG	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		DIS MET/HG	
				FILTER-PR		DIS MET/HG	
				HG-DW-DIS-245.1		DIS MET/HG	
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		DIS MET/HG	
				IONBALANCE		DIS MET/HG	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			
1508124-001F				3510-SVOA-PR		Walkin-Semi	
				8270-W		Walkin-Semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>			

WORK ORDER Summary

Work Order: **1508124** Page 2 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1508124-002A	Cell 2 Slimes	8/4/2015 0850h	8/6/2015 1801h	8260-W	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>							
1508124-002B				300.0-W		DF - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		DF - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
				COND-W-2510B		DF - wc	
				PH-9040C		DF - wc	
1508124-002C				TDS-W-2540C		ww - tds	
				<i>1 SEL Analytes: TDS</i>			
1508124-002D				NH3-W-350.1		DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		DF - no2/no3 & nh3	
				NO2/NO3-W-353.2		DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1508124-002E				200.7-DIS		DIS MET/HG	2
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		DIS MET/HG	
				200.8-DIS		DIS MET/HG	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		DIS MET/HG	
				FILTER-PR		DIS MET/HG	
				HG-DW-DIS-245.1		DIS MET/HG	
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		DIS MET/HG	
				IONBALANCE		DIS MET/HG	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			
1508124-002F				3510-SVOA-PR		Walkin-Semi	
				8270-W		Walkin-Semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>			
1508124-003A	Cell 3	8/4/2015 0915h	8/6/2015 1801h	8260-W	Aqueous	VOCFridge	3
<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>							
1508124-003B				300.0-W		DF - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		DF - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
				COND-W-2510B		DF - wc	
				PH-9040C		DF - wc	

WORK ORDER Summary

Work Order: **1508124** Page 3 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage
1508124-003C	Cell 3	8/4/2015 0915h	8/6/2015 1801h	TDS-W-2540C <i>1 SEL Analytes: TDS</i>	Aqueous	ww - tds	1
1508124-003D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>		DF - no2/no3 & nh3	
				NH3-W-PR		DF - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		DF - no2/no3 & nh3	
1508124-003E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		DIS MET/HG	2
				200.7-DIS-PR		DIS MET/HG	
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		DIS MET/HG	
				200.8-DIS-PR		DIS MET/HG	
				FILTER-PR		DIS MET/HG	
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		DIS MET/HG	
				HG-DW-DIS-PR		DIS MET/HG	
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>		DIS MET/HG	
1508124-003F				3510-SVOA-PR		Walkin-Semi	
				8270-W <i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>		Walkin-Semi	
1508124-004A	Cell 4A	8/4/2015 0940h	8/6/2015 1801h	8260-W <i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	VOCFridge	3
1508124-004B				300.0-W <i>3 SEL Analytes: CL F SO4</i>		DF - wc	1
				ALK-W-2320B-LL <i>2 SEL Analytes: ALKB ALKC</i>		DF - wc	
				COND-W-2510B		DF - wc	
				PH-9040C		DF - wc	
1508124-004C				TDS-W-2540C <i>1 SEL Analytes: TDS</i>		ww - tds	
1508124-004D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>		DF - no2/no3 & nh3	
				NH3-W-PR		DF - no2/no3 & nh3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		DF - no2/no3 & nh3	

WORK ORDER Summary

Work Order: **1508124** Page 4 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage				
1508124-004E	Cell 4A	8/4/2015 0940h	8/6/2015 1801h	200.7-DIS	Aqueous		DIS MET/HG	2			
				<i>5 SEL Analytes: CA MG K NA V</i>							
				200.7-DIS-PR			DIS MET/HG				
				200.8-DIS			DIS MET/HG				
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>							
				200.8-DIS-PR			DIS MET/HG				
				FILTER-PR			DIS MET/HG				
				HG-DW-DIS-245.1			DIS MET/HG				
				<i>1 SEL Analytes: HG</i>							
				HG-DW-DIS-PR			DIS MET/HG				
1508124-004F				IONBALANCE			DIS MET/HG				
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
				3510-SVOA-PR			Walkin-Semi	4			
1508124-004A	Cell 4A LDS	8/4/2015 0950h	8/6/2015 1801h	8270-W			Walkin-Semi				
				<i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>							
1508124-005A				200.7-DIS	Aqueous		VOCFridge	3			
				<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>							
1508124-005B				300.0-W			DF - wc	1			
				<i>3 SEL Analytes: CL F SO4</i>							
				ALK-W-2320B-LL			DF - wc				
				<i>2 SEL Analytes: ALKB ALKC</i>							
1508124-005C				COND-W-2510B			DF - wc				
				PH-9040C			DF - wc				
				TDS-W-2540C			ww - tds				
				<i>1 SEL Analytes: TDS</i>							
1508124-005D				NH3-W-350.1			DF - no2/no3 & nh3				
				<i>1 SEL Analytes: NH3N</i>							
				NH3-W-PR			DF - no2/no3 & nh3				
1508124-005E				NO2/NO3-W-353.2			DF - no2/no3 & nh3				
				<i>1 SEL Analytes: NO3NO2N</i>							
				200.7-DIS			DIS MET/HG	2			
				<i>5 SEL Analytes: CA MG K NA V</i>							
				200.7-DIS-PR			DIS MET/HG				
				200.8-DIS			DIS MET/HG				
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>							
				200.8-DIS-PR			DIS MET/HG				
				FILTER-PR			DIS MET/HG				

WORK ORDER Summary

Work Order: **1508124** Page 5 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1508124-005E	Cell 4A LDS	8/4/2015 0950h	8/6/2015 1801h	HG-DW-DIS-245.1	Aqueous		DIS MET/HG	2
				<i>1 SEL Analytes: HG</i>				
				HG-DW-DIS-PR			DIS MET/HG	
				IONBALANCE			DIS MET/HG	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
1508124-005F				3510-SVOA-PR			Walkin-Semi	
				8270-W			Walkin-Semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>				
1508124-006A	Cell 4B	8/4/2015 0958h	8/6/2015 1801h	8260-W	Aqueous		VOCFridge	3
				<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>				
1508124-006B				300.0-W			DF - wc	1
				<i>3 SEL Analytes: CL F SO4</i>				
				ALK-W-2320B-LL			DF - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>				
				COND-W-2510B			DF - wc	
				PH-9040C			DF - wc	
1508124-006C				TDS-W-2540C			ww - tds	
				<i>1 SEL Analytes: TDS</i>				
1508124-006D				NH3-W-350.1			DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>				
				NH3-W-PR			DF - no2/no3 & nh3	
				NO2/NO3-W-353.2			DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>				
1508124-006E				200.7-DIS			DIS MET/HG	2
				<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR			DIS MET/HG	
				200.8-DIS			DIS MET/HG	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR			DIS MET/HG	
				FILTER-PR			DIS MET/HG	
				HG-DW-DIS-245.1			DIS MET/HG	
				<i>1 SEL Analytes: HG</i>				
				HG-DW-DIS-PR			DIS MET/HG	
				IONBALANCE			DIS MET/HG	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
1508124-006F				3510-SVOA-PR			Walkin-Semi	
				8270-W			Walkin-Semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>				

WORK ORDER Summary

Work Order: **1508124** Page 6 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel Storage	
1508124-007A	Cell 4B LDS	8/4/2015 1010h	8/6/2015 1801h	8260-W	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>			
1508124-007B				300.0-W		DF - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		DF - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
				COND-W-2510B		DF - wc	
				PH-9040C		DF - wc	
1508124-007C				TDS-W-2540C		ww - tds	
				<i>1 SEL Analytes: TDS</i>			
1508124-007D				NH3-W-350.1		DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NH3N</i>			
				NH3-W-PR		DF - no2/no3 & nh3	
				NO2/NO3-W-353.2		DF - no2/no3 & nh3	
				<i>1 SEL Analytes: NO3NO2N</i>			
1508124-007E				200.7-DIS		DIS MET/HG	2
				<i>5 SEL Analytes: CA MG K NA V</i>			
				200.7-DIS-PR		DIS MET/HG	
				200.8-DIS		DIS MET/HG	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>			
				200.8-DIS-PR		DIS MET/HG	
				FILTER-PR		DIS MET/HG	
				HG-DW-DIS-245.1		DIS MET/HG	
				<i>1 SEL Analytes: HG</i>			
				HG-DW-DIS-PR		DIS MET/HG	
				IONBALANCE		DIS MET/HG	
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>			
1508124-007F				3510-SVOA-PR		Walkin-Semi	
				8270-W		Walkin-Semi	
				<i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>			
1508124-008A	Cell 65	8/4/2015 1010h	8/6/2015 1801h	8260-W	Aqueous	VOCFridge	3
				<i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>			
1508124-008B				300.0-W		DF - wc	1
				<i>3 SEL Analytes: CL F SO4</i>			
				ALK-W-2320B-LL		DF - wc	
				<i>2 SEL Analytes: ALKB ALKC</i>			
				COND-W-2510B		DF - wc	
				PH-9040C		DF - wc	

WORK ORDER Summary

Work Order: **1508124** Page 7 of 7

Client: Energy Fuels Resources, Inc.

Due Date: 8/20/2015

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1508124-008C	Cell 65	8/4/2015 1010h	8/6/2015 1801h	TDS-W-2540C <i>1 SEL Analytes: TDS</i>	Aqueous	ww - tds		1
1508124-008D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>		DF - no2/no3 & nh3		
				NH3-W-PR		DF - no2/no3 & nh3		
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		DF - no2/no3 & nh3		
1508124-008E				200.7-DIS <i>5 SEL Analytes: CA MG K NA V</i>		DIS MET/HG		2
				200.7-DIS-PR		DIS MET/HG		
				200.8-DIS <i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>		DIS MET/HG		
				200.8-DIS-PR		DIS MET/HG		
				FILTER-PR		DIS MET/HG		
				HG-DW-DIS-245.1 <i>1 SEL Analytes: HG</i>		DIS MET/HG		
				HG-DW-DIS-PR		DIS MET/HG		
				IONBALANCE <i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>		DIS MET/HG		
1508124-008F				3510-SVOA-PR		Walkin-Semi		
				8270-W <i>Test Group: 8270-W-Custom; # of Analytes: 63 / # of Surr: 6</i>		Walkin-Semi		
1508124-009A	Trip Blank	8/4/2015	8/6/2015 1801h	8260-W <i>Test Group: 8260-W-Custom; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	VOCFridge		3

AWAL Use Only.

Close Hold Times

Test Code	# Samps	Min. days left
3510-SVOA-PR	8	.91
TDS-W-2540C	8	.91



American West Analytical Laboratories

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CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PCL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1508124
 AWAL Lab Sample Set #
 Page 1 of 1

QC Level:		Turn Around Time:											Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.		Due Date:		
3		Standard															
# of Containers	Sample Matrix	NO2/NO3 (553.2)	NH3 (4500G or 350.1)	Fl, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Ti, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	SVOCs (8270D)	pH	Conductivity	VOCs (8260C)	X Include EDD: NO LOCUS UPLOAD EXCEL ONLY Field Filtered For: NOT FIELD FILTERED		Laboratory Use Only	
														For Compliance With: <input type="checkbox"/> NELAP <input type="checkbox"/> RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> ELAP / A2LA <input type="checkbox"/> NLLAP <input type="checkbox"/> Non-Compliance <input type="checkbox"/> Other:		Samples Were:	
																	1 Shipped or hand delivered 2 Ambient or Chilled 2 Temperature 5.3°C 4 Received Broken/Leaking (Improperly Sealed) Y <input checked="" type="checkbox"/> N 4.4 <input checked="" type="checkbox"/> 5 Properly Preserved Y <input checked="" type="checkbox"/> N Checked at bench Y <input checked="" type="checkbox"/> N 6 Received Within Holding Times Y <input checked="" type="checkbox"/> N 8/8/15 PH & Filter prep out of hold
																	Known Hazards & Sample Comments COC Tape Was: 1 Present on Outer Package Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> NA 2 Unbroken on Outer Package Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> NA 3 Present on Sample Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> NA 4 Unbroken on Sample Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> NA Discrepancies Between Sample Labels and COC Records? Y <input checked="" type="checkbox"/> N
1	Cell 1	8/4/2015	825	10	w	X	X	X	X	X	X	X	X	X	X	X	
2	Cell 2 Shlimes	8/4/2015	850	10	w	X	X	X	X	X	X	X	X	X	X	X	
3	Cell 3	8/4/2015	915	10	w	X	X	X	X	X	X	X	X	X	X	X	
4	Cell 4A	8/4/2015	940	12	w	X	X	X	X	X	X	X	X	X	X	X	
5	Cell 4A LDS	8/4/2015	950	10	w	X	X	X	X	X	X	X	X	X	X	X	
6	Cell 4B	8/4/2015	958	10	w	X	X	X	X	X	X	X	X	X	X	X	
7	Cell 4 B LDS	8/4/2015	1010	10	w	X	X	X	X	X	X	X	X	X	X	X	
8	Cell 65	8/4/2015	1010	10	w	X	X	X	X	X	X	X	X	X	X	X	
9	Trip Blank	8/4/2015		3	w											X	

Client: **Energy Fuels Resources, Inc.**
 Address: **6425 S. Hwy. 191**
Blanding, UT 84511
 Contact: **Garrin Palmer**
 Phone #: **(435) 678-2221** Cell #:
 Email: **gpalmer@energyfuels.com; KWein@energyfuels.com; dturk@energyfuels.com**
 Project Name: **Annual Tailings 2015**
 Project #:
 PO #:
 Sampler Name: **Garrin Palmer**

Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (553.2)	NH3 (4500G or 350.1)	Fl, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Ti, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	SVOCs (8270D)	pH	Conductivity	VOCs (8260C)	Known Hazards & Sample Comments
1	Cell 1	8/4/2015	825	10	w	X	X	X	X	X	X	X	X	X	X	X	
2	Cell 2 Shlimes	8/4/2015	850	10	w	X	X	X	X	X	X	X	X	X	X	X	
3	Cell 3	8/4/2015	915	10	w	X	X	X	X	X	X	X	X	X	X	X	
4	Cell 4A	8/4/2015	940	12	w	X	X	X	X	X	X	X	X	X	X	X	
5	Cell 4A LDS	8/4/2015	950	10	w	X	X	X	X	X	X	X	X	X	X	X	
6	Cell 4B	8/4/2015	958	10	w	X	X	X	X	X	X	X	X	X	X	X	
7	Cell 4 B LDS	8/4/2015	1010	10	w	X	X	X	X	X	X	X	X	X	X	X	
8	Cell 65	8/4/2015	1010	10	w	X	X	X	X	X	X	X	X	X	X	X	
9	Trip Blank	8/4/2015		3	w											X	

Relinquished by: <i>Garrin Palmer</i> Signature	Date: 8/6/15	Received by: <i>Abel Mendoza</i> Signature	Date: 8-6-15
Print Name: Garrin Palmer	Time: 12:00	Print Name: Abel Mendoza	Time: 12:00
Relinquished by: <i>Denise Brown</i> Signature	Date: 8/6/15	Received by: <i>Denise Brown</i> Signature	Date: 8/6/15
Print Name: Abel Mendoza	Time: 18:01	Print Name: Denise Brown	Time: 18:01
Relinquished by: _____ Signature	Date: _____	Received by: _____ Signature	Date: _____
Print Name: _____	Time: _____	Print Name: _____	Time: _____
Relinquished by: _____ Signature	Date: _____	Received by: _____ Signature	Date: _____
Print Name: _____	Time: _____	Print Name: _____	Time: _____

Special Instructions:

MS/MSD sample for SVOC's was taken at cell 4A.

Tailings Program					
Contaminant	Analytical Methods to be Used	Reporting Limit	Maximum Holding Times	Sample Preservation Requirements	Sample Temperature Requirements
SVOCs					
1,2,4-Trichlorobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
1,2-Dichlorobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
1,3-Dichlorobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
1,4-Dichlorobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
1-Methylnaphthalene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2,4,5-Trichlorophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2,4,6-Trichlorophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2,4-Dichlorophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2,4-Dimethylphenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2,4-Dinitrophenol	SW8270D	<20 ug/L	7/40 days	None	≤ 6°C
2,4-Dinitrotoluene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2,6-Dinitrotoluene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2-Chloronaphthalene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2-Chlorophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2-Methylnaphthalene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2-Methylphenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
2-Nitrophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
3&4-Methylphenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
3,3'-Dichlorobenzidine	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
4,6-Dinitro-2-methylphenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
4-Bromophenylphenyl ether	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
4-Chloro-3-methylphenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
4-Chlorophenyl phenyl ether	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
4-Chlorophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
4-Nitrophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Acenaphthene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Acenaphthylene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Anthracene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Azobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Benz(a)anthracene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Benzidine	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Benzo(a)pyrene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Benzo(b)fluoranthene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Benzo(g,h,i)perylene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Benzo(k)fluoranthene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Bis(2-hloroethoxy)methane	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Bis(2-chloroethyl) ether	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Bis(2-chloroisopropyl) ether	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Bis(2-ethylhexyl) phthalate	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Butyl benzyl phthalate	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Chrysene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Dibenz(a,h)anthracene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Diethyl phthalate	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Dimethyl phthalate	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Di-n-butyl phthalate	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Di-n-octyl phthalate	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Fluoranthene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Fluorene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Hexachlorobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C

Tailings Program					
Contaminant	Analytical Methods to be Used	Reporting Limit	Maximum Holding Times	Sample Preservation Requirements	Sample Temperature Requirements
Hexachlorobutadiene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Hexachlorocyclopentadiene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Hexachloroethane	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Indeno(1,2,3-cd)pyrene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Isophorone	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Naphthalene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Nitrobenzene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
N-Nitrosodimethylamine	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
N-Nitrosodi-n-propylamine	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
N-Nitrosodiphenylamine	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Pentachlorophenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Phenanthrene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Phenol	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Pyrene	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Pyridine	SW8270D	<10 ug/L	7/40 days	None	≤ 6°C
Nutrients					
Ammonia (as N)	A4500-NH ₃ G or E350.1	25 mg/l	28 days	H ₂ SO ₄ to pH<2	≤ 6°C
Nitrate & Nitrite (as N)	E353.1 or E353.2	10 mg/l	28 days	H ₂ SO ₄ to pH<2	≤ 6°C
Volatile Organic Compounds					
Acetone	SW8260B or SW8260C	700 ug/l	14 days	HCl to pH<2	≤ 6°C
Benzene	SW8260B or SW8260C	5 ug/l	14 days	HCl to pH<2	≤ 6°C
2-Butanone (MEK)	SW8260B or SW8260C	4000 ug/l	14 days	HCl to pH<2	≤ 6°C
Carbon Tetrachloride	SW8260B or SW8260C	5 ug/l	14 days	HCl to pH<2	≤ 6°C
Chloroform	SW8260B or SW8260C	70 ug/l	14 days	HCl to pH<2	≤ 6°C
Chloromethane	SW8260B or SW8260C	30 ug/l	14 days	HCl to pH<2	≤ 6°C
Dichloromethane (Methylene Chloride)	SW8260B or SW8260C	5 ug/l	14 days	HCl to pH<2	≤ 6°C
Naphthalene	SW8260B or SW8260C	100 ug/l	14 days	HCl to pH<2	≤ 6°C
Tetrahydrofuran	SW8260B or SW8260C	46 ug/l	14 days	HCl to pH<2	≤ 6°C
Toluene	SW8260B	1000 ug/l	14 days	HCl to pH<2	≤ 6°C

Tailings Program					
Contaminant	Analytical Methods to be Used	Reporting Limit	Maximum Holding Times	Sample Preservation Requirements	Sample Temperature Requirements
	or SW8260C				
Xylenes (total)	SW8260B or SW8260C	10000 ug/l	14 days	HCl to pH<2	≤ 6°C
Others					
Fluoride	A4500-F C or E300.0	4 mg/l	28 days	None	≤ 6°C
TDS	A2540 C	1000 mg/l	7 days	None	≤ 6°C
General Inorganics					
Chloride	A4500-Cl B or A4500-Cl E or E300.0	1 mg/l	28 days	None	≤ 6°C
Sulfate	A4500- SO4 E or E300.0	1000 mg/l	28 days	None	≤ 6°C
Carbonate as CO ₃	A2320 B	1.0 mg/l	14 days	None	≤ 6°C
Bicarbonate as HCO ₃	A2320 B	1.0 mg/l	14 days	None	≤ 6°C
pH	Not specified	0.01	Analyze immediately	None	≤ 6°C
Conductivity	Not specified	1.0	Analyze immediately	None	≤ 6°C

Tailings Program					
Contaminant	Analytical Methods to be Used	Reporting Limit	Maximum Holding Times	Sample Preservation Requirements	Sample Temperature Requirements
Metals**					
Arsenic	E200.7 or E200.8	50 ug/l	6 months	HNO ₃ to pH<2	None
Beryllium	E200.7 or E200.8	4 ug/l	6 months	HNO ₃ to pH<2	None
Cadmium	E200.7 or E200.8	5 ug/l	6 months	HNO ₃ to pH<2	None
Chromium	E200.7 or E200.8	100 ug/l	6 months	HNO ₃ to pH<2	None
Cobalt	E200.7 or E200.8	730 ug/l	6 months	HNO ₃ to pH<2	None
Copper	E200.7 or E200.8	1300 ug/l	6 months	HNO ₃ to pH<2	None
Iron	E200.7 or E200.8	11000 ug/l	6 months	HNO ₃ to pH<2	None
Lead	E200.7 or E200.8	15 ug/l	6 months	HNO ₃ to pH<2	None
Manganese	E200.7 or E200.8	800 ug/l	6 months	HNO ₃ to pH<2	None
Mercury	E 245.1 or E200.7 or E200.8	2 ug/l	28 days	HNO ₃ to pH<2	None
Molybdenum	E200.7 or E200.8	40 ug/l	6 months	HNO ₃ to pH<2	None
Nickel	E200.7 or E200.8	100 ug/l	6 months	HNO ₃ to pH<2	None
Selenium	E200.7 or E200.8	50 ug/l	6 months	HNO ₃ to pH<2	None
Silver	E200.7 or E200.8	100 ug/l	6 months	HNO ₃ to pH<2	None
Thallium	E200.7 or E200.8	2 ug/l	6 months	HNO ₃ to pH<2	None
Tin	E200.7 or E200.8	17000 ug/l	6 months	HNO ₃ to pH<2	None
Uranium	E200.7 or E200.8	30 ug/l	6 months	HNO ₃ to pH<2	None
Vanadium	E200.7 or E200.8	60 ug/l	6 months	HNO ₃ to pH<2	None
Zinc	E200.7 or E200.8	5000 ug/l	6 months	HNO ₃ to pH<2	None
Sodium	E200.7	None specified	6 months	HNO ₃ to pH<2	None
Potassium	E200.7	None specified	6 months	HNO ₃ to pH<2	None
Magnesium	E200.7	None specified	6 months	HNO ₃ to pH<2	None
Calcium	E200.7	None specified	6 months	HNO ₃ to pH<2	None
TDS Calculated	N/A	N/A	N/A	N/A	N/A
Total Anions	N/A	N/A	N/A	N/A	N/A
Total Cations	N/A	N/A	N/A	N/A	N/A
Cation/Anion ratio	N/A	N/A	N/A	N/A	N/A

Holding time for SVOCs is 7 days to extraction and 40 days for analysis of the extract.

**Tailings sample collected for metals analysis will NOT be field filtered.



September 04, 2015

Ms. Kathy Weinel
Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado 80228

Re: Tailings 2015 Characterization
Work Order: 378920

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 07, 2015. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Julie Robinson
Project Manager

Purchase Order: DW16138

Enclosures



**Energy Fuels Resources (USA), Inc.
Tailings 2015 Characterization
SDG: 378920**

**Receipt Narrative
for
Energy Fuels Resources (USA), Inc.
SDG: 378920**

September 04, 2015

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on August 07, 2015 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
378920001	Cell 1
378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry and Radiochemistry.



Julie Robinson
Project Manager

DMF

378920



CHAIN OF CUSTODY

Samples Shipped to: Gel Laboratories **Contact:** Garrin Palmer
 2040 Savage Road Ph: 435 678 4115
 Charleston, SC 29407 gpalmer@energyfuels.com

Project	Samplers Name		Samplers Signature
Annual Tailings 2015	Garrin Palmer		
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
Cell 1	8/4/2015	825	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 2 Slimes	8/4/2015	850	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 3	8/4/2015	915	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226, kinematic viscosity, specific gravity
Cell 4A	8/4/2015	940	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226, kinematic viscosity, specific gravity
Cell 4A LDS	8/4/2015	950	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226, kinematic viscosity, specific gravity
Cell 4B	8/4/2015	958	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226, kinematic viscosity, specific gravity
Cell 4B LDS	8/4/2015	1010	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226, kinematic viscosity, specific gravity
Cell 65	8/4/2015	1010	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226, kinematic viscosity, specific gravity

Note: Kinematic viscosity and specific gravity have been added to the analysis request

Kinematic viscosity and specific gravity is to be run on UNFILTERED sample aliquot

Comments: SAMPLES ARE NOT FIELD FILTERED - PLEASE FILTER UPON RECEIPT! SAMPLES ARE NOT PRESERVED - pH is as collected! See Julie Robinson and Amanda for technical questions. No LOCUS UPLOAD.
 Methods used = same as 367293 and 374106

Relinquished By:(Signature) 	Date/Time 8/6/15/1200	Received By:(Signature) 	Date/Time 8/7/15 9:10
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time

SAMPLE RECEIPT & REVIEW FORM

Client: <u>DNMI</u>		SDG/AR/COC/Work Order: <u>378920</u>
Received By: <u>Shanta Mack</u>		Date Received: <u>8/7/15 9:10</u>
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>380 cpm</u>
Classified Radioactive II or III by RSO?	<input checked="" type="checkbox"/>	If yes, Were swipes taken of sample containers < action levels?
COC/Samples marked containing PCBs?	<input checked="" type="checkbox"/>	
Package, COC, and/or Samples marked as beryllium or asbestos containing?	<input checked="" type="checkbox"/>	If yes, samples are to be segregated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?	<input checked="" type="checkbox"/>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			<input checked="" type="checkbox"/>	Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius <u>17°C</u>
2a Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: Secondary Temperature Device Serial # (If Applicable):
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5 Samples requiring chemical preservation at proper pH?			<input checked="" type="checkbox"/>	Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 Do Low Level Perchlorate samples (EPA 6850) have headspace as required?			<input checked="" type="checkbox"/>	Sample ID's and containers affected:
7 VOA vials free of headspace (defined as < 6mm bubble)?			<input checked="" type="checkbox"/>	Sample ID's and containers affected:
8 Are Encore containers present?			<input checked="" type="checkbox"/>	(If yes, immediately deliver to Volatiles laboratory)
9 Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
10 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
11 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
12 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
13 Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>			
14 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			
15 Carrier and tracking number.				Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other <u>8064 8112 1348</u> <u>8064 8112 1337</u>

Comments (Use Continuation Form if needed):

GEL Laboratories LLC – Login Review Report

Report Date: 04-SEP-15

Work Order: 378920

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GEL Work Order/SDG: 378920 Annual Tailings 2015
 Client SDG: 378920
 Project Manager: Julie Robinson
 Project Name: DNMI00107 Tailings 2015 Characterization
 Purchase Order: DW16138
 Package Level: LEVEL3
 EDD Format: EIM_DNMI

Work Order Due Date: 04-SEP-15
 Package Due Date: 01-SEP-15
 EDD Due Date: 04-SEP-15
 Due Date: 04-SEP-15
 JAR1

Collector: C
 Prelogin #: 20150833683
 Project Workdef ID: 1330584
 SDG Status: Closed
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
378920001	Cell 1		04-AUG-15 08:25	07-AUG-15 09:10	-2	3	WATER		20		1		
378920002	Cell 2 Slimes		04-AUG-15 08:50	07-AUG-15 09:10	-2	3	WATER		20		1		
378920003	Cell 3		04-AUG-15 09:15	07-AUG-15 09:10	-2	3	WATER		20		1		
378920004	Cell 4A		04-AUG-15 09:40	07-AUG-15 09:10	-2	3	WATER		20		1		
378920005	Cell 4A LDS		04-AUG-15 09:50	07-AUG-15 09:10	-2	3	WATER		20		1		
378920006	Cell 4B		04-AUG-15 09:58	07-AUG-15 09:10	-2	3	WATER		20		1		
378920007	Cell 4B LDS		04-AUG-15 10:10	07-AUG-15 09:10	-2	3	WATER		20		1		
378920008	Cell 65		04-AUG-15 10:10	07-AUG-15 09:10	-2	3	WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 Cell 1	REVV	Alphaspec Th, Liquid				Cooler Seal Undisturbed	RAD2
	REVV	U- 233/234,U-235/236 and U-238	U-233/234,U-235/236			Temperature (C)	17
	REVV	GFPC,Total Alpha Radium, Liquid	Gross Alpha				
	REVV	Laboratory Composite	RAD2				
	REVV	Lucas Cell, Ra226, liquid					
	REVV	ASTM D 5057 Specific Gravity					
-002 Cell 2 Slimes	REVV	Alphaspec Th, Liquid				Cooler Seal Undisturbed	RAD2
	REVV	U- 233/234,U-235/236 and U-238	U-233/234,U-235/236			Temperature (C)	17
	REVV	GFPC,Total Alpha Radium, Liquid	Gross Alpha				
	REVV	Laboratory Composite	RAD2				
	REVV	Lucas Cell, Ra226, liquid					
	REVV	ASTM D 5057 Specific Gravity					
-003 Cell 3	REVV	Alphaspec Th, Liquid				Cooler Seal Undisturbed	RAD2
	REVV	U- 233/234,U-235/236 and U-238	U-233/234,U-235/236			Temperature (C)	17
	REVV	GFPC,Total Alpha Radium, Liquid	Gross Alpha				

GEL Laboratories LLC – Login Review Report

Report Date: 04-SEP-15

Work Order: 378920

Page 2 of 5

	REVV Laboratory Composite	RAD2			
	REVV Lucas Cell, Ra226, liquid				
	REVV ASTM D 5057 Specific Gravity				
	REVV ASTM 2983 Viscosity(Kinematic)				
-004 Cell 4A	REVV Alphaspec Th, Liquid		Cooler Seal Undisturbed	Y	RAD2
	REVV U- 233/234,U-235/236 and U-238	U-233/234,U-235/236	Temperature (C)	17	
	REVV GFPC,Total Alpha Radium, Liquid	Gross Alpha			
	REVV Laboratory Composite	RAD2			
	REVV Lucas Cell, Ra226, liquid				
	REVV ASTM D 5057 Specific Gravity				
	REVV ASTM 2983 Viscosity(Kinematic)				
-005 Cell 4A LDS	REVV Alphaspec Th, Liquid		Cooler Seal Undisturbed	Y	RAD2
	REVV U- 233/234,U-235/236 and U-238	U-233/234,U-235/236	Temperature (C)	17	
	REVV GFPC,Total Alpha Radium, Liquid	Gross Alpha			
	REVV Laboratory Composite	RAD2			
	REVV Lucas Cell, Ra226, liquid				
	REVV ASTM D 5057 Specific Gravity				
	REVV ASTM 2983 Viscosity(Kinematic)				
-006 Cell 4B	REVV Alphaspec Th, Liquid		Cooler Seal Undisturbed	Y	RAD2
	REVV U- 233/234,U-235/236 and U-238	U-233/234,U-235/236	Temperature (C)	17	
	REVV GFPC,Total Alpha Radium, Liquid	Gross Alpha			
	REVV Laboratory Composite	RAD2			
	REVV Lucas Cell, Ra226, liquid				
	REVV ASTM D 5057 Specific Gravity				
	REVV ASTM 2983 Viscosity(Kinematic)				
-007 Cell 4B LDS	REVV Alphaspec Th, Liquid		Cooler Seal Undisturbed	Y	RAD2
	REVV U- 233/234,U-235/236 and U-238	U-233/234,U-235/236	Temperature (C)	17	
	REVV GFPC,Total Alpha Radium, Liquid	Gross Alpha			
	REVV Laboratory Composite	RAD2			
	REVV Lucas Cell, Ra226, liquid				
	REVV ASTM D 5057 Specific Gravity				
	REVV ASTM 2983 Viscosity(Kinematic)				
-008 Cell 65	REVV Alphaspec Th, Liquid		Cooler Seal Undisturbed	Y	RAD2
	REVV U- 233/234,U-235/236 and U-238	U-233/234,U-235/236	Temperature (C)	17	
	REVV GFPC,Total Alpha Radium, Liquid	Gross Alpha			
	REVV Laboratory Composite	RAD2			

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REVV Lucas Cell, Ra226, liquid
 REVV ASTM D 5057 Specific Gravity
 REVV ASTM 2983 Viscosity(Kinematic)

Product: ASP__THL		Workdef ID: 1371096	In Product Group? No	Group Name:	Group Reference:			
Method: DOE EML HASL-300, Th-01-RC Modified					Path: High Rad			
Product Description: Alphaspec Th, Liquid					Product Reference:			
Samples: 001, 002, 003, 004, 005, 006, 007, 008					Moisture Correction: "As Received"			
Parmname Check: All parmnames scheduled properly								
CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?	
14274-82-9	Thorium-228	1	pCi/L	REG	Y	Y	No	
14269-63-7	Thorium-230	1	pCi/L	REG	Y	Y		
7440-29-1	Thorium-232	1	pCi/L	REG	Y	Y		

Product: ASP__UUL		Workdef ID: 1371097	In Product Group? No	Group Name:	Group Reference:			
Method: DOE EML HASL-300, U-02-RC Modified					Path: High Rad			
Product Description: U- 233/234,U-235/236 and U-238					Product Reference: U-233/234,U-235/236			
Samples: 001, 002, 003, 004, 005, 006, 007, 008					Moisture Correction: "As Received"			
Parmname Check: All parmnames scheduled properly								
CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?	
13968-55-3/13966-	Uranium-233/234	1	pCi/L	REG	Y	Y	No	
15117-96-1/13982-	Uranium-235/236	1	pCi/L	REG	Y	Y		
7440-61-1	Uranium-238	1	pCi/L	REG	Y	Y		

Product: GFCTORAL		Workdef ID: 1371098	In Product Group? No	Group Name:	Group Reference:			
Method: EPA 900.1 Modified					Path: High Rad			
Product Description: GFPC, Total Alpha Radium, Liquid					Product Reference: Gross Alpha			
Samples: 001, 002, 003, 004, 005, 006, 007, 008					Moisture Correction: "As Received"			
Parmname Check: All parmnames scheduled properly								
CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?	
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No	

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Product: LUC26RAL Workdef ID: 1371099 In Product Group? No Group Name: Group Reference:

Method: EPA 903.1 Modified Path: High Rad

Product Description: Lucas Cell, Ra226, liquid Product Reference:

Samples: 001, 002, 003, 004, 005, 006, 007, 008 Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
13982-63-3	Radium-226	1	pCi/L	REG	Y	Y	No

Product: LABCOMP_L Workdef ID: 1371213 In Product Group? No Group Name: Group Reference:

Method: Path: High Rad

Product Description: Laboratory Composite Product Reference: RAD2

Samples: 001, 002, 003, 004, 005, 006, 007, 008 Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
							No

Product: VISVKAS_L Workdef ID: 1370069 In Product Group? Yes Group Name: PROD_GROUP01 Group Reference:

Method: ASTM 2983 MODIFIED KINEMATIC Path: Standard

Product Description: ASTM 2983 Viscosity(Kinematic) Product Reference:

Samples: 001, 002, 003, 004, 005, 006, 007, 008 Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Viscosity, Kinematic		cSt	REG	Y	Y	No

Product: MISSGAS_L Workdef ID: 1370070 In Product Group? Yes Group Name: PROD_GROUP01 Group Reference:

Method: ASTM D 5057 Path: Standard

Product Description: ASTM D 5057 Specific Gravity Product Reference:

Samples: 001, 002, 003, 004, 005, 006, 007, 008 Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Specific Gravity		none	REG	Y	Y	No

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Action	Product Name	Description	Samples
Contingent Tests			

Login Requirements:

Requirement	Include?	Comments
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Peer Review by: _____ Work Order (SDG#), PO# Checked? _____ C of C signed in receiver location? _____

List of current GEL Certifications as of 04 September 2015

State	Certification
Alaska	UST-110
Arkansas	88-0651
CLIA	42D0904046
California	2940 Interim
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC000122013-10
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-12-00283, P330-12-00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC000122013-10
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA150001
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC000122013-10
Nebraska	NE-OS-26-13
Nevada	SC000122016-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68-00485
Plant Material Permit	PDEP-12-00260
S.Carolina Radchem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-15-10
Utah NELAP	SC000122015-18
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

**General Chemistry
Technical Case Narrative
Energy Fuels Resources (DNMI)
SDG #: 378920**

Method/Analysis Information

Product: Kinematic Viscosity
Analytical Batch: 1498982 **Method:** ASTM 2983 Viscosity(Kinematic)

Sample Analysis

The following samples were analyzed using the analytical protocol as established in ASTM 2983 MODIFIED KINEMATIC:

Sample ID	Client ID
378920001	Cell 1
378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65
1203370414	Laboratory Control Sample (LCS)
1203370415	378920001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-068 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC, and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Hazardous Waste analysis was performed on a Brookfield Viscometer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

Sample 378920001 (Cell 1) was selected for QC analysis.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Data Exception (DER) Documentation**

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: Specific Gravity
Analytical Batch: 1498981 **Method:** ASTM D 5057 Specific Gravity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in ASTM D 5057:

Sample ID	Client ID
378920001	Cell 1
378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65
1203370413	378920001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-065 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Hazardous Waste analysis was performed on a Sartorius Balance B-001. IC Lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Quality Control (QC) Designation

Sample 378920001 (Cell 1) was selected for QC analysis.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 378920 GEL Work Order: 378920

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Thomas Lewis

Date: 03 SEP 2015

Title: Data Validator

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 3, 2015

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Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado
Contact: Ms. Kathy Weinel

Workorder: 378920

Paramname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Hazardous Waste											
Batch	1498981										
QC1203370413	378920001	DUP									
Specific Gravity		1.21		1.19	none	1.58		(0%-10%)	MXB3	08/10/15	12:3
Batch	1498982										
QC1203370415	378920001	DUP									
Viscosity, Kinematic	U	10.0	U	10.0	cSt	N/A			MXB3	08/17/15	08:2
QC1203370414	LCS										
Viscosity, Kinematic	50.0			55.3	cSt		111	(80%-120%)		08/17/15	08:0

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- NI See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the CRDL.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

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QC Summary

Workorder: 378920

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
^											
d											
h											

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Radiochemistry
Technical Case Narrative
Energy Fuels Resources (DNMI)
SDG #: 378920**

Method/Analysis Information

Product: U- 233/234,U-235/236 and U-238
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number: 1500005

Sample ID	Client ID
378920001	Cell 1
378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65
1203373121	Method Blank (MB)
1203373123	Laboratory Control Sample (LCS)
1203373122	378920001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 25.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 378920001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: The blank did not meet the detection limits for U-233/234, U-235/236, and U-238 due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

Sample 378920008 (Cell 65) was recounted due to a peak shift. The recount is being reported.

Miscellaneous Information:**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration

No manual integrations were performed on data in this batch.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: Alphaspec Th, Liquid
Analytical Method: DOE EML HASL-300, Th-01-RC Modified
Analytical Batch Number: 1500006

Sample ID	Client ID
378920001	Cell 1
378920002	Cell 2 Slimes

378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65
1203373124	Method Blank (MB)
1203373126	Laboratory Control Sample (LCS)
1203373125	378920001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 16.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 378920001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER).

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

Sample 1203373124 (MB) was recounted due to a suspected blank false positive. The recount is reported. Samples 1203373125 (Cell 1DUP) and 378920001 (Cell 1) were recounted for a reduced count time in order to minimize tailing from high levels of activity. The recounts are being reported.

Miscellaneous Information:

Data Exception (DER) Documentation

A data exception report (DER) 1441501 was generated for samples 1203373124 (MB), 378920002 (Cell 2 Slimes), 378920003 (Cell 3), 378920004 (Cell 4A), 378920005 (Cell 4A LDS), 378920006 (Cell 4B), 378920007 (Cell 4B LDS) and 378920008 (Cell 65) in this SDG/batch. DER 1441501 was generated due to RDL less than MDA. 1. Samples 378920003, 378920004, 378920006, 378920007, and 378920008 did not meet the detection limits for Th-228; Samples 378920002 and 378920005 did not meet the detection limits for Th-228 and Th-232; and the Method blank 1203373124 did not meet the detection limits for Th-228, Th-230, and Th-232 due to small aliquots used. 1. Sample aliquots were reduced due to high levels of activity and the method blank aliquot was reduced in order to keep consistent with the sample aliquots. Reporting results.

Manual Integration

No manual integrations were performed on data in this batch.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: GFPC, Total Alpha Radium, Liquid

Analytical Method: EPA 900.1 Modified

Analytical Batch Number: 1502938

Sample ID	Client ID
378920001	Cell 1
378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65
1203381112	Method Blank (MB)
1203381116	Laboratory Control Sample (LCS)
1203381113	378920001(Cell 1) Sample Duplicate (DUP)
1203381114	378920001(Cell 1) Matrix Spike (MS)
1203381115	378920001(Cell 1) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-010 REV# 15.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:**Blank Information**

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 378920001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: The blank, 1203381112 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits. The matrix spike and matrix spike duplicate, 1203381114 (Cell IMS) and 1203381115 (Cell IMSD), did not meet recovery requirements due to the sample activity being greater than five times the spiked nominal concentration. The matrix spike and matrix spike duplicate, 1203381114 (Cell IMS) and 1203381115 (Cell IMSD), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with a value of 2.92.

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

Samples were reprepared due to high blank activity. The re-analysis is being reported.

Recounts

Sample 1203381116 (LCS) was recounted due to high recovery. The recount is reported. Samples 1203381112 (MB) and 378920004 (Cell 4A) were recounted due to high MDCs. The recounts are reported.

Miscellaneous Information:**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: Lucas Cell, Ra226, liquid
Analytical Method: EPA 903.1 Modified
Analytical Batch Number: 1500000

Sample ID	Client ID
378920001	Cell 1
378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65
1203373100	Method Blank (MB)
1203373103	Laboratory Control Sample (LCS)
1203373101	378920001(Cell 1) Sample Duplicate (DUP)
1203373102	378920001(Cell 1) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 14.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 378920001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: The blank, 1203373100 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

None of the samples in this sample set were recounted.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product:	Laboratory Composite
Analytical Method:	GL-RAD-A-026
Analytical Batch Number:	1498887

Sample ID	Client ID
378920001	Cell 1

378920002	Cell 2 Slimes
378920003	Cell 3
378920004	Cell 4A
378920005	Cell 4A LDS
378920006	Cell 4B
378920007	Cell 4B LDS
378920008	Cell 65

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-026 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume(s) in this batch.

Designated QC

None of the samples were designated for QC analysis.

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

None of the samples in this sample set were recounted.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration

No manual integrations were performed on data in this batch.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Approximately 100mL of each sample was filtered.

Qualifier Information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 378920 GEL Work Order: 378920

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Theresa Austin

Date: 04 SEP 2015

Title: Group Leader

DATA EXCEPTION REPORT

Mo. Day Yr. 24-AUG-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: ALPHA SPECTROMETER	Test / Method: DOE EML HASL-300, Th-01-RC Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1500006	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 378920

Application Issues:

RDL less than MDA

**Specification and Requirements
Exception Description:**

1. Samples 378920003, 378920004, 78920006, 378920007, and 378920008 did not meet the detection limits for Th-228; Samples 378920002 and 378920005 did not meet the detection limits for Th-228 and Th-232; and the Method blank 1203373124 did not meet the detection limits for Th-228, Th-230, and Th-232 due to small aliquots used.

DER Disposition:

1. Sample aliquots were reduced due to high levels of activity and the method blank aliquot was reduced in order to keep consistent with the sample aliquots. Reporting results.

Originator's Name:

Jessica Downey 24-AUG-15

Data Validator/Group Leader:

Jessica Davis 28-AUG-15

GEL LABORATORIES LLC

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QC Summary

Report Date: September 4, 2015

Page 1 of

Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado
Contact: Ms. Kathy Weinel

Workorder: 378920

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch 1500000											
QC1203373101	378920001	DUP									
Radium-226				1110		1230	pCi/L	9.69	(0%-20%)	CXP3	09/04/15 09:2
			Uncertainty	+/-33.7		+/-36.6					
QC1203373103	LCS										
Radium-226				1240		1140	pCi/L	92.7	(75%-125%)		09/04/15 09:5
			Uncertainty			+/-35.1					
QC1203373100	MB										
Radium-226			U			8.84	pCi/L				09/04/15 08:4
			Uncertainty			+/-4.91					
QC1203373102	378920001	MS									
Radium-226				1240		1110	pCi/L	77.4	(75%-125%)		09/04/15 09:2
			Uncertainty	+/-33.7		+/-47.7					
Batch 1500005											
QC1203373122	378920001	DUP									
Uranium-233/234				1.41E+05		1.44E+05	pCi/L	1.86	(0%-20%)	JXC5	08/20/15 09:5
			Uncertainty	+/-3650		+/-3590					
Uranium-235/236				8920		8680	pCi/L	2.75	(0%-20%)		
			Uncertainty	+/-1030		+/-990					
Uranium-238				1.40E+05		1.39E+05	pCi/L	1.06	(0%-20%)		
			Uncertainty	+/-3640		+/-3530					
QC1203373123	LCS										
Uranium-233/234						27400	pCi/L				08/20/15 09:5
			Uncertainty			+/-1480					
Uranium-235/236						1780	pCi/L				
			Uncertainty			+/-431					
Uranium-238				27200		29700	pCi/L	109	(75%-125%)		
			Uncertainty			+/-1540					
QC1203373121	MB										
Uranium-233/234			U			178	pCi/L				08/20/15 09:5
			Uncertainty			+/-209					
Uranium-235/236			U			255	pCi/L				
			Uncertainty			+/-256					
Uranium-238			U			4.69	pCi/L				
			Uncertainty			+/-178					
Batch 1500006											
QC1203373125	378920001	DUP									
Thorium-228				1310		1440	pCi/L	9.95	(0% - 100%)	JXC5	08/22/15 12:2
			Uncertainty	+/-498		+/-564					
Thorium-230				9.91E+05		1.02E+06	pCi/L	2.56	(0%-20%)		
			Uncertainty	+/-12700		+/-13000					
Thorium-232				6150		5130	pCi/L	18.2	(0%-20%)		

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QC Summary

Workorder: 378920

Page 2 of

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
High Rad Testing											
Batch	1500006										
	Uncertainty										
		+/-1020		+/-936							
QC1203373126	LCS										
Thorium-228				21000	pCi/L				JXC5	08/20/15	09:5
	Uncertainty			+/-1370							
Thorium-230				3050	pCi/L			(75%-125%)			
	Uncertainty			+/-555							
Thorium-232	19900			20300	pCi/L		102	(75%-125%)			
	Uncertainty			+/-1340							
QC1203373124	MB										
Thorium-228			U	79.0	pCi/L					08/20/15	15:2
	Uncertainty			+/-152							
Thorium-230			U	400	pCi/L						
	Uncertainty			+/-307							
Thorium-232			U	75.4	pCi/L						
	Uncertainty			+/-152							
Batch	1502938										
QC1203381113	378920001	DUP									
Gross Radium Alpha				7.35E+05	pCi/L	13.3		(0%-20%)	JXC5	08/26/15	18:1
	Uncertainty			+/-4230							
QC1203381116	LCS										
Gross Radium Alpha	82500			78200	pCi/L		94.8	(75%-125%)		08/27/15	13:0
	Uncertainty			+/-1120							
QC1203381112	MB										
Gross Radium Alpha			U	-40.2	pCi/L					08/27/15	19:4
	Uncertainty			+/-25.9							
QC1203381114	378920001	MS									
Gross Radium Alpha	83400			7.35E+05	pCi/L		N/A	(75%-125%)		08/26/15	18:1
	Uncertainty			+/-4230							
QC1203381115	378920001	MSD									
Gross Radium Alpha	83400			7.35E+05	pCi/L	37.5*	N/A	(0%-20%)		08/26/15	18:2
	Uncertainty			+/-4230							

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 378920

Page 3 of

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
F											
H											
K											
L											
M											
M											
N/A											
NI											
ND											
NJ											
Q											
R											
U											
UI											
UJ											
UL											
X											
Y											
^											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



August 03, 2015

Ms. Kathy Weinel
Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado 80228

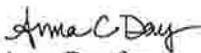
Re: Tailings 2015 Characterization
Work Order: 377632

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 30, 2015. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,


Anna Day for
Julie Robinson
Project Manager

Purchase Order: DW16138
Enclosures



**Energy Fuels Resources (USA), Inc.
Tailings 2015 Characterization
SDG: 377632**

Receipt Narrative
for
Energy Fuels Resources (USA), Inc.
SDG: 377632

August 03, 2015

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 30, 2015 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
377632001	Cell 1
377632002	Cell 3
377632003	Cell 4A
377632004	Cell 4B

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry.


Anna Day for
Julie Robinson
Project Manager

374106

374075 gm 6/1/15



Sheet 1 of 1

CHAIN OF CUSTODY

Samples Shipped to: Gel Laboratories **Contact:** Tanner Holliday
2040 Savage Road Ph: 435 678 4115
Charleston, SC 29407 nholliday@energyfuels.com

Project	Samplers Name		Samplers Signature
Addl Tailings 2015	Tanner Holliday		
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
Cell 1	5/28/2015	0650	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 3	5/28/2015	0700	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A	5/28/2015	0715	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A LDS	5/28/2015	0720	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B	5/28/2015	0730	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B LDS	5/28/2015	0740	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 65	5/28/2015	0715	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 1 Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 3 Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A LDS Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B LDS Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 65 Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Comments: SAMPLES ARE NOT FIELD FILTERED - PLEASE FILTER UPON RECEIPT! SAMPLES ARE NOT PRESERVED - pH is as collected! See Julie Robinson and Amanda for technical questions. No LOCUS UPLOAD. Methods used = same as 367293			
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time
	5/28/2015 1100		053015 0635
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time

SAMPLE RECEIPT & REVIEW FORM

Client: DNMI		SDG/AR/COC/Work Order: 374015 374106	
Received By: H. Taylor		Date Received: 053015	
Suspected Hazard Information		Yes	No
COC/Samples marked as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Classified Radioactive II or III by RSO?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC/Samples marked containing PCBs?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Package, COC, and/or Samples marked as beryllium or asbestos containing?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Samples identified as Foreign Soil?		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius 23
2a	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: 22092024949 Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	Do Low Level Perchlorate samples (EPA 6850) have headspace as required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
7	VOA vials free of headspace (defined as < 6mm bubble)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
8	Are Encore containers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(If yes, immediately deliver to Volatiles laboratory)
9	Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
10	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
11	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
12	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
13	Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15	Carrier and tracking number.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other 8064 8112 1430 1440

Comments (Use Continuation Form if needed):

GEL Laboratories LLC – Login Review Report

Report Date: 03-AUG-15

Work Order: 377632

Page 1 of 2

GEL Work Order/SDG: 377632 Relog of 374106001
 Client SDG: 377632
 Project Manager: Julie Robinson
 Project Name: DNMI00107 Tailings 2015 Characterization
 Purchase Order: DW16138
 Package Level: LEVEL3
 EDD Format: EIM_DNMI

Work Order Due Date: 04-AUG-15
 Package Due Date: 02-AUG-15
 EDD Due Date: 04-AUG-15
 Due Date: 04-AUG-15
 JAR1

Collector: C
 Prelogin #: 20150631080
 Project Workdef ID: 1330584
 SDG Status: Closed
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
377632001	Cell 1	-Relog from 374106001	28-MAY-15 06:50	30-MAY-15 08:35	-2	1	WATER		20		1		
377632002	Cell 3	-Relog from 374106002	28-MAY-15 07:00	30-MAY-15 08:35	-2	1	WATER		20		1		
377632003	Cell 4A	-Relog from 374106003	28-MAY-15 07:15	30-MAY-15 08:35	-2	1	WATER		20		1		
377632004	Cell 4B	-Relog from 374106005	28-MAY-15 07:30	30-MAY-15 08:35	-2	1	WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 Cell 1	NEW	ASTM D 5057 Specific Gravity			Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety! Relog of 374106001	Cooler Seal Undisturbed	RAD1,HZ
	NEW	ASTM 2983 Viscosity(Kinematic)				Temperature (C)	
-002 Cell 3	NEW	ASTM D 5057 Specific Gravity			Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety! Relog of 374106002	Cooler Seal Undisturbed	RAD1,HZ
	NEW	ASTM 2983 Viscosity(Kinematic)				Temperature (C)	
-003 Cell 4A	NEW	ASTM D 5057 Specific Gravity			Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety! Relog of 374106003	Cooler Seal Undisturbed	RAD1,HZ
	NEW	ASTM 2983 Viscosity(Kinematic)				Temperature (C)	
-004 Cell 4B	NEW	ASTM D 5057 Specific Gravity			Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety! Relog of 374106005	Cooler Seal Undisturbed	RAD1,HZ
	NEW	ASTM 2983 Viscosity(Kinematic)				Temperature (C)	

GEL Laboratories LLC – Login Review Report

Report Date: 03-AUG-15
 Work Order: 377632
 Page 2 of 2

Product: VISVKAS_L Workdef ID: 1370069 In Product Group? Yes Group Name: PROD_GROUP01 Group Reference:
 Method: ASTM 2983 MODIFIED KINEMATIC Path: Standard
 Product Description: ASTM 2983 Viscosity(Kinematic) Product Reference:
 Samples: 001, 002, 003, 004 Moisture Correction: "As Received"
 Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Viscosity, Kinematic		cSt	REG	Y	Y	No

Product: MISSGAS_L Workdef ID: 1370070 In Product Group? Yes Group Name: PROD_GROUP01 Group Reference:
 Method: ASTM D 5057 Path: Standard
 Product Description: ASTM D 5057 Specific Gravity Product Reference:
 Samples: 001, 002, 003, 004 Moisture Correction: "As Received"
 Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Specific Gravity		none	REG	Y	Y	No

Action	Product Name	Description	Samples
Contingent Tests			

Login Requirements:

Requirement	Include?	Comments

Peer Review by: _____ Work Order (SDG#), PO# Checked? _____ C of C signed in receiver location? _____

List of current GEL Certifications as of 03 August 2015

State	Certification
Alaska	UST-110
Arkansas	88-0651
CLIA	42D0904046
California	2940 Interim
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC000122013-10
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-12-00283, P330-12-00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC000122013-10
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA150001
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC000122013-10
Nebraska	NE-OS-26-13
Nevada	SC000122014-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68-00485
Plant Material Permit	PDEP-12-00260
S.Carolina Radchem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-15-10
Utah NELAP	SC000122015-17
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

**General Chemistry
Technical Case Narrative
Energy Fuels Resources (DNMI)
SDG #: 377632**

Method/Analysis Information

Product: Kinematic Viscosity
Analytical Batch: 1494527 **Method:** ASTM 2983 Viscosity(Kinematic)

Sample Analysis

The following samples were analyzed using the analytical protocol as established in ASTM 2983 MODIFIED KINEMATIC:

Sample ID	Client ID
377632001	Cell 1
377632002	Cell 3
377632003	Cell 4A
377632004	Cell 4B
1203359150	Laboratory Control Sample (LCS)
1203359151	377632001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-068 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Hazardous Waste analysis was performed on a Brookfield Viscometer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

Sample 377632001 (Cell 1) was selected for QC analysis.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Data Exception (DER) Documentation**

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Specific Gravity**
Analytical Batch: 1494524 **Method:** ASTM D 5057 Specific Gravity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in ASTM D 5057:

Sample ID	Client ID
377632001	Cell 1
377632002	Cell 3
377632003	Cell 4A
377632004	Cell 4B
1203359141	377632001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-065 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Hazardous Waste analysis was performed on a Sartorius Balance B-001. IC Lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Quality Control (QC) Designation

Sample 377632001 (Cell 1) was selected for QC analysis.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours

are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.
Client SDG: 377632 GEL Work Order: 377632

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Thomas Lewis

Date: 03 AUG 2015

Title: Data Validator

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: August 3, 2015

Page 1 of

Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado
Contact: Ms. Kathy Weinel

Workorder: 377632

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Hazardous Waste											
Batch	1494524										
QC1203359141	377632001	DUP									
Specific Gravity		1.13		1.12	none	0.881		(0%-10%)	MXB3	07/28/15	07:4
Batch	1494527										
QC1203359151	377632001	DUP									
Viscosity, Kinematic	U	10.0	U	10.0	cSt	N/A			MXB3	07/29/15	08:3
QC1203359150	LCS										
Viscosity, Kinematic	50.0			55.7	cSt		111	(80%-120%)		07/29/15	08:1

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the CRDL.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 377632

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
^										
d										
h										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



July 20, 2015

Ms. Kathy Weinel
Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado 80228

Re: Tailings 2015 Characterization
Work Order: 374106

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 30, 2015. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Julie Robinson
Project Manager

Purchase Order: DW16138
Enclosures



**Energy Fuels Resources (USA), Inc.
Tailings 2015 Characterization
SDG: 374106**

**Receipt Narrative
for
Energy Fuels Resources (USA), Inc.
SDG: 374106**

July 20, 2015

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on May 30, 2015 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
374106001	Cell 1
374106002	Cell 3
374106003	Cell 4A
374106004	Cell 4A LDS
374106005	Cell 4B
374106006	Cell 4B LDS
374106007	Cell 65
374106008	Cell 1 Barium Sulfate Precipitate
374106009	Cell 3 Barium Sulfate Precipitate
374106010	Cell 4A Barium Sulfate Precipitate
374106011	Cell 4A LDS Barium Sulfate Precipitate
374106012	Cell 4B Barium Sulfate Precipitate
374106013	Cell 4B LDS Barium Sulfate Precipitate
374106014	Cell 65 Barium Sulfate Precipitate

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

A handwritten signature in black ink that reads "Julie Robinson". The signature is written in a cursive, flowing style.

Julie Robinson
Project Manager

374106
374075 gnb/1/15



CHAIN OF CUSTODY

Samples Shipped to: Gel Laboratories Contact: Tanner Holliday
 2040 Savage Road Ph: 435 678 4115
 Charleston, SC 29407 nholliday@energyfuels.com

Project	Samplers Name		Samplers Signature
Addl Tailings 2015	Tanner Holliday		<i>Tanner Holliday</i>
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
Cell 1	5/28/2015	0650	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 3	5/28/2015	0700	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A	5/28/2015	0715	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A LDS	5/28/2015	0720	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B	5/28/2015	0730	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B LDS	5/28/2015	0740	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 65	5/28/2015	0715	Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 1 Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 3 Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4A LDS Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 4B LDS Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Cell 65 Barium Sulfate Precip	Lab generated		Gross Alpha, Thorium (228, 230, 232) Uranium (233/234, 235/236, 238), Ra-226
Comments: SAMPLES ARE NOT FIELD FILTERED - PLEASE FILTER UPON RECEIPT! SAMPLES ARE NOT PRESERVED - pH is as collected! See Julie Robinson and Amanda for technical questions. No LOCUS UPLOAD. Methods used = same as 367293			
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
<i>Tanner Holliday</i>	5/28/2015 1100	<i>[Signature]</i>	053015 0835
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

SAMPLE RECEIPT & REVIEW FORM

Client: DNM		SDG/AR/COC/Work Order: 374106
Received By: H. Taylor		Date Received: 053015
Suspected Hazard Information	Yes <input type="checkbox"/> No <input type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0cpm
Classified Radioactive II or III by RSO?	<input checked="" type="checkbox"/>	If yes, Were swipes taken of sample containers < action levels?
COC/Samples marked containing PCBs?	<input checked="" type="checkbox"/>	
Package, COC, and/or Samples marked as beryllium or asbestos containing?	<input checked="" type="checkbox"/>	If yes, samples are to be segregated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?	<input checked="" type="checkbox"/>	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?	<input checked="" type="checkbox"/>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius 23
2a Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: 121092024949 Secondary Temperature Device Serial # (If Applicable):
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 Do Low Level Perchlorate samples (EPA 6850) have headspace as required?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
7 VOA vials free of headspace (defined as < 6mm bubble)?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
8 Are Encore containers present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(If yes, immediately deliver to Volatiles laboratory)
9 Samples received within holding time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
10 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
11 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
12 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
13 Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15 Carrier and tracking number.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other 8064 8112 1430 1440

Comments (Use Continuation Form if needed):

GEL Laboratories LLC – Login Review Report

Report Date: 20-JUL-15
 Work Order: 374106
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GEL Work Order/SDG: 374106
 Client SDG: 374106
 Project Manager: Julie Robinson
 Project Name: DNMI00107 Tailings 2015 Characterization
 Purchase Order: DW16138
 Package Level: LEVEL3
 EDD Format: EIM_DNMI

Work Order Due Date: 20-JUL-15
 Package Due Date: 17-JUL-15
 EDD Due Date: 20-JUL-15
 Due Date: 20-JUL-15
 JAR1

Collector: C
 Prelogin #: 20150631080
 Project Workdef ID: 1330584
 SDG Status: Closed
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
374106001	Cell 1		28-MAY-15 06:50	30-MAY-15 08:35	-2	2	WATER		20		1		
374106002	Cell 3		28-MAY-15 07:00	30-MAY-15 08:35	-2	2	WATER		20		1		
374106003	Cell 4A		28-MAY-15 07:15	30-MAY-15 08:35	-2	2	WATER		20		1		
374106004	Cell 4A LDS		28-MAY-15 07:20	30-MAY-15 08:35	-2	2	WATER		20		1		
374106005	Cell 4B		28-MAY-15 07:30	30-MAY-15 08:35	-2	2	WATER		20		1		
374106006	Cell 4B LDS		28-MAY-15 07:40	30-MAY-15 08:35	-2	2	WATER		20		1		
374106007	Cell 65		28-MAY-15 07:15	30-MAY-15 08:35	-2	2	WATER		20		1		
374106008	Cell 1 Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 06:50	30-MAY-15 08:35	-2	2	WATER		20		2		
374106009	Cell 3 Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 07:00	30-MAY-15 08:35	-2	2	WATER		20		2		
374106010	Cell 4A Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 07:15	30-MAY-15 08:35	-2	2	WATER		20		2		
374106011	Cell 4A LDS Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 07:20	30-MAY-15 08:35	-2	2	WATER		20		2		
374106012	Cell 4B Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 07:30	30-MAY-15 08:35	-2	2	WATER		20		2		
374106013	Cell 4B LDS Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 07:40	30-MAY-15 08:35	-2	2	WATER		20		2		
374106014	Cell 65 Barium Sulfate Precipitate	Barium Sulfate Precipitate	28-MAY-15 07:15	30-MAY-15 08:35	-2	2	WATER		20		2		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 Cell 1	RE VW	Alphaspec Th, Liquid			Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	RAD1,HZ
	RE VW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236	Temperature (C)		23	
	RE VW	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
	RE VW	Laboratory Composite					
	RE VW	Lucas Cell, Ra226, liquid					
-002 Cell 3	RE VW	Alphaspec Th, Liquid			Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	RAD1,HZ
	RE VW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236	Temperature (C)		23	
	RE VW	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
	RE VW	Laboratory Composite					
	RE VW	Lucas Cell, Ra226, liquid					

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-003 Cell 4A	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	GFPC, Total Alpha Radium, Liquid	Gross Alpha						
	REVW	Laboratory Composite							
REVW	Lucas Cell, Ra226, liquid								
-004 Cell 4A LDS	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	GFPC, Total Alpha Radium, Liquid	Gross Alpha						
	REVW	Laboratory Composite							
REVW	Lucas Cell, Ra226, liquid								
-005 Cell 4B	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	GFPC, Total Alpha Radium, Liquid	Gross Alpha						
	REVW	Laboratory Composite							
REVW	Lucas Cell, Ra226, liquid								
-006 Cell 4B LDS	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	GFPC, Total Alpha Radium, Liquid	Gross Alpha						
	REVW	Laboratory Composite							
REVW	Lucas Cell, Ra226, liquid								
-007 Cell 65	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	GFPC, Total Alpha Radium, Liquid	Gross Alpha						
	REVW	Laboratory Composite							
REVW	Lucas Cell, Ra226, liquid								
-008 Cell 1 Barium Sulfate Precipitate	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	Lucas Cell, Ra226, liquid							
-009 Cell 3 Barium Sulfate Precipitate	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	Lucas Cell, Ra226, liquid							
-010 Cell 4A Barium Sulfate Precipitate	REVW	Alphaspec Th, Liquid		Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ		
	REVW	U- 233/234,U-235/236 and U-238	U- 233/234,U-235/236					Temperature (C)	23
	REVW	Lucas Cell, Ra226, liquid							

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-011 Cell 4A LDS Barium Sulfate Precipitate	REVW Alphaspec Th, Liquid	U- 233/234,U-235/236 and U-238 U- 233/234,U-235/236	Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Cooler Seal Undisturbed	Y	RAD1,HZ
	REVW Lucas Cell, Ra226, liquid			Temperature (C)	23	
	REVW Alphaspec Th, Liquid			Cooler Seal Undisturbed	Y	
-012 Cell 4B Barium Sulfate Precipitate	REVW U- 233/234,U-235/236 and U-238 U- 233/234,U-235/236	U- 233/234,U-235/236	Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Temperature (C)	23	RAD1,HZ
	REVW Lucas Cell, Ra226, liquid			Cooler Seal Undisturbed	Y	
	REVW Alphaspec Th, Liquid			Cooler Seal Undisturbed	Y	
-013 Cell 4B LDS Barium Sulfate Precipitate	REVW U- 233/234,U-235/236 and U-238 U- 233/234,U-235/236	U- 233/234,U-235/236	Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Temperature (C)	23	RAD1,HZ
	REVW Lucas Cell, Ra226, liquid			Cooler Seal Undisturbed	Y	
	REVW Alphaspec Th, Liquid			Cooler Seal Undisturbed	Y	
-014 Cell 65 Barium Sulfate Precipitate	REVW U- 233/234,U-235/236 and U-238 U- 233/234,U-235/236	U- 233/234,U-235/236	Handle these samples with caution, they are low pH with high metals concentrations (some in the percent range). Likely they will be difficult to filter.....Safety, safety, safety!	Temperature (C)	23	RAD1,HZ
	REVW Lucas Cell, Ra226, liquid			Cooler Seal Undisturbed	Y	
	REVW Alphaspec Th, Liquid			Cooler Seal Undisturbed	Y	

Product: ASP_THL Workdef ID: 1367058 In Product Group? No Group Name: Group Reference:
 Method: DOE EML HASL-300, Th-01-RC Modified Path: Standard
 Product Description: Alphaspec Th, Liquid Product Reference:
 Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014 Moisture Correction: "As Received"

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
14274-82-9	Thorium-228	1	pCi/L	REG	Y	Y	No
14269-63-7	Thorium-230	1	pCi/L	REG	Y	Y	
7440-29-1	Thorium-232	1	pCi/L	REG	Y	Y	

Product: ASP_UUL Workdef ID: 1367059 In Product Group? No Group Name: Group Reference:
 Method: DOE EML HASL-300, U-02-RC Modified Path: Standard
 Product Description: U- 233/234,U-235/236 and U-238 Product Reference: U- 233/234,U-235/236
 Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014 Moisture Correction: "As Received"

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
13968-55-3/13966-	Uranium-233/234	1	pCi/L	REG	Y	Y	No
15117-96-1/13982-	Uranium-235/236	1	pCi/L	REG	Y	Y	
7440-61-1	Uranium-238	1	pCi/L	REG	Y	Y	

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Product: GFCTORAL Workdef ID: 1367060 In Product Group? No Group Name: Group Reference:

Method: EPA 900.1 Modified Path: Standard
 Product Description: GFPC, Total Alpha Radium, Liquid Product Reference: Gross Alpha
 Samples: 001, 002, 003, 004, 005, 006, 007 Moisture Correction: "As Received"
 Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

Product: LABCOMP_L Workdef ID: 1367061 In Product Group? No Group Name: Group Reference:

Method: Path: Standard
 Product Description: Laboratory Composite Product Reference:
 Samples: 001, 002, 003, 004, 005, 006, 007 Moisture Correction: "As Received"
 Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
							No

Product: LUC26RAL Workdef ID: 1367062 In Product Group? No Group Name: Group Reference:

Method: EPA 903.1 Modified Path: Standard
 Product Description: Lucas Cell, Ra226, liquid Product Reference:
 Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014 Moisture Correction: "As Received"
 Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
13982-63-3	Radium-226	1	pCi/L	REG	Y	Y	No

Action	Product Name	Description	Samples
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Contingent Tests

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Login Requirements:

Requirement	Include? Comments
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Peer Review by: _____ Work Order (SDG#), PO# Checked? _____ C of C signed in receiver location? _____

List of current GEL Certifications as of 20 July 2015

State	Certification
Alaska	UST-110
Arkansas	88-0651
CLIA	42D0904046
California	2940 Interim
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC000122013-10
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-12-00283, P330-12-00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC000122013-10
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA150001
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC000122013-10
Nebraska	NE-OS-26-13
Nevada	SC000122014-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68-00485
Plant Material Permit	PDEP-12-00260
S.Carolina Radchem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-15-10
Utah NELAP	SC000122015-17
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

**Radiochemistry
Technical Case Narrative
Energy Fuels Resources (DNMI)
SDG #: 374106**

Method/Analysis Information

Product: Alphaspec Th, Liquid
Analytical Method: DOE EML HASL-300, Th-01-RC Modified
Analytical Batch Number: 1483754

Sample ID	Client ID
374106001	Cell 1
374106002	Cell 3
374106003	Cell 4A
374106004	Cell 4A LDS
374106005	Cell 4B
374106006	Cell 4B LDS
374106007	Cell 65
374106008	Cell 1 Barium Sulfate Precipitate
374106009	Cell 3 Barium Sulfate Precipitate
374106010	Cell 4A Barium Sulfate Precipitate
374106011	Cell 4A LDS Barium Sulfate Precipitate
374106012	Cell 4B Barium Sulfate Precipitate
374106013	Cell 4B LDS Barium Sulfate Precipitate
374106014	Cell 65 Barium Sulfate Precipitate
1203332078	Method Blank (MB)
1203332080	Laboratory Control Sample (LCS)
1203332079	374106003(Cell 4A) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 16.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:**Blank Information**

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 374106003 (Cell 4A).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER).

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

None of the samples in this sample set were recounted.

Miscellaneous Information:**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER 1423924 was generated due to RDL less than MDA. 1. Samples 374106004 and 374106011 did not meet the Th-228 detection limit due to the small sample aliquots used. The blank, 1203332078, did not meet the Th-228, Th-230, and Th-232 detection limit due to keeping the volume consistent with the other sample aliquots. 1. The sample aliquots and count times were reduced due to the high activity of Th-230 and in attempt to minimize interferences and tailing from the Th-230 region of interest. Reporting results.

Manual Integration

Manual integrations of alpha spectroscopy spectra 1203332079 (Cell 4ADUP), 374106001 (Cell 1), 374106002 (Cell 3), 374106003 (Cell 4A), 374106005 (Cell 4B), 374106006 (Cell 4B LDS), 374106008 (Cell 1 Barium Sulfate Precipitate), 374106010 (Cell 4A Barium Sulfate Precipitate) and 374106012 (Cell 4B Barium Sulfate Precipitate) were performed to fully separate counts in Regions of Interest which would have been biased.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: U- 233/234,U-235/236 and U-238
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number: 1488049

Sample ID	Client ID
374106001	Cell 1
374106002	Cell 3
374106003	Cell 4A
374106004	Cell 4A LDS
374106005	Cell 4B
374106006	Cell 4B LDS
374106007	Cell 65
1203342966	Method Blank (MB)
1203342968	Laboratory Control Sample (LCS)
1203342967	374106001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 25.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volumes in this batch.

Designated QC

The following sample was used for QC: 374106001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: The U-238 blank activity is greater than the MDC but is less than five percent of the lowest activity in the batch. The U-233/234 and U-235/236 blank did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

Samples were re-prepped due to low carrier/tracer yield. The re-analysis is being reported.

Recounts

Samples 1203342966 (MB) and 374106006 (Cell 4B LDS) were recounted due to a peak shift. The recounts are reported.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration

No manual integrations were performed on data in this batch.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: U- 233/234,U-235/236 and U-238
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number: 1491318

Sample ID	Client ID
374106008	Cell 1 Barium Sulfate Precipitate
374106009	Cell 3 Barium Sulfate Precipitate
374106010	Cell 4A Barium Sulfate Precipitate
374106011	Cell 4A LDS Barium Sulfate Precipitate
374106012	Cell 4B Barium Sulfate Precipitate
374106013	Cell 4B LDS Barium Sulfate Precipitate
374106014	Cell 65 Barium Sulfate Precipitate
1203350839	Method Blank (MB)
1203350841	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 25.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volumes in this batch.

Designated QC

The following sample was used for QC: 374106008 (Cell 1 Barium Sulfate Precipitate).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER).

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

Samples were reprep'd twice due to low tracer yield recoveries. The third analysis is being reported.

Recounts

Samples 1203350839 (MB), 1203350840 (Cell 1 Barium Sulfate PrecipitateDUP), 374106008 (Cell 1 Barium Sulfate Precipitate), 374106009 (Cell 3 Barium Sulfate Precipitate), 374106010 (Cell 4A Barium Sulfate Precipitate), 374106011 (Cell 4A LDS Barium Sulfate Precipitate), 374106012 (Cell 4B Barium Sulfate Precipitate), 374106013 (Cell 4B LDS Barium Sulfate Precipitate) and 374106014 (Cell 65 Barium Sulfate Precipitate) were recounted due to high MDCs. The recounts are reported.

Miscellaneous Information:

Data Exception (DER) Documentation

A data exception report (DER) 1431047 was generated for samples 1203350839 (MB), 1203350840 (Cell 1 Barium Sulfate PrecipitateDUP), 374106009 (Cell 3 Barium Sulfate Precipitate), 374106010 (Cell 4A Barium Sulfate Precipitate), 374106011 (Cell 4A LDS Barium Sulfate Precipitate), 374106012 (Cell 4B Barium Sulfate Precipitate) and 374106014 (Cell 65 Barium Sulfate Precipitate) in this SDG/batch. DER 1431047 was generated

due to RDL less than MDA and Method Blank contamination. 1. The U-233/234 Method blank 1203350839 result is greater than the MDC. 2. Sample 374106009 did not meet the detection limits for U-235/236; Sample 374106010 did not meet the detection limits for U-233/234, U-235/236, and U-238; Samples 374106011 and 1203350839 did not meet the detection limits for U-235/236 and U-238; Sample 374106012 did not meet the detection limits for U-233/234 and U-235/236; Sample 374106014 did not meet the detection limits for U-235/236; and Sample 1203350840 did not meet the detection limits for U-233/234 due to small aliquots used. 1. Results are being qualified accordingly. Reporting results. 2. Aliquots were reduced on the reanalysis in order to achieve acceptable tracer yield recoveries. Samples were counted for the maximum count time of 1000 minutes in order to achieve the best MDC's possible. Reporting results.

Manual Integration

No manual integrations were performed on data in this batch.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Qualifier	Reason	Analyte	Sample	Client Sample
X	U-233/234 result may be biased high due to Method blank contamination.	Uranium-233/234	374106008	Cell 1 Barium Sulfate Precipitate
			374106009	Cell 3 Barium Sulfate Precipitate
			374106011	Cell 4A LDS Barium Sulfate Precipitate
			374106013	Cell 4B LDS Barium Sulfate Precipitate
			374106014	Cell 65 Barium Sulfate Precipitate

Method/Analysis Information

Product: GFPC, Total Alpha Radium, Liquid
Analytical Method: EPA 900.1 Modified
Analytical Batch Number: 1483751

Sample ID	Client ID
374106001	Cell 1
374106002	Cell 3
374106003	Cell 4A
374106004	Cell 4A LDS
374106005	Cell 4B
374106006	Cell 4B LDS
374106007	Cell 65
1203332064	Method Blank (MB)
1203332068	Laboratory Control Sample (LCS)
1203332065	374106001(Cell 1) Sample Duplicate (DUP)
1203332066	374106001(Cell 1) Matrix Spike (MS)
1203332067	374106001(Cell 1) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-010 REV# 15.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 374106001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: The blank, 1203332064 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits. The sample and the duplicate, 1203332065 (Cell 1DUP) and 374106001 (Cell 1), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with a value of 2.442.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries

All chemical recoveries meet the required acceptance limits for this sample set.

Recounts

Sample 1203332067 (Cell 1MSD) was recounted due to high recovery. The recount is reported.

Miscellaneous Information:**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

The matrix spike and matrix spike duplicate, 1203332066 (Cell 1MS) and 1203332067 (Cell 1MSD), aliquots were reduced to conserve sample volume.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: Lucas Cell, Ra226, liquid
Analytical Method: EPA 903.1 Modified
Analytical Batch Number: 1483752

Sample ID	Client ID
374106001	Cell 1
374106002	Cell 3
374106003	Cell 4A
374106004	Cell 4A LDS
374106005	Cell 4B
374106006	Cell 4B LDS
374106007	Cell 65
374106008	Cell 1 Barium Sulfate Precipitate
374106009	Cell 3 Barium Sulfate Precipitate
374106010	Cell 4A Barium Sulfate Precipitate
374106011	Cell 4A LDS Barium Sulfate Precipitate
374106012	Cell 4B Barium Sulfate Precipitate
374106013	Cell 4B LDS Barium Sulfate Precipitate
374106014	Cell 65 Barium Sulfate Precipitate

1203332071	Method Blank (MB)
1203332074	Laboratory Control Sample (LCS)
1203332072	374106002(Cell 3) Sample Duplicate (DUP)
1203332073	374106002(Cell 3) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 374106002 (Cell 3).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER).

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

None of the samples in this sample set were recounted.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER 1423964 was generated due to RDL less than MDA. 1. Samples 374106003, 374106004, 374106011, and 1203332071 do not meet the required detection limit because the aliquots were reduced due to the matrix of the samples. The samples were counted the maximum count time of 30 minutes to achieve the best possible results. 1. Reporting results.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 374106 GEL Work Order: 374106

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the CRDL.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:



Name: Kate Gellatly

Date: 20 JUL 2015

Title: Analyst I

DATA EXCEPTION REPORT

Mo. Day Yr. 24-JUN-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: ALPHA SPECTROMETER	Test / Method: DOE EML HASL-300, Th-01-RC Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1483754	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 374106			
Application Issues: RDL less than MDA			
Specification and Requirements Exception Description:		DER Disposition:	
1. Samples 374106004 and 374106011 did not meet the Th-228 detection limit due to the small sample aliquots used. The blank, 1203332078, did not meet the Th-228, Th-230, and Th-232 detection limit due to keeping the volume consistent with the other sample aliquots.		1. The sample aliquots and count times were reduced due to the high activity of Th-230 and in attempt to minimize interferences and tailing from the Th-230 region of interest. Reporting results.	

Originator's Name:

Melanie Aycock 24-JUN-15

Data Validator/Group Leader:

Jessica Davis 24-JUN-15

DATA EXCEPTION REPORT

Mo. Day Yr. 24-JUN-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: LUCAS CELL DETECTOR	Test / Method: EPA 903.1 Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1483752	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 374106			
Application Issues: RDL less than MDA			
Specification and Requirements Exception Description:		DER Disposition:	
1. Samples 374106003, 374106004, 374106011, and 1203332071 do not meet the required detection limit because the aliquots were reduced due to the matrix of the samples. The samples were counted the maximum count time of 30 minutes to achieve the best possible results.		1. Reporting results.	

Originator's Name:
Lyndsey Pace 24-JUN-15

Data Validator/Group Leader:
Angela Johnson 24-JUN-15

DATA EXCEPTION REPORT

Mo.Day Yr. 20-JUL-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: ALPHA SPECTROMETER	Test / Method: DOE EML HASL-300, U-02-RC Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1491318	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 374106			
Application Issues: RDL less than MDA Method Blank contamination			
Specification and Requirements Exception Description:		DER Disposition:	
<p>1. The U-233/234 Method blank 1203350839 result is greater than the MDC.</p> <p>2. Sample 374106009 did not meet the detection limits for U-235/236; Sample 374106010 did not meet the detection limits for U-233/234, U-235/236, and U-238; Samples 374106011 and 1203350839 did not meet the detection limits for U-235/236 and U-238; Sample 374106012 did not meet the detection limits for U-233/234 and U-235/236; Sample 374106014 did not meet the detection limits for U-235/236; and Sample 1203350840 did not meet the detection limits for U-233/234 due to small aliquots used.</p>		<p>1. Results are being qualified accordingly. Reporting results.</p> <p>2. Aliquots were reduced on the reanalysis in order to achieve acceptable tracer yield recoveries. Samples were counted for the maximum count time of 1000 minutes in order to achieve the best MDC's possible. Reporting results.</p>	

Originator's Name:
Jessica Downey 20-JUL-15

Data Validator/Group Leader:
Jessica Davis 20-JUL-15

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: July 20, 2015

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Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado
Contact: Ms. Kathy Weinel

Workorder: 374106

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	1483754										
QC1203332079	374106003	DUP									
Thorium-228		327		387	pCi/L	16.8		(0% - 100%)	HAKB	06/23/15	14:2
	Uncertainty	+/-101		+/-122							
Thorium-230		4.05E+05		4.23E+05	pCi/L	4.42		(0%-20%)			
	Uncertainty	+/-3330		+/-3730							
Thorium-232		3440		4160	pCi/L	18.9		(0%-20%)			
	Uncertainty	+/-308		+/-371							
QC1203332080	LCS										
Thorium-228				1660	pCi/L					06/23/15	14:2
	Uncertainty			+/-200							
Thorium-230				350	pCi/L			(75%-125%)			
	Uncertainty			+/-97.8							
Thorium-232	1990			1650	pCi/L		83.1	(75%-125%)			
	Uncertainty			+/-199							
QC1203332078	MB										
Thorium-228			U	-5.11	pCi/L					06/23/15	14:2
	Uncertainty			+/-34.8							
Thorium-230			U	146	pCi/L						
	Uncertainty			+/-84.5							
Thorium-232			U	33.6	pCi/L						
	Uncertainty			+/-48.6							
Batch	1488049										
QC1203342967	374106001	DUP									
Uranium-233/234		96700		1.01E+05	pCi/L	3.82		(0%-20%)	HAKB	07/08/15	15:4
	Uncertainty	+/-1420		+/-1380							
Uranium-235/236		5980		6440	pCi/L	7.35		(0%-20%)			
	Uncertainty	+/-399		+/-391							
Uranium-238		1.00E+05		99700	pCi/L	0.543		(0%-20%)			
	Uncertainty	+/-1450		+/-1370							
QC1203342968	LCS										
Uranium-233/234				27300	pCi/L					07/08/15	15:4
	Uncertainty			+/-636							
Uranium-235/236				1590	pCi/L						
	Uncertainty			+/-175							
Uranium-238	27200			28500	pCi/L		105	(75%-125%)			
	Uncertainty			+/-652							
QC1203342966	MB										
Uranium-233/234			U	205	pCi/L					07/09/15	13:4
	Uncertainty			+/-100							
Uranium-235/236			U	161	pCi/L						
	Uncertainty			+/-76.5							

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	1488049										
Uranium-238				336	pCi/L						
	Uncertainty			+/-95.1							
Batch	1491318										
QC1203350840	374106008	DUP									
Uranium-233/234	X	778	U	203	pCi/L	59.0		(0% - 100%)	HAKB	07/18/15	11:4
	Uncertainty	+/-128		+/-130							
Uranium-235/236		200		193	pCi/L	3.90		(0% - 100%)			
	Uncertainty	+/-75.0		+/-77.1							
Uranium-238		697		437	pCi/L	46.0		(0% - 100%)			
	Uncertainty	+/-122		+/-96.1							
QC1203350841	LCS										
Uranium-233/234				29400	pCi/L					07/17/15	09:5
	Uncertainty			+/-1640							
Uranium-235/236				2160	pCi/L						
	Uncertainty			+/-516							
Uranium-238		27200		30000	pCi/L		110	(75%-125%)			
	Uncertainty			+/-1650							
QC1203350839	MB										
Uranium-233/234				414	pCi/L					07/18/15	11:4
	Uncertainty			+/-113							
Uranium-235/236			U	66.8	pCi/L						
	Uncertainty			+/-66.8							
Uranium-238			U	234	pCi/L						
	Uncertainty			+/-97.0							
Rad Gas Flow											
Batch	1483751										
QC1203332065	374106001	DUP									
Gross Radium Alpha		73800		1.00E+05	pCi/L	30.5*		(0%-20%)	AXM6	06/25/15	16:2
	Uncertainty	+/-80.6		+/-97.2							
QC1203332068	LCS										
Gross Radium Alpha		8250		10100	pCi/L		122	(75%-125%)		06/25/15	16:4
	Uncertainty			+/-118							
QC1203332064	MB										
Gross Radium Alpha			U	-2.86	pCi/L					06/25/15	16:3
	Uncertainty			+/-1.66							
QC1203332066	374106001	MS									
Gross Radium Alpha		83300	73800	1.51E+05	pCi/L		92.8	(75%-125%)		06/25/15	16:3
	Uncertainty	+/-80.6		+/-1340							
QC1203332067	374106001	MSD									
Gross Radium Alpha		83300	73800	1.49E+05	pCi/L	1.27	90.5	(0%-20%)		06/26/15	09:4
	Uncertainty	+/-80.6		+/-1160							
Rad Ra-226											
Batch	1483752										
QC1203332072	374106002	DUP									
Radium-226		202		219	pCi/L	7.98		(0%-20%)	CXP3	06/23/15	11:0
	Uncertainty	+/-19.3		+/-18.8							

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226											
Batch	1483752										
QC1203332074	LCS										
Radium-226	1240			1180	pCi/L		95.5	(75%-125%)	CXP3	06/23/15	11:3
	Uncertainty			+/-42.1							
QC1203332071	MB										
Radium-226			U	26.8	pCi/L					06/23/15	11:0
	Uncertainty			+/-9.47							
QC1203332073	374106002 MS										
Radium-226	1240	202		1550	pCi/L		109	(75%-125%)		06/23/15	11:3
	Uncertainty		+/-19.3	+/-50.7							

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the CRDL.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

GEL LABORATORIES LLC

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Y		QC Samples were not spiked with this compound									
^		RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
h		Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.



March 03, 2015

Ms. Kathy Weinel
Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado 80228

Re: White Mesa Mill GW
Work Order: 367293

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 25, 2014. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4487.

Sincerely,

Hope Taylor for
Sylainna Rivers
Project Manager

Purchase Order: DW16138
Enclosures



Energy Fuels Resources (USA), Inc.
White Mesa Mill GW
SDG: 367293

**Receipt Narrative
for
Energy Fuels Resources (USA), Inc.
SDG: 367293**

March 03, 2015

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on August 25, 2014 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
367293001	Cell 1
367293002	Cell 2 Slimes
367293003	Cell 3
367293004	Cell 4A
367293005	Cell 4A LDS
367293006	Cell 4B
367293007	Cell 4B LDS
367293008	Cell 65
367293009	Cell 1
367293010	Cell 2 Slimes
367293011	Cell 3
367293012	Cell 4A
367293013	Cell 4A LDS
367293014	Cell 4B LDS
367293015	Cell 65
367293016	Cell 4B

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

A handwritten signature in black ink, appearing to read 'Hope Taylor' with a stylized flourish at the end.

Hope Taylor for
Sylainna Rivers
Project Manager



Reloading of 355 @ 103.
New Worker
358469
AR 10/14/14

CHAIN OF CUSTODY

Samples Shipped to:

Gel Laboratories
2040 Savage Road
Charleston, SC 29407

Contact: Garrin Palmer
Ph: 435 678 4115
gpalmer@energyfuels.com

Chain of Custody/Sampling Analysis Request

Project	Samplers Name		Samplers Signature
Waste Water 2014 (Annual Tails)	Tanner Holliday		
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
Cell 1	8/19/2014	815	Gross Alpha
Cell 2 Slimes	8/19/2014	825	Gross Alpha
Cell 3	8/19/2014	900	Gross Alpha
Cell 4A	8/19/2014	925	Gross Alpha
Cell 4A LDS	8/19/2014	940	Gross Alpha
Cell 4B	8/19/2014	1010	Gross Alpha
Cell 4B LDS	8/19/2014	1000	Gross Alpha
Cell 65	8/19/2014	0925 ^{SA}	Gross Alpha
Comments:			
Relinquished By:(Signature) Tanner Holliday	Date/Time 8/21/2014 1000	Received By:(Signature)	Date/Time
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time

Samples are NOT Field Filtered!



* Kelly
355403 New
work order
358469
SR
10/14/11

Client: <u>DDMI</u>		SDG/AR/COC/Work Order: <u>355403</u>
Received By: <u>P. Went</u>		Date Received: <u>8/25/14</u>
Suspected Hazard Information	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?	<input type="checkbox"/> <input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0/cpm</u>
Classified Radioactive II or III by RSO?	<input type="checkbox"/> <input checked="" type="checkbox"/>	If yes, Were swipes taken of sample containers < action levels?
COC/Samples marked containing PCBs?	<input type="checkbox"/> <input checked="" type="checkbox"/>	
Package, COC, and/or Samples marked as beryllium or asbestos containing?	<input type="checkbox"/> <input checked="" type="checkbox"/>	If yes, samples are to be segregated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?	<input type="checkbox"/> <input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____
Samples identified as Foreign Soil?	<input type="checkbox"/> <input checked="" type="checkbox"/>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			<input checked="" type="checkbox"/>	Preservation Method: Ice bags Blue ice Dry ice <u>None</u> Other (describe) <u>2/c</u> *all temperatures are recorded in Celsius
2a) Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: Secondary Temperature Device Serial # (If Applicable): <u>130462966</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?			<input checked="" type="checkbox"/>	Sample ID's and containers affected: (If yes, immediately deliver to Volatiles laboratory)
7 Are Encore containers present?			<input checked="" type="checkbox"/>	ID's and tests affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
10 Date & time on COC match date & time on bottles?			<input checked="" type="checkbox"/>	<u>CELL 65 TIME ON Sample 09:25</u>
11 Number of containers received match number indicated on COC?			<input checked="" type="checkbox"/>	<u>Lab rec'd (1) container each</u>
12 Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>			
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			
14 Carrier and tracking number.			<input checked="" type="checkbox"/>	Circle Applicable: FedEx Air FedEx Ground <u>UPS</u> Field Services Courier Other <u>12 187 Y4Y 02 9348 9662</u>

Comments (Use Continuation Form if needed):

GEL Laboratories LLC – Login Review Report

Report Date: 03-MAR-15

Work Order: 367293

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GEL Work Order/SDG: 367293 Relog of 358469001
 Client SDG: 367293
 Project Manager: Sylainna Rivers
 Project Name: DNMI00100 White Mesa Mill GW
 Purchase Order: DW16138
 Package Level: LEVEL3
 EDD Format: EIM_DNMI

Work Order Due Date: 04-MAR-15
 Package Due Date: 02-MAR-15
 EDD Due Date: 04-MAR-15
 Due Date: 04-MAR-15

Collector: C
 Prelogin #: 20140820530
 Project Workdef ID: 1294356
 SDG Status: Closed
 Logged by: HXS1

GL Review Fractions: Rad

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
367293001	Cell 1	-Relog from 355403001–Relog from 358469001	19-AUG-14 08:15	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293002	Cell 2 Slimes	-Relog from 355403002–Relog from 358469002	19-AUG-14 08:25	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293003	Cell 3	-Relog from 355403003–Relog from 358469003	19-AUG-14 09:00	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293004	Cell 4A	-Relog from 355403004–Relog from 358469004	19-AUG-14 09:25	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293005	Cell 4A LDS	-Relog from 355403005–Relog from 358469005	19-AUG-14 09:40	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293006	Cell 4B	-Relog from 355403006–Relog from 358469006	19-AUG-14 10:10	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293007	Cell 4B LDS	-Relog from 355403007–Relog from 358469007	19-AUG-14 10:00	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293008	Cell 65	-Relog from 355403008–Relog from 358469008	19-AUG-14 09:40	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293009	Cell 1	Barium Sulfate Precipitate	19-AUG-14 08:15	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293010	Cell 2 Slimes	Barium Sulfate Precipitate	19-AUG-14 08:25	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293011	Cell 3	Barium Sulfate Precipitate	19-AUG-14 09:00	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293012	Cell 4A	Barium Sulfate Precipitate	19-AUG-14 09:25	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293013	Cell 4A LDS	-Relog from 355403005–Relog from 358469005–Relog f	19-AUG-14 09:40	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293014	Cell 4B LDS	Barium Sulfate Precipitate	19-AUG-14 10:00	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293015	Cell 65	Barium Sulfate Precipitate	19-AUG-14 09:40	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		
367293016	Cell 4B	-Relog from 355403006–Relog from 358469006–Relog f	19-AUG-14 10:10	25-AUG-14 09:00	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 Cell 1	NEW	U233/234,235/236,238 only	U233/234,235/236,238				REV
	NEW	Alphaspec Th, Liquid					
	NEW	Lucas Cell, Ra226, liquid					
-002 Cell 2 Slimes	NEW	U233/234,235/236,238 only	U233/234,235/236,238				REV
	NEW	Alphaspec Th, Liquid					
	NEW	Lucas Cell, Ra226, liquid					
-003 Cell 3	NEW	U233/234,235/236,238 only	U233/234,235/236,238				REV

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	NEW	Alphaspec Th, Liquid		
	NEW	Lucas Cell, Ra226, liquid		
-004 Cell 4A	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	NEW	Lucas Cell, Ra226, liquid		
-005 Cell 4A LDS	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	NEW	Lucas Cell, Ra226, liquid		
-006 Cell 4B	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	NEW	Lucas Cell, Ra226, liquid		
-007 Cell 4B LDS	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	NEW	Lucas Cell, Ra226, liquid		
-008 Cell 65	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	NEW	Lucas Cell, Ra226, liquid		
-009 Cell 1	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	REVV	Laboratory Composite		
	NEW	Lucas Cell, Ra226, liquid		
-010 Cell 2 Slimes	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	REVV	Laboratory Composite		
	NEW	Lucas Cell, Ra226, liquid		
-011 Cell 3	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	REVV	Laboratory Composite		
	NEW	Lucas Cell, Ra226, liquid		
-012 Cell 4A	NEW	U233/234,235/236,238 only	U233/234,235/236,238	REV
	NEW	Alphaspec Th, Liquid		
	REVV	Laboratory Composite		
	NEW	Lucas Cell, Ra226, liquid		
-013 Cell 4A LDS	REVV	U233/234,235/236,238 only	U233/234,235/236,238	REV
	REVV	Alphaspec Th, Liquid		
	REVV	Laboratory Composite		

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-014 Cell 4B LDS	REVW Lucas Cell, Ra226, liquid								
	NEW U233/234,235/236,238 only	U233/234,235/236,238							REV
	NEW Alphaspec Th, Liquid								
	REVW Laboratory Composite								
-015 Cell 65	NEW Lucas Cell, Ra226, liquid								
	NEW U233/234,235/236,238 only	U233/234,235/236,238							REV
	NEW Alphaspec Th, Liquid								
	REVW Laboratory Composite								
-016 Cell 4B	NEW Lucas Cell, Ra226, liquid								
	NEW U233/234,235/236,238 only	U233/234,235/236,238							REV
	NEW Alphaspec Th, Liquid								
	REVW Laboratory Composite								
	NEW Lucas Cell, Ra226, liquid								

Product: LUC26RAL	Workdef ID: 1360673	In Product Group? No	Group Name:	Group Reference:
Method: EPA 903.1 Modified				Path: Standard
Product Description: Lucas Cell, Ra226, liquid				Product Reference:
Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016				Moisture Correction: "As Received"
Parmname Check: All parmnames scheduled properly				

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
13982-63-3	Radium-226	1	pCi/L	REG	Y	Y	No

Product: ASP__THL	Workdef ID: 1360675	In Product Group? No	Group Name:	Group Reference:
Method: DOE EML HASL-300, Th-01-RC Modified				Path: Standard
Product Description: Alphaspec Th, Liquid				Product Reference:
Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016				Moisture Correction: "As Received"
Parmname Check: All parmnames scheduled properly				

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
14274-82-9	Thorium-228	1	pCi/L	REG	Y	Y	No
14269-63-7	Thorium-230	1	pCi/L	REG	Y	Y	
7440-29-1	Thorium-232	1	pCi/L	REG	Y	Y	

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Product: ASPITUUL Workdef ID: 1360674 In Product Group? No Group Name:

Group Reference:

Method: DOE EML HASL-300, U-02-RC Modified

Path: Standard

Product Description: U233/234,235/236,238 only

Product Reference: U233/234,235/236,238

Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016

Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
13968-55-3/13966-	Uranium-233/234	1	pCi/L	REG	Y	Y	Yes
15117-96-1/13982-	Uranium-235/236	1	pCi/L	REG	Y	Y	
7440-61-1	Uranium-238	1	pCi/L	REG	Y	Y	

Product: LABCOMP_L Workdef ID: 1361212 In Product Group? No Group Name:

Group Reference:

Method:

Path: Standard

Product Description: Laboratory Composite

Product Reference:

Samples: 009, 010, 011, 012, 013, 014, 015, 016

Moisture Correction: "As Received"

Parmname Check: All parmnames scheduled properly

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
No							

Action	Product Name	Description	Samples
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Contingent Tests

Login Requirements:

Requirement	Include?	Comments
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Peer Review by: _____ Work Order (SDG#), PO# Checked? _____ C of C signed in receiver location? _____

List of current GEL Certifications as of 03 March 2015

State	Certification
Alaska	UST-110
Arkansas	88-0651
CLIA	42D0904046
California	2940 Interim
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC000122013-10
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-12-00283, P330-12-00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC000122013-10
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA150001
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC000122013-10
Nebraska	NE-OS-26-13
Nevada	SC000122014-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68-00485
Plant Material Permit	PDEP-12-00260
South Carolina Chemistry	10120001
South Carolina GVL	23611001
South Carolina Radiochemi	10120002
Tennessee	TN 02934
Texas NELAP	T104704235-15-10
Utah NELAP	SC000122014-16
Vermont	VT87156
Virginia NELAP	460202
Washington	C780-12

**Radiochemistry
Technical Case Narrative
Energy Fuels Resources (DNMI)
SDG #: 367293**

Method/Analysis Information

Product: U- 233/234,U-235/236 and U-238
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number: 1462310

Sample ID	Client ID
367293001	Cell 1
367293002	Cell 2 Slimes
367293003	Cell 3
367293004	Cell 4A
367293005	Cell 4A LDS
367293006	Cell 4B
367293007	Cell 4B LDS
367293008	Cell 65
1203276229	Method Blank (MB)
1203276231	Laboratory Control Sample (LCS)
1203276230	367293001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 25.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 367293001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER). The sample and the duplicate, 1203276230 (Cell 1DUP) and 367293001 (Cell 1), did not meet the U-233/234 and U-238 relative percent difference requirement; however, they do meet the relative error ratio requirement with a value of 1.39 and 1.13 respectively.

Technical Information:

Holding Time

Refer to Data Exception Report (DER). 1203276230 (Cell 1DUP), 367293001 (Cell 1), 367293002 (Cell 2 Slimes), 367293003 (Cell 3), 367293004 (Cell 4A), 367293005 (Cell 4A LDS), 367293006 (Cell 4B), 367293007 (Cell 4B LDS) and 367293008 (Cell 65).

Sample Re-prep/Re-analysis

Samples 367293001 (Cell 1), 367293002 (Cell 2 Slimes), 367293003 (Cell 3), 367293004 (Cell 4A), 367293005 (Cell 4A LDS), 367293006 (Cell 4B), 367293007 (Cell 4B LDS) and 367293008 (Cell 65) were re-prepped due to high activity and low tracer yields. The re-analysis is reported.

Recounts

None of the samples in this sample set were recounted.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER 1390340 was generated due to RDL less than MDA, Sample Analyzed out of Holding and Sample Logged out of Holding. 1. The method blank, 1203276229, does not meet the U-233/234, U-235/236, and U-238 detection limits due to keeping the volume consistent with the other sample aliquots. 2. Samples 367293001, 367293002, 367293003, 367293004, 367293005, 367293006, 367293007, 367293008, and 1203276230 were logged in and analyzed out of holding. 1. The sample aliquots and count times were reduced for the re-analysis due to high U-233/234 and U-238 activity and in attempt to achieve acceptable tracer yield recoveries. Reporting results. 2. Reporting results.

Manual Integration

No manual integrations were performed on data in this batch.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: Alphaspec Th, Liquid
Analytical Method: DOE EML HASL-300, Th-01-RC Modified
Analytical Batch Number: 1462492

Sample ID	Client ID
367293001	Cell 1
367293002	Cell 2 Slimes
367293003	Cell 3
367293004	Cell 4A
367293005	Cell 4A LDS
367293006	Cell 4B
367293007	Cell 4B LDS
367293008	Cell 65
367293009	Cell 1-Barium Sulfate Precipitate
367293010	Cell 2 Slimes-Barium Sulfate Precipitate
367293011	Cell 3-Barium Sulfate Precipitate
367293012	Cell 4A-Barium Sulfate Precipitate
367293013	Cell 4A LDS-Barium Sulfate Precipitate
367293014	Cell 4B LDS-Barium Sulfate Precipitate
367293015	Cell 65-Barium Sulfate Precipitate
367293016	Cell 4B-Barium Sulfate Precipitate
1203276674	Method Blank (MB)
1203276676	Laboratory Control Sample (LCS)
1203276675	367293001(Cell 1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 16.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 367293001 (Cell 1).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER).

Technical Information:

Holding Time

Refer to Data Exception Report (DER).

Sample Re-prep/Re-analysis

The batch was re-prepped due to high Th-230 activity and high tracer yields. The re-analysis is reported.

Recounts

Sample 367293011 (Cell 3-Barium Sulfate Precipitate) was recounted due to high carrier/tracer yield. The recount is reported.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER 1390358 was generated due to RDL less than MDA, Sample Analyzed out of Holding and Sample Logged out of Holding. 1. Samples 367293001, 367293005, 367293007, 367293011, 367293012, 367293014, and 367293016 did not meet the Th-228 detection limits and Samples 367293002, 367293010, and 367293013 did not meet the Th-228 and Th-232 detection limits due to the reduced sample aliquots. The method blank, 1203276674, does not meet the Th-228, Th-230 and Th-232 detection limits due to keeping the volume consistent with the other sample aliquots. 2. Samples 367293001, 367293002, 367293003, 367293004, 367293005, 367293006, 367293007, 367293008, 367293009, 367293010, 367293011, 367293012, 367293013, 367293014, 367293015, 367293016 and 1203276675 were logged in and analyzed out of holding. 1. The sample aliquots and count times were reduced for the re-analysis due to high Th-230 activity and in attempt to minimize interference and achieve acceptable tracer yield recoveries. Reporting results. 2. Reporting results.

Manual Integration

Manual integrations of alpha spectroscopy spectra 1203276675 (Cell 1DUP), 367293001 (Cell 1), 367293003 (Cell 3), 367293004 (Cell 4A), 367293006 (Cell 4B), 367293007 (Cell 4B LDS), 367293008 (Cell 65), 367293009 (Cell 1-Barium Sulfate Precipitate), 367293012 (Cell 4A-Barium Sulfate Precipitate) and 367293015 (Cell 65-Barium Sulfate Precipitate) were performed to fully separate counts in Regions of Interest which would have been biased.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: U- 233/234,U-235/236 and U-238
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number: 1463515

Sample ID	Client ID
367293009	Cell 1-Barium Sulfate Precipitate
367293010	Cell 2 Slimes-Barium Sulfate Precipitate
367293011	Cell 3-Barium Sulfate Precipitate
367293012	Cell 4A-Barium Sulfate Precipitate
367293013	Cell 4A LDS-Barium Sulfate Precipitate
367293014	Cell 4B LDS-Barium Sulfate Precipitate
367293015	Cell 65-Barium Sulfate Precipitate
367293016	Cell 4B-Barium Sulfate Precipitate
1203279162	Method Blank (MB)
1203279164	Laboratory Control Sample (LCS)
1203279163	367293009(Cell 1-Barium Sulfate Precipitate) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 25.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 367293009 (Cell 1-Barium Sulfate Precipitate).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: Refer to Data Exception Report (DER).

Technical Information:

Holding Time

Refer to Data Exception Report (DER).

Sample Re-prep/Re-analysis

Samples 367293009 (Cell 1-Barium Sulfate Precipitate), 367293010 (Cell 2 Slimes-Barium Sulfate Precipitate), 367293011 (Cell 3-Barium Sulfate Precipitate), 367293012 (Cell 4A-Barium Sulfate Precipitate), 367293013 (Cell 4A LDS-Barium Sulfate Precipitate), 367293014 (Cell 4B LDS-Barium Sulfate Precipitate), 367293015 (Cell 65-Barium Sulfate Precipitate) and 367293016 (Cell 4B-Barium Sulfate Precipitate) were reprepared twice due to interference and low tracer yields. The third prep is reported.

Recounts

None of the samples in this sample set were recounted.

Miscellaneous Information:

Data Exception (DER) Documentation

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER 1391263 was generated due to RDL less than MDA, Sample Analyzed out of Holding and Sample Logged out of Holding. 1. Sample 367293009 does not meet the U-233/235 and U-235/236 detection limits. Samples 367293010 and 367293012 do not meet the U-233/234, U-233/235, and U-238 detection limits. Samples 367293011, 367293014, 367293015, and 367293016 do not meet the U-233/235 detection limit and sample 367293013 does not meet the U-235/236 and U-238 detection limits. The detection limits were not met due to the small sample aliquots. The blank, 1203279162, did not meet the U-233/234, U-235/236, and U-238 detection limits due to keeping the volume consistent with the other sample aliquots. 2. Samples 367293009, 367293010, 367293011, 367293012, 367293013, 367293014, 367293015, 367293016, and 1203279163 were logged in and analyzed out of holding. 1. The sample aliquots were reduced due to the high activity of other isotopes and in attempt to minimize interferences and achieve acceptable tracer yields. Reporting results. 2. Reporting results.

Manual Integration

Manual integrations of alpha spectroscopy spectra 1203279163 (Cell 1-Barium Sulfate PrecipitateDUP), 367293009 (Cell 1-Barium Sulfate Precipitate), 367293011 (Cell 3-Barium Sulfate Precipitate), 367293012 (Cell 4A-Barium Sulfate Precipitate), 367293013 (Cell 4A LDS-Barium Sulfate Precipitate), 367293014 (Cell 4B LDS-Barium Sulfate Precipitate), 367293015 (Cell 65-Barium Sulfate Precipitate) and 367293016 (Cell 4B-Barium Sulfate Precipitate) were performed to fully separate counts in Regions of Interest which would have been biased.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product: Lucas Cell, Ra226, liquid

Analytical Method: EPA 903.1 Modified

Analytical Batch Number: 1460348

Sample ID	Client ID
367293001	Cell 1
367293002	Cell 2 Slimes
367293003	Cell 3
367293004	Cell 4A
367293005	Cell 4A LDS
367293006	Cell 4B
367293007	Cell 4B LDS
367293008	Cell 65
367293009	Cell 1-Barium Sulfate Precipitate
367293010	Cell 2 Slimes-Barium Sulfate Precipitate
367293011	Cell 3-Barium Sulfate Precipitate
367293012	Cell 4A-Barium Sulfate Precipitate
367293013	Cell 4A LDS-Barium Sulfate Precipitate
367293014	Cell 4B LDS-Barium Sulfate Precipitate
367293015	Cell 65-Barium Sulfate Precipitate
367293016	Cell 4B-Barium Sulfate Precipitate
1203271569	Method Blank (MB)
1203271572	Laboratory Control Sample (LCS)
1203271570	367293006(Cell 4B) Sample Duplicate (DUP)
1203271571	367293006(Cell 4B) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 367293006 (Cell 4B).

QC Information

All of the QC samples meet the required acceptance limits with the following exceptions: The blank, 1203271569 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Technical Information:**Holding Time**

Refer to Data Exception Report (DER).

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Recounts

Samples 367293001 (Cell 1), 367293003 (Cell 3), 367293004 (Cell 4A), 367293008 (Cell 65), 367293009 (Cell 1-Barium Sulfate Precipitate), 367293011 (Cell 3-Barium Sulfate Precipitate), 367293012 (Cell 4A-Barium Sulfate Precipitate) and 367293015 (Cell 65-Barium Sulfate Precipitate) were degassed and recounted to verify sample results. Original counts are reported.

Miscellaneous Information:**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER 1391212 was generated due to Sample Analyzed out of Holding. 1. Samples 367293001, 367293002, 367293003, 367293004, 367293005, 367293006, 367293007, 367293008, 367293009, 367293010, 367293011, 367293012, 367293013, 367293014, 367293015, 367293015, 1203271570, and 1203271571 were received in but analyzed outside of the method specified hold time. 1. Reporting results.

Sample-Specific MDA/MDC

The MDA/MDC reported on the certificate of analysis is a sample-specific MDA/MDC.

Additional Comments

Additional comments were not required for this sample set.

Qualifier Information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

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Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 367293 GEL Work Order: 367293

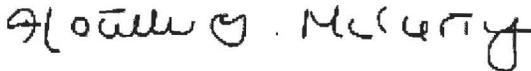
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the CRDL.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Heather McCarty

Date: 17 MAR 2015

Title: Analyst II

DATA EXCEPTION REPORT

Mo.Day Yr. 12-MAR-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: ALPHA SPECTROMETER	Test / Method: DOE EML HASL-300, U-02-RC Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1462310	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 367293

Application Issues:

- RDL less than MDA
- Sample Analyzed out of Holding
- Sample Logged out of Holding

**Specification and Requirements
Exception Description:**

DER Disposition:

1. The method blank, 1203276229, does not meet the U-233/234, U-235/236, and U-238 detection limits due to keeping the volume consistent with the other sample aliquots.
2. Samples 367293001, 367293002, 367293003, 367293004, 367293005, 367293006, 367293007, 367293008, and 1203276230 were logged in and analyzed out of holding.

1. The sample aliquots and count times were reduced for the re-analysis due to high U-233/234 and U-238 activity and in attempt to achieve acceptable tracer yield recoveries. Reporting results.
2. Reporting results.

Originator's Name:

Melanie Aycock 12-MAR-15

Data Validator/Group Leader:

Jessica Davis 12-MAR-15

DATA EXCEPTION REPORT

Mo.Day Yr. 12-MAR-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: ALPHA SPECTROMETER	Test / Method: DOE EML HASL-300, Th-01-RC Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1462492	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 367293

Application Issues:

- RDL less than MDA
- Sample Analyzed out of Holding
- Sample Logged out of Holding

**Specification and Requirements
Exception Description:**

DER Disposition:

1. Samples 367293001, 367293005, 367293007, 367293011, 367293012, 367293014, and 367293016 did not meet the Th-228 detection limits and Samples 367293002, 367293010, and 367293013 did not meet the Th-228 and Th-232 detection limits due to the reduced sample aliquots. The method blank, 1203276674, does not meet the Th-228, Th-230 and Th-232 detection limits due to keeping the volume consistent with the other sample aliquots.
2. Samples 367293001, 367293002, 367293003, 367293004, 367293005, 367293006, 367293007, 367293008, 367293009, 367293010, 367293011, 367293012, 367293013, 367293014, 367293015, 367293016 and 1203276675 were logged in and analyzed out of holding.

1. The sample aliquots and count times were reduced for the re-analysis due to high Th-230 activity and in attempt to minimize interference and achieve acceptable tracer yield recoveries. Reporting results.
2. Reporting results.

Originator's Name:

Melanie Aycock 12-MAR-15

Data Validator/Group Leader:

Jessica Davis 12-MAR-15

DATA EXCEPTION REPORT

Mo.Day Yr. 16-MAR-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: ALPHA SPECTROMETER	Test / Method: DOE EML HASL-300, U-02-RC Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1463515	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 367293

Application Issues:

- RDL less than MDA
- Sample Analyzed out of Holding
- Sample Logged out of Holding

**Specification and Requirements
Exception Description:**

DER Disposition:

1. Sample 367293009 does not meet the U-233/235 and U-235/236 detection limits. Samples 367293010 and 367293012 do not meet the U-233/234, U-233/235, and U-238 detection limits. Samples 367293011, 367293014, 367293015, and 367293016 do not meet the U-233/235 detection limit and sample 367293013 does not meet the U-235/236 and U-238 detection limits. The detection limits were not met due to the small sample aliquots. The blank, 1203279162, did not meet the U-233/234, U-235/236, and U-238 detection limits due to keeping the volume consistent with the other sample aliquots.
2. Samples 367293009, 367293010, 367293011, 367293012, 367293013, 367293014, 367293015, 367293016, and 1203279163 were logged in and analyzed out of holding.

1. The sample aliquots were reduced due to the high activity of other isotopes and in attempt to minimize interferences and achieve acceptable tracer yields. Reporting results.
2. Reporting results.

Originator's Name:

Melanie Aycock 16-MAR-15

Data Validator/Group Leader:

Jessica Davis 16-MAR-15

DATA EXCEPTION REPORT

Mo.Day Yr. 16-MAR-15	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: LUCAS CELL DETECTOR	Test / Method: EPA 903.1 Modified	Matrix Type: Liquid	Client Code: DNMI
Batch ID: 1460348	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 367293			
Application Issues: Sample Analyzed out of Holding			
Specification and Requirements		DER Disposition:	
Exception Description: 1. Samples 367293001, 367293002, 367293003, 367293004, 367293005, 367293006, 367293007, 367293008, 367293009, 367293010, 367293011, 367293012, 367293013, 367293014, 367293015, 367293015, 1203271570, and 1203271571 were received in but analyzed outside of the method specified hold time.		1. Reporting results.	

Originator's Name:
Lyndsey Pace 16-MAR-15

Data Validator/Group Leader:
Heather McCarty 17-MAR-15

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 1	Project: DNMI00100
Sample ID: 367293001	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 08:15	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-68.1	156	1.00	pCi/L		HAKB	03/12/15	1019 1462492	1
Thorium-230		6.06E+05	+/-3700	145	1.00	pCi/L					
Thorium-232		1170	+/-164	81.5	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		62800	+/-1880	217	1.00	pCi/L		HAKB	03/12/15	1015 1462310	2
Uranium-235/236		2580	+/-430	268	1.00	pCi/L					
Uranium-238		63200	+/-1890	236	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		422	+/-14.7	8.14	1.00	pCi/L		CXP3	03/06/15	0845 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			86.2	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			52.8	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 2 Slimes	Project: DNMI00100
Sample ID: 367293002	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 08:25	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-43.7	140	1.00	pCi/L		HAKB	03/12/15	1019 1462492	1
Thorium-230		5990	+/-390	160	1.00	pCi/L					
Thorium-232	U	1.00	+/-43.5	102	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		8770	+/-489	173	1.00	pCi/L		HAKB	03/12/15	1015 1462310	2
Uranium-235/236		297	+/-106	140	1.00	pCi/L					
Uranium-238		7730	+/-458	121	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		19.3	+/-3.66	7.98	1.00	pCi/L		CXP3	03/06/15	0845 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			87.1	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			104	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 3	Project: DNMI00100
Sample ID: 367293003	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:00	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228		624	+/-149	159	1.00	pCi/L		HAKB	03/12/15	1019 1462492	1
Thorium-230		44200	+/-1100	174	1.00	pCi/L					
Thorium-232		570	+/-127	96.6	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Radium-233/234		40900	+/-1210	137	1.00	pCi/L		HAKB	03/12/15	1015 1462310	2
Radium-235/236		2080	+/-306	133	1.00	pCi/L					
Radium-238		39800	+/-1190	150	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		150	+/-10.4	10.8	1.00	pCi/L		CXP3	03/06/15	0845 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer	Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer		Alphaspec Th, Liquid "As Received"			88.5	(15%-125%)
Radium-232 Tracer		U- 233/234,U-235/236 and U-238 "As Received"			80.8	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4A	Project: DNMI00100
Sample ID: 367293004	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:25	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method	
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		539	+/-117	123	1.00	pCi/L		HAKB	03/12/15	1019	1462492	1
Thorium-230		3.56E+05	+/-2630	141	1.00	pCi/L						
Thorium-232		909	+/-135	90.6	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		72200	+/-2180	467	1.00	pCi/L		HAKB	03/12/15	1015	1462310	2
Uranium-235/236		2930	+/-500	489	1.00	pCi/L						
Uranium-238		74500	+/-2210	411	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		393	+/-14.3	8.20	1.00	pCi/L		CXP3	03/06/15	0845	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			105	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			43.0	(15%-125%)

Notes:

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4A LDS	Project: DNMI00100
Sample ID: 367293005	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:40	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-83.9	195	1.00	pCi/L		HAKB	03/12/15	1019 1462492	1
Thorium-230		99300	+/-1600	196	1.00	pCi/L					
Thorium-232		195	+/-77.3	135	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		32400	+/-1090	177	1.00	pCi/L		HAKB	03/12/15	1015 1462310	2
Uranium-235/236		1230	+/-241	178	1.00	pCi/L					
Uranium-238		30800	+/-1070	168	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		12.1	+/-3.20	8.16	1.00	pCi/L		CXP3	03/06/15	0845 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			82.5	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			73.8	(15%-125%)

Notes:

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4B	Project: DNMI00100
Sample ID: 367293006	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 10:10	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		284	+/-99.9	166	1.00	pCi/L		HAKB	03/12/15	1019	1462492	1
Thorium-230		4.37E+05	+/-3280	170	1.00	pCi/L						
Thorium-232		1030	+/-161	99.5	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Jranium-233/234		59500	+/-1640	268	1.00	pCi/L		HAKB	03/12/15	1040	1462310	2
Jranium-235/236		2570	+/-384	219	1.00	pCi/L						
Jranium-238		62500	+/-1680	219	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		600	+/-18.1	7.81	1.00	pCi/L		CXP3	03/06/15	0915	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			86.7	(15%-125%)
Jranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			53.9	(15%-125%)

Notes:

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4B LDS	Project: DNMI00100
Sample ID: 367293007	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 10:00	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-66.9	139	1.00	pCi/L		HAKB	03/12/15	1019 1462492	1
Thorium-230		2.87E+05	+/-2430	145	1.00	pCi/L					
Thorium-232		1000	+/-145	95.9	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234		62200	+/-1790	217	1.00	pCi/L		HAKB	03/12/15	1015 1462310	2
Uranium-235/236		2720	+/-420	245	1.00	pCi/L					
Uranium-238		63400	+/-1800	198	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		70.2	+/-7.28	10.6	1.00	pCi/L		CXP3	03/06/15	0915 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			95.2	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			51.9	(15%-125%)

Notes:

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 65	Project: DNMI00100
Sample ID: 367293008	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:40	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		246	+/-74.8	115	1.00	pCi/L		HAKB	03/12/15	1019	1462492	1
Thorium-230		3.26E+05	+/-2310	115	1.00	pCi/L						
Thorium-232		890	+/-122	77.3	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		54000	+/-1570	216	1.00	pCi/L		HAKB	03/12/15	1015	1462310	2
Uranium-235/236		3090	+/-421	218	1.00	pCi/L						
Uranium-238		50400	+/-1520	177	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		513	+/-17.7	9.65	1.00	pCi/L		CXP3	03/06/15	0915	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 903.1 Modified	

Surrogate/Tracer	Recovery Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			105	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			58.4	(15%-125%)

Notes:

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 1-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293009	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 08:15	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		144	+/-61.7	111	1.00	pCi/L		HAKB	03/12/15	1019	1462492	1
Thorium-230		2.14E+05	+/-1950	125	1.00	pCi/L						
Thorium-232		721	+/-115	88.1	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Jranium-233/234	U	1.00	+/-6.78	17.7	1.00	pCi/L		TC1	03/13/15	1530	1463515	2
Jranium-235/236	U	1.00	+/-6.85	24.3	1.00	pCi/L						
Jranium-238		33.6	+/-8.61	17.7	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		166	+/-9.39	8.17	1.00	pCi/L		CXP3	03/06/15	0915	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer	Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer		Alphaspec Th, Liquid "As Received"			104	(15%-125%)
Jranium-232 Tracer		U- 233/234,U-235/236 and U-238 "As Received"			86.2	(15%-125%)

Notes:

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GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 2 Slimes-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293010	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 08:25	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	1.00	+/-42.1	251	1.00	pCi/L		HAKB	03/12/15	1015	1462492	1
Thorium-230		2270	+/-279	197	1.00	pCi/L						
Thorium-232	U	1.00	+/-33.4	134	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234	U	1.00	+/-9.35	32.4	1.00	pCi/L		TC1	03/13/15	1530	1463515	2
Uranium-235/236	U	1.00	+/-4.04	13.8	1.00	pCi/L						
Uranium-238	U	1.00	+/-5.06	18.0	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		19.1	+/-3.31	5.88	1.00	pCi/L		CXP3	03/06/15	0915	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer	Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer		Alphaspec Th, Liquid "As Received"			73.9	(15%-125%)
Uranium-232 Tracer		U- 233/234,U-235/236 and U-238 "As Received"			89.9	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 3-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293011	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:00	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-49.0	91.5	1.00	pCi/L		HAKB	03/12/15	1229 1462492	1
Thorium-230		10200	+/-487	144	1.00	pCi/L					
Thorium-232		160	+/-65.2	83.0	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Iranium-233/234		34.4	+/-8.33	16.5	1.00	pCi/L		TC1	03/13/15	1530 1463515	2
Iranium-235/236	U	1.00	+/-5.23	17.7	1.00	pCi/L					
Iranium-238		44.9	+/-9.92	21.5	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		47.6	+/-5.48	8.64	1.00	pCi/L		CXP3	03/06/15	0945 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			121	(15%-125%)
Iranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			99.1	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4A-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293012	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:25	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-45.2	246	1.00	pCi/L		HAKB	03/12/15	1015 1462492	1
Thorium-230		1.47E+05	+/-2310	210	1.00	pCi/L					
Thorium-232		571	+/-149	157	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Uranium-233/234	U	1.00	+/-7.76	24.2	1.00	pCi/L		TC1	03/13/15	1530 1463515	2
Uranium-235/236	U	1.00	+/-8.30	26.2	1.00	pCi/L					
Uranium-238	U	1.00	+/-8.67	25.6	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		578	+/-18.2	9.17	1.00	pCi/L		CXP3	03/06/15	0945 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			66.1	(15%-125%)
Uranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			90.1	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID:	Cell 4A LDS-Barium Sulfate Precipitate	Project:	DNMI00100
Sample ID:	367293013	Client ID:	DNMI001
Matrix:	Ground Water		
Collect Date:	19-AUG-14 09:40		
Receive Date:	25-AUG-14		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis											
Alphaspec Th, Liquid "As Received"											
Thorium-228	U	1.00	+/-59.2	136	1.00	pCi/L		HAKB	03/12/15	1015 1462492	1
Thorium-230		27700	+/-819	161	1.00	pCi/L					
Thorium-232	U	1.00	+/-34.1	98.3	1.00	pCi/L					
J- 233/234,U-235/236 and U-238 "As Received"											
Jranium-233/234		10.9	+/-4.69	4.69	1.00	pCi/L		TC1	03/13/15	1530 1463515	2
Jranium-235/236	U	1.00	+/-5.46	18.5	1.00	pCi/L					
Jranium-238	U	1.00	+/-6.05	17.3	1.00	pCi/L					
Rad Radium-226											
Lucas Cell, Ra226, liquid "As Received"											
Radium-226		18.4	+/-3.40	5.35	1.00	pCi/L		CXP3	03/06/15	0945 1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Liquid "As Received"			97.5	(15%-125%)
Jranium-232 Tracer	U- 233/234,U-235/236 and U-238 "As Received"			99.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4B LDS-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293014	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 10:00	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	1.00	+/-67.7	186	1.00	pCi/L		HAKB	03/12/15	1015	1462492	1
Thorium-230		96600	+/-1540	164	1.00	pCi/L						
Thorium-232		195	+/-73.6	87.9	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Jranium-233/234		23.9	+/-9.80	21.1	1.00	pCi/L		TC1	03/13/15	1530	1463515	2
Jranium-235/236	U	1.00	+/-5.85	21.7	1.00	pCi/L						
Jranium-238		47.8	+/-12.9	21.1	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		53.6	+/-5.55	7.42	1.00	pCi/L		CXP3	03/06/15	0945	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer	Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer		Alphaspec Th, Liquid "As Received"			100	(15%-125%)
Jranium-232 Tracer		U- 233/234,U-235/236 and U-238 "As Received"			84.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 65-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293015	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 09:40	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228		237	+/-99.9	171	1.00	pCi/L		HAKB	03/12/15	1015	1462492	1
Thorium-230		1.30E+05	+/-1940	171	1.00	pCi/L						
Thorium-232		373	+/-108	102	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Uranium-233/234		15.5	+/-7.76	9.31	1.00	pCi/L		TC1	03/13/15	1530	1463515	2
Uranium-235/236	U	1.00	+/-8.38	27.1	1.00	pCi/L						
Uranium-238		35.7	+/-11.4	18.2	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		173	+/-9.51	4.94	1.00	pCi/L		CXP3	03/06/15	0945	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	DOE EML HASL-300, Th-01-RC Modified	
	DOE EML HASL-300, U-02-RC Modified	
	EPA 903.1 Modified	

Surrogate/Tracer	Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer		Alphaspec Th, Liquid "As Received"			82.5	(15%-125%)
Uranium-232 Tracer		U- 233/234,U-235/236 and U-238 "As Received"			86.7	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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Certificate of Analysis

Report Date: March 17, 2015

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: Cell 4B-Barium Sulfate Precipitate	Project: DNMI00100
Sample ID: 367293016	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 19-AUG-14 10:10	
Receive Date: 25-AUG-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
Alphaspec Th, Liquid "As Received"												
Thorium-228	U	1.00	+/-89.1	248	1.00	pCi/L		HAKB	03/12/15	1015	1462492	1
Thorium-230		1.25E+05	+/-1920	178	1.00	pCi/L						
Thorium-232		555	+/-131	119	1.00	pCi/L						
J- 233/234,U-235/236 and U-238 "As Received"												
Jranium-233/234		41.9	+/-12.2	18.2	1.00	pCi/L		TC1	03/13/15	1530	1463515	2
Jranium-235/236	U	1.00	+/-12.7	30.6	1.00	pCi/L						
Jranium-238		46.5	+/-13.1	21.9	1.00	pCi/L						
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226		552	+/-18.3	9.67	1.00	pCi/L		CXP3	03/06/15	1020	1460348	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 903.1 Modified	

Surrogate/Tracer	Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer		Alphaspec Th, Liquid "As Received"			80.7	(15%-125%)
Jranium-232 Tracer		U- 233/234,U-235/236 and U-238 "As Received"			88.0	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

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QC Summary

Report Date: March 17, 2015

Page 1 of

Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado

Contact: Ms. Kathy Weinel

Workorder: 367293

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	1462310										
QC1203276230	367293001 DUP										
Uranium-233/234		62800		44700	pCi/L	33.7*		(0%-20%)	HAKB	03/12/15	10:1
	Uncertainty	+/-1880		+/-1320							
Uranium-235/236		2580		2930	pCi/L	12.9		(0%-20%)			
	Uncertainty	+/-430		+/-378							
Uranium-238		63200		48000	pCi/L	27.2*		(0%-20%)			
	Uncertainty	+/-1890		+/-1370							
QC1203276231	LCS										
Uranium-233/234				2510	pCi/L					03/12/15	10:1
	Uncertainty			+/-257							
Uranium-235/236			U	-4.33	pCi/L						
	Uncertainty			+/-32.5							
Uranium-238	2720			2270	pCi/L		83.5	(75%-125%)			
	Uncertainty			+/-245							
QC1203276229	MB										
Uranium-233/234			U	9.73	pCi/L					03/12/15	10:1
	Uncertainty			+/-29.4							
Uranium-235/236			U	-2.65	pCi/L						
	Uncertainty			+/-25.5							
Uranium-238			U	38.7	pCi/L						
	Uncertainty			+/-35.5							
Batch	1462492										
QC1203276675	367293001 DUP										
Thorium-228	U	122		270	pCi/L	53.3		(0% - 100%)	HAKB	03/12/15	10:1
	Uncertainty	+/-68.1		+/-89.7							
Thorium-230		6.06E+05		5.41E+05	pCi/L	11.2		(0%-20%)			
	Uncertainty	+/-3700		+/-3460							
Thorium-232		1170		1140	pCi/L	2.61		(0%-20%)			
	Uncertainty	+/-164		+/-160							
QC1203276676	LCS										
Thorium-228				1900	pCi/L					03/12/15	10:1
	Uncertainty			+/-206							
Thorium-230				393	pCi/L			(75%-125%)			
	Uncertainty			+/-98.7							
Thorium-232	1990			1560	pCi/L		78.6	(75%-125%)			
	Uncertainty			+/-187							
QC1203276674	MB										
Thorium-228			U	-0.119	pCi/L					03/12/15	10:1
	Uncertainty			+/-22.4							
Thorium-230			U	44.6	pCi/L						
	Uncertainty			+/-44.7							

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QC Summary

Workorder: 367293

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	1462492										
Thorium-232			U	-0.777	pCi/L						
	Uncertainty			+/-22.3							
Batch	1463515										
QC1203279163	367293009 DUP										
Uranium-233/234	U	16.0		27.0	pCi/L	41.7		(0% - 100%)	TC1	03/13/15	15:3
	Uncertainty	+/-6.78		+/-10.3							
Uranium-235/236	U	3.95		27.1	pCi/L	10.7		(0% - 100%)			
	Uncertainty	+/-6.85		+/-12.2							
Uranium-238		33.6		50.6	pCi/L	40.4		(0% - 100%)			
	Uncertainty	+/-8.61		+/-14.2							
QC1203279164	LCS										
Uranium-233/234				2810	pCi/L					03/13/15	15:3
	Uncertainty			+/-95.2							
Uranium-235/236				184	pCi/L						
	Uncertainty			+/-27.6							
Uranium-238		2720		2840	pCi/L		104	(75%-125%)			
	Uncertainty			+/-95.6							
QC1203279162	MB										
Uranium-233/234			U	-14	pCi/L					03/13/15	15:3
	Uncertainty			+/-6.90							
Uranium-235/236			U	5.63	pCi/L						
	Uncertainty			+/-8.50							
Uranium-238			U	-4.68	pCi/L						
	Uncertainty			+/-5.77							
Rad Ra-226											
Batch	1460348										
QC1203271570	367293006 DUP										
Radium-226		600		638	pCi/L	6.17		(0%-20%)	CXP3	03/06/15	10:5
	Uncertainty	+/-18.1		+/-19.2							
QC1203271572	LCS										
Radium-226		309		243	pCi/L		78.6	(75%-125%)		03/06/15	10:5
	Uncertainty			+/-11.6							
QC1203271569	MB										
Radium-226			U	9.17	pCi/L					03/06/15	10:2
	Uncertainty			+/-3.40							
QC1203271571	367293006 MS										
Radium-226		309	600	942	pCi/L		111	(75%-125%)		03/06/15	10:5
	Uncertainty	+/-18.1		+/-21.6							

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported

GEL LABORATORIES LLC

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QC Summary

Workorder: 367293

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
A											
B											
BD											
C											
D											
F											
H											
K											
L											
M											
M											
N/A											
NI											
ND											
NJ											
Q											
R											
U											
UI											
UJ											
UL											
X											
Y											
^											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Tab D

Chemical and Radiological Summary Tables

**2015 Additional Analyses
Cell Radiological Characteristics**

Location	Cell 1 8/4/2015	Cell 1 5/28/15	Cell 2 8/4/2015	Cell 3 8/4/2015	Cell 3 5/28/2015	Cell 4A 8/4/2015	Cell 4A 5/28/2015	Cell 4A LDS 8/4/2015	Cell 4A LDS 5/28/2015	Cell 4B 8/4/2015	Cell 4B 5/28/2015	Cell 4B LDS 8/4/2015	Cell 4B LDS 5/28/2015	Cell 65 (Duplicate of 4B LDS 8/4/2015)	Cell 65 (Duplicate of 4A 5/28/2015)	
Radiologics (pCi/L)																
Thorium-228	1310	204	ND	ND	798	ND	327	ND	ND	ND	122	ND	334	ND	265	
Thorium-230	991000	782000	6680	123000	131000	374000	405000	25300	25300	410000	346000	452000	487000	436000	315000	
Thorium-232	6150	6730	ND	1640	1290	3490	3440	ND	ND	2210	3790	3660	5430	4000	3790	
Radium-226	1110	829	36.6	448	202	663	ND	19.3	19.3	611	544	161	55.2	125	772	
Uranium-233/234	141000	96700	11300	184000	557000	57500	61200	9380	9380	63500	65000	62600	63500	62600	58600	
Uranium-235/236	8920	5980	858	10300	37900	3720	4030	504	504	3710	3870	3890	3900	2680	3020	
Uranium-238	140000	100000	10500	191000	591000	64400	62700	10800	10800	67000	66100	60900	65500	61300	58300	
Physical Properties																
Kinematic Viscosity (cst)	<10	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	<10	<10	NS	<10	NS
Specific Gravity	1.21	1.13	1.09	1.21	1.29	1.11	1.07	1.07	1.07	NS	1.12	1.08	1.12	NS	1.12	NS

Cell 1
Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Major Ions (mg/l)												
Carbonate	<5	<1	ND	ND	<1	<1	<1	<1	<1	NS	<1	<1
Bicarbonate	<5	NA	ND	ND	<1	<1	<1	<1	<1	NS	<1	<1
Calcium	630	307	483.8	604	635	711	577	426	768	NS	404	573
Chloride	8000	6728	37340	9830	20700	7440	33800	78000	9900	NS	11600	25500
Fluoride	<100	3005	31.72	0.3	0.4	28.4	69.2	62.9	4130	NS	2380	5880
Magnesium	7900	5988	21220	6550	16200	5410	14300	16000	4470	NS	5530	12400
Nitrogen-Ammonia	7800	3353	10628	5250	15200	8120	12900	9750	3900	NS	5700	5.4
Nitrogen-Nitrate	<100	41.8	269.4	64.9	142	58	212	556	128	NS	53	192
Potassium	NA	647	5698	1880	4140	1840	4510	9750	6580	NS	3010	7330
Sodium	10000	8638	62600	13200	39000	16700	29500	41700	15900	NS	12200	32100
Sulfate	190000	63667	287600	118000	232000	107000	182000	158000	100000	NS	124000	204000
pH (s.u.)	0.7	1.88	0.8	1.53	1.15	2.73	2.23	1.9	2.74	NS	1.3	1.01
TDS	120000	94700	357400	131000	140000	130000	216000	342000	149000	NS	159000	334000
Conductivity (umhos/cm)	NA	NA	NA	NA	365000	110000	112000	136000	94200	NS	113000	131000
Metals (ug/l)												
Arsenic	440000	121267	849000	271000	436000	74400	299000	25500	9800	NS	249000	377000
Beryllium	780	475	2262	500	410	338	1270	3180	415	NS	448	1290
Cadmium	6600	3990	29320	8790	9120	2940	13700	30700	2380	NS	3060	7710
Chromium	13000	6365	29940	6760	18700	5620	22700	12100	8350	NS	13200	19600
Cobalt	120000	NA	88240	23500	97500	16200	56000	53100	25500	NS	56500	82000
Copper	740000	196667	881000	360000	168000	125000	483000	885000	544000	NS	3420000	3560000
Iron	3400000	2820000	13480000	3280000	2390000	3400000	8940000	840000	1420000	NS	2520000	6680000
Lead	<20000	3393	27420	11200	10600	9240	23600	17000	2810	NS	13500	16800
Manganese	140000	162500	990200	206000	723000	173000	735000	1560000	188000	NS	162000	515000
Mercury	NA	NA	ND	ND	7.61	7.2	61.4	117	6.16	NS	12.5	24.6
Molybdenum	240000	50550	415600	106000	142000	35300	235000	434000	16800	NS	68800	127000
Nickel	370000	36950	40860	32000	156000	27500	43700	15000	39100	NS	129000	130000
Selenium	<20000	1862	15420	13000	14800	5220	11600	8090	2690	NS	3970	7070
Silver	<5000	NA	1559.2	449	558	155	1110	4310	329	NS	336	1390
Thallium	45000	NA	407.8	165	387	193	560	13	63.3	NS	876	1130
Tin	<5000	NA	6512	1240	2290	263	1500	<100	<100	NS	<17000	<100
Uranium	105000	134517	788600	416000	578000	159000	838000	1450000	140000	NS	137000	363000
Vanadium	280000	348000	2208200	1200000	773000	752000	2500000	1940000	98200	NS	485000	1130000
Zinc	1300000	NA	642940	476000	229000	171000	398000	811000	228000	NS	229000	638000

Cell 1
Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Radiologics (pCi/l)												
Gross Alpha	NA	1693331	29380	21900	16500	11300	3610	12600	32700	NS	331000	735000 (8/4/2015) 73800 (5/28/2015)
VOCS (ug/L)												
Acetone	35	NA	66.5	110	710	260	80	310	41.1	NS	<700	56
Benzene	<5	NA	ND	ND	<1	<1	<1	<1	<1	NS	<5.0	<1
Carbon tetrachloride	<5	NA	ND	ND	<1	<1	<1	<1	<1	NS	<5.0	<1
Chloroform	8	NA	6.7	6.6	16	4.9	13	19	7.62	NS	<70.0	5.54
Chloromethane	NA	NA	ND	9.4	11	4.4	3.6	4	5	NS	<30.0	1.93
MEK	NA	NA	ND	ND	120	65	<1	200	<20	NS	<4000	<20
Methylene Chloride	11	NA	ND	ND	2	<1	<1	2	<1	NS	<5.0	1.83
Naphthalene	<10000	NA	<10	ND	1.1	5.4	2	3	<1	NS	<100	<1
Tetrahydrofuran	NA	NA	150	<20	<100	<10	<500	2.9	<1	NS	<46.0	<1
Toluene	<5	NA	ND	ND	<1	<1	<1	<1	<1	NS	<1000	<1
Xylenes	<5	NA	ND	ND	<1	<1	<1	<1	<1	NS	<10000	<1
SVOCS (ug/L)												
1,2,4-Trichlorobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
1,2-Dichlorobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
1,3-Dichlorobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
1,4-Dichlorobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
1-Methylnaphthalene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2,4,5-Trichlorophenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2,4,6-Trichlorophenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2,4-Dichlorophenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2,4-Dimethylphenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2,4-Dinitrophenol	NA	NA	NA	NA	<250	<20	<20	<20	<21.6	<20	<20	<20
2,4-Dinitrotoluene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2,6-Dinitrotoluene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10

Cell 1
Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
2-Chloronaphthalene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2-Chlorophenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2-Methylnaphthalene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2-Methylphenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
2-Nitrophenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
3&4-Methylphenol	NA	NA	NA	NA	<22	<10	<10	<10	<10.8	<10	<10	<10
3,3'-Dichlorobenzidine	NA	NA	NA	NA	<100	<10	<10	<10	<10.8	<10	<10	<10
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	<250	<10	<10	<10	<10.8	<10	<10	<10
4-Bromophenyl phenyl ether	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
4-Chloro-3-methylphenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
4-Nitrophenol	NA	NA	NA	NA	<250	<10	<10	<10	<10.8	<10	<10	<10
Acenaphthene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Acenaphthylene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Anthracene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Azobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Benz(a)anthracene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Benzidine	NA	NA	NA	NA	<100	<10	<10	<10	<10.8	<10	41	<10
Benzo(a)pyrene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Benzo(b)fluoranthene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Benzo(g,h,i)perylene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Benzo(k)fluoranthene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Bis(2-chloroethyl) ether	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Bis(2-chloroisopropyl) ether	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	<50	27	<10	<10	<10.8	<10	<10	<10
Butyl benzyl phthalate	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Chrysene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Dibenz(a,h)anthracene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10

Cell 1

Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Diethyl phthalate	NA	NA	NA	NA	170	<10	<10	<10	<10.8	<10	<10	<10
Dimethyl phthalate	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Di-n-butyl phthalate	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Di-n-octyl phthalate	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Fluoranthene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Fluorene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Hexachlorobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Hexachlorobutadiene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Hexachlorocyclopentadiene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Hexachloroethane	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Isophorone	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Naphthalene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Nitrobenzene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
N-Nitrosodimethylamine	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
N-Nitrosodiphenylamine	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Pentachlorophenol	NA	NA	NA	NA	<250	<10	<10	<10	<10.8	<10	<10	<10
Phenanthrene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Phenol	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Pyrene	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10
Pyridine	NA	NA	NA	NA	<50	<10	<10	<10	<10.8	<10	<10	<10

¹ Historic values reported for Gross Alpha from 1987 and 2003 are total gross alpha reported in pCi/L. All other gross alpha data are reported as Gross Alpha minus Rn & U.

Cell 2 Slimes Drain
Chemical and Radiological Characteristics

Constituents	2007	2008	2009	2010	2011	2012	2013	2014	2015
Major Ions (mg/l)									
Carbonate	ND	ND	<1	<1	<1	<1	<1	<1	<1
Bicarbonate	ND	ND	<1	<1	<1	<1	<1	<1	<1
Calcium	572	528	508	496	474	462	465	322	524
Chloride	3700	3860	2750	3510	3110	3730	3270	3720	3850
Fluoride	3.3	ND	<0.1	2.4	2.1	1.32	161	130	204
Magnesium	4100	4030	3750	3790	3640	3760	3320	2780	3810
Nitrogen-Ammonia	4020	3620	3240	3820	2940	3540	1880	3500	367
Nitrogen-Nitrate	30.9	20.3	38	126	38	27	47.2	35	1.06
Potassium	636	560	689	620	636	611	622	489	659
Sodium	4050	4600	4410	4770	4590	4380	3980	3130	4800
Sulfate	60600	74000	72200	63700	64200	58300	83700	62200	57800
pH (s.u.)	3.18	3.24	3.11	3.39	3.18	3	3.02	3.1	3.1
TDS	84300	74600	84100	79900	80200	83800	92200	87000	88200
Conductivity (umhos/cm)	NA	NA	88700	60200	51400	52900	51100	54100	58800
Metals (ug/l)									
Arsenic	26900	19300	14200	23500	17800	19400	21000	19800	13300
Beryllium	298	245	271	267	231	251	262	197	275
Cadmium	5500	5840	5510	6370	5580	5290	5780	6480	6260
Chromium	2750	2450	2230	2510	2380	2350	2290	1630	1840
Cobalt	46500	43800	38700	48200	42500	48700	44900	46700	46000
Copper	106000	154000	170000	148000	132000	138000	137000	126000	143000
Iron	2770000	3310000	3230000	2720000	2960000	2850000	2810000	2180000	3000000
Lead	566	528	403	586	501	619	515	638	268
Manganese	117000	130000	160000	144000	123000	141000	122000	98000	136000
Mercury	ND	ND	<0.5	<4	11.1	1.9	<0.5	<0.0020	<0.5
Molybdenum	4080	3190	2240	4630	3510	3610	3650	4250	2010
Nickel	123000	122000	108000	126000	111000	125000	108000	127000	120000
Selenium	422	647	726	844	714	711	678	1020	631

Cell 2 Slimes Drain
Chemical and Radiological Characteristics

Constituents	2007	2008	2009	2010	2011	2012	2013	2014	2015
Bis(2-ethylhexyl) phthalate	NA	NA	<11	<10	<10	<10	<10	<10	<10
Butyl benzyl phthalate	NA	NA	<11	<10	<10	<10	<10	<10	<10
Chrysene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Dibenz(a,h)anthracene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Diethyl phthalate	NA	NA	<11	<10	<10	<10	<10	<10	<10
Dimethyl phthalate	NA	NA	<11	<10	<10	<10	<10	<10	<10
Di-n-butyl phthalate	NA	NA	<11	<10	<10	<10	<10	<10	<10
Di-n-octyl phthalate	NA	NA	<11	<10	<10	<10	<10	<10	<10
Fluoranthene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Fluorene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Hexachlorobenzene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Hexachlorobutadiene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Hexachloroethane	NA	NA	<11	<10	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Isophorone	NA	NA	<11	<10	<10	<10	<10	<10	<10
Naphthalene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Nitrobenzene	NA	NA	<11	<10	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	NA	NA	<11	<10	<10	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	NA	NA	<11	<10	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	NA	NA	<51	<10	<10	<10	<10	<10	<10
Pentachlorophenol	NA	NA	<11	<10	<10	<10	<10	<10	<10
Phenanthrene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Phenol	NA	NA	<11	10.7	<10	<10	<10	<10	<10
Pyrene	NA	NA	<11	<10	<10	<10	<10	<10	<10
Pyridine	NA	NA	<11	<10	<10	<10	<10	<10	<10

* Sample was reanalyzed due to comparability with the duplicate sample. The reanalysis data are in (parenthesis).

Cell 2 LDS
Chemical and Radiological Characteristics

Constituent	2009	2010	2011	2012	2013	2014	2015
Major Ions (mg/l)							
Carbonate	<1	<1	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Bicarbonate	168	324					
Calcium	711	615					
Chloride	1750	1360					
Fluoride	0.4	0.4					
Magnesium	596	454					
Nitrogen-Ammonia	32.6	0.7					
Nitrogen-Nitrate	2.8	2.2					
Potassium	22	13					
Sodium	412	318					
Sulfate	2700	1780					
pH (s.u.)	6.6	7.36					
TDS	6750	5310					
Conductivity (umhos/cm)	11000	6500					
Metals (ug/l)							
Arsenic	<5	<5	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Beryllium	<0.50	<0.50					
Cadmium	33.4	1.1					
Chromium	<25	<25					
Cobalt	314	<10					
Copper	59	12					
Iron	208	37					
Lead	<1.0	<1.0					
Manganese	1810	395					
Mercury	<0.50	0.52					
Molybdenum	21	13					
Nickel	948	<20					
Selenium	7.9	9.4					
Silver	<10	<10					
Thallium	0.92	<0.50					
Tin	<100	<100					
Uranium	83.8	79.6					
Vanadium	22	<15					
Zinc	4220	78					
Radiologics (pCi/l)							
Gross Alpha	13.5	7.3	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled

Cell 2 LDS
Chemical and Radiological Characteristics

Constituent	2009	2010	2011	2012	2013	2014	2015
VOCS (ug/L)							
Acetone	<20	<20	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Benzene	<1	<1					
Carbon tetrachloride	<1	<1					
Chloroform	<1	<1					
Chloromethane	<1	<1					
MEK	<20	<20					
Methylene Chloride	<1	<1					
Naphthalene	<1	<1					
Tetrahydrofuran	<100	6.13					
Toluene	<1	<1					
Xylenes	<1	<1					
SVOCS (ug/L)							
1,2,4-Trichlorobenzene	NA	<10	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
1,2-Dichlorobenzene	NA	<10					
1,3-Dichlorobenzene	NA	<10					
1,4-Dichlorobenzene	NA	<10					
1-Methylnaphthalene	NA	<10					
2,4,5-Trichlorophenol	NA	<10					
2,4,6-Trichlorophenol	NA	<10					
2,4-Dichlorophenol	NA	<10					
2,4-Dimethylphenol	NA	<10					
2,4-Dinitrophenol	NA	<20					
2,4-Dinitrotoluene	NA	<10					
2,6-Dinitrotoluene	NA	<10					
2-Chloronaphthalene	NA	<10					
2-Chlorophenol	NA	<10					
2-Methylnaphthalene	NA	<10					
2-Methylphenol	NA	<10					
2-Nitrophenol	NA	<10					
3&4-Methylphenol	NA	<10					
3,3'-Dichlorobenzidine	NA	<10					
4,6-Dinitro-2-methylphenol	NA	<10					
4-Bromophenyl phenyl ether	NA	<10					
4-Chloro-3-methylphenol	NA	<10					
4-Chlorophenyl phenyl ether	NA	<10					
4-Nitrophenol	NA	<10					
Acenaphthene	NA	<10					
Acenaphthylene	NA	<10					
Anthracene	NA	<10					
Azobenzene	NA	<10					

Cell 2 LDS
Chemical and Radiological Characteristics

Constituent	2009	2010	2011	2012	2013	2014	2015
Benz(a)anthracene	NA	<10	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Benzidine	NA	<10					
Benzo(a)pyrene	NA	<10					
Benzo(b)fluoranthene	NA	<10					
Benzo(g,h,i)perylene	NA	<10					
Benzo(k)fluoranthene	NA	<10					
Bis(2-chloroethoxy)methane	NA	<10					
Bis(2-chloroethyl) ether	NA	<10					
Bis(2-chloroisopropyl) ether	NA	<10					
Bis(2-ethylhexyl) phthalate	NA	<10					
Butyl benzyl phthalate	NA	<10					
Chrysene	NA	<10					
Dibenz(a,h)anthracene	NA	<10					
Diethyl phthalate	NA	<10					
Dimethyl phthalate	NA	<10					
Di-n-butyl phthalate	NA	<10					
Di-n-octyl phthalate	NA	<10					
Fluoranthene	NA	<10					
Fluorene	NA	<10					
Hexachlorobenzene	NA	<10					
Hexachlorobutadiene	NA	<10					
Hexachlorocyclopentadiene	NA	<10					
Hexachloroethane	NA	<10					
Indeno(1,2,3-cd)pyrene	NA	<10					
Isophorone	NA	<10					
Naphthalene	NA	<10					
Nitrobenzene	NA	<10					
N-Nitrosodimethylamine	NA	<10					
N-Nitrosodi-n-propylamine	NA	<10					
N-Nitrosodiphenylamine	NA	<10					
Pentachlorophenol	NA	<10					
Phenanthrene	NA	<10					
Phenol	NA	<10					
Pyrene	NA	<10					
Pyridine	NA	<10					

Cell 3

Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Major Ions (mg/l)												
Carbonate	NA	<1	ND	ND	<1	<1	<1	<1	<1	NS	<1	<1
Bicarbonate	<5	NA	ND	ND	<1	<1	<1	<1	<1	NS	<1	<1
Calcium	300	418	887	478	628	560	200	591	586	NS	294	713
Chloride	NA	2460	15965	15400	17200	3470	40400	8880	38400	NS	7200	22800
Fluoride	<100	667	42.8	1.4	0.6	54.8	64.1	2300	12400	NS	1330	5410
Magnesium	5400	3386	15767	13100	17100	2500	22100	5680	15400	NS	1910	12700
Nitrogen-Ammonia	13900	1302	13867	9010	21600	2650	6470	6840	100	NS	3030	8.91
Nitrogen-Nitrate	<100	20	102	44	142	26	261	64	277	NS	59.5	26.6
Potassium	NA	254	6657	4760	3820	782	2590	1190	2110	NS	386	1620
Sodium	5900	3198	25583	22900	28600	5620	47900	6660	34400	NS	3630	23800
Sulfate	180000	33400	173667	167000	214000	40400	197000	80000	440000	NS	37000	158000
pH (s.u.)	0.82	2.28	1.6	1.79	1.4	2.18	1.27	2.4	1.05	NS	2.2	1.72
TDS	189000	51633	228500	193000	243000	56200	296000	120000	410000	NS	70100	238000
Conductivity (umhos/cm)	NA	NA	NA	NA	304000	59800	86400	80300	84300	NS	56200	121000
Metals (ug/l)												
Arsenic	163000	32867	256500	489000	ND	52900	263000	4340	66000	NS	2920	21500
Beryllium	540	430	913	840	905	206	1570	678	2570	NS	222	1520
Cadmium	2600	1958	9260	15400	ND	1960	12200	3460	24000	NS	2550	14800
Chromium	12000	3742	14883	12800	ND	3360	22800	10900	30600	NS	2380	15300
Cobalt	48000	NA	82783	57000	ND	13000	76000	76100	99700	NS	20800	72500
Copper	360000	87333	505000	345000	ND	89000	768000	379000	954000	NS	139000	511000
Iron	2100000	1278333	4874500	4400000	5970000	1460000	1.02E+07	3400000	9700000	NS	688000	4570000
Lead	<20000	2507	9647	16900	ND	17200	16700	1860	14400	NS	1900	9090
Manganese	82000	144000	496833	313000	ND	101000	587000	3110000	2470000	NS	214000	1270000
Mercury	ND	NA	ND	16	ND	<4	30.9	9.6	21.6	NS	2.4	7.01
Molybdenum	52000	12250	122167	209000	14	21300	96200	790	56100	NS	2930	12500
Nickel	170000	20917	131833	241000	ND	23800	75800	150000	122000	NS	44900	121000

Cell 3

Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Selenium	<2000	910	5856	10200	ND	3080	6900	2460	7060	NS	1370	4330
Silver	<2500	NA	305	1010	ND	101	792	1850	3380	NS	329	1790
Thallium	4700	NA	446	1200	ND	190	518	1080	694	NS	290	602
Tin	NA	NA	1090	1070	ND	155	325	<100	<100	NS	<17000	<100
Uranium	118000	67833	332333	636000	3690	180000	458000	835000	1200000	NS	134000	530000
Vanadium	210000	158333	935000	1130000	ND	692000	2370000	836000	3220000	NS	454000	1720000
Zinc	590000	NA	748833	515000	ND	134000	726000	652000	1430000	NS	155000	899000
Radiologics (pCi/l)												
Gross Alpha	NA	1015831	16533	21700	17000	4030	11100	1530	81900	NS	19700	94900 (8/4/2015) 8780 (5/28/2015)
VOCS (ug/L)												
Acetone	28	NA	80	100	67	37	330	64	302	159	<700	82.8
Benzene	<5	NA	ND	ND	<1	<1	<1	<1	<5	<1	<5.0	<1
Carbon tetrachloride	<5	NA	ND	ND	<1	<1	<1	<1	<5	<1	<5.0	<1
Chloroform	6	NA	ND	11	4.2	2.6	31	2	56.3	21	<70.0	1.75
Chloromethane	NA	NA	ND	ND	1.4	1.8	3.5	1	<5	2.58	<30.0	1.03
MEK	NA	NA	ND	ND	<1	<1	67	<20	<100	24.5	<4000	<20
Methylene Chloride	10	NA	ND	ND	<1	<1	7.4	<1	6.95	<1	<5.0	<1
Naphthalene	<10000	NA	ND	<10	<1	2.1	1.2	<1	<5	<1	<100	<1
Tetrahydrofuran	NA	NA	150	<20	<100	<10	<10	<1	<5	<1	<46.0	<1
Toluene	<5	NA	ND	ND	<1	<1	<1	<1	<5	<1	<1000	<1
Xylenes	<5	NA	ND	ND	<1	<1	<1	<1	<5	<1	<10000	<1
SVOCS (ug/L)												
1,2,4-Trichlorobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
1,2-Dichlorobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
1,3-Dichlorobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
1,4-Dichlorobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10

Cell 3

Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
1-Methylnaphthalene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2,4,5-Trichlorophenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2,4,6-Trichlorophenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2,4-Dichlorophenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2,4-Dimethylphenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2,4-Dinitrophenol	NA	NA	NA	NA	<53	<20	<20	<20	<21.1	<20	<20	<20
2,4-Dinitrotoluene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2,6-Dinitrotoluene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2-Chloronaphthalene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2-Chlorophenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2-Methylnaphthalene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2-Methylphenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
2-Nitrophenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
3&4-Methylphenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
3,3'-Dichlorobenzidine	NA	NA	NA	NA	<21	<10	<10	<10	<10.5	<10	<10	<10
4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	<53	<10	<10	<10	<10.5	<10	<10	<10
4-Bromophenyl phenyl ether	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
4-Chloro-3-methylphenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
4-Chlorophenyl phenyl ether	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
4-Nitrophenol	NA	NA	NA	NA	<53	<10	<10	<10	<10.5	<10	<10	<10
Acenaphthene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Acenaphthylene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Anthracene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Azobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Benz(a)anthracene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Benzidine	NA	NA	NA	NA	<21	<10	<10	<10	<10.5	<10	<10	<10
Benzo(a)pyrene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Benzo(b)fluoranthene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10

Cell 3

Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Benzo(g,h,i)perylene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Benzo(k)fluoranthene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Bis(2-chloroethyl) ether	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Bis(2-chloroisopropyl) ether	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	<11	10.6	<10	<10	<10.5	<10	<10	<10
Butyl benzyl phthalate	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Chrysene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Dibenz(a,h)anthracene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Diethyl phthalate	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Dimethyl phthalate	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Di-n-butyl phthalate	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Di-n-octyl phthalate	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Fluoranthene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Fluorene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Hexachlorobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Hexachlorobutadiene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Hexachlorocyclopentadiene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Hexachloroethane	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Isophorone	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Naphthalene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Nitrobenzene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
N-Nitrosodimethylamine	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
N-Nitrosodiphenylamine	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Pentachlorophenol	NA	NA	NA	NA	<53	<10	<10	<10	<10.5	<10	<10	<10
Phenanthrene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10

Cell 3

Chemical and Radiological Characteristics

Constituent	1987	2003 (Avg)	2007 (Avg)	2008	2009	2010	2011	2012	2013	2013 (resample)	2014	2015
Phenol	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Pyrene	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10
Pyridine	NA	NA	NA	NA	<11	<10	<10	<10	<10.5	<10	<10	<10

¹ Historic values reported for Gross Alpha from 1987 and 2003 are total gross alpha reported in pCi/L. All other gross alpha data are reported as Gross Alpha minus Rn & U.

Cell 4A

Chemical and Radiological Characteristics

Constituent	2009	2010	2011	2012	2013	2014	2015
Major Ions (mg/l)							
Carbonate	<1	<1	<1	<1	<1	<1	<1
Bicarbonate	<1	<1	<1	<1	<1	<1	<1
Calcium	627	598	558	591	668	445	604
Chloride	4650	7350	5870	4980	4530	5900	6410
Fluoride	0.3	21.6	30.6	43	1130	1290	1660
Magnesium	3250	4940	4720	2230	3660	2990	3910
Nitrogen-Ammonia	3140	5230	4930	1540	1340	2730	11
Nitrogen-Nitrate	28	52	44	27	38.2	39.5	19.9
Potassium	980	1440	1450	558	773	724	1020
Sodium	5980	11300	11400	7130	6860	7190	9760
Sulfate	67600	87100	267000	64900	83300	64900	77200
pH (s.u.)	1.4	1.99	1.73	1.2	1.47	1.7	1.51
TDS	81400	107000	108000	76000	90000	97000	104000
Conductivity (umhos/cm)	131000	101000	82100	78100	66300	73000	89600
Metals (ug/l)							
Arsenic	626000	109000	86600	60500	73700	70000	82600
Beryllium	296	215	323	167	247	190	281
Cadmium	1920	3670	2190	844	1450	1780	2090
Chromium	3220	7500	5900	5990	5220	4620	5460
Cobalt	9440	26500	22500	22900	22900	27500	26100
Copper	99200	168000	181000	433000	540000	556000	477000
Iron	2360000	2920000	3390000	3190000	2620000	2280000	3090000
Lead	5360	11800	11000	5270	11500	14800	11700
Manganese	178000	209000	131000	112000	143000	120000	181000
Mercury	1.19	<4	15.2	2.4	0.786	2.5	0.99
Molybdenum	24300	43800	24200	58200	25500	40600	35400
Nickel	17100	40900	43500	41300	43300	54100	48700
Selenium	4620	5810	4460	1310	2080	2000	2400
Silver	78	193	216	127	144	197	186
Thallium	162	350	410	250	256	376	436
Tin	257	378	319	169	118	<17000	142
Uranium	118000	217000	153000	91000	112000	159000	171000
Vanadium	918000	1090000	730000	237000	461000	535000	577000
Zinc	142000	224000	286000	200000	183000	169000	237000
Radiologics (pCi/l)							
Gross Alpha	8910	3400	8290	16300	15800	240000	176000 (8/4/2015) 37800 (5/28/2015)
VOCS (ug/L)							
Acetone	60	55	100	25	28.4	<700	42.5
Benzene	<1	<1	<1	<1	<1	<5.0	<1

Cell 4A LDS
Chemical and Radiological Characteristics

Constituent	2009	2010	2011	2012	2013	2014	2015
Major Ions (mg/l)							
Carbonate	<1	<1	<1	<1	<1	<1	<1
Bicarbonate	<1	<1	<1	<1	<1	<1	<1
Calcium	558	474	470	453	429	336	510
Chloride	7570	4670	6040	2710	1910	4200	2860
Fluoride	0.7	39.4	46	27	1970	1320	282
Magnesium	6390	3240	5100	2070	1710	2690	2730
Nitrogen-Ammonia	4480	2290	3480	1320	1010	2920	13.4
Nitrogen-Nitrate	69	183	94	15	28.9	39	27.4
Potassium	1960	934	1500	503	305	415	245
Sodium	12600	6700	11000	3500	2930	4190	3490
Sulfate	92400	41700	77400	39600	31400	56000	50500
pH (s.u.)	1.98	2.53	2.32	2.1	2.32	2.4	2.29
TDS	117000	56900	93800	55400	49700	81900	65200
Conductivity (umhos/cm)	150000	49000	66600	39600	31300	53600	50200
Metals (ug/l)							
Arsenic	133000	54000	74700	44100	35700	51200	10400
Beryllium	536	295	367	180	188	185	199
Cadmium	4010	2650	3160	921	1170	4720	4270
Chromium	9140	3890	5940	3930	2630	2780	1760
Cobalt	37300	15200	21700	22300	44300	41200	33700
Copper	222000	116000	150000	481000	754000	439000	160000
Iron	3940000	1420000	2530000	2460000	1370000	1850000	1320000
Lead	5270	3400	4520	2300	165	991	46.8
Manganese	389000	157000	207000	95200	86300	98600	96700
Mercury	2.66	6.2	14.7	0.7	<0.5	<0.0020	<0.5
Molybdenum	49200	23900	29300	10200	1200	3970	278
Nickel	43900	23900	29600	35000	54600	99300	86300
Selenium	5250	2820	3780	1260	1020	2170	649
Silver	204	62	127	44	24.8	<100	25.6
Thallium	252	194	290	332	171	522	218
Tin	504	180	119	<100	<100	<17000	<100
Uranium	284000	145000	168000	90200	75000	82200	25000
Vanadium	1150000	518000	770000	240000	157000	510000	253000
Zinc	298000	152000	204000	181000	163000	306000	510000
Radiologics (pCi/l)							
Gross Alpha	7020	3230	7440	4730	6930	61800	17200 (8/4/2015) 1670 (5/28/2015)
VOCS (ug/L)							
Acetone	240	130	120	55	57	<700	84.7
Benzene	<1	<1	<1	<1	<1	<5.0	<1

Cell 4B

Chemical and Radiological Characteristics

Constituent	2011	2012	2013	2014	2015
Major Ions (mg/l)					
Carbonate	<1	<1	<1	<1	<1
Bicarbonate	<1	<1	<1	<1	<1
Calcium	570	580	662	366	655
Chloride	8290	8170	4570	7300	8500
Fluoride	26.7	23.3	1050	1150	1210
Magnesium	3910	4500	3560	3310	5530
Nitrogen-Ammonia	5220	5580	2060	5380	1.09
Nitrogen-Nitrate	39	42	51.4	47	15.2
Potassium	1370	1650	1110	989	1700
Sodium	9050	11700	3150	7100	12800
Sulfate	134000	119000	98100	91500	108000
pH (s.u.)	1.87	1.5	1.65	1.6	1.35
TDS	98000	128000	108000	131000	149000
Conductivity (umhos/cm)	76900	86900	72800	90100	115000
Metals (ug/l)					
Arsenic	67400	80000	65400	70400	106000
Beryllium	311	356	334	275	430
Cadmium	1990	2540	1990	2290	2980
Chromium	6860	8280	6390	6940	7450
Cobalt	17800	29300	21300	24600	33700
Copper	193000	340000	340000	368000	499000
Iron	2960000	3580000	2830000	2480000	4340000
Lead	9960	11600	9820	10900	13400
Manganese	128000	148000	154000	129000	231000
Mercury	13.7	2.6	1.49	<0.0020	1.72
Molybdenum	21400	27600	26100	29000	39800
Nickel	33900	50500	35100	42000	56400
Selenium	4670	4470	3900	5010	5600
Silver	137	169	137	142	195
Thallium	237	368	243	258	408
Tin	196	215	163	<17000	211
Uranium	133000	171000	110000	133000	200000
Vanadium	660000	783000	163000	666000	881000
Zinc	191000	270000	184000	144000	313000
Radiologics (pCi/l)					
Gross Alpha	8590	13600	14600	148000	267000 (8/4/2015) 42500 (5/28/2015)
VOCS (ug/L)					
Acetone	130	94	43.5	<700	56.2
Benzene	<1	<1	<1	<5.0	<1

Cell 4B

Chemical and Radiological Characteristics

Constituent	2011	2012	2013	2014	2015
Carbon tetrachloride	<1	<1	<1	<5.0	<1
Chloroform	9.4	4	8.06	<70.0	2.34
Chloromethane	8.5	8	7.12	<30.0	3.62
MEK	<1	<1	<20	<4000	<20
Methylene Chloride	<1	<1	<1	<5.0	<1
Naphthalene	<1	<1	<1	<100	<1
Tetrahydrofuran	<10	11.1	<1	<46.0	<1
Toluene	<1	<1	<1	<1000	<1
Xylenes	<1	<1	<1	<10000	<1
SVOCS (ug/L)					
1,2,4-Trichlorobenzene	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<10
1-Methylnaphthalene	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	<10	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10	<10
2,4-Dinitrophenol	<20	<20	<20	<20	<20
2,4-Dinitrotoluene	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	<10	<10	<10	<10	<10
2-Chloronaphthalene	<10	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10	<10
2-Methylnaphthalene	<10	<10	<10	<10	<10
2-Methylphenol	<10	<10	<10	<10	<10
2-Nitrophenol	<10	<10	<10	<10	<10
3&4-Methylphenol	<10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	<10	<10	<10	<10	<10
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10
4-Chlorophenyl phenyl ether	<10	<10	<10	<10	<10
4-Nitrophenol	<10	<10	<10	<10	<10
Acenaphthene	<10	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10	<10
Azobenzene	<10	<10	<10	<10	<10
Benz(a)anthracene	<10	<10	<10	<10	<10
Benzidine	<10	<10	<10	26	<10
Benzo(a)pyrene	<10	<10	<10	<10	<10

Cell 4B

Chemical and Radiological Characteristics

Constituent	2011	2012	2013	2014	2015
Benzo(b)fluoranthene	<10	<10	<10	<10	<10
Benzo(g,h,i)perylene	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	<10	<10	<10	<10	<10
Bis(2-chloroethoxy)methane	<10	<10	<10	<10	<10
Bis(2-chloroethyl) ether	<10	<10	<10	<10	<10
Bis(2-chloroisopropyl) ether	<10	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	410	19	<10	<10	<10
Butyl benzyl phthalate	<10	<10	<10	<10	<10
Chrysene	<10	<10	<10	<10	<10
Dibenz(a,h)anthracene	<10	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10	<10
Hexachlorobenzene	<10	<10	<10	<10	<10
Hexachlorobutadiene	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	<10	<10	<10	<10	<10
Hexachloroethane	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10	<10	<10	<10
Isophorone	<10	<10	<10	<10	<10
Naphthalene	<10	<10	<10	<10	<10
Nitrobenzene	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	<10	<10	<10	<10	<10
N-Nitrosodi-n-propylamine	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	<10	<10	<10	<10	<10
Pentachlorophenol	<10	<10	<10	<10	<10
Phenanthrene	<10	<10	<10	<10	<10
Phenol	<10	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10	<10
Pyridine	<10	<10	<10	15	<10

Cell 4B LDS
Chemical and Radiological Characteristics

Constituent	2011	2012	2013	2014	2015
Major Ions (mg/l)					
Carbonate	<1	<1	Not Sampled - dry	<1	<1
Bicarbonate	<1	<1		<1	<1
Calcium	486	456		308	538
Chloride	3630	6850		6900	7960
Fluoride	28.4	22		970	1150
Magnesium	3230	3360		3400	5190
Nitrogen-Ammonia	4260	4090		5240	2.43
Nitrogen-Nitrate	30	31		43	16.6
Potassium	1130	1060		952	1560
Sodium	8240	8080		6920	11900
Sulfate	59900	99100		82300	104000
pH (s.u.)	2.23	2.4		2.2	1.51
TDS	85800	90200		129000	131000
Conductivity (umhos/cm)	63000	62400		76300	106000
Metals (ug/l)					
Arsenic	54200	41200	Not Sampled - dry	67800	98400
Beryllium	274	271		282	411
Cadmium	1670	1740		2290	2790
Chromium	6250	5930		6160	7320
Cobalt	15600	19000		23300	31100
Copper	176000	181000		308000	458000
Iron	2450000	2120000		2590000	4180000
Lead	6060	4420		4120	10100
Manganese	118000	162000		144000	222000
Mercury	12.3	3		0.002	1.47
Molybdenum	16700	15000		24300	36300
Nickel	30700	33700		40100	52600
Selenium	3710	2880		4080	5080
Silver	111	117		119	179
Thallium	179	175		336	354
Tin	332	<100		<17000	198
Uranium	111000	132000		143000	185000
Vanadium	518000	428000		671000	817000
Zinc	172000	182000	144000	296000	
Radiologics (pCi/l)					
Gross Alpha	6000	7500	Not Sampled - dry	181000	375000 (8/4/2015) 52500 (5/28/2015)

Cell 4B LDS

Chemical and Radiological Characteristics

Constituent	2011	2012	2013	2014	2015
VOCS (ug/L)					
Acetone	390	370	Not Sampled - dry	<700	218
Benzene	<1	<1		<5.0	<1
Carbon tetrachloride	<1	<1		<5.0	<1
Chloroform	20	19		<70.0	5.03
Chloromethane	11	11		<30.0	9.72
MEK	240	180		<4000	71.8
Methylene Chloride	<1	<1		<5.0	<1
Naphthalene	<1	<1		<100	<1
Tetrahydrofuran	198	322		75.6	36.6
Toluene	<1	<1		<1000	<1
Xylenes	<1	<1		<10000	<1
SVOCS (ug/L)					
1,2,4-Trichlorobenzene	<10	<10	Not Sampled - dry	<10	<10
1,2-Dichlorobenzene	<10	<10		<10	<10
1,3-Dichlorobenzene	<10	<10		<10	<10
1,4-Dichlorobenzene	<10	<10		<10	<10
1-Methylnaphthalene	<10	<10		<10	<10
2,4,5-Trichlorophenol	<10	<10		<10	<10
2,4,6-Trichlorophenol	<10	<10		<10	<10
2,4-Dichlorophenol	<10	<10		<10	<10
2,4-Dimethylphenol	<10	<10		<10	<10
2,4-Dinitrophenol	<20	<20		<20	<20
2,4-Dinitrotoluene	<10	<10		<10	<10
2,6-Dinitrotoluene	<10	<10		<10	<10
2-Chloronaphthalene	<10	<10		<10	<10
2-Chlorophenol	<10	<10		<10	<10
2-Methylnaphthalene	<10	<10		<10	<10
2-Methylphenol	<10	<10		<10	<10
2-Nitrophenol	<10	<10		<10	<10
3&4-Methylphenol	<10	<10		<10	<10
3,3'-Dichlorobenzidine	<10	<10		<10	<10
4,6-Dinitro-2-methylphenol	<10	<10		<10	<10
4-Bromophenyl phenyl ether	<10	<10		<10	<10
4-Chloro-3-methylphenol	<10	<10		<10	<10
4-Chlorophenyl phenyl ether	<10	<10		<10	<10
4-Nitrophenol	<10	<10		<10	<10
Acenaphthene	<10	<10		<10	<10
Acenaphthylene	<10	<10		<10	<10
Anthracene	<10	<10		<10	<10
Azobenzene	<10	<10		<10	<10

Cell 4B LDS

Chemical and Radiological Characteristics

Constituent	2011	2012	2013	2014	2015
Benz(a)anthracene	<10	<10	Not Sampled - dry	<10	<10
Benidine	<10	<10		<10	<10
Benzo(a)pyrene	<10	<10		<10	<10
Benzo(b)fluoranthene	<10	<10		<10	<10
Benzo(g,h,i)perylene	<10	<10		<10	<10
Benzo(k)fluoranthene	<10	<10		<10	<10
Bis(2-chloroethoxy)methane	<10	<10		<10	<10
Bis(2-chloroethyl) ether	<10	<10		<10	<10
Bis(2-chloroisopropyl) ether	<10	<10		<10	<10
Bis(2-ethylhexyl) phthalate	191	191		27	<10
Butyl benzyl phthalate	<10	<10		<10	<10
Chrysene	<10	<10		<10	<10
Dibenz(a,h)anthracene	<10	<10		<10	<10
Diethyl phthalate	<10	<10		<10	<10
Dimethyl phthalate	<10	<10		<10	<10
Di-n-butyl phthalate	<10	<10		<10	<10
Di-n-octyl phthalate	<10	<10		<10	<10
Fluoranthene	<10	<10		<10	<10
Fluorene	<10	<10		<10	<10
Hexachlorobenzene	<10	<10		<10	<10
Hexachlorobutadiene	<10	<10		<10	<10
Hexachlorocyclopentadiene	<10	<10		<10	<10
Hexachloroethane	<10	<10		<10	<10
Indeno(1,2,3-cd)pyrene	<10	<10		<10	<10
Isophorone	<10	<10		<10	<10
Naphthalene	<10	<10		<10	<10
Nitrobenzene	<10	<10		<10	<10
N-Nitrosodimethylamine	<10	<10		<10	<10
N-Nitrosodi-n-propylamine	<10	<10		<10	<10
N-Nitrosodiphenylamine	<10	<10		<10	<10
Pentachlorophenol	<10	<10	<10	<10	
Phenanthrene	<10	<10	<10	<10	
Phenol	<10	<10	<10	<10	
Pyrene	<10	<10	<10	<10	
Pyridine	<10	<10	<10	<10	

1980 – 2003 IUC/NRC Tailings System Wastewater Samples*¹

Constituent	Minimum	Maximum
pH (Std units)	0.7	2.33
Nutrients (mg/L)		
Ammonia (N)	3.0	13900
Nitrite (N)	<100	<100
Nitrate (N)	24	24
Nitrate+Nitrite (N)	17.0	49.2
Phosphorus – total	88.1	620
TKN (N)	4900	5300
Inorganics (mg/L)		
Bicarbonate (HCO ₃)	<5	<5
Bromide	<500	<500
Carbonate (CO ₃)	<1	<5
Chloride	2110	8000
Cyanide – total	0.022	0.022
Fluoride	0.02	4400
Phosphate	<500	<500
Silica	110	400
Sulfate	29800	190000
Sulfide	<5	<5
TDS	43100	189000
TOC	76.0	81
TSS	31.0	115
Metals (mg/l)		
Aluminum	330	2530
Antimony	<20	<20
Arsenic	0.3	440
Barium	1.021	0.1
Beryllium	0.347	0.78
Boron	3.5	11.3
Cadmium	1.64	6.6
Calcium	90.0	630
Chromium	1.0	13
Cobalt	14.0	120
Copper	72.2	740
Iron	1080	3400
Gallium	<30	<30
Lead	0.21	6.0
Lithium	<10	<20
Magnesium	1800	7900
Manganese	74.0	222
Mercury	0.0008	17.6
Molybdenum	0.44	240
Nickel	7.2	370
Potassium	219.0	828
Selenium	0.18	2.4
Silver	0.005	0.14
Sodium	1400	10000

1980 – 2003 IUC/NRC Tailings System Wastewater Samples*¹

Constituent	Minimum	Maximum
Strontium	3.6	14
Thallium	0.7	45
Tin	<5	<5
Titanium	6.5	33.3
Uranium	5.0	154
Vanadium	136	510
Zinc	50	1300
Zirconium	2.3	38.5
Radiologics (pCi/L)		
Gross Alpha	14000	189000
Gross Beta	74	116000
Lead-210	680	20700
Thorium-230	3650	76640
Thorium-232	49	121
Polonium-210	1410	1410
Radium-226	40	1690
Radium-228	1.9	1.9
Total Radium	42	1700
Selected VOCs (ug/L)		
Acetone	28	514
Benzene	<5	<5
2-butanone (MEK)	11	15.13
Carbon Disulfide	16	16
Carbon Tetrachloride	<5	<5
Chloroform	6	16.84
1,1-Dichloroethane	<5	<5
1,2-Dichloroethane	<5	<5
Dichloromethane	10	11
Tetrahydrofuran	N/A	N/A
Toluene	<5	6.25
Vinyl Chloride	<10	<10
Xylene (total)	<5	<5
Selected Semivolatiles (ug/L)		
Benzo(a)pyrene	<10	<10
Bis(2-ethylhexyl)phthalate	1	1
Chrysene	<10	<10
Diethyl phthalate	<10	18.1
Dimethylphthalate	2.7	2.7
Di-n-butylphthalate	1.08	1.08
Fluoranthene	<10	<10
2-Methylnaphthalene	<10	<10
Naphthalene	2.44	2.44
Phenol	<10	38.4

*Reproduced from the Utah Division of Radiation Control Groundwater Quality Discharge Permit, Statement of Basis for a Uranium Mining Facility at White Mesa, South of Blanding, Utah, dated December 1, 2004.

¹The data in the Utah Division of Radiation Control Groundwater Quality Discharge Permit, Statement of Basis are based on historical data collected from Cell 1, Cell 2, and Cell 3. The date of collection reflects which cells were operational at the time of sampling. The location of the samples and date of collection is referenced in the Statement of Basis.

Tab E

Quality Assurance and Data Validation Tables

Table E-1 Holding Time Evaluation**

	Required Holding Time	Cell 1 Solutions	Cell 2 Slimes Drain	Cell 3 Solutions	Cell 4A Solutions	Cell 4A LDS	Cell 4B Solutions	Cell 4B LDS	Cell 65 (Duplicate of Cell 4B LDS)
Carbonate	14 days	OK	OK	OK	OK	OK	OK	OK	OK
Bicarbonate	14 days	OK	OK	OK	OK	OK	OK	OK	OK
Calcium	6 months	OK	OK	OK	OK	OK	OK	OK	OK
Chloride	28 days	OK	OK	OK	OK	OK	OK	OK	OK
Fluoride	28 days	OK	OK	OK	OK	OK	OK	OK	OK
Magnesium	6 months	OK	OK	OK	OK	OK	OK	OK	OK
Nitrogen-Ammonia	28 days	OK	OK	OK	OK	OK	OK	OK	OK
Nitrogen-Nitrate	28 days	OK	OK	OK	OK	OK	OK	OK	OK
Potassium	6 months	OK	OK	OK	OK	OK	OK	OK	OK
Sodium	6 months	OK	OK	OK	OK	OK	OK	OK	OK
Sulfate	28 days	OK	OK	OK	OK	OK	OK	OK	OK
pH (pH units)	Immediately	OK*	OK*	OK*	OK*	OK*	OK*	OK*	OK*
TDS	7 days	OK	OK	OK	OK	OK	OK	OK	OK
Conductivity (umhos/cm)	N/A	OK	OK	OK	OK	OK	OK	OK	OK
Metals	6 months (except mercury which is 28 days)	OK	OK	OK	OK	OK	OK	OK	OK
Radiologics	6 months	OK	OK	OK	OK	OK	OK	OK	OK
VOCS (including THF)	14 days	OK	OK	OK	OK	OK	OK	OK	OK
SVOCS	7 days to extraction/40 days for analysis	OK	OK	OK	OK	OK	OK	OK	OK

* Per the method, pH should be analyzed within 15 minutes of sample collection. Due to the nature of the solution matrix, sample handling in the field is minimized and pH is measured by the laboratory upon receipt. This procedure change was requested by and approved by DWMRC.

** - The voluntary analyses conducted for specific gravity, kinematic viscosity, thorium isotopes, uranium isotopes, and radium-226 are for informational purposes only. These analyses do not have QAP required holding times, and therefore, are not included in the holding time evaluation. The gross alpha analyses from the May 2015 sampling event are included in the evaluation above as required.

E-2 Laboratory Receipt Temperature Check

Work Order Number/Lab Set ID	Receipt Temp
GEL - 378920	N/A
GEL - 377632	N/A**
GEL - 374106	N/A**
AWAL - 1508124*	5.3, 0.8, 4.4°C

N/A = These shipments contained samples for the analysis of gross alpha only. Samples submitted for gross alpha analyses do not have a sample temperature requirement.

* - Samples were shipped in 3 separate coolers

** - Work order number 374106 contains results for gross alpha and the additional radiological constituents from the voluntary May 2015 sampling event. Gross alpha analyses do not have a sample temperature requirement. The voluntary analyses conducted for specific gravity, kinematic viscosity, thorium isotopes, uranium isotopes, and radium-226 are for informational purposes only. These analyses do not have QAP required receipt temperature requirements.

E-3: Analytical Method Check - Routine Samples**

Parameter	QAP/Permit Method	Method Used by Lab
Ammonia (as N)	A4500-NH3 G or E350.1	E350.1
Nitrate + Nitrite (as N)	E353.1 or E353.2	E353.2
Metals	E200.7 or E200.8	E200.7 and E200.8
Gross Alpha	E900.0 or E900.1	E900.1
VOCs	SW8260B or SW8260C	SW8260C
Chloride	A4500-Cl B or E300.0	E300.0
Fluoride	A4500-F C or E300.0	E300.0
Sulfate	A4500-SO4 E or E300.0	E300.0
TDS	A2540 C	A2540 C
Carbonate as CO ₃ , Bicarbonate as HCO ₃	A2320 B	A2320 B
pH	A4500 H-B	A4500 H-B
Conductivity	EPA 120.1	EPA 120.1
SVOCs	SW8270D	SW8270D

** - The voluntary analyses conducted for specific gravity, kinematic viscosity, thorium isotopes, uranium isotopes, and radium-226 are for informational purposes only. These analyses do not have QAP required methods, and therefore, are not included in the analytical method evaluation. The gross alpha analyses from the May 2015 sampling event have been included in the evaluation above as required.

E-4 Reporting Limit Evaluation**

Parameter	Permit-Specified RL
Ammonia (as N)	25 mg/L
Nitrate + Nitrite (as N)	10 mg/L
Metals ug/L	
Arsenic	50
Beryllium	4
Cadmium	5
Chromium	100
Cobalt	730
Copper	1300
Iron	11000
Lead	15
Manganese	800
Mercury	2
Molybdenum	40
Nickel	100
Selenium	50
Silver	100
Thallium	2
Tin	17000
Uranium	30
Vanadium	60
Zinc	5000
Gross Alpha	15
VOCs ug/L	
Acetone	700
Benzene	5
Carbon tetrachloride	5
Chloroform	70
Chloromethane	30
MEK	4000
Methylene Chloride	5
Naphthalene	100
Tetrahydrofuran	46
Toluene	1000
Xylenes	10000
Major Ions	
Chloride	1.0 mg/L
Fluoride	4 mg/L
Sulfate	1000 mg/L
TDS	1000 mg/L
Carbonate as CO ₃ , Bicarbonate as HCO ₃	1*
Calcium, Magnesium, Potassium, Sodium	1*
SVOCs (from the 8270D LLD) ug/L	
1,2,4-Trichlorobenzene	10
1,2-Dichlorobenzene	10

E-4 Reporting Limit Evaluation**

Parameter	Permit-Specified RL
1,3-Dichlorobenzene	10
1,4-Dichlorobenzene	10
1-Methylnaphthalene	10
2,4,5-Trichlorophenol	10
2,4,6-Trichlorophenol	10
2,4-Dichlorophenol	10
2,4-Dimethylphenol	10
2,4-Dinitrophenol	50
2,4-Dinitrotoluene	10
2,6-Dinitrotoluene	10
2-Chloronaphthalene	10
2-Chlorophenol	10
2-Methylnaphthalene	10
2-Methylphenol	10
2-Nitrophenol	10
3&4-Methylphenol	10
3,3'-Dichlorobenzidine	20
4,6-Dinitro-2-methylphenol	50
4-Bromophenyl phenyl ether	10
4-Chloro-3-methylphenol	20
4-Chlorophenyl phenyl ether	10
4-Nitrophenol	50
Acenaphthene	10
Acenaphthylene	10
Anthracene	10
Azobenzene	10*
Benz(a)anthracene	10
Benzidine	10*
Benzo(a)pyrene	10
Benzo(b)fluoranthene	10
Benzo(g,h,i)perylene	10
Benzo(k)fluoranthene	10
Bis(2-chloroethoxy)methane	10
Bis(2-chloroethyl) ether	10
Bis(2-chloroisopropyl) ether	10
Bis(2-ethylhexyl) phthalate	10*
Butyl benzyl phthalate	10
Chrysene	10
Dibenz(a,h)anthracene	10
Diethyl phthalate	10
Dimethyl phthalate	10
Di-n-butyl phthalate	10
Di-n-octyl phthalate	10
Fluoranthene	10
Fluorene	10

E-4 Reporting Limit Evaluation**

Parameter	Permit-Specified RL
Hexachlorobenzene	10
Hexachlorobutadiene	10
Hexachlorocyclopentadiene	10
Hexachloroethane	10
Indeno(1,2,3-cd)pyrene	10
Isophorone	10
Naphthalene	10
Nitrobenzene	10
N-Nitrosodimethylamine	10*
N-Nitrosodi-n-propylamine	10
N-Nitrosodiphenylamine	10
Pentachlorophenol	50
Phenanthrene	10
Phenol	10
Pyrene	10
Pyridine	10*

All analyses were reported to the required RLs unless noted in the text.

* Reporting limits for these analytes are not specified in either the Permit or EPA Method 8270D. The reporting limits established by the laboratory are reported here. The reporting limits are comparable to other analytes in the same method.

** - The voluntary analyses conducted for specific gravity, kinematic viscosity, thorium isotopes, uranium isotopes, and radium-226 are for informational purposes only. These analyses do not have QAP required reporting limits, and therefore, are not included in the reporting limit evaluation. The gross alpha analyses from the May 2015 sampling event are included in the evaluation above as required.

E-5: Trip Blank Evaluation

All trip blanks for the 2015 sampling program were nondetect.

Blank	Sample Date	Laboratory
1	8/4/2015	AWAL

E-6 Duplicate Sample Relative Percent Difference**

Major Ions (mg/l)	Cell 4B LDS	Cell 65	RPD %
Carbonate	<1	<1	NA
Bicarbonate	<1	<1	NA
Calcium	538	546	1.5
Chloride	7960	8030	0.9
Fluoride	1150	1080	6.3
Magnesium	5190	5260	1.3
Nitrogen-Ammonia	2.43	9.42	118.0
Nitrogen-Nitrate	16.6	25.1	40.8
Potassium	1560	1580	1.3
Sodium	11900	12100	1.7
Sulfate	104000	105000	1.0
pH (s.u.)	1.51	1.48	2.0
TDS	131000	133000	1.5
Conductivity (umhos/cm)	106000	104000	1.9
Metals (ug/l)			
Arsenic	98400	102000	3.6
Beryllium	411	422	2.6
Cadmium	2790	2840	1.8
Chromium	7320	7420	1.4
Cobalt	31100	32200	3.5
Copper	458000	469000	2.4
Iron	4180000	4290000	2.6
Lead	10100	10300	2.0
Manganese	222000	229000	3.1
Mercury	1.47	1.65	11.5
Molybdenum	36300	37300	2.7
Nickel	52600	54400	3.4
Selenium	5080	5310	4.4
Silver	179	183	2.2
Thallium	354	362	2.2
Tin	198	203	2.5
Uranium	185000	191000	3.2
Vanadium	817000	821000	0.5
Zinc	296000	300000	1.3
Radiologics (pCi/l)			
Gross Alpha* (8/4/2015)	375000	412000	6.92
Gross Alpha* (5/28/2015)	37800 (Cell 4A)	19700	232.96
VOCS (ug/L)			
Acetone	218	224	2.7
Benzene	<1	<1	NA
Carbon tetrachloride	<1	<1	NA
Chloroform	5.03	5.01	0.4
Chloromethane	9.72	10	2.8

E-6 Duplicate Sample Relative Percent Difference**

Major Ions (mg/l)	Cell 4B LDS	Cell 65	RPD %
MEK	71.8	74.2	3.3
Methylene Chloride	<1	<1	NA
Naphthalene	<1	<1	NA
Tetrahydrofuran	36.6	37.5	2.4
Toluene	<1	<1	NA
Xylenes	<1	<1	NA
SVOCS (ug/L)			
1,2,4-Trichlorobenzene	<10	<10	NA
1,2-Dichlorobenzene	<10	<10	NA
1,3-Dichlorobenzene	<10	<10	NA
1,4-Dichlorobenzene	<10	<10	NA
1-Methylnaphthalene	<10	<10	NA
2,4,5-Trichlorophenol	<10	<10	NA
2,4,6-Trichlorophenol	<10	<10	NA
2,4-Dichlorophenol	<10	<10	NA
2,4-Dimethylphenol	<10	<10	NA
2,4-Dinitrophenol	<20	<20	NA
2,4-Dinitrotoluene	<10	<10	NA
2,6-Dinitrotoluene	<10	<10	NA
2-Chloronaphthalene	<10	<10	NA
2-Chlorophenol	<10	<10	NA
2-Methylnaphthalene	<10	<10	NA
2-Methylphenol	<10	<10	NA
2-Nitrophenol	<10	<10	NA
3&4-Methylphenol	<10	<10	NA
3,3'-Dichlorobenzidine	<10	<10	NA
4,6-Dinitro-2-methylphenol	<10	<10	NA
4-Bromophenyl phenyl ether	<10	<10	NA
4-Chloro-3-methylphenol	<10	<10	NA
4-Chlorophenyl phenyl ether	<10	<10	NA
4-Nitrophenol	<10	<10	NA
Acenaphthene	<10	<10	NA
Acenaphthylene	<10	<10	NA
Anthracene	<10	<10	NA
Azobenzene	<10	<10	NA
Benz(a)anthracene	<10	<10	NA
Benzidine	<10	<10	NA
Benzo(a)pyrene	<10	<10	NA
Benzo(b)fluoranthene	<10	<10	NA
Benzo(g,h,i)perylene	<10	<10	NA
Benzo(k)fluoranthene	<10	<10	NA
Bis(2-chloroethoxy)methane	<10	<10	NA
Bis(2-chloroethyl) ether	<10	<10	NA

E-6 Duplicate Sample Relative Percent Difference**

Major Ions (mg/l)	Cell 4B LDS	Cell 65	RPD %
Bis(2-chloroisopropyl) ether	<10	<10	NA
Bis(2-ethylhexyl) phthalate	<10	<10	NA
Butyl benzyl phthalate	<10	<10	NA
Chrysene	<10	<10	NA
Dibenz(a,h)anthracene	<10	<10	NA
Diethyl phthalate	<10	<10	NA
Dimethyl phthalate	<10	<10	NA
Di-n-butyl phthalate	<10	<10	NA
Di-n-octyl phthalate	<10	<10	NA
Fluoranthene	<10	<10	NA
Fluorene	<10	<10	NA
Hexachlorobenzene	<10	<10	NA
Hexachlorobutadiene	<10	<10	NA
Hexachlorocyclopentadiene	<10	<10	NA
Hexachloroethane	<10	<10	NA
Indeno(1,2,3-cd)pyrene	<10	<10	NA
Isophorone	<10	<10	NA
Naphthalene	<10	<10	NA
Nitrobenzene	<10	<10	NA
N-Nitrosodimethylamine	<10	<10	NA
N-Nitrosodi-n-propylamine	<10	<10	NA
N-Nitrosodiphenylamine	<10	<10	NA
Pentachlorophenol	<10	<10	NA
Phenanthrene	<10	<10	NA
Phenol	<10	<10	NA
Pyrene	<10	<10	NA
Pyridine	<10	<10	NA

Highlighted cells indicate an RPD that exceeded the 20% RPD criteria

Per the approved QAP, an RPD greater than 20% is acceptable if the reported results are less than 5 times the RL. These results are provided for information only.

* Duplicate checks reported for gross alpha minus RN and U are not %RPD. Calculated values are based on the formula in the approved QAP.

** - The voluntary analyses conducted for specific gravity, kinematic viscosity, thorium isotopes, uranium isotopes, and radium-226 are for informational purposes only. These analyses do not have QAP required duplicate requirements, and therefore, are not included in the duplicate evaluation.

E-7 Radiologies Counting Error

Sample ID	Gross Alpha minus Rn & U	Gross Alpha minus Rn & U Precision (±)	Counting Error ≤ 20%	GWQS	Within GWQS
Cell 1 8/4/2015	735000	4230	Y	15	NA
Cell 1 5/28/2015	73800	80.6	Y	15	NA
Cell 2 Slimes	7210	442	Y	15	NA
Cell 3 8/4/2015	94900	1720	Y	15	NA
Cell 3 5/28/2015	8780	28.7	Y	15	NA
Cell 4A 8/4/2015	176000	2150	Y	15	NA
Cell 4A 5/28/2015	37800	60.7	Y	15	NA
Cell 4A LDS 8/4/2015	17200	655	Y	15	NA
Cell 4A LDS 5/28/2015	1670	12.1	Y	15	NA
Cell 4B 8/4/2015	267000	2410	Y	15	NA
Cell 4B 5/28/2015	42500	60.2	Y	15	NA
Cell 4B LDS 8/4/2015	375000	3580	Y	15	NA
Cell 4B LDS 5/28/2015	52500	87.8	Y	15	NA
Cell 65 8/4/2015 (Duplicate of Cell 4B LDS)	412000	3970	Y	15	NA
Cell 65 5/28/2015 (Duplicate of Cell 4A)	19700	48.5	Y	15	NA

GWQS = Groundwater Quality Standard

E-8: Laboratory Matrix QC

Matrix Spike % Recovery Comparison

Lab Report	Sample ID	Analyte	MS %REC	MSD %REC	REC Range	RPD
1508124	Cell 4A	Magnesium*	NC	NC	70-130	NC
1508124	Cell 4A	Potassium*	NC	NC	70-130	NC
1508124	Cell 4A	Sodium*	NC	NC	70-130	NC
1508124	Cell 4A	Vanadium*	NC	NC	70-130	NC
1508124	Cell 4A	Chromium	72.5	75.3	75-125	0.807
1508124	Cell 4A	Lead	74.1	75.6	75-125	0.227
1508124	Cell 4A	Arsenic*	NC	NC	75-125	NC
1508124	Cell 4A	Copper*	NC	NC	75-125	NC
1508124	Cell 4A	Manganese*	NC	NC	75-125	NC
1508124	Cell 4A	Nickel*	NC	NC	75-125	NC
1508124	Cell 4A	Uranium*	NC	NC	75-125	NC
1508124	Cell 4A	Zinc*	NC	NC	75-125	NC
1508124	Cell 4A	Iron*	NC	NC	75-125	NC
1508124	Cell 4A	Cobalt*	NC	NC	75-125	NC
1508124	Cell 4A	Molybdenum*	NC	NC	75-125	NC
1508124	Cell 4A	Alkalinity	0	0	80-120	0
1508124	Cell 4A	Ammonia	12	42.2	90-110	12.7
1508124	Cell 4A	Nitrate	-59.7	-55.9	90-110	9.15
1508124	Cell 4A	1,2,4-trichlorobenzene	10.8	8.66	20-107	9.77
1508124	Cell 4A	1,2-dichlorobenzene	7.51	6.01	11-90	7.53
1508124	Cell 4A	2,4-dinitrotoluene	0	8.74	21-191	200
1508124	Cell 4A	4,6-dinitro-2-methylphenol	0	0	20-250	0
1508124	Cell 4A	4-nitrophenol	0	9.65	10-135	200
1508124	Cell 4A	2,4,6-trichlorophenol	48.6	70.7	10-223	37
1508124	Cell 4A	4-chloro-3-methylphenol	54	74.3	10-136	31.8
1508124	Cell 4A	benzo(a)pyrene	55	81.1	15-169	38.4
1508124	Cell 4A	pentachlorophenol	51.3	41.1	10-131	29.5
1508124	Cell 4A	pyrene	56	44.8	23-150	36.3
1508124	Cell 4A	naphthalene	170	176	41-131	3.47
1508124	Cell 4A	tetrahydrofuran	145	148	43-146	2.46

NC = Not Calculated

*= Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

N/A = QC was not performed on an EFRI sample.

Method Blank detections

Lab Report	Well/Sample	Analyte	Reported Concentration (mg/L)
1508124	NA	Ammonia as N	0.0589

LCS % Recovery

All LCS recoveries were within acceptable ranges for the quarter.

E-8: Laboratory Matrix QC

Surrogate % Recovery

Lab Report	Well/Sample	Analyte	Surrogate %REC	Lab Specified REC Range	QAP Required Range
1508124	Cell 4A	nitrobenzene-d5	8.33	10-180	None
1580124	Cell 1	2-fluorobuphenyl	7.3	10-124	None
1580124	Cell 1	2-fluorophenol	8.91	10-106	None
1580124	Cell 1	nitrobenzene-d5	9.18	10-180	None
1580124	Cell 2	nitrobenzene-d5	1.58	10-180	None
1580124	Cell 4A	nitrobenzene-d5	4.33	10-180	None
1580124	Cell 4A	terphenyl-d14	1.75	10-221	None
1580124	Cell 4A LDS	2,4,6-tribromophenol	12.3	14-159	None
1580124	Cell 4A LDS	2-fluorophenol	-1.56	10-106	None
1580124	Cell 4A LDS	phenol-d6	8.48	10-122	None
1580124	Cell 4B	2,4,6-tribromophenol	11.1	14-159	None
1580124	Cell 4B	2-fluorophenol	-1.46	10-106	None
1580124	Cell 4B	phenol-d6	1.08	10-122	None
1580124	Cell 4B LDS	2-fluorophenol	0.0875	10-106	None
1580124	Cell 4B LDS	phenol-d6	1.66	10-122	None
1580124	Cell 4B LDS	terphenyl-d14	2.73	10-221	None
1580124	Cell 65	2-fluorophenol	-0.375	10-106	None
1580124	Cell 65	phenol-d6	1.65	10-122	None
1580124	Cell 65	terphenyl-d14	2.3	10-221	None