AMERICAN
WEST
ANALYTICAL
LABORATORIES

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Toll Free (888) 263-8686
Fax (801)263-8687
email: awal@awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Jim Harris
Utah DEQ DERR
168 N. 1950 W., 1st Floor
Salt Lake City, Ut 84116
TEL: (801) 536-4145

RE: Red Butte Spill

Dear Jim Harris: Lab Set ID: 1012089

American West Analytical Laboratories received 6 sample(s) on 12/5/2010 for the analyses presented in the following report.

All analyses were performed in accordance to The NELAC Institute protocols unless noted otherwise. American West Analytical Laboratories is certified by The NELAC Institute in Utah and Texas; and is state certified in Colorado and Idaho. Certification document is available upon request. If you have any questions or concerns regarding this report please feel free to call.

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 quantitaion 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: Kyle F. Gross
Digitally signed by Kyle F. Gross
DN: cn=Kyle F. Gross, o=AWAL, ou=AWAL, email=kyle@awal-labs.com, c=US
Date: 2010.12.06 10:17:16 -07'00'

Laboratory Director or designee

INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Received Date: 12/5/2010 1104h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/5/2010 1415h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/5/2010 1151h	E1664A-SGT	3.00	< 3.00	

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INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Received Date: 12/5/2010 1104h

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Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/5/2010 1415h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/5/2010 1151h	E1664A-SGT	3.00	< 3.00	

INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Received Date: 12/5/2010 1104h

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Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/5/2010 1415h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/5/2010 1151h	E1664A-SGT	3.00	< 3.00	

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Received Date: 12/5/2010 1104h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/5/2010 1415h	HACH 8000	10.0	**17.0**	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/5/2010 1151h	E1664A-SGT	3.00	< 3.00	

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INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Received Date: 12/5/2010 1104h

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Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/5/2010 1415h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/5/2010 1151h	E1664A-SGT	3.00	< 3.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001B
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/6/2010 0252h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
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	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**106**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002B
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/6/2010 0414h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
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	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**104**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003B
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/6/2010 0441h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
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	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**102**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004B
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/6/2010 0508h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
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	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**94.8**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005B
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/6/2010 0536h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: SW8270D

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Analytical Results SVOA Fractionation by GC/MS Method 8270D/3510C

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
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	
Chrysene	218-01-9	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
C11-C12 Aliphatic hydrocarbons		10.0	< 10.0	
C13-C16 Aliphatic hydrocarbons		10.0	< 10.0	
C17-C21 Aliphatic hydrocarbons		10.0	< 10.0	
C22-C35 Aliphatic hydrocarbons		10.0	< 10.0	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**95.3**	

*** - This value is a summation of the PAH compounds listed above.*

ORGANIC ANALYTICAL REPORT

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QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001B
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/6/2010 0252h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	1
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	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-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	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-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001B
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/6/2010 0252h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

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QA Officer

Analytical Results — SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	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-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	1
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	1
Aramite	140-57-8	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	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001B
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/6/2010 0252h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

AMERICAN WEST ANALYTICAL LABORATORIES

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results — SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	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	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	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	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	1
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	1
Fluoranthene	206-44-0	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001B
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/6/2010 0252h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	1
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	1
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001B
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/6/2010 0252h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	[1]
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	[1]
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**67.0**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**70.6**	
Surr: 2-Fluorophenol	367-12-4	14-106	**43.3**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**56.0**	
Surr: Phenol-d6	13127-88-3	10-122	**33.9**	
Surr: Terphenyl-d14	1718-51-0	10-199	**106**	

[1] - *Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.*
The sample was analyzed for TICs and no unknown peaks were detected.

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Jose Rocha
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Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002B
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/6/2010 0414h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	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-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	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-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002B
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/6/2010 0414h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	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-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	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	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002B
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/6/2010 0414h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	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	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	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	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002B
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/6/2010 0414h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002B
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/6/2010 0414h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

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Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**65.0**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**78.3**	
Surr: 2-Fluorophenol	367-12-4	14-106	**37.7**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**58.0**	
Surr: Phenol-d6	13127-88-3	10-122	**35.3**	
Surr: Terphenyl-d14	1718-51-0	10-199	**104**	

The sample was analyzed for TICs and no unknown peaks were detected.

ORGANIC ANALYTICAL REPORT

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003B
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/6/2010 0441h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	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-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	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-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003B
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/6/2010 0441h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	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-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	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	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

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Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003B
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/6/2010 0441h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	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	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	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	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	

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Client: Utah DEQ DERR
Project: Red Butte Spill
Lab Sample ID: 1012089-003B
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Received Date: 12/5/2010 1104h
Method Used: EPA625

Contact: Jim Harris
Analyzed: 12/6/2010 0441h
Extracted: 12/5/2010 1431h

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
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Lab Sample ID: 1012089-003B
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Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**69.9**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**74.9**	
Surr: 2-Fluorophenol	367-12-4	14-106	**19.4**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**52.6**	
Surr: Phenol-d6	13127-88-3	10-122	**37.2**	
Surr: Terphenyl-d14	1718-51-0	10-199	**102**	

The sample was analyzed for TICs and no unknown peaks were detected.

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Laboratory Director

Jose Rocha
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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004B
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/6/2010 0508h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

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Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	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-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	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-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004B
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/6/2010 0508h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	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-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	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	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004B
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/6/2010 0508h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	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	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	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	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	

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Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004B
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/6/2010 0508h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**64.4**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**72.9**	
Surr: 2-Fluorophenol	367-12-4	14-106	**42.4**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**53.5**	
Surr: Phenol-d6	13127-88-3	10-122	**37.7**	
Surr: Terphenyl-d14	1718-51-0	10-199	**94.8**	

The sample was analyzed for TICs and no unknown peaks were detected.

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Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005B
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/6/2010 0536h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1´-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	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-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	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-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005B
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/6/2010 0536h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3´-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3´-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	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-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	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	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005B
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/6/2010 0536h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	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	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	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	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005B
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/6/2010 0536h
Received Date: 12/5/2010 1104h
Extracted: 12/5/2010 1431h
Method Used: EPA625

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
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	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005B
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/6/2010 0536h
Received Date: 12/5/2010 1104h
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Method Used: EPA625

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Laboratory Director

Jose Rocha
QA Officer

Analytical Results SVOA by GC/MS Method 625/3510

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
Surr: 2,4,6-Tribromophenol	118-79-6	10-159	**61.2**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**64.2**	
Surr: 2-Fluorophenol	367-12-4	14-106	**15.0**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**39.5**	
Surr: Phenol-d6	13127-88-3	10-122	**32.4**	
Surr: Terphenyl-d14	1718-51-0	10-199	**95.3**	

The sample was analyzed for TICs and no unknown peaks were detected.

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001A
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/5/2010 1624h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	1
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001A
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/5/2010 1624h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	**27.7**	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001A
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/5/2010 1624h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-001A
Client Sample ID: RB Above Garden 4992095
Collection Date: 12/5/2010 0845h
Analyzed: 12/5/2010 1624h
Received Date: 12/5/2010 1104h
Method Used: EPA624

AMERICAN WEST ANALYTICAL LABORATORIES

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**113**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**108**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**105**	
Surr: Toluene-d8	2037-26-5	80-125	**97.4**	

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

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002A
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/5/2010 1818h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002A
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/5/2010 1818h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002A
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/5/2010 1818h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-002A
Client Sample ID: RB Near Greenhouse
Collection Date: 12/5/2010 0910h
Analyzed: 12/5/2010 1818h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**115**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**107**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**106**	
Surr: Toluene-d8	2037-26-5	80-125	**96.6**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003A
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/5/2010 1837h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003A
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/5/2010 1837h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003A
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/5/2010 1837h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-003A
Client Sample ID: RB @ Foothill
Collection Date: 12/5/2010 0930h
Analyzed: 12/5/2010 1837h
Received Date: 12/5/2010 1104h
Method Used: EPA624

AMERICAN WEST ANALYTICAL LABORATORIES

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**117**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**108**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**107**	
Surr: Toluene-d8	2037-26-5	80-125	**97.7**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004A
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/5/2010 1856h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004A
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/5/2010 1856h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Analytical Results — VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004A
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/5/2010 1856h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Jose Rocha
QA Officer

Analytical Results — VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-004A
Client Sample ID: RB @ Miller Park (1500 E.)
Collection Date: 12/5/2010 0950h
Analyzed: 12/5/2010 1856h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**116**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**108**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**107**	
Surr: Toluene-d8	2037-26-5	80-125	**97.2**	

ORGANIC ANALYTICAL REPORT

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Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005A
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/5/2010 1914h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005A
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/5/2010 1914h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005A
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/5/2010 1914h
Received Date: 12/5/2010 1104h
Method Used: EPA624

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-005A
Client Sample ID: RB 1100 E.
Collection Date: 12/5/2010 1050h
Analyzed: 12/5/2010 1914h
Received Date: 12/5/2010 1104h
Method Used: EPA624

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QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**117**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**108**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**107**	
Surr: Toluene-d8	2037-26-5	80-125	**96.5**	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012089-006A
Client Sample ID: Trip Blank
Collection Date: 12/5/2010
Analyzed: 12/5/2010 1933h
Received Date: 12/5/2010 1104h
Method Used: EPA624

AMERICAN WEST ANALYTICAL LABORATORIES

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	2.00	< 2.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	40.0	< 40.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
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Project: Red Butte Spill
Lab Sample ID: 1012089-006A
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Received Date: 12/5/2010 1104h
Method Used: EPA624

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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Chlorotoluene	106-43-4	2.00	< 2.00	
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	5.00	< 5.00	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	5.00	< 5.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	
Isopropyl acetate	108-21-4	2.00	< 2.00	
Isopropyl alcohol	67-63-0	25.0	< 25.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
Isopropyltoluene	99-87-6	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	2.00	< 2.00	
n-Butyl alcohol	71-36-3	25.0	< 25.0	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	2.00	< 2.00	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
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Analytical Results VOAs Custom List by GC/MS Method 624

Units: µg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	2.00	< 2.00	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	5.00	< 5.00	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	
TPH C11-C15 (DRO)		20.0	< 20.0	
TPH C6-C10 (GRO)		20.0	< 20.0	
Surr: 1,2-Dichloroethane-d4	17060-07-0	77-144	**118**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**107**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**108**	
Surr: Toluene-d8	2037-26-5	80-125	**95.9**	

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	1,1´-Biphenyl	µg/L	EPA625	55.3	80.00	0	69.1	22-104				12/5/2010 2313h
LCS-9712	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	49.0	80.00	0	61.2	13-102				12/5/2010 2313h
LCS-9712	1,2,4-Trichlorobenzene	µg/L	EPA625	37.3	80.00	0	46.6	10-104				12/5/2010 2313h
LCS-9712	1,2-Dichlorobenzene	µg/L	EPA625	30.3	80.00	0	37.9	10-68				12/5/2010 2313h
LCS-9712	1,3,5-Trinitrobenzene	µg/L	EPA625	140	80.00	0	175	18-209				12/5/2010 2313h
LCS-9712	1,3-Dichlorobenzene	µg/L	EPA625	25.7	80.00	0	32.2	10-60				12/5/2010 2313h
LCS-9712	1,3-Dinitrobenzene	µg/L	EPA625	100	80.00	0	125	10-165				12/5/2010 2313h
LCS-9712	1,4-Dichlorobenzene	µg/L	EPA625	27.4	80.00	0	34.3	10-118				12/5/2010 2313h
LCS-9712	1,4-Naphthoquinone	µg/L	EPA625	42.7	80.00	0	53.3	10-187				12/5/2010 2313h
LCS-9712	1,4-Phenylenediamine	µg/L	EPA625	43.3	80.00	0	54.1	10-80				12/5/2010 2313h
LCS-9712	1-Chloronaphthalene	µg/L	EPA625	43.0	80.00	0	53.8	13-123				12/5/2010 2313h
LCS-9712	1-Methylnaphthalene	µg/L	EPA625	25.1	80.00	0	31.4	13-105				12/5/2010 2313h
LCS-9712	1-Naphthylamine	µg/L	EPA625	31.8	80.00	0	39.7	32-256				12/5/2010 2313h
LCS-9712	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	95.0	80.00	0	119	44-158				12/5/2010 2313h
LCS-9712	2,4,5-Trichlorophenol	µg/L	EPA625	65.5	80.00	0	81.8	46-142				12/5/2010 2313h
LCS-9712	2,4,6-Trichlorophenol	µg/L	EPA625	51.6	80.00	0	64.5	42-113				12/5/2010 2313h
LCS-9712	2,4-Dichlorophenol	µg/L	EPA625	50.8	80.00	0	63.4	37-102				12/5/2010 2313h
LCS-9712	2,4-Dimethylphenol	µg/L	EPA625	51.2	80.00	0	64.0	37-99				12/5/2010 2313h
LCS-9712	2,4-Dinitrophenol	µg/L	EPA625	61.9	80.00	0	77.4	10-200				12/5/2010 2313h
LCS-9712	2,4-Dinitrotoluene	µg/L	EPA625	102	80.00	0	127	15-209				12/5/2010 2313h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	2,6-Dichlorophenol	µg/L	EPA625	56.4	80.00	0	70.6	44-111				12/5/2010 2313h
LCS-9712	2,6-Dinitrotoluene	µg/L	EPA625	87.4	80.00	0	109	13-183				12/5/2010 2313h
LCS-9712	2-Acetylaminofluorene	µg/L	EPA625	43.8	80.00	0	54.8	40-131				12/5/2010 2313h
LCS-9712	2-Chloronaphthalene	µg/L	EPA625	53.0	80.00	0	66.3	16-103				12/5/2010 2313h
LCS-9712	2-Chlorophenol	µg/L	EPA625	47.7	80.00	0	59.7	21-98				12/5/2010 2313h
LCS-9712	2-Methylnaphthalene	µg/L	EPA625	45.2	80.00	0	56.5	11-92				12/5/2010 2313h
LCS-9712	2-Methylphenol	µg/L	EPA625	23.4	80.00	0	29.2	24-92				12/5/2010 2313h
LCS-9712	2-Naphthylamine	µg/L	EPA625	44.2	80.00	0	55.3	48-193				12/5/2010 2313h
LCS-9712	2-Nitroaniline	µg/L	EPA625	96.8	80.00	0	121	10-216				12/5/2010 2313h
LCS-9712	2-Nitrophenol	µg/L	EPA625	63.8	80.00	0	79.7	10-173				12/5/2010 2313h
LCS-9712	2-Picoline	µg/L	EPA625	15.6	80.00	0	19.4	10-66				12/5/2010 2313h
LCS-9712	3&4-Methylphenol	µg/L	EPA625	31.4	80.00	0	39.3	10-88				12/5/2010 2313h
LCS-9712	3,3´-Dichlorobenzidine	µg/L	EPA625	74.8	80.00	0	93.5	38-131				12/5/2010 2313h
LCS-9712	3,3´-Dimethylbenzidine	µg/L	EPA625	51.2	80.00	0	64.0	10-172				12/5/2010 2313h
LCS-9712	3-Methylcholanthrene	µg/L	EPA625	61.9	80.00	0	77.4	48-206				12/5/2010 2313h
LCS-9712	3-Nitroaniline	µg/L	EPA625	81.0	80.00	0	101	31-172				12/5/2010 2313h
LCS-9712	4,6-Dinitro-2-methylphenol	µg/L	EPA625	120	80.00	0	150	10-190				12/5/2010 2313h
LCS-9712	4-Aminobiphenyl	µg/L	EPA625	77.6	80.00	0	97.0	10-202				12/5/2010 2313h
LCS-9712	4-Bromophenyl phenyl ether	µg/L	EPA625	73.8	80.00	0	92.2	55-136				12/5/2010 2313h
LCS-9712	4-Chloro-3-methylphenol	µg/L	EPA625	64.2	80.00	0	80.2	47-113				12/5/2010 2313h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	4-Chloroaniline	µg/L	EPA625	49.9	80.00	0	62.3	24-124				12/5/2010 2313h
LCS-9712	4-Chlorophenyl phenyl ether	µg/L	EPA625	68.5	80.00	0	85.7	41-119				12/5/2010 2313h
LCS-9712	4-Nitroaniline	µg/L	EPA625	74.5	80.00	0	93.2	27-159				12/5/2010 2313h
LCS-9712	4-Nitrophenol	µg/L	EPA625	27.5	80.00	0	34.4	10-157				12/5/2010 2313h
LCS-9712	5-Nitro-o-toluidine	µg/L	EPA625	93.5	80.00	0	117	60-168				12/5/2010 2313h
LCS-9712	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	38.1	80.00	0	47.7	42-277				12/5/2010 2313h
LCS-9712	a,a-Dimethylphenethylamine	µg/L	EPA625	34.0	80.00	0	42.5	10-160				12/5/2010 2313h
LCS-9712	Acenaphthene	µg/L	EPA625	64.3	80.00	0	80.4	29-112				12/5/2010 2313h
LCS-9712	Acenaphthylene	µg/L	EPA625	63.3	80.00	0	79.1	31-116				12/5/2010 2313h
LCS-9712	Acetophenone	µg/L	EPA625	50.9	80.00	0	63.6	10-105				12/5/2010 2313h
LCS-9712	alpha-Terpineol	µg/L	EPA625	63.1	80.00	0	78.9	14-98				12/5/2010 2313h
LCS-9712	Aniline	µg/L	EPA625	18.1	80.00	0	22.7	10-94				12/5/2010 2313h
LCS-9712	Anthracene	µg/L	EPA625	88.2	80.00	0	110	64-145				12/5/2010 2313h
LCS-9712	Aramite	µg/L	EPA625	57.3	80.00	0	71.6	46-162				12/5/2010 2313h
LCS-9712	Azobenzene	µg/L	EPA625	66.1	80.00	0	82.6	32-117				12/5/2010 2313h
LCS-9712	Benz(a)anthracene	µg/L	EPA625	74.8	80.00	0	93.5	50-134				12/5/2010 2313h
LCS-9712	Benzidine	µg/L	EPA625	48.1	80.00	0	60.1	10-211				12/5/2010 2313h
LCS-9712	Benzo(a)pyrene	µg/L	EPA625	78.2	80.00	0	97.8	39-152				12/5/2010 2313h
LCS-9712	Benzo(b)fluoranthene	µg/L	EPA625	65.6	80.00	0	82.0	46-256				12/5/2010 2313h
LCS-9712	Benzo(g,h,i)perylene	µg/L	EPA625	49.5	80.00	0	61.9	21-288				12/5/2010 2313h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	Benzo(k)fluoranthene	µg/L	EPA625	78.5	80.00	0	98.2	10-254				12/5/2010 2313h
LCS-9712	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	13.6	10-64				12/5/2010 2313h
LCS-9712	Benzyl alcohol	µg/L	EPA625	28.6	80.00	0	35.8	10-88				12/5/2010 2313h
LCS-9712	Bis(2-chloroethoxy)methane	µg/L	EPA625	35.0	80.00	0	43.8	10-98				12/5/2010 2313h
LCS-9712	Bis(2-chloroethyl) ether	µg/L	EPA625	35.7	80.00	0	44.6	10-99				12/5/2010 2313h
LCS-9712	Bis(2-chloroisopropyl) ether	µg/L	EPA625	36.3	80.00	0	45.4	10-92				12/5/2010 2313h
LCS-9712	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	48.0	80.00	0	60.0	10-233				12/5/2010 2313h
LCS-9712	bis(2-ethylhexyl)adipate	µg/L	EPA625	87.7	80.00	0	110	10-200				12/5/2010 2313h
LCS-9712	Butyl benzyl phthalate	µg/L	EPA625	84.9	80.00	0	106	10-178				12/5/2010 2313h
LCS-9712	Carbazole	µg/L	EPA625	86.5	80.00	0	108	61-140				12/5/2010 2313h
LCS-9712	Chlorobenzilate	µg/L	EPA625	72.8	80.00	0	90.9	10-218				12/5/2010 2313h
LCS-9712	Chrysene	µg/L	EPA625	84.9	80.00	0	106	54-130				12/5/2010 2313h
LCS-9712	Diallate (cis or trans)	µg/L	EPA625	71.0	80.00	0	88.8	41-132				12/5/2010 2313h
LCS-9712	Dibenz(a,h)anthracene	µg/L	EPA625	53.3	80.00	0	66.7	27-199				12/5/2010 2313h
LCS-9712	Dibenzofuran	µg/L	EPA625	64.4	80.00	0	80.5	38-117				12/5/2010 2313h
LCS-9712	Diethyl phthalate	µg/L	EPA625	66.9	80.00	0	83.6	20-128				12/5/2010 2313h
LCS-9712	Dimethoate	µg/L	EPA625	10.8	80.00	0	13.5	10-60				12/5/2010 2313h
LCS-9712	Dimethyl phthalate	µg/L	EPA625	44.9	80.00	0	56.2	10-105				12/5/2010 2313h
LCS-9712	Dimethylaminoazobenzene	µg/L	EPA625	79.8	80.00	0	99.8	30-151				12/5/2010 2313h
LCS-9712	Di-n-butyl phthalate	µg/L	EPA625	86.5	80.00	0	108	45-131				12/5/2010 2313h

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	Di-n-octyl phthalate	µg/L	EPA625	94.0	80.00	0	117	10-252				12/5/2010 2313h
LCS-9712	Dinoseb	µg/L	EPA625	124	80.00	0	155	10-186				12/5/2010 2313h
LCS-9712	Diphenylamine	µg/L	EPA625	81.0	80.00	0	101	46-128				12/5/2010 2313h
LCS-9712	Disulfoton	µg/L	EPA625	60.4	80.00	0	75.4	10-124				12/5/2010 2313h
LCS-9712	Ethyl methanesulfonate	µg/L	EPA625	47.5	80.00	0	59.4	10-105				12/5/2010 2313h
LCS-9712	Famphur	µg/L	EPA625	122	80.00	0	152	10-298				12/5/2010 2313h
LCS-9712	Fluoranthene	µg/L	EPA625	84.4	80.00	0	105	61-138				12/5/2010 2313h
LCS-9712	Fluorene	µg/L	EPA625	70.7	80.00	0	88.4	45-116				12/5/2010 2313h
LCS-9712	Hexachlorobenzene	µg/L	EPA625	74.5	80.00	0	93.1	55-135				12/5/2010 2313h
LCS-9712	Hexachlorobutadiene	µg/L	EPA625	29.4	80.00	0	36.7	10-79				12/5/2010 2313h
LCS-9712	Hexachlorocyclopentadiene	µg/L	EPA625	17.8	80.00	0	22.2	10-104				12/5/2010 2313h
LCS-9712	Hexachloroethane	µg/L	EPA625	27.0	80.00	0	33.7	10-58				12/5/2010 2313h
LCS-9712	Hexachlorophene	µg/L	EPA625	57.6	80.00	0	72.0	10-242				12/5/2010 2313h
LCS-9712	Hexachloropropene	µg/L	EPA625	29.6	80.00	0	37.0	10-79				12/5/2010 2313h
LCS-9712	Indene	µg/L	EPA625	32.4	80.00	0	40.6	10-71				12/5/2010 2313h
LCS-9712	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	53.7	80.00	0	67.1	29-208				12/5/2010 2313h
LCS-9712	Isodrin	µg/L	EPA625	82.8	80.00	0	104	58-140				12/5/2010 2313h
LCS-9712	Isophorone	µg/L	EPA625	46.9	80.00	0	58.6	10-105				12/5/2010 2313h
LCS-9712	Isosafrole	µg/L	EPA625	50.4	80.00	0	63.0	12-108				12/5/2010 2313h
LCS-9712	Kepone	µg/L	EPA625	215	80.00	0	269	10-330				12/5/2010 2313h

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QC SUMMARY REPORT

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QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	Methapyrilene	µg/L	EPA625	48.6	80.00	0	60.8	17-151				12/5/2010 2313h
LCS-9712	Methyl methanesulfonate	µg/L	EPA625	52.7	80.00	0	65.9	10-107				12/5/2010 2313h
LCS-9712	Naphthalene	µg/L	EPA625	42.6	80.00	0	53.2	10-79				12/5/2010 2313h
LCS-9712	n-Decane	µg/L	EPA625	17.5	80.00	0	21.9	10-45				12/5/2010 2313h
LCS-9712	Nitrobenzene	µg/L	EPA625	55.0	80.00	0	68.7	10-104				12/5/2010 2313h
LCS-9712	Nitroquinoline-1-oxide	µg/L	EPA625	39.1	80.00	0	48.8	10-165				12/5/2010 2313h
LCS-9712	N-Nitrosodiethylamine	µg/L	EPA625	42.1	80.00	0	52.6	10-96				12/5/2010 2313h
LCS-9712	N-Nitrosodimethylamine	µg/L	EPA625	16.6	80.00	0	20.7	10-55				12/5/2010 2313h
LCS-9712	N-Nitrosodi-n-butylamine	µg/L	EPA625	59.6	80.00	0	74.4	21-104				12/5/2010 2313h
LCS-9712	N-Nitrosodiphenylamine	µg/L	EPA625	81.5	80.00	0	102	45-126				12/5/2010 2313h
LCS-9712	N-Nitrosodi-n-propylamine	µg/L	EPA625	46.4	80.00	0	58.0	10-103				12/5/2010 2313h
LCS-9712	N-Nitrosomethylethylamine	µg/L	EPA625	33.7	80.00	0	42.2	10-84				12/5/2010 2313h
LCS-9712	N-Nitrosomorpholine	µg/L	EPA625	49.9	80.00	0	62.4	15-107				12/5/2010 2313h
LCS-9712	N-Nitrosopiperidine	µg/L	EPA625	51.4	80.00	0	64.2	10-108				12/5/2010 2313h
LCS-9712	N-Nitrosopyrrolidine	µg/L	EPA625	56.8	80.00	0	71.0	19-115				12/5/2010 2313h
LCS-9712	n-Octadecane	µg/L	EPA625	63.7	80.00	0	79.7	27-134				12/5/2010 2313h
LCS-9712	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	51.9	80.00	0	64.9	10-129				12/5/2010 2313h
LCS-9712	o-Toluidine	µg/L	EPA625	45.1	80.00	0	56.4	21-225				12/5/2010 2313h
LCS-9712	Parathion	µg/L	EPA625	114	80.00	0	143	10-165				12/5/2010 2313h
LCS-9712	Methyl parathion	µg/L	EPA625	105	80.00	0	131	10-165				12/5/2010 2313h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	Pentachlorobenzene	µg/L	EPA625	61.2	80.00	0	76.6	41-118				12/5/2010 2313h
LCS-9712	Pentachloronitrobenzene	µg/L	EPA625	83.8	80.00	0	105	35-185				12/5/2010 2313h
LCS-9712	Pentachlorophenol	µg/L	EPA625	64.6	80.00	0	80.7	14-144				12/5/2010 2313h
LCS-9712	Phenacetin	µg/L	EPA625	80.5	80.00	0	101	42-163				12/5/2010 2313h
LCS-9712	Phenanthrene	µg/L	EPA625	93.8	80.00	0	117	25-135				12/5/2010 2313h
LCS-9712	Phenol	µg/L	EPA625	26.3	80.00	0	32.8	10-53				12/5/2010 2313h
LCS-9712	Phorate	µg/L	EPA625	85.8	80.00	0	107	36-158				12/5/2010 2313h
LCS-9712	Pronamide	µg/L	EPA625	41.4	80.00	0	51.7	33-137				12/5/2010 2313h
LCS-9712	Pyrene	µg/L	EPA625	88.3	80.00	0	110	42-145				12/5/2010 2313h
LCS-9712	Pyridine	µg/L	EPA625	< 10.0	80.00	0	11.4	10-37				12/5/2010 2313h
LCS-9712	Quinoline	µg/L	EPA625	55.5	80.00	0	69.4	13-111				12/5/2010 2313h
LCS-9712	Safrole	µg/L	EPA625	55.0	80.00	0	68.7	24-111				12/5/2010 2313h
LCS-9712	Tetraethyl dithiopyrophosphate	µg/L	EPA625	75.3	80.00	0	94.1	52-138				12/5/2010 2313h
LCS-9712	Thionazin	µg/L	EPA625	71.6	80.00	0	89.5	45-123				12/5/2010 2313h
LCS-9712	Surr: 2,4,6-Tribromophenol	%REC	EPA625	72.2	80.00		90.3	64-130				12/5/2010 2313h
LCS-9712	Surr: 2-Fluorobiphenyl	%REC	EPA625	26.7	40.00		66.8	32-128				12/5/2010 2313h
LCS-9712	Surr: 2-Fluorophenol	%REC	EPA625	28.8	80.00		36.0	10-121				12/5/2010 2313h
LCS-9712	Surr: Nitrobenzene-d5	%REC	EPA625	25.4	40.00		63.4	17-133				12/5/2010 2313h
LCS-9712	Surr: Phenol-d6	%REC	EPA625	20.0	80.00		25.0	10-124				12/5/2010 2313h
LCS-9712	Surr: Terphenyl-d14	%REC	EPA625	42.8	40.00		107	51-221				12/5/2010 2313h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-9712	Acenaphthene	µg/L	SW8270D	64.3	80.00	0	80.4	20-116				12/5/2010 2313h
LCS-9712	Benzo(a)pyrene	µg/L	SW8270D	78.2	80.00	0	97.8	39-152				12/5/2010 2313h
LCS-9712	Pyrene	µg/L	SW8270D	88.3	80.00	0	110	37-138				12/5/2010 2313h
LCS-9712	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	72.2	80.00		90.3	10-165				12/5/2010 2313h
LCS-9712	Surr: 2-Fluorobiphenyl	%REC	SW8270D	26.7	40.00		66.8	32-128				12/5/2010 2313h
LCS-9712	Surr: 2-Fluorophenol	%REC	SW8270D	28.8	80.00		36.0	10-121				12/5/2010 2313h
LCS-9712	Surr: Nitrobenzene-d5	%REC	SW8270D	25.4	40.00		63.4	17-133				12/5/2010 2313h
LCS-9712	Surr: Phenol-d6	%REC	SW8270D	20.0	80.00		25.0	10-124				12/5/2010 2313h
LCS-9712	Surr: Terphenyl-d14	%REC	SW8270D	42.8	40.00		107	51-221				12/5/2010 2313h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	1,1´-Biphenyl	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,2,4-Trichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,2-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,3,5-Trinitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,3-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,3-Dinitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,4-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,4-Naphthoquinone	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1,4-Phenylenediamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1-Chloronaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1-Methylnaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	1-Naphthylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,4,5-Trichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,4,6-Trichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,4-Dichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,4-Dimethylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,4-Dinitrophenol	µg/L	EPA625	< 20.0				-				12/5/2010 2245h
MB-9712	2,4-Dinitrotoluene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
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Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	2,6-Dichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2,6-Dinitrotoluene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Acetylaminofluorene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Chloronaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Chlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Methylnaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Naphthylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Nitroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Nitrophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	2-Picoline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	3&4-Methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	3,3´-Dichlorobenzidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	3,3´-Dimethylbenzidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	3-Methylcholanthrene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	3-Nitroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4,6-Dinitro-2-methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4-Aminobiphenyl	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4-Bromophenyl phenyl ether	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4-Chloro-3-methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
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Project: Red Butte Spill

Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	4-Chloroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4-Chlorophenyl phenyl ether	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4-Nitroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	4-Nitrophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	5-Nitro-o-toluidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	a,a-Dimethylphenethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Acenaphthene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Acenaphthylene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Acetophenone	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	alpha-Terpineol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Aniline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Aramite	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Azobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Benz(a)anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Benzidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(a)pyrene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(b)fluoranthene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(g,h,i)perylene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h

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QC SUMMARY REPORT

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Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	Benzo(k)fluoranthene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Benzoic acid	µg/L	EPA625	< 20.0				-				12/5/2010 2245h
MB-9712	Benzyl alcohol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Bis(2-chloroethoxy)methane	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Bis(2-chloroethyl) ether	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Bis(2-chloroisopropyl) ether	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	bis(2-ethylhexyl)adipate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Butyl benzyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Carbazole	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Chlorobenzilate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Chrysene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Diallate (cis or trans)	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Dibenz(a,h)anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Dibenzofuran	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Diethyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Dimethoate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Dimethyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Dimethylaminoazobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Di-n-butyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	Di-n-octyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Dinoseb	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Diphenylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Disulfoton	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Ethyl methanesulfonate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Famphur	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Fluoranthene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Fluorene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Hexachlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Hexachlorobutadiene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Hexachlorocyclopentadiene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Hexachloroethane	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Hexachlorophene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Hexachloropropene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Indene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Isodrin	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Isophorone	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Isosafrole	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Kepone	µg/L	EPA625	< 10.0				-				12/5/2010 2245h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	Methapyrilene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Methyl methanesulfonate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Naphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	n-Decane	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Nitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Nitroquinoline-1-oxide	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosodiethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosodimethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosodi-n-butylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosodiphenylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosodi-n-propylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosomethylethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosomorpholine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosopiperidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	N-Nitrosopyrrolidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	n-Octadecane	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	o-Toluidine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Parathion	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Methyl parathion	µg/L	EPA625	< 10.0				-				12/5/2010 2245h

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QC SUMMARY REPORT

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QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	Pentachlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Pentachloronitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Pentachlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Phenacetin	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Phenanthrene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Phenol	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Phorate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Pronamide	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Pyrene	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Pyridine	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Quinoline	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Safrole	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Tetraethyl dithiopyrophosphate	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Thionazin	µg/L	EPA625	< 10.0				-				12/5/2010 2245h
MB-9712	Surr: 2,4,6-Tribromophenol	%REC	EPA625	46.3	80.00		57.9	10-165				12/5/2010 2245h
MB-9712	Surr: 2-Fluorobiphenyl	%REC	EPA625	25.9	40.00		64.8	18-113				12/5/2010 2245h
MB-9712	Surr: 2-Fluorophenol	%REC	EPA625	25.1	80.00		31.4	10-121				12/5/2010 2245h
MB-9712	Surr: Nitrobenzene-d5	%REC	EPA625	17.9	40.00		44.8	17-133				12/5/2010 2245h
MB-9712	Surr: Phenol-d6	%REC	EPA625	22.4	80.00		27.9	10-124				12/5/2010 2245h
MB-9712	Surr: Terphenyl-d14	%REC	EPA625	37.7	40.00		94.3	28-163				12/5/2010 2245h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	Acenaphthene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Acenaphthylene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Anthracene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	C11-C12 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	C11-C13 Alkyl Naphthalenes	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	C13-C16 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	C17-C21 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	C22-C35 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Chrysene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Fluoranthene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Fluorene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Phenanthrene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Pyrene	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h

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QC SUMMARY REPORT

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Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-9712	Total C12-C22 PAH**	µg/L	SW8270D	< 10.0				-				12/5/2010 2245h
MB-9712	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	46.3	80.00		57.9	10-165				12/5/2010 2245h
MB-9712	Surr: 2-Fluorobiphenyl	%REC	SW8270D	25.9	40.00		64.8	18-113				12/5/2010 2245h
MB-9712	Surr: 2-Fluorophenol	%REC	SW8270D	25.1	80.00		31.4	10-121				12/5/2010 2245h
MB-9712	Surr: Nitrobenzene-d5	%REC	SW8270D	17.9	40.00		44.8	17-133				12/5/2010 2245h
MB-9712	Surr: Phenol-d6	%REC	SW8270D	22.4	80.00		27.9	10-124				12/5/2010 2245h
MB-9712	Surr: Terphenyl-d14	%REC	SW8270D	37.7	40.00		94.3	28-163				12/5/2010 2245h

*** - This value is a summation of the PAH compounds listed above.*

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMS	1,1´-Biphenyl	µg/L	EPA625	56.2	80.00	0	70.3	27-99				12/6/2010 0008h
1012088-001BMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	46.1	80.00	0	57.6	10-119				12/6/2010 0008h
1012088-001BMS	1,2,4-Trichlorobenzene	µg/L	EPA625	32.9	80.00	0	41.2	10-79				12/6/2010 0008h
1012088-001BMS	1,2-Dichlorobenzene	µg/L	EPA625	25.4	80.00	0	31.7	10-59				12/6/2010 0008h
1012088-001BMS	1,3,5-Trinitrobenzene	µg/L	EPA625	163	80.00	0	204	10-175			1	12/6/2010 0008h
1012088-001BMS	1,3-Dichlorobenzene	µg/L	EPA625	21.8	80.00	0	27.2	10-56				12/6/2010 0008h
1012088-001BMS	1,3-Dinitrobenzene	µg/L	EPA625	119	80.00	0	149	10-175				12/6/2010 0008h
1012088-001BMS	1,4-Dichlorobenzene	µg/L	EPA625	23.3	80.00	0	29.1	10-58				12/6/2010 0008h
1012088-001BMS	1,4-Naphthoquinone	µg/L	EPA625	51.5	80.00	0	64.4	10-177				12/6/2010 0008h
1012088-001BMS	1,4-Phenylenediamine	µg/L	EPA625	41.5	80.00	0	51.8	10-124				12/6/2010 0008h
1012088-001BMS	1-Chloronaphthalene	µg/L	EPA625	36.8	80.00	0	46.0	10-106				12/6/2010 0008h
1012088-001BMS	1-Methylnaphthalene	µg/L	EPA625	23.7	80.00	0	29.7	10-83				12/6/2010 0008h
1012088-001BMS	1-Naphthylamine	µg/L	EPA625	35.2	80.00	0	44.0	10-122				12/6/2010 0008h
1012088-001BMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	96.0	80.00	0	120	10-157				12/6/2010 0008h
1012088-001BMS	2,4,5-Trichlorophenol	µg/L	EPA625	59.9	80.00	0	74.9	10-148				12/6/2010 0008h
1012088-001BMS	2,4,6-Trichlorophenol	µg/L	EPA625	59.6	80.00	0	74.5	10-136				12/6/2010 0008h
1012088-001BMS	2,4-Dichlorophenol	µg/L	EPA625	55.4	80.00	0	69.3	10-123				12/6/2010 0008h
1012088-001BMS	2,4-Dimethylphenol	µg/L	EPA625	57.5	80.00	0	71.9	10-113				12/6/2010 0008h
1012088-001BMS	2,4-Dinitrophenol	µg/L	EPA625	85.8	80.00	0	107	10-175				12/6/2010 0008h
1012088-001BMS	2,4-Dinitrotoluene	µg/L	EPA625	109	80.00	0	136	10-175				12/6/2010 0008h

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1012088-001BMS	2,6-Dichlorophenol	µg/L	EPA625	60.3	80.00	0	75.4	10-148				12/6/2010 0008h
1012088-001BMS	2,6-Dinitrotoluene	µg/L	EPA625	91.0	80.00	0	114	10-175				12/6/2010 0008h
1012088-001BMS	2-Acetylaminofluorene	µg/L	EPA625	46.5	80.00	0	58.1	10-94				12/6/2010 0008h
1012088-001BMS	2-Chloronaphthalene	µg/L	EPA625	59.1	80.00	0	73.9	10-93				12/6/2010 0008h
1012088-001BMS	2-Chlorophenol	µg/L	EPA625	46.4	80.00	0	58.1	10-92				12/6/2010 0008h
1012088-001BMS	2-Methylnaphthalene	µg/L	EPA625	43.6	80.00	0	54.5	15-78				12/6/2010 0008h
1012088-001BMS	2-Methylphenol	µg/L	EPA625	23.9	80.00	0	29.8	10-83				12/6/2010 0008h
1012088-001BMS	2-Naphthylamine	µg/L	EPA625	35.0	80.00	0	43.8	10-154				12/6/2010 0008h
1012088-001BMS	2-Nitroaniline	µg/L	EPA625	101	80.00	0	126	10-175				12/6/2010 0008h
1012088-001BMS	2-Nitrophenol	µg/L	EPA625	66.0	80.00	0	82.5	10-175				12/6/2010 0008h
1012088-001BMS	2-Picoline	µg/L	EPA625	13.1	80.00	0	16.4	10-61				12/6/2010 0008h
1012088-001BMS	3&4-Methylphenol	µg/L	EPA625	51.1	80.00	0	63.9	10-80				12/6/2010 0008h
1012088-001BMS	3,3´-Dichlorobenzidine	µg/L	EPA625	81.1	80.00	0	101	10-150				12/6/2010 0008h
1012088-001BMS	3,3´-Dimethylbenzidine	µg/L	EPA625	47.4	80.00	0	59.3	10-143				12/6/2010 0008h
1012088-001BMS	3-Methylcholanthrene	µg/L	EPA625	66.1	80.00	0	82.7	32-171				12/6/2010 0008h
1012088-001BMS	3-Nitroaniline	µg/L	EPA625	86.5	80.00	0	108	10-175				12/6/2010 0008h
1012088-001BMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	136	80.00	0	170	10-175				12/6/2010 0008h
1012088-001BMS	4-Aminobiphenyl	µg/L	EPA625	80.3	80.00	0	100	10-175				12/6/2010 0008h
1012088-001BMS	4-Bromophenyl phenyl ether	µg/L	EPA625	77.2	80.00	0	96.5	16-138				12/6/2010 0008h
1012088-001BMS	4-Chloro-3-methylphenol	µg/L	EPA625	71.1	80.00	0	88.8	10-131				12/6/2010 0008h

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMS	4-Chloroaniline	µg/L	EPA625	50.2	80.00	0	62.7	10-98				12/6/2010 0008h
1012088-001BMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	71.0	80.00	0	88.8	31-108				12/6/2010 0008h
1012088-001BMS	4-Nitroaniline	µg/L	EPA625	81.9	80.00	0	102	10-175				12/6/2010 0008h
1012088-001BMS	4-Nitrophenol	µg/L	EPA625	28.6	80.00	0	35.7	10-97				12/6/2010 0008h
1012088-001BMS	5-Nitro-o-toluidine	µg/L	EPA625	100	80.00	0	125	10-175				12/6/2010 0008h
1012088-001BMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	40.6	80.00	0	50.7	26-174				12/6/2010 0008h
1012088-001BMS	a,a-Dimethylphenethylamine	µg/L	EPA625	36.7	80.00	0	45.9	10-175				12/6/2010 0008h
1012088-001BMS	Acenaphthene	µg/L	EPA625	67.1	80.00	0	83.9	29-97				12/6/2010 0008h
1012088-001BMS	Acenaphthylene	µg/L	EPA625	64.6	80.00	0	80.7	37-87				12/6/2010 0008h
1012088-001BMS	Acetophenone	µg/L	EPA625	46.5	80.00	0	58.1	10-96				12/6/2010 0008h
1012088-001BMS	alpha-Terpineol	µg/L	EPA625	62.7	80.00	0	78.4	10-67			1	12/6/2010 0008h
1012088-001BMS	Aniline	µg/L	EPA625	15.4	80.00	0	19.2	10-71				12/6/2010 0008h
1012088-001BMS	Anthracene	µg/L	EPA625	89.0	80.00	0	111	53-114				12/6/2010 0008h
1012088-001BMS	Aramite	µg/L	EPA625	61.4	80.00	0	76.7	29-160				12/6/2010 0008h
1012088-001BMS	Azobenzene	µg/L	EPA625	65.8	80.00	0	82.2	15-114				12/6/2010 0008h
1012088-001BMS	Benz(a)anthracene	µg/L	EPA625	82.4	80.00	0	103	39-129				12/6/2010 0008h
1012088-001BMS	Benzidine	µg/L	EPA625	49.6	80.00	0	62.0	10-99				12/6/2010 0008h
1012088-001BMS	Benzo(a)pyrene	µg/L	EPA625	82.9	80.00	0	104	29-175				12/6/2010 0008h
1012088-001BMS	Benzo(b)fluoranthene	µg/L	EPA625	71.6	80.00	0	89.4	15-140				12/6/2010 0008h
1012088-001BMS	Benzo(g,h,i)perylene	µg/L	EPA625	52.7	80.00	0	65.9	10-182				12/6/2010 0008h

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Jose Rocha
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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMS	Benzo(k)fluoranthene	µg/L	EPA625	80.9	80.00	0	101	21-154				12/6/2010 0008h
1012088-001BMS	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	19.0	10-71				12/6/2010 0008h
1012088-001BMS	Benzyl alcohol	µg/L	EPA625	24.2	80.00	0	30.2	10-69				12/6/2010 0008h
1012088-001BMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	33.0	80.00	0	41.2	10-94				12/6/2010 0008h
1012088-001BMS	Bis(2-chloroethyl) ether	µg/L	EPA625	33.8	80.00	0	42.3	10-70				12/6/2010 0008h
1012088-001BMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	32.7	80.00	0	40.9	10-71				12/6/2010 0008h
1012088-001BMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	94.2	80.00	0	118	10-175				12/6/2010 0008h
1012088-001BMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	96.0	80.00	0	120	10-175				12/6/2010 0008h
1012088-001BMS	Butyl benzyl phthalate	µg/L	EPA625	91.7	80.00	0	115	10-175				12/6/2010 0008h
1012088-001BMS	Carbazole	µg/L	EPA625	91.6	80.00	0	114	10-151				12/6/2010 0008h
1012088-001BMS	Chlorobenzilate	µg/L	EPA625	81.6	80.00	0	102	18-175				12/6/2010 0008h
1012088-001BMS	Chrysene	µg/L	EPA625	91.2	80.00	0	114	38-133				12/6/2010 0008h
1012088-001BMS	Diallate (cis or trans)	µg/L	EPA625	73.3	80.00	0	91.7	10-157				12/6/2010 0008h
1012088-001BMS	Dibenz(a,h)anthracene	µg/L	EPA625	57.0	80.00	0	71.2	13-168				12/6/2010 0008h
1012088-001BMS	Dibenzofuran	µg/L	EPA625	66.6	80.00	0	83.2	29-103				12/6/2010 0008h
1012088-001BMS	Diethyl phthalate	µg/L	EPA625	74.9	80.00	0	93.6	10-139				12/6/2010 0008h
1012088-001BMS	Dimethoate	µg/L	EPA625	18.2	80.00	0	22.7	10-136				12/6/2010 0008h
1012088-001BMS	Dimethyl phthalate	µg/L	EPA625	57.2	80.00	0	71.5	10-122				12/6/2010 0008h
1012088-001BMS	Dimethylaminoazobenzene	µg/L	EPA625	87.4	80.00	0	109	34-142				12/6/2010 0008h
1012088-001BMS	Di-n-butyl phthalate	µg/L	EPA625	92.0	80.00	0	115	44-124				12/6/2010 0008h

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QC SUMMARY REPORT

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1012088-001BMS	Di-n-octyl phthalate	µg/L	EPA625	101	80.00	0	126	10-175				12/6/2010 0008h
1012088-001BMS	Dinoseb	µg/L	EPA625	142	80.00	0	178	10-175			1	12/6/2010 0008h
1012088-001BMS	Diphenylamine	µg/L	EPA625	83.3	80.00	0	104	13-110				12/6/2010 0008h
1012088-001BMS	Disulfoton	µg/L	EPA625	68.6	80.00	0	85.8	10-121				12/6/2010 0008h
1012088-001BMS	Ethyl methanesulfonate	µg/L	EPA625	43.3	80.00	0	54.1	10-99				12/6/2010 0008h
1012088-001BMS	Famphur	µg/L	EPA625	136	80.00	0	170	10-71			1	12/6/2010 0008h
1012088-001BMS	Fluoranthene	µg/L	EPA625	88.0	80.00	0	110	23-135				12/6/2010 0008h
1012088-001BMS	Fluorene	µg/L	EPA625	75.5	80.00	0	94.4	34-108				12/6/2010 0008h
1012088-001BMS	Hexachlorobenzene	µg/L	EPA625	79.3	80.00	0	99.1	26-131				12/6/2010 0008h
1012088-001BMS	Hexachlorobutadiene	µg/L	EPA625	25.8	80.00	0	32.2	10-110				12/6/2010 0008h
1012088-001BMS	Hexachlorocyclopentadiene	µg/L	EPA625	15.8	80.00	0	19.8	10-45				12/6/2010 0008h
1012088-001BMS	Hexachloroethane	µg/L	EPA625	21.4	80.00	0	26.8	10-58				12/6/2010 0008h
1012088-001BMS	Hexachlorophene	µg/L	EPA625	56.3	80.00	0	70.3	10-168				12/6/2010 0008h
1012088-001BMS	Hexachloropropene	µg/L	EPA625	25.5	80.00	0	31.9	10-72				12/6/2010 0008h
1012088-001BMS	Indene	µg/L	EPA625	28.2	80.00	0	35.2	10-35			1	12/6/2010 0008h
1012088-001BMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	56.6	80.00	0	70.8	10-176				12/6/2010 0008h
1012088-001BMS	Isodrin	µg/L	EPA625	86.5	80.00	0	108	15-165				12/6/2010 0008h
1012088-001BMS	Isophorone	µg/L	EPA625	47.8	80.00	0	59.7	10-99				12/6/2010 0008h
1012088-001BMS	Isosafrole	µg/L	EPA625	49.9	80.00	0	62.4	10-167				12/6/2010 0008h
1012088-001BMS	Kepone	µg/L	EPA625	< 10.0	80.00	0	0	10-175			1	12/6/2010 0008h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMS	Methapyrilene	µg/L	EPA625	50.2	80.00	0	62.8	10-149				12/6/2010 0008h
1012088-001BMS	Methyl methanesulfonate	µg/L	EPA625	50.4	80.00	0	63.0	10-132				12/6/2010 0008h
1012088-001BMS	Naphthalene	µg/L	EPA625	38.6	80.00	0	48.3	10-82				12/6/2010 0008h
1012088-001BMS	n-Decane	µg/L	EPA625	15.0	80.00	0	18.7	10-27				12/6/2010 0008h
1012088-001BMS	Nitrobenzene	µg/L	EPA625	52.5	80.00	0	65.6	10-119				12/6/2010 0008h
1012088-001BMS	Nitroquinoline-1-oxide	µg/L	EPA625	50.3	80.00	0	62.9	10-170				12/6/2010 0008h
1012088-001BMS	N-Nitrosodiethylamine	µg/L	EPA625	38.8	80.00	0	48.5	10-91				12/6/2010 0008h
1012088-001BMS	N-Nitrosodimethylamine	µg/L	EPA625	16.0	80.00	0	20.1	10-42				12/6/2010 0008h
1012088-001BMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	62.8	80.00	0	78.5	10-175				12/6/2010 0008h
1012088-001BMS	N-Nitrosodiphenylamine	µg/L	EPA625	84.6	80.00	0	106	12-112				12/6/2010 0008h
1012088-001BMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	43.8	80.00	0	54.8	10-77				12/6/2010 0008h
1012088-001BMS	N-Nitrosomethylethylamine	µg/L	EPA625	32.3	80.00	0	40.4	10-75				12/6/2010 0008h
1012088-001BMS	N-Nitrosomorpholine	µg/L	EPA625	49.4	80.00	0	61.7	10-175				12/6/2010 0008h
1012088-001BMS	N-Nitrosopiperidine	µg/L	EPA625	49.9	80.00	0	62.4	10-105				12/6/2010 0008h
1012088-001BMS	N-Nitrosopyrrolidine	µg/L	EPA625	55.5	80.00	0	69.4	10-88				12/6/2010 0008h
1012088-001BMS	n-Octadecane	µg/L	EPA625	66.3	80.00	0	82.9	10-121				12/6/2010 0008h
1012088-001BMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	50.0	80.00	0	62.4	10-93				12/6/2010 0008h
1012088-001BMS	o-Toluidine	µg/L	EPA625	42.7	80.00	0	53.4	10-107				12/6/2010 0008h
1012088-001BMS	Parathion	µg/L	EPA625	120	80.00	0	151	10-175				12/6/2010 0008h
1012088-001BMS	Methyl parathion	µg/L	EPA625	113	80.00	0	141	10-175				12/6/2010 0008h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMS	Pentachlorobenzene	µg/L	EPA625	64.0	80.00	0	80.0	25-134				12/6/2010 0008h
1012088-001BMS	Pentachloronitrobenzene	µg/L	EPA625	89.9	80.00	0	112	10-175				12/6/2010 0008h
1012088-001BMS	Pentachlorophenol	µg/L	EPA625	61.0	80.00	0	76.2	10-163				12/6/2010 0008h
1012088-001BMS	Phenacetin	µg/L	EPA625	86.1	80.00	0	108	10-175				12/6/2010 0008h
1012088-001BMS	Phenanthrene	µg/L	EPA625	101	80.00	0	127	31-126			1	12/6/2010 0008h
1012088-001BMS	Phenol	µg/L	EPA625	26.1	80.00	0	32.6	10-175				12/6/2010 0008h
1012088-001BMS	Phorate	µg/L	EPA625	91.5	80.00	0	114	10-175				12/6/2010 0008h
1012088-001BMS	Pronamide	µg/L	EPA625	43.7	80.00	0	54.6	10-95				12/6/2010 0008h
1012088-001BMS	Pyrene	µg/L	EPA625	94.3	80.00	0	118	51-139				12/6/2010 0008h
1012088-001BMS	Pyridine	µg/L	EPA625	< 10.0	80.00	0	0	10-25			1	12/6/2010 0008h
1012088-001BMS	Quinoline	µg/L	EPA625	57.5	80.00	0	71.9	10-63			1	12/6/2010 0008h
1012088-001BMS	Safrole	µg/L	EPA625	56.5	80.00	0	70.6	10-120				12/6/2010 0008h
1012088-001BMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	81.7	80.00	0	102	13-160				12/6/2010 0008h
1012088-001BMS	Thionazin	µg/L	EPA625	75.5	80.00	0	94.4	10-139				12/6/2010 0008h
1012088-001BMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	76.1	80.00		95.1	21-154				12/6/2010 0008h
1012088-001BMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	25.3	40.00		63.3	10-106				12/6/2010 0008h
1012088-001BMS	Surr: 2-Fluorophenol	%REC	EPA625	27.4	80.00		34.2	10-56				12/6/2010 0008h
1012088-001BMS	Surr: Nitrobenzene-d5	%REC	EPA625	23.8	40.00		59.6	10-101				12/6/2010 0008h
1012088-001BMS	Surr: Phenol-d6	%REC	EPA625	19.3	80.00		24.1	10-45				12/6/2010 0008h
1012088-001BMS	Surr: Terphenyl-d14	%REC	EPA625	45.0	40.00		113	10-160				12/6/2010 0008h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMS	1,1´-Biphenyl	µg/L	EPA625	60.3	80.00	0	75.3	27-99				12/6/2010 0319h
1012089-001BMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	52.7	80.00	0	65.9	10-119				12/6/2010 0319h
1012089-001BMS	1,2,4-Trichlorobenzene	µg/L	EPA625	36.8	80.00	0	46.0	10-79				12/6/2010 0319h
1012089-001BMS	1,2-Dichlorobenzene	µg/L	EPA625	30.1	80.00	0	37.6	10-59				12/6/2010 0319h
1012089-001BMS	1,3,5-Trinitrobenzene	µg/L	EPA625	152	80.00	0	190	10-175			1	12/6/2010 0319h
1012089-001BMS	1,3-Dichlorobenzene	µg/L	EPA625	26.2	80.00	0	32.8	10-56				12/6/2010 0319h
1012089-001BMS	1,3-Dinitrobenzene	µg/L	EPA625	121	80.00	0	152	10-175				12/6/2010 0319h
1012089-001BMS	1,4-Dichlorobenzene	µg/L	EPA625	27.4	80.00	0	34.2	10-58				12/6/2010 0319h
1012089-001BMS	1,4-Naphthoquinone	µg/L	EPA625	42.9	80.00	0	53.6	10-177				12/6/2010 0319h
1012089-001BMS	1,4-Phenylenediamine	µg/L	EPA625	47.2	80.00	0	59.0	10-124				12/6/2010 0319h
1012089-001BMS	1-Chloronaphthalene	µg/L	EPA625	52.8	80.00	0	65.9	10-106				12/6/2010 0319h
1012089-001BMS	1-Methylnaphthalene	µg/L	EPA625	26.7	80.00	0	33.4	10-83				12/6/2010 0319h
1012089-001BMS	1-Naphthylamine	µg/L	EPA625	34.9	80.00	0	43.6	10-122				12/6/2010 0319h
1012089-001BMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	99.4	80.00	0	124	10-157				12/6/2010 0319h
1012089-001BMS	2,4,5-Trichlorophenol	µg/L	EPA625	74.9	80.00	0	93.6	10-148				12/6/2010 0319h
1012089-001BMS	2,4,6-Trichlorophenol	µg/L	EPA625	61.3	80.00	0	76.6	10-136				12/6/2010 0319h
1012089-001BMS	2,4-Dichlorophenol	µg/L	EPA625	58.0	80.00	0	72.5	10-123				12/6/2010 0319h
1012089-001BMS	2,4-Dimethylphenol	µg/L	EPA625	56.1	80.00	0	70.1	10-113				12/6/2010 0319h
1012089-001BMS	2,4-Dinitrophenol	µg/L	EPA625	81.4	80.00	0	102	10-175				12/6/2010 0319h
1012089-001BMS	2,4-Dinitrotoluene	µg/L	EPA625	106	80.00	0	133	10-175				12/6/2010 0319h

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1012089-001BMS	2,6-Dichlorophenol	µg/L	EPA625	65.4	80.00	0	81.8	10-148				12/6/2010 0319h
1012089-001BMS	2,6-Dinitrotoluene	µg/L	EPA625	90.1	80.00	0	113	10-175				12/6/2010 0319h
1012089-001BMS	2-Acetylaminofluorene	µg/L	EPA625	43.5	80.00	0	54.4	10-94				12/6/2010 0319h
1012089-001BMS	2-Chloronaphthalene	µg/L	EPA625	57.6	80.00	0	72.0	10-93				12/6/2010 0319h
1012089-001BMS	2-Chlorophenol	µg/L	EPA625	51.8	80.00	0	64.8	10-92				12/6/2010 0319h
1012089-001BMS	2-Methylnaphthalene	µg/L	EPA625	47.4	80.00	0	59.2	15-78				12/6/2010 0319h
1012089-001BMS	2-Methylphenol	µg/L	EPA625	24.8	80.00	0	31.0	10-83				12/6/2010 0319h
1012089-001BMS	2-Naphthylamine	µg/L	EPA625	34.4	80.00	0	43.0	10-154				12/6/2010 0319h
1012089-001BMS	2-Nitroaniline	µg/L	EPA625	105	80.00	0	132	10-175				12/6/2010 0319h
1012089-001BMS	2-Nitrophenol	µg/L	EPA625	74.7	80.00	0	93.4	10-175				12/6/2010 0319h
1012089-001BMS	2-Picoline	µg/L	EPA625	17.6	80.00	0	22.0	10-61				12/6/2010 0319h
1012089-001BMS	3&4-Methylphenol	µg/L	EPA625	55.7	80.00	0	69.6	10-80				12/6/2010 0319h
1012089-001BMS	3,3´-Dichlorobenzidine	µg/L	EPA625	74.2	80.00	0	92.8	10-150				12/6/2010 0319h
1012089-001BMS	3,3´-Dimethylbenzidine	µg/L	EPA625	43.8	80.00	0	54.8	10-143				12/6/2010 0319h
1012089-001BMS	3-Methylcholanthrene	µg/L	EPA625	60.2	80.00	0	75.3	32-171				12/6/2010 0319h
1012089-001BMS	3-Nitroaniline	µg/L	EPA625	84.4	80.00	0	105	10-175				12/6/2010 0319h
1012089-001BMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	130	80.00	0	162	10-175				12/6/2010 0319h
1012089-001BMS	4-Aminobiphenyl	µg/L	EPA625	79.5	80.00	0	99.3	10-175				12/6/2010 0319h
1012089-001BMS	4-Bromophenyl phenyl ether	µg/L	EPA625	77.7	80.00	0	97.1	16-138				12/6/2010 0319h
1012089-001BMS	4-Chloro-3-methylphenol	µg/L	EPA625	71.5	80.00	0	89.4	10-131				12/6/2010 0319h

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Kyle F. Gross
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Jose Rocha
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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMS	4-Chloroaniline	µg/L	EPA625	55.7	80.00	0	69.6	10-98				12/6/2010 0319h
1012089-001BMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	72.7	80.00	0	90.9	31-108				12/6/2010 0319h
1012089-001BMS	4-Nitroaniline	µg/L	EPA625	78.9	80.00	0	98.6	10-175				12/6/2010 0319h
1012089-001BMS	4-Nitrophenol	µg/L	EPA625	29.5	80.00	0	36.9	10-97				12/6/2010 0319h
1012089-001BMS	5-Nitro-o-toluidine	µg/L	EPA625	96.8	80.00	0	121	10-175				12/6/2010 0319h
1012089-001BMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	36.0	80.00	0	45.0	26-174				12/6/2010 0319h
1012089-001BMS	a,a-Dimethylphenethylamine	µg/L	EPA625	34.1	80.00	0	42.6	10-175				12/6/2010 0319h
1012089-001BMS	Acenaphthene	µg/L	EPA625	69.7	80.00	0	87.2	29-97				12/6/2010 0319h
1012089-001BMS	Acenaphthylene	µg/L	EPA625	68.6	80.00	0	85.8	37-87				12/6/2010 0319h
1012089-001BMS	Acetophenone	µg/L	EPA625	55.6	80.00	0	69.6	10-96				12/6/2010 0319h
1012089-001BMS	alpha-Terpineol	µg/L	EPA625	70.7	80.00	0	88.4	10-67			1	12/6/2010 0319h
1012089-001BMS	Aniline	µg/L	EPA625	19.3	80.00	0	24.2	10-71				12/6/2010 0319h
1012089-001BMS	Anthracene	µg/L	EPA625	92.3	80.00	0	115	53-114			1	12/6/2010 0319h
1012089-001BMS	Aramite	µg/L	EPA625	58.8	80.00	0	73.5	29-160				12/6/2010 0319h
1012089-001BMS	Azobenzene	µg/L	EPA625	85.5	80.00	0	107	15-114				12/6/2010 0319h
1012089-001BMS	Benz(a)anthracene	µg/L	EPA625	76.4	80.00	0	95.5	39-129				12/6/2010 0319h
1012089-001BMS	Benzidine	µg/L	EPA625	44.6	80.00	0	55.8	10-99				12/6/2010 0319h
1012089-001BMS	Benzo(a)pyrene	µg/L	EPA625	76.3	80.00	0	95.3	29-175				12/6/2010 0319h
1012089-001BMS	Benzo(b)fluoranthene	µg/L	EPA625	62.0	80.00	0	77.5	15-140				12/6/2010 0319h
1012089-001BMS	Benzo(g,h,i)perylene	µg/L	EPA625	47.7	80.00	0	59.6	10-182				12/6/2010 0319h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMS	Benzo(k)fluoranthene	µg/L	EPA625	76.1	80.00	0	95.1	21-154				12/6/2010 0319h
1012089-001BMS	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	13.6	10-71				12/6/2010 0319h
1012089-001BMS	Benzyl alcohol	µg/L	EPA625	29.5	80.00	0	36.9	10-69				12/6/2010 0319h
1012089-001BMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	38.9	80.00	0	48.7	10-94				12/6/2010 0319h
1012089-001BMS	Bis(2-chloroethyl) ether	µg/L	EPA625	38.6	80.00	0	48.2	10-70				12/6/2010 0319h
1012089-001BMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	38.8	80.00	0	48.5	10-71				12/6/2010 0319h
1012089-001BMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	89.8	80.00	0	112	10-175				12/6/2010 0319h
1012089-001BMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	89.7	80.00	0	112	10-175				12/6/2010 0319h
1012089-001BMS	Butyl benzyl phthalate	µg/L	EPA625	86.2	80.00	0	108	10-175				12/6/2010 0319h
1012089-001BMS	Carbazole	µg/L	EPA625	89.2	80.00	0	112	10-151				12/6/2010 0319h
1012089-001BMS	Chlorobenzilate	µg/L	EPA625	71.3	80.00	0	89.2	18-175				12/6/2010 0319h
1012089-001BMS	Chrysene	µg/L	EPA625	84.8	80.00	0	106	38-133				12/6/2010 0319h
1012089-001BMS	Diallate (cis or trans)	µg/L	EPA625	75.8	80.00	0	94.7	10-157				12/6/2010 0319h
1012089-001BMS	Dibenz(a,h)anthracene	µg/L	EPA625	52.0	80.00	0	65.1	13-168				12/6/2010 0319h
1012089-001BMS	Dibenzofuran	µg/L	EPA625	69.4	80.00	0	86.8	29-103				12/6/2010 0319h
1012089-001BMS	Diethyl phthalate	µg/L	EPA625	61.9	80.00	0	77.4	10-139				12/6/2010 0319h
1012089-001BMS	Dimethoate	µg/L	EPA625	< 10.0	80.00	0	8.62	10-136			1	12/6/2010 0319h
1012089-001BMS	Dimethyl phthalate	µg/L	EPA625	36.1	80.00	0	45.2	10-122				12/6/2010 0319h
1012089-001BMS	Dimethylaminoazobenzene	µg/L	EPA625	81.6	80.00	0	102	34-142				12/6/2010 0319h
1012089-001BMS	Di-n-butyl phthalate	µg/L	EPA625	88.4	80.00	0	110	44-124				12/6/2010 0319h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMS	Di-n-octyl phthalate	µg/L	EPA625	90.0	80.00	0	112	10-175				12/6/2010 0319h
1012089-001BMS	Dinoseb	µg/L	EPA625	135	80.00	0	168	10-175				12/6/2010 0319h
1012089-001BMS	Diphenylamine	µg/L	EPA625	84.2	80.00	0	105	13-110				12/6/2010 0319h
1012089-001BMS	Disulfoton	µg/L	EPA625	64.0	80.00	0	80.0	10-121				12/6/2010 0319h
1012089-001BMS	Ethyl methanesulfonate	µg/L	EPA625	50.5	80.00	0	63.2	10-99				12/6/2010 0319h
1012089-001BMS	Famphur	µg/L	EPA625	127	80.00	0	158	10-71			1	12/6/2010 0319h
1012089-001BMS	Fluoranthene	µg/L	EPA625	87.6	80.00	0	109	23-135				12/6/2010 0319h
1012089-001BMS	Fluorene	µg/L	EPA625	75.4	80.00	0	94.3	34-108				12/6/2010 0319h
1012089-001BMS	Hexachlorobenzene	µg/L	EPA625	77.9	80.00	0	97.4	26-131				12/6/2010 0319h
1012089-001BMS	Hexachlorobutadiene	µg/L	EPA625	28.2	80.00	0	35.2	10-110				12/6/2010 0319h
1012089-001BMS	Hexachlorocyclopentadiene	µg/L	EPA625	16.9	80.00	0	21.1	10-45				12/6/2010 0319h
1012089-001BMS	Hexachloroethane	µg/L	EPA625	25.9	80.00	0	32.4	10-58				12/6/2010 0319h
1012089-001BMS	Hexachlorophene	µg/L	EPA625	51.8	80.00	0	64.7	10-168				12/6/2010 0319h
1012089-001BMS	Hexachloropropene	µg/L	EPA625	27.7	80.00	0	34.6	10-72				12/6/2010 0319h
1012089-001BMS	Indene	µg/L	EPA625	32.1	80.00	0	40.1	10-35			1	12/6/2010 0319h
1012089-001BMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	51.6	80.00	0	64.6	10-176				12/6/2010 0319h
1012089-001BMS	Isodrin	µg/L	EPA625	86.0	80.00	0	107	15-165				12/6/2010 0319h
1012089-001BMS	Isophorone	µg/L	EPA625	54.0	80.00	0	67.5	10-99				12/6/2010 0319h
1012089-001BMS	Isosafrole	µg/L	EPA625	55.4	80.00	0	69.2	10-167				12/6/2010 0319h
1012089-001BMS	Kepone	µg/L	EPA625	115	80.00	0	144	10-175				12/6/2010 0319h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
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Dept: MSSV
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMS	Methapyrilene	µg/L	EPA625	47.9	80.00	0	59.8	10-149				12/6/2010 0319h
1012089-001BMS	Methyl methanesulfonate	µg/L	EPA625	56.2	80.00	0	70.3	10-132				12/6/2010 0319h
1012089-001BMS	Naphthalene	µg/L	EPA625	44.0	80.00	0	55.0	10-82				12/6/2010 0319h
1012089-001BMS	n-Decane	µg/L	EPA625	17.8	80.00	0	22.3	10-27				12/6/2010 0319h
1012089-001BMS	Nitrobenzene	µg/L	EPA625	60.6	80.00	0	75.7	10-119				12/6/2010 0319h
1012089-001BMS	Nitroquinoline-1-oxide	µg/L	EPA625	42.3	80.00	0	52.9	10-170				12/6/2010 0319h
1012089-001BMS	N-Nitrosodiethylamine	µg/L	EPA625	45.2	80.00	0	56.5	10-91				12/6/2010 0319h
1012089-001BMS	N-Nitrosodimethylamine	µg/L	EPA625	19.3	80.00	0	24.2	10-42				12/6/2010 0319h
1012089-001BMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	66.3	80.00	0	82.9	10-175				12/6/2010 0319h
1012089-001BMS	N-Nitrosodiphenylamine	µg/L	EPA625	85.3	80.00	0	107	12-112				12/6/2010 0319h
1012089-001BMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	49.5	80.00	0	61.9	10-77				12/6/2010 0319h
1012089-001BMS	N-Nitrosomethylethylamine	µg/L	EPA625	37.9	80.00	0	47.4	10-75				12/6/2010 0319h
1012089-001BMS	N-Nitrosomorpholine	µg/L	EPA625	53.0	80.00	0	66.3	10-175				12/6/2010 0319h
1012089-001BMS	N-Nitrosopiperidine	µg/L	EPA625	58.8	80.00	0	73.5	10-105				12/6/2010 0319h
1012089-001BMS	N-Nitrosopyrrolidine	µg/L	EPA625	61.9	80.00	0	77.4	10-88				12/6/2010 0319h
1012089-001BMS	n-Octadecane	µg/L	EPA625	69.8	80.00	0	87.3	10-121				12/6/2010 0319h
1012089-001BMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	55.5	80.00	0	69.4	10-93				12/6/2010 0319h
1012089-001BMS	o-Toluidine	µg/L	EPA625	50.4	80.00	0	63.1	10-107				12/6/2010 0319h
1012089-001BMS	Parathion	µg/L	EPA625	116	80.00	0	145	10-175				12/6/2010 0319h
1012089-001BMS	Methyl parathion	µg/L	EPA625	107	80.00	0	134	10-175				12/6/2010 0319h

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QC SUMMARY REPORT

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Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMS	Pentachlorobenzene	µg/L	EPA625	66.2	80.00	0	82.7	25-134				12/6/2010 0319h
1012089-001BMS	Pentachloronitrobenzene	µg/L	EPA625	88.9	80.00	0	111	10-175				12/6/2010 0319h
1012089-001BMS	Pentachlorophenol	µg/L	EPA625	60.8	80.00	0	76.0	10-163				12/6/2010 0319h
1012089-001BMS	Phenacetin	µg/L	EPA625	84.0	80.00	0	105	10-175				12/6/2010 0319h
1012089-001BMS	Phenanthrene	µg/L	EPA625	98.1	80.00	0	123	31-126				12/6/2010 0319h
1012089-001BMS	Phenol	µg/L	EPA625	26.4	80.00	0	33.1	10-175				12/6/2010 0319h
1012089-001BMS	Phorate	µg/L	EPA625	90.7	80.00	0	113	10-175				12/6/2010 0319h
1012089-001BMS	Pronamide	µg/L	EPA625	43.0	80.00	0	53.8	10-95				12/6/2010 0319h
1012089-001BMS	Pyrene	µg/L	EPA625	90.4	80.00	0	113	51-139				12/6/2010 0319h
1012089-001BMS	Pyridine	µg/L	EPA625	< 10.0	80.00	0	7.56	10-25			1	12/6/2010 0319h
1012089-001BMS	Quinoline	µg/L	EPA625	61.4	80.00	0	76.7	10-63			1	12/6/2010 0319h
1012089-001BMS	Safrole	µg/L	EPA625	61.0	80.00	0	76.2	10-120				12/6/2010 0319h
1012089-001BMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	80.3	80.00	0	100	13-160				12/6/2010 0319h
1012089-001BMS	Thionazin	µg/L	EPA625	72.9	80.00	0	91.1	10-139				12/6/2010 0319h
1012089-001BMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	76.8	80.00		96.0	21-154				12/6/2010 0319h
1012089-001BMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	28.1	40.00		70.4	10-106				12/6/2010 0319h
1012089-001BMS	Surr: 2-Fluorophenol	%REC	EPA625	27.6	80.00		34.5	10-56				12/6/2010 0319h
1012089-001BMS	Surr: Nitrobenzene-d5	%REC	EPA625	28.2	40.00		70.6	10-101				12/6/2010 0319h
1012089-001BMS	Surr: Phenol-d6	%REC	EPA625	19.3	80.00		24.1	10-45				12/6/2010 0319h
1012089-001BMS	Surr: Terphenyl-d14	%REC	EPA625	43.6	40.00		109	10-160				12/6/2010 0319h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
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Project: Red Butte Spill

Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMS	Acenaphthene	µg/L	SW8270D	67.1	80.00	0	83.9	21-113				12/6/2010 0008h
1012088-001BMS	Benzo(a)pyrene	µg/L	SW8270D	82.9	80.00	0	104	15-169				12/6/2010 0008h
1012088-001BMS	Pyrene	µg/L	SW8270D	94.3	80.00	0	118	23-150				12/6/2010 0008h
1012088-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	76.1	80.00		95.1	14-159				12/6/2010 0008h
1012088-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	25.3	40.00		63.3	10-124				12/6/2010 0008h
1012088-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	27.4	80.00		34.2	10-106				12/6/2010 0008h
1012088-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	23.8	40.00		59.6	10-180				12/6/2010 0008h
1012088-001BMS	Surr: Phenol-d6	%REC	SW8270D	19.3	80.00		24.1	10-122				12/6/2010 0008h
1012088-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	45.0	40.00		113	10-199				12/6/2010 0008h
1012089-001BMS	Acenaphthene	µg/L	SW8270D	69.7	80.00	0	87.2	21-113				12/6/2010 0319h
1012089-001BMS	Benzo(a)pyrene	µg/L	SW8270D	76.3	80.00	0	95.3	15-169				12/6/2010 0319h
1012089-001BMS	Pyrene	µg/L	SW8270D	90.4	80.00	0	113	23-150				12/6/2010 0319h
1012089-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	76.8	80.00		96.0	14-159				12/6/2010 0319h
1012089-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	28.1	40.00		70.4	10-124				12/6/2010 0319h
1012089-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	27.6	80.00		34.5	10-106				12/6/2010 0319h
1012089-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	28.2	40.00		70.6	10-180				12/6/2010 0319h
1012089-001BMS	Surr: Phenol-d6	%REC	SW8270D	19.3	80.00		24.1	10-122				12/6/2010 0319h
1012089-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	43.6	40.00		109	10-199				12/6/2010 0319h

[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: Utah DEQ DERR
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Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	1,1´-Biphenyl	µg/L	EPA625	55.5	80.00	0	69.3	27-99	1.34	49		12/6/2010 0035h
1012088-001BMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	47.6	80.00	0	59.5	10-119	3.35	52		12/6/2010 0035h
1012088-001BMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	31.6	80.00	0	39.4	10-79	4.28	49		12/6/2010 0035h
1012088-001BMSD	1,2-Dichlorobenzene	µg/L	EPA625	23.2	80.00	0	29.1	10-59	8.84	46		12/6/2010 0035h
1012088-001BMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	182	80.00	0	227	10-175	11.1	33	1	12/6/2010 0035h
1012088-001BMSD	1,3-Dichlorobenzene	µg/L	EPA625	19.9	80.00	0	24.8	10-56	9.13	49		12/6/2010 0035h
1012088-001BMSD	1,3-Dinitrobenzene	µg/L	EPA625	126	80.00	0	158	10-175	5.87	29		12/6/2010 0035h
1012088-001BMSD	1,4-Dichlorobenzene	µg/L	EPA625	21.1	80.00	0	26.3	10-58	9.93	51		12/6/2010 0035h
1012088-001BMSD	1,4-Naphthoquinone	µg/L	EPA625	49.8	80.00	0	62.2	10-177	3.44	99		12/6/2010 0035h
1012088-001BMSD	1,4-Phenylenediamine	µg/L	EPA625	41.9	80.00	0	52.3	10-124	0.960	48		12/6/2010 0035h
1012088-001BMSD	1-Chloronaphthalene	µg/L	EPA625	44.8	80.00	0	56.0	10-106	19.6	47		12/6/2010 0035h
1012088-001BMSD	1-Methylnaphthalene	µg/L	EPA625	24.1	80.00	0	30.2	10-83	1.67	44		12/6/2010 0035h
1012088-001BMSD	1-Naphthylamine	µg/L	EPA625	36.1	80.00	0	45.2	10-122	2.47	57		12/6/2010 0035h
1012088-001BMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	109	80.00	0	136	10-157	12.4	39		12/6/2010 0035h
1012088-001BMSD	2,4,5-Trichlorophenol	µg/L	EPA625	76.9	80.00	0	96.1	10-148	24.8	56		12/6/2010 0035h
1012088-001BMSD	2,4,6-Trichlorophenol	µg/L	EPA625	61.4	80.00	0	76.8	10-136	2.99	52		12/6/2010 0035h
1012088-001BMSD	2,4-Dichlorophenol	µg/L	EPA625	58.9	80.00	0	73.6	10-123	5.98	67		12/6/2010 0035h
1012088-001BMSD	2,4-Dimethylphenol	µg/L	EPA625	59.7	80.00	0	74.7	10-113	3.77	32		12/6/2010 0035h
1012088-001BMSD	2,4-Dinitrophenol	µg/L	EPA625	100	80.00	0	125	10-175	15.3	78		12/6/2010 0035h
1012088-001BMSD	2,4-Dinitrotoluene	µg/L	EPA625	114	80.00	0	143	10-175	5.08	26		12/6/2010 0035h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	2,6-Dichlorophenol	µg/L	EPA625	64.6	80.00	0	80.7	10-148	6.87	56		12/6/2010 0035h
1012088-001BMSD	2,6-Dinitrotoluene	µg/L	EPA625	93.7	80.00	0	117	10-175	2.91	74		12/6/2010 0035h
1012088-001BMSD	2-Acetylaminofluorene	µg/L	EPA625	50.7	80.00	0	63.4	10-94	8.74	52		12/6/2010 0035h
1012088-001BMSD	2-Chloronaphthalene	µg/L	EPA625	53.7	80.00	0	67.1	10-93	9.68	49		12/6/2010 0035h
1012088-001BMSD	2-Chlorophenol	µg/L	EPA625	48.8	80.00	0	61.0	10-92	4.95	58		12/6/2010 0035h
1012088-001BMSD	2-Methylnaphthalene	µg/L	EPA625	42.8	80.00	0	53.5	15-78	1.81	39		12/6/2010 0035h
1012088-001BMSD	2-Methylphenol	µg/L	EPA625	25.0	80.00	0	31.3	10-83	4.74	49		12/6/2010 0035h
1012088-001BMSD	2-Naphthylamine	µg/L	EPA625	37.1	80.00	0	46.4	10-154	5.77	37		12/6/2010 0035h
1012088-001BMSD	2-Nitroaniline	µg/L	EPA625	106	80.00	0	132	10-175	4.89	87		12/6/2010 0035h
1012088-001BMSD	2-Nitrophenol	µg/L	EPA625	72.0	80.00	0	90.0	10-175	8.67	64		12/6/2010 0035h
1012088-001BMSD	2-Picoline	µg/L	EPA625	13.9	80.00	0	17.4	10-61	6.00	63		12/6/2010 0035h
1012088-001BMSD	3&4-Methylphenol	µg/L	EPA625	53.7	80.00	0	67.2	10-80	5.04	99		12/6/2010 0035h
1012088-001BMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	87.8	80.00	0	110	10-150	7.98	63		12/6/2010 0035h
1012088-001BMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	52.7	80.00	0	65.8	10-143	10.4	99		12/6/2010 0035h
1012088-001BMSD	3-Methylcholanthrene	µg/L	EPA625	72.6	80.00	0	90.8	32-171	9.37	46		12/6/2010 0035h
1012088-001BMSD	3-Nitroaniline	µg/L	EPA625	90.3	80.00	0	113	10-175	4.34	29		12/6/2010 0035h
1012088-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	154	80.00	0	193	10-175	12.6	70	1	12/6/2010 0035h
1012088-001BMSD	4-Aminobiphenyl	µg/L	EPA625	89.0	80.00	0	111	10-175	10.3	79		12/6/2010 0035h
1012088-001BMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	82.2	80.00	0	103	16-138	6.30	31		12/6/2010 0035h
1012088-001BMSD	4-Chloro-3-methylphenol	µg/L	EPA625	74.1	80.00	0	92.6	10-131	4.17	37		12/6/2010 0035h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	4-Chloroaniline	µg/L	EPA625	52.2	80.00	0	65.2	10-98	3.83	41		12/6/2010 0035h
1012088-001BMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	72.5	80.00	0	90.6	31-108	2.09	30		12/6/2010 0035h
1012088-001BMSD	4-Nitroaniline	µg/L	EPA625	86.9	80.00	0	109	10-175	5.88	99		12/6/2010 0035h
1012088-001BMSD	4-Nitrophenol	µg/L	EPA625	31.5	80.00	0	39.4	10-97	9.76	69		12/6/2010 0035h
1012088-001BMSD	5-Nitro-o-toluidine	µg/L	EPA625	105	80.00	0	132	10-175	5.09	26		12/6/2010 0035h
1012088-001BMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	44.8	80.00	0	56.0	26-174	9.89	40		12/6/2010 0035h
1012088-001BMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	41.5	80.00	0	51.9	10-175	12.2	99		12/6/2010 0035h
1012088-001BMSD	Acenaphthene	µg/L	EPA625	66.7	80.00	0	83.4	29-97	0.553	38		12/6/2010 0035h
1012088-001BMSD	Acenaphthylene	µg/L	EPA625	65.5	80.00	0	81.9	37-87	1.46	37		12/6/2010 0035h
1012088-001BMSD	Acetophenone	µg/L	EPA625	50.8	80.00	0	63.5	10-96	8.86	48		12/6/2010 0035h
1012088-001BMSD	alpha-Terpineol	µg/L	EPA625	66.9	80.00	0	83.6	10-67	6.39	46	1	12/6/2010 0035h
1012088-001BMSD	Aniline	µg/L	EPA625	16.2	80.00	0	20.3	10-71	5.44	48		12/6/2010 0035h
1012088-001BMSD	Anthracene	µg/L	EPA625	99.9	80.00	0	125	53-114	11.6	26	1	12/6/2010 0035h
1012088-001BMSD	Aramite	µg/L	EPA625	66.8	80.00	0	83.6	29-160	8.50	30		12/6/2010 0035h
1012088-001BMSD	Azobenzene	µg/L	EPA625	72.4	80.00	0	90.5	15-114	9.64	36		12/6/2010 0035h
1012088-001BMSD	Benz(a)anthracene	µg/L	EPA625	88.5	80.00	0	111	39-129	7.14	32		12/6/2010 0035h
1012088-001BMSD	Benzidine	µg/L	EPA625	54.2	80.00	0	67.7	10-99	8.80	99		12/6/2010 0035h
1012088-001BMSD	Benzo(a)pyrene	µg/L	EPA625	92.2	80.00	0	115	29-175	10.7	45		12/6/2010 0035h
1012088-001BMSD	Benzo(b)fluoranthene	µg/L	EPA625	77.4	80.00	0	96.8	15-140	7.89	44		12/6/2010 0035h
1012088-001BMSD	Benzo(g,h,i)perylene	µg/L	EPA625	57.7	80.00	0	72.1	10-182	9.06	48		12/6/2010 0035h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	Benzo(k)fluoranthene	µg/L	EPA625	91.9	80.00	0	115	21-154	12.8	52		12/6/2010 0035h
1012088-001BMSD	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	17.9	10-71	0	78		12/6/2010 0035h
1012088-001BMSD	Benzyl alcohol	µg/L	EPA625	27.3	80.00	0	34.1	10-69	12.1	52		12/6/2010 0035h
1012088-001BMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	36.0	80.00	0	45.1	10-94	8.83	45		12/6/2010 0035h
1012088-001BMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	32.5	80.00	0	40.6	10-70	4.16	47		12/6/2010 0035h
1012088-001BMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	33.9	80.00	0	42.4	10-71	3.57	49		12/6/2010 0035h
1012088-001BMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	101	80.00	0	126	10-175	6.57	28		12/6/2010 0035h
1012088-001BMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	102	80.00	0	128	10-175	6.04	25		12/6/2010 0035h
1012088-001BMSD	Butyl benzyl phthalate	µg/L	EPA625	99.0	80.00	0	124	10-175	7.73	99		12/6/2010 0035h
1012088-001BMSD	Carbazole	µg/L	EPA625	100	80.00	0	125	10-151	8.81	30		12/6/2010 0035h
1012088-001BMSD	Chlorobenzilate	µg/L	EPA625	86.0	80.00	0	108	18-175	5.32	25		12/6/2010 0035h
1012088-001BMSD	Chrysene	µg/L	EPA625	98.2	80.00	0	123	38-133	7.38	28		12/6/2010 0035h
1012088-001BMSD	Diallate (cis or trans)	µg/L	EPA625	79.1	80.00	0	98.9	10-157	7.63	29		12/6/2010 0035h
1012088-001BMSD	Dibenz(a,h)anthracene	µg/L	EPA625	62.9	80.00	0	78.6	13-168	9.91	51		12/6/2010 0035h
1012088-001BMSD	Dibenzofuran	µg/L	EPA625	66.5	80.00	0	83.1	29-103	0.0751	34		12/6/2010 0035h
1012088-001BMSD	Diethyl phthalate	µg/L	EPA625	72.3	80.00	0	90.4	10-139	3.53	32		12/6/2010 0035h
1012088-001BMSD	Dimethoate	µg/L	EPA625	13.3	80.00	0	16.6	10-136	31.0	45		12/6/2010 0035h
1012088-001BMSD	Dimethyl phthalate	µg/L	EPA625	49.3	80.00	0	61.6	10-122	14.8	57		12/6/2010 0035h
1012088-001BMSD	Dimethylaminoazobenzene	µg/L	EPA625	95.1	80.00	0	119	34-142	8.34	26		12/6/2010 0035h
1012088-001BMSD	Di-n-butyl phthalate	µg/L	EPA625	98.0	80.00	0	122	44-124	6.32	25		12/6/2010 0035h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	Di-n-octyl phthalate	µg/L	EPA625	112	80.00	0	140	10-175	10.5	50		12/6/2010 0035h
1012088-001BMSD	Dinoseb	µg/L	EPA625	160	80.00	0	200	10-175	11.6	42	1	12/6/2010 0035h
1012088-001BMSD	Diphenylamine	µg/L	EPA625	92.2	80.00	0	115	13-110	10.2	34	1	12/6/2010 0035h
1012088-001BMSD	Disulfoton	µg/L	EPA625	68.6	80.00	0	85.8	10-121	0	25		12/6/2010 0035h
1012088-001BMSD	Ethyl methanesulfonate	µg/L	EPA625	45.2	80.00	0	56.6	10-99	4.45	46		12/6/2010 0035h
1012088-001BMSD	Famphur	µg/L	EPA625	150	80.00	0	188	10-71	9.87	25	1	12/6/2010 0035h
1012088-001BMSD	Fluoranthene	µg/L	EPA625	96.3	80.00	0	120	23-135	9.08	25		12/6/2010 0035h
1012088-001BMSD	Fluorene	µg/L	EPA625	75.3	80.00	0	94.1	34-108	0.265	28		12/6/2010 0035h
1012088-001BMSD	Hexachlorobenzene	µg/L	EPA625	84.1	80.00	0	105	26-131	5.86	28		12/6/2010 0035h
1012088-001BMSD	Hexachlorobutadiene	µg/L	EPA625	22.7	80.00	0	28.3	10-110	12.9	68		12/6/2010 0035h
1012088-001BMSD	Hexachlorocyclopentadiene	µg/L	EPA625	14.6	80.00	0	18.3	10-45	7.75	79		12/6/2010 0035h
1012088-001BMSD	Hexachloroethane	µg/L	EPA625	20.2	80.00	0	25.2	10-58	6.06	42		12/6/2010 0035h
1012088-001BMSD	Hexachlorophene	µg/L	EPA625	61.3	80.00	0	76.7	10-168	8.61	25		12/6/2010 0035h
1012088-001BMSD	Hexachloropropene	µg/L	EPA625	24.0	80.00	0	29.9	10-72	6.35	63		12/6/2010 0035h
1012088-001BMSD	Indene	µg/L	EPA625	25.8	80.00	0	32.2	10-35	8.91	35		12/6/2010 0035h
1012088-001BMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	62.0	80.00	0	77.5	10-176	9.09	48		12/6/2010 0035h
1012088-001BMSD	Isodrin	µg/L	EPA625	94.4	80.00	0	118	15-165	8.72	25		12/6/2010 0035h
1012088-001BMSD	Isophorone	µg/L	EPA625	51.7	80.00	0	64.6	10-99	7.82	41		12/6/2010 0035h
1012088-001BMSD	Isosafrole	µg/L	EPA625	49.8	80.00	0	62.3	10-167	0.221	50		12/6/2010 0035h
1012088-001BMSD	Kepone	µg/L	EPA625	< 10.0	80.00	0	0	10-175	0	46	1	12/6/2010 0035h

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QC SUMMARY REPORT

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Lab Set ID: 1012089
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	Methapyrilene	µg/L	EPA625	54.5	80.00	0	68.2	10-149	8.23	51		12/6/2010 0035h
1012088-001BMSD	Methyl methanesulfonate	µg/L	EPA625	48.8	80.00	0	61.0	10-132	3.15	45		12/6/2010 0035h
1012088-001BMSD	Naphthalene	µg/L	EPA625	37.7	80.00	0	47.1	10-82	2.41	43		12/6/2010 0035h
1012088-001BMSD	n-Decane	µg/L	EPA625	13.0	80.00	0	16.3	10-27	14.0	32		12/6/2010 0035h
1012088-001BMSD	Nitrobenzene	µg/L	EPA625	55.9	80.00	0	69.8	10-119	6.29	49		12/6/2010 0035h
1012088-001BMSD	Nitroquinoline-1-oxide	µg/L	EPA625	53.4	80.00	0	66.7	10-170	5.94	97		12/6/2010 0035h
1012088-001BMSD	N-Nitrosodiethylamine	µg/L	EPA625	39.8	80.00	0	49.8	10-91	2.60	54		12/6/2010 0035h
1012088-001BMSD	N-Nitrosodimethylamine	µg/L	EPA625	14.0	80.00	0	17.5	10-42	13.4	66		12/6/2010 0035h
1012088-001BMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	64.2	80.00	0	80.2	10-175	2.14	80		12/6/2010 0035h
1012088-001BMSD	N-Nitrosodiphenylamine	µg/L	EPA625	91.2	80.00	0	114	12-112	7.43	30	1	12/6/2010 0035h
1012088-001BMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	46.1	80.00	0	57.7	10-77	5.18	47		12/6/2010 0035h
1012088-001BMSD	N-Nitrosomethylethylamine	µg/L	EPA625	28.7	80.00	0	35.9	10-75	11.7	60		12/6/2010 0035h
1012088-001BMSD	N-Nitrosomorpholine	µg/L	EPA625	50.9	80.00	0	63.6	10-175	3.05	73		12/6/2010 0035h
1012088-001BMSD	N-Nitrosopiperidine	µg/L	EPA625	54.2	80.00	0	67.8	10-105	8.34	44		12/6/2010 0035h
1012088-001BMSD	N-Nitrosopyrrolidine	µg/L	EPA625	59.2	80.00	0	74.0	10-88	6.49	40		12/6/2010 0035h
1012088-001BMSD	n-Octadecane	µg/L	EPA625	71.2	80.00	0	89.0	10-121	7.06	40		12/6/2010 0035h
1012088-001BMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	52.8	80.00	0	66.0	10-93	5.57	44		12/6/2010 0035h
1012088-001BMSD	o-Toluidine	µg/L	EPA625	44.9	80.00	0	56.1	10-107	4.98	46		12/6/2010 0035h
1012088-001BMSD	Parathion	µg/L	EPA625	133	80.00	0	166	10-175	9.94	28		12/6/2010 0035h
1012088-001BMSD	Methyl parathion	µg/L	EPA625	121	80.00	0	152	10-175	7.18	26		12/6/2010 0035h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	Pentachlorobenzene	µg/L	EPA625	65.2	80.00	0	81.5	25-134	1.95	35		12/6/2010 0035h
1012088-001BMSD	Pentachloronitrobenzene	µg/L	EPA625	94.8	80.00	0	119	10-175	5.36	25		12/6/2010 0035h
1012088-001BMSD	Pentachlorophenol	µg/L	EPA625	68.1	80.00	0	85.1	10-163	11.0	58		12/6/2010 0035h
1012088-001BMSD	Phenacetin	µg/L	EPA625	94.8	80.00	0	119	10-175	9.65	38		12/6/2010 0035h
1012088-001BMSD	Phenanthrene	µg/L	EPA625	112	80.00	0	140	31-126	10.2	32	1	12/6/2010 0035h
1012088-001BMSD	Phenol	µg/L	EPA625	26.1	80.00	0	32.6	10-175	0.192	71		12/6/2010 0035h
1012088-001BMSD	Phorate	µg/L	EPA625	101	80.00	0	127	10-175	10.3	42		12/6/2010 0035h
1012088-001BMSD	Pronamide	µg/L	EPA625	49.2	80.00	0	61.5	10-95	11.8	26		12/6/2010 0035h
1012088-001BMSD	Pyrene	µg/L	EPA625	103	80.00	0	129	51-139	9.17	27		12/6/2010 0035h
1012088-001BMSD	Pyridine	µg/L	EPA625	< 10.0	80.00	0	0	10-25	0	61	1	12/6/2010 0035h
1012088-001BMSD	Quinoline	µg/L	EPA625	59.4	80.00	0	74.2	10-63	3.18	99	1	12/6/2010 0035h
1012088-001BMSD	Safrole	µg/L	EPA625	57.4	80.00	0	71.8	10-120	1.69	51		12/6/2010 0035h
1012088-001BMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	87.6	80.00	0	109	13-160	6.92	35		12/6/2010 0035h
1012088-001BMSD	Thionazin	µg/L	EPA625	80.1	80.00	0	100	10-139	5.83	25		12/6/2010 0035h
1012088-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	79.8	80.00		99.8	21-154				12/6/2010 0035h
1012088-001BMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	25.5	40.00		63.8	10-106				12/6/2010 0035h
1012088-001BMSD	Surr: 2-Fluorophenol	%REC	EPA625	25.7	80.00		32.2	10-56				12/6/2010 0035h
1012088-001BMSD	Surr: Nitrobenzene-d5	%REC	EPA625	25.7	40.00		64.4	10-101				12/6/2010 0035h
1012088-001BMSD	Surr: Phenol-d6	%REC	EPA625	18.8	80.00		23.5	10-45				12/6/2010 0035h
1012088-001BMSD	Surr: Terphenyl-d14	%REC	EPA625	47.8	40.00		119	10-160				12/6/2010 0035h

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Dept: MSSV
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMSD	1,1´-Biphenyl	µg/L	EPA625	58.8	80.00	0	73.5	27-99	2.44	49		12/6/2010 0346h
1012089-001BMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	53.7	80.00	0	67.2	10-119	1.88	52		12/6/2010 0346h
1012089-001BMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	43.2	80.00	0	53.9	10-79	16.0	49		12/6/2010 0346h
1012089-001BMSD	1,2-Dichlorobenzene	µg/L	EPA625	38.2	80.00	0	47.8	10-59	23.8	46		12/6/2010 0346h
1012089-001BMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	157	80.00	0	197	10-175	3.13	33	1	12/6/2010 0346h
1012089-001BMSD	1,3-Dichlorobenzene	µg/L	EPA625	33.8	80.00	0	42.2	10-56	25.1	49		12/6/2010 0346h
1012089-001BMSD	1,3-Dinitrobenzene	µg/L	EPA625	120	80.00	0	150	10-175	0.712	29		12/6/2010 0346h
1012089-001BMSD	1,4-Dichlorobenzene	µg/L	EPA625	35.7	80.00	0	44.7	10-58	26.5	51		12/6/2010 0346h
1012089-001BMSD	1,4-Naphthoquinone	µg/L	EPA625	53.4	80.00	0	66.7	10-177	21.7	99		12/6/2010 0346h
1012089-001BMSD	1,4-Phenylenediamine	µg/L	EPA625	46.8	80.00	0	58.6	10-124	0.808	48		12/6/2010 0346h
1012089-001BMSD	1-Chloronaphthalene	µg/L	EPA625	53.8	80.00	0	67.3	10-106	2.06	47		12/6/2010 0346h
1012089-001BMSD	1-Methylnaphthalene	µg/L	EPA625	27.1	80.00	0	33.9	10-83	1.41	44		12/6/2010 0346h
1012089-001BMSD	1-Naphthylamine	µg/L	EPA625	34.2	80.00	0	42.7	10-122	2.00	57		12/6/2010 0346h
1012089-001BMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	93.6	80.00	0	117	10-157	6.00	39		12/6/2010 0346h
1012089-001BMSD	2,4,5-Trichlorophenol	µg/L	EPA625	60.4	80.00	0	75.5	10-148	21.4	56		12/6/2010 0346h
1012089-001BMSD	2,4,6-Trichlorophenol	µg/L	EPA625	59.0	80.00	0	73.7	10-136	3.81	52		12/6/2010 0346h
1012089-001BMSD	2,4-Dichlorophenol	µg/L	EPA625	54.7	80.00	0	68.3	10-123	5.95	67		12/6/2010 0346h
1012089-001BMSD	2,4-Dimethylphenol	µg/L	EPA625	53.3	80.00	0	66.7	10-113	5.01	32		12/6/2010 0346h
1012089-001BMSD	2,4-Dinitrophenol	µg/L	EPA625	86.2	80.00	0	108	10-175	5.71	78		12/6/2010 0346h
1012089-001BMSD	2,4-Dinitrotoluene	µg/L	EPA625	108	80.00	0	135	10-175	1.56	26		12/6/2010 0346h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMSD	2,6-Dichlorophenol	µg/L	EPA625	61.5	80.00	0	76.9	10-148	6.13	56		12/6/2010 0346h
1012089-001BMSD	2,6-Dinitrotoluene	µg/L	EPA625	89.5	80.00	0	112	10-175	0.613	74		12/6/2010 0346h
1012089-001BMSD	2-Acetylaminofluorene	µg/L	EPA625	45.2	80.00	0	56.5	10-94	3.74	52		12/6/2010 0346h
1012089-001BMSD	2-Chloronaphthalene	µg/L	EPA625	55.6	80.00	0	69.5	10-93	3.45	49		12/6/2010 0346h
1012089-001BMSD	2-Chlorophenol	µg/L	EPA625	53.0	80.00	0	66.2	10-92	2.18	58		12/6/2010 0346h
1012089-001BMSD	2-Methylnaphthalene	µg/L	EPA625	48.7	80.00	0	60.9	15-78	2.85	39		12/6/2010 0346h
1012089-001BMSD	2-Methylphenol	µg/L	EPA625	24.1	80.00	0	30.1	10-83	2.95	49		12/6/2010 0346h
1012089-001BMSD	2-Naphthylamine	µg/L	EPA625	34.6	80.00	0	43.3	10-154	0.608	37		12/6/2010 0346h
1012089-001BMSD	2-Nitroaniline	µg/L	EPA625	103	80.00	0	129	10-175	2.23	87		12/6/2010 0346h
1012089-001BMSD	2-Nitrophenol	µg/L	EPA625	74.0	80.00	0	92.5	10-175	1.02	64		12/6/2010 0346h
1012089-001BMSD	2-Picoline	µg/L	EPA625	18.9	80.00	0	23.6	10-61	7.01	63		12/6/2010 0346h
1012089-001BMSD	3&4-Methylphenol	µg/L	EPA625	55.9	80.00	0	69.9	10-80	0.341	99		12/6/2010 0346h
1012089-001BMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	76.2	80.00	0	95.3	10-150	2.65	63		12/6/2010 0346h
1012089-001BMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	44.5	80.00	0	55.6	10-143	1.54	99		12/6/2010 0346h
1012089-001BMSD	3-Methylcholanthrene	µg/L	EPA625	60.2	80.00	0	75.3	32-171	0	46		12/6/2010 0346h
1012089-001BMSD	3-Nitroaniline	µg/L	EPA625	85.6	80.00	0	107	10-175	1.45	29		12/6/2010 0346h
1012089-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	127	80.00	0	159	10-175	2.01	70		12/6/2010 0346h
1012089-001BMSD	4-Aminobiphenyl	µg/L	EPA625	78.8	80.00	0	98.5	10-175	0.872	79		12/6/2010 0346h
1012089-001BMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	77.9	80.00	0	97.4	16-138	0.219	31		12/6/2010 0346h
1012089-001BMSD	4-Chloro-3-methylphenol	µg/L	EPA625	67.6	80.00	0	84.5	10-131	5.65	37		12/6/2010 0346h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMSD	4-Chloroaniline	µg/L	EPA625	54.0	80.00	0	67.4	10-98	3.23	41		12/6/2010 0346h
1012089-001BMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	71.0	80.00	0	88.8	31-108	2.39	30		12/6/2010 0346h
1012089-001BMSD	4-Nitroaniline	µg/L	EPA625	78.6	80.00	0	98.2	10-175	0.432	99		12/6/2010 0346h
1012089-001BMSD	4-Nitrophenol	µg/L	EPA625	27.5	80.00	0	34.3	10-97	7.16	69		12/6/2010 0346h
1012089-001BMSD	5-Nitro-o-toluidine	µg/L	EPA625	97.7	80.00	0	122	10-175	0.905	26		12/6/2010 0346h
1012089-001BMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	36.4	80.00	0	45.4	26-174	0.968	40		12/6/2010 0346h
1012089-001BMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	35.9	80.00	0	44.9	10-175	5.14	99		12/6/2010 0346h
1012089-001BMSD	Acenaphthene	µg/L	EPA625	66.5	80.00	0	83.1	29-97	4.74	38		12/6/2010 0346h
1012089-001BMSD	Acenaphthylene	µg/L	EPA625	66.8	80.00	0	83.6	37-87	2.66	37		12/6/2010 0346h
1012089-001BMSD	Acetophenone	µg/L	EPA625	58.1	80.00	0	72.6	10-96	4.29	48		12/6/2010 0346h
1012089-001BMSD	alpha-Terpineol	µg/L	EPA625	68.3	80.00	0	85.4	10-67	3.48	46	1	12/6/2010 0346h
1012089-001BMSD	Aniline	µg/L	EPA625	21.1	80.00	0	26.3	10-71	8.57	48		12/6/2010 0346h
1012089-001BMSD	Anthracene	µg/L	EPA625	90.2	80.00	0	113	53-114	2.30	26		12/6/2010 0346h
1012089-001BMSD	Aramite	µg/L	EPA625	58.8	80.00	0	73.5	29-160	0	30		12/6/2010 0346h
1012089-001BMSD	Azobenzene	µg/L	EPA625	82.5	80.00	0	103	15-114	3.65	36		12/6/2010 0346h
1012089-001BMSD	Benz(a)anthracene	µg/L	EPA625	76.4	80.00	0	95.6	39-129	0.0654	32		12/6/2010 0346h
1012089-001BMSD	Benzidine	µg/L	EPA625	48.1	80.00	0	60.1	10-99	7.38	99		12/6/2010 0346h
1012089-001BMSD	Benzo(a)pyrene	µg/L	EPA625	76.5	80.00	0	95.6	29-175	0.288	45		12/6/2010 0346h
1012089-001BMSD	Benzo(b)fluoranthene	µg/L	EPA625	62.0	80.00	0	77.5	15-140	0.0806	44		12/6/2010 0346h
1012089-001BMSD	Benzo(g,h,i)perylene	µg/L	EPA625	47.4	80.00	0	59.3	10-182	0.631	48		12/6/2010 0346h

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1012089-001BMSD	Benzo(k)fluoranthene	µg/L	EPA625	77.4	80.00	0	96.7	21-154	1.72	52		12/6/2010 0346h
1012089-001BMSD	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	13.9	10-71	0	78		12/6/2010 0346h
1012089-001BMSD	Benzyl alcohol	µg/L	EPA625	30.2	80.00	0	37.7	10-69	2.18	52		12/6/2010 0346h
1012089-001BMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	37.9	80.00	0	47.4	10-94	2.60	45		12/6/2010 0346h
1012089-001BMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	42.9	80.00	0	53.6	10-70	10.6	47		12/6/2010 0346h
1012089-001BMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	42.1	80.00	0	52.6	10-71	8.13	49		12/6/2010 0346h
1012089-001BMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	87.6	80.00	0	110	10-175	2.45	28		12/6/2010 0346h
1012089-001BMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	89.7	80.00	0	112	10-175	0	25		12/6/2010 0346h
1012089-001BMSD	Butyl benzyl phthalate	µg/L	EPA625	87.7	80.00	0	110	10-175	1.74	99		12/6/2010 0346h
1012089-001BMSD	Carbazole	µg/L	EPA625	88.5	80.00	0	111	10-151	0.788	30		12/6/2010 0346h
1012089-001BMSD	Chlorobenzilate	µg/L	EPA625	73.3	80.00	0	91.6	18-175	2.70	25		12/6/2010 0346h
1012089-001BMSD	Chrysene	µg/L	EPA625	84.7	80.00	0	106	38-133	0.0708	28		12/6/2010 0346h
1012089-001BMSD	Diallate (cis or trans)	µg/L	EPA625	74.0	80.00	0	92.5	10-157	2.35	29		12/6/2010 0346h
1012089-001BMSD	Dibenz(a,h)anthracene	µg/L	EPA625	51.3	80.00	0	64.1	13-168	1.51	51		12/6/2010 0346h
1012089-001BMSD	Dibenzofuran	µg/L	EPA625	68.1	80.00	0	85.1	29-103	1.92	34		12/6/2010 0346h
1012089-001BMSD	Diethyl phthalate	µg/L	EPA625	63.6	80.00	0	79.5	10-139	2.66	32		12/6/2010 0346h
1012089-001BMSD	Dimethoate	µg/L	EPA625	< 10.0	80.00	0	9.62	10-136	0	45	1	12/6/2010 0346h
1012089-001BMSD	Dimethyl phthalate	µg/L	EPA625	40.3	80.00	0	50.4	10-122	10.9	57		12/6/2010 0346h
1012089-001BMSD	Dimethylaminoazobenzene	µg/L	EPA625	84.0	80.00	0	105	34-142	2.87	26		12/6/2010 0346h
1012089-001BMSD	Di-n-butyl phthalate	µg/L	EPA625	87.0	80.00	0	109	44-124	1.63	25		12/6/2010 0346h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMSD	Di-n-octyl phthalate	µg/L	EPA625	90.5	80.00	0	113	10-175	0.576	50		12/6/2010 0346h
1012089-001BMSD	Dinoseb	µg/L	EPA625	133	80.00	0	166	10-175	1.67	42		12/6/2010 0346h
1012089-001BMSD	Diphenylamine	µg/L	EPA625	83.5	80.00	0	104	13-110	0.859	34		12/6/2010 0346h
1012089-001BMSD	Disulfoton	µg/L	EPA625	61.8	80.00	0	77.3	10-121	3.39	25		12/6/2010 0346h
1012089-001BMSD	Ethyl methanesulfonate	µg/L	EPA625	51.5	80.00	0	64.3	10-99	1.82	46		12/6/2010 0346h
1012089-001BMSD	Famphur	µg/L	EPA625	122	80.00	0	153	10-71	3.58	25	1	12/6/2010 0346h
1012089-001BMSD	Fluoranthene	µg/L	EPA625	85.7	80.00	0	107	23-135	2.12	25		12/6/2010 0346h
1012089-001BMSD	Fluorene	µg/L	EPA625	72.9	80.00	0	91.1	34-108	3.40	28		12/6/2010 0346h
1012089-001BMSD	Hexachlorobenzene	µg/L	EPA625	78.0	80.00	0	97.5	26-131	0.167	28		12/6/2010 0346h
1012089-001BMSD	Hexachlorobutadiene	µg/L	EPA625	35.0	80.00	0	43.8	10-110	21.8	68		12/6/2010 0346h
1012089-001BMSD	Hexachlorocyclopentadiene	µg/L	EPA625	19.3	80.00	0	24.2	10-45	13.5	79		12/6/2010 0346h
1012089-001BMSD	Hexachloroethane	µg/L	EPA625	34.8	80.00	0	43.5	10-58	29.3	42		12/6/2010 0346h
1012089-001BMSD	Hexachlorophene	µg/L	EPA625	52.9	80.00	0	66.2	10-168	2.18	25		12/6/2010 0346h
1012089-001BMSD	Hexachloropropene	µg/L	EPA625	35.2	80.00	0	44.0	10-72	23.9	63		12/6/2010 0346h
1012089-001BMSD	Indene	µg/L	EPA625	39.2	80.00	0	49.0	10-35	19.9	35	1	12/6/2010 0346h
1012089-001BMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	51.9	80.00	0	64.9	10-176	0.541	48		12/6/2010 0346h
1012089-001BMSD	Isodrin	µg/L	EPA625	84.0	80.00	0	105	15-165	2.34	25		12/6/2010 0346h
1012089-001BMSD	Isophorone	µg/L	EPA625	51.7	80.00	0	64.7	10-99	4.28	41		12/6/2010 0346h
1012089-001BMSD	Isosafrole	µg/L	EPA625	55.3	80.00	0	69.1	10-167	0.145	50		12/6/2010 0346h
1012089-001BMSD	Kepone	µg/L	EPA625	102	80.00	0	128	10-175	11.7	46		12/6/2010 0346h

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Kyle F. Gross
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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMSD	Methapyrilene	µg/L	EPA625	48.2	80.00	0	60.3	10-149	0.749	51		12/6/2010 0346h
1012089-001BMSD	Methyl methanesulfonate	µg/L	EPA625	60.8	80.00	0	76.0	10-132	7.91	45		12/6/2010 0346h
1012089-001BMSD	Naphthalene	µg/L	EPA625	48.1	80.00	0	60.2	10-82	8.92	43		12/6/2010 0346h
1012089-001BMSD	n-Decane	µg/L	EPA625	24.1	80.00	0	30.2	10-27	30.1	32	1	12/6/2010 0346h
1012089-001BMSD	Nitrobenzene	µg/L	EPA625	64.3	80.00	0	80.3	10-119	5.96	49		12/6/2010 0346h
1012089-001BMSD	Nitroquinoline-1-oxide	µg/L	EPA625	47.1	80.00	0	58.8	10-170	10.6	97		12/6/2010 0346h
1012089-001BMSD	N-Nitrosodiethylamine	µg/L	EPA625	50.6	80.00	0	63.3	10-91	11.4	54		12/6/2010 0346h
1012089-001BMSD	N-Nitrosodimethylamine	µg/L	EPA625	20.2	80.00	0	25.3	10-42	4.60	66		12/6/2010 0346h
1012089-001BMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	64.1	80.00	0	80.1	10-175	3.40	80		12/6/2010 0346h
1012089-001BMSD	N-Nitrosodiphenylamine	µg/L	EPA625	84.4	80.00	0	106	12-112	1.07	30		12/6/2010 0346h
1012089-001BMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	49.8	80.00	0	62.2	10-77	0.524	47		12/6/2010 0346h
1012089-001BMSD	N-Nitrosomethylethylamine	µg/L	EPA625	39.5	80.00	0	49.4	10-75	4.16	60		12/6/2010 0346h
1012089-001BMSD	N-Nitrosomorpholine	µg/L	EPA625	52.6	80.00	0	65.7	10-175	0.852	73		12/6/2010 0346h
1012089-001BMSD	N-Nitrosopiperidine	µg/L	EPA625	57.5	80.00	0	71.8	10-105	2.29	44		12/6/2010 0346h
1012089-001BMSD	N-Nitrosopyrrolidine	µg/L	EPA625	61.8	80.00	0	77.3	10-88	0.145	40		12/6/2010 0346h
1012089-001BMSD	n-Octadecane	µg/L	EPA625	67.5	80.00	0	84.4	10-121	3.36	40		12/6/2010 0346h
1012089-001BMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	54.9	80.00	0	68.6	10-93	1.12	44		12/6/2010 0346h
1012089-001BMSD	o-Toluidine	µg/L	EPA625	51.8	80.00	0	64.7	10-107	2.58	46		12/6/2010 0346h
1012089-001BMSD	Parathion	µg/L	EPA625	116	80.00	0	144	10-175	0.0865	28		12/6/2010 0346h
1012089-001BMSD	Methyl parathion	µg/L	EPA625	106	80.00	0	132	10-175	1.22	26		12/6/2010 0346h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001BMSD	Pentachlorobenzene	µg/L	EPA625	65.0	80.00	0	81.2	25-134	1.88	35		12/6/2010 0346h
1012089-001BMSD	Pentachloronitrobenzene	µg/L	EPA625	87.9	80.00	0	110	10-175	1.13	25		12/6/2010 0346h
1012089-001BMSD	Pentachlorophenol	µg/L	EPA625	51.8	80.00	0	64.8	10-163	15.9	58		12/6/2010 0346h
1012089-001BMSD	Phenacetin	µg/L	EPA625	85.1	80.00	0	106	10-175	1.34	38		12/6/2010 0346h
1012089-001BMSD	Phenanthrene	µg/L	EPA625	98.8	80.00	0	123	31-126	0.681	32		12/6/2010 0346h
1012089-001BMSD	Phenol	µg/L	EPA625	26.5	80.00	0	33.1	10-175	0.151	71		12/6/2010 0346h
1012089-001BMSD	Phorate	µg/L	EPA625	89.9	80.00	0	112	10-175	0.919	42		12/6/2010 0346h
1012089-001BMSD	Pronamide	µg/L	EPA625	44.0	80.00	0	54.9	10-95	2.16	26		12/6/2010 0346h
1012089-001BMSD	Pyrene	µg/L	EPA625	90.3	80.00	0	113	51-139	0.144	27		12/6/2010 0346h
1012089-001BMSD	Pyridine	µg/L	EPA625	< 10.0	80.00	0	9.50	10-25	0	61	1	12/6/2010 0346h
1012089-001BMSD	Quinoline	µg/L	EPA625	59.0	80.00	0	73.8	10-63	3.82	99	1	12/6/2010 0346h
1012089-001BMSD	Safrole	µg/L	EPA625	59.1	80.00	0	73.9	10-120	3.16	51		12/6/2010 0346h
1012089-001BMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	79.4	80.00	0	99.3	13-160	1.08	35		12/6/2010 0346h
1012089-001BMSD	Thionazin	µg/L	EPA625	71.8	80.00	0	89.8	10-139	1.42	25		12/6/2010 0346h
1012089-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	73.0	80.00		91.2	21-154				12/6/2010 0346h
1012089-001BMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	29.1	40.00		72.7	10-106				12/6/2010 0346h
1012089-001BMSD	Surr: 2-Fluorophenol	%REC	EPA625	27.9	80.00		34.9	10-56				12/6/2010 0346h
1012089-001BMSD	Surr: Nitrobenzene-d5	%REC	EPA625	29.3	40.00		73.3	10-101				12/6/2010 0346h
1012089-001BMSD	Surr: Phenol-d6	%REC	EPA625	18.3	80.00		22.9	10-45				12/6/2010 0346h
1012089-001BMSD	Surr: Terphenyl-d14	%REC	EPA625	42.7	40.00		107	10-160				12/6/2010 0346h

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QC SUMMARY REPORT

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QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001BMSD	Acenaphthene	µg/L	SW8270D	66.7	80.00	0	83.4	21-113	0.553	25		12/6/2010 0035h
1012088-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	92.2	80.00	0	115	15-169	10.7	25		12/6/2010 0035h
1012088-001BMSD	Pyrene	µg/L	SW8270D	103	80.00	0	129	23-150	9.17	25		12/6/2010 0035h
1012088-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	79.8	80.00		99.8	14-159				12/6/2010 0035h
1012088-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	25.5	40.00		63.8	10-124				12/6/2010 0035h
1012088-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	25.7	80.00		32.2	10-106				12/6/2010 0035h
1012088-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	25.7	40.00		64.4	10-180				12/6/2010 0035h
1012088-001BMSD	Surr: Phenol-d6	%REC	SW8270D	18.8	80.00		23.5	10-122				12/6/2010 0035h
1012088-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	47.8	40.00		119	10-199				12/6/2010 0035h
1012089-001BMSD	Acenaphthene	µg/L	SW8270D	66.5	80.00	0	83.1	21-113	4.74	25		12/6/2010 0346h
1012089-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	76.5	80.00	0	95.6	15-169	0.288	25		12/6/2010 0346h
1012089-001BMSD	Pyrene	µg/L	SW8270D	90.3	80.00	0	113	23-150	0.144	25		12/6/2010 0346h
1012089-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	73.0	80.00		91.2	14-159				12/6/2010 0346h
1012089-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	29.1	40.00		72.7	10-124				12/6/2010 0346h
1012089-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	27.9	80.00		34.9	10-106				12/6/2010 0346h
1012089-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	29.3	40.00		73.3	10-180				12/6/2010 0346h
1012089-001BMSD	Surr: Phenol-d6	%REC	SW8270D	18.3	80.00		22.9	10-122				12/6/2010 0346h
1012089-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	42.7	40.00		107	10-199				12/6/2010 0346h

[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: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS VOC 120510A	1,1,1,2-Tetrachloroethane	µg/L	EPA624	19.6	20.00	0	98.1	74-117				12/5/2010 1314h
LCS VOC 120510A	1,1,1-Trichloroethane	µg/L	EPA624	23.3	20.00	0	116	49-140				12/5/2010 1314h
LCS VOC 120510A	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.1	20.00	0	80.6	67-119				12/5/2010 1314h
LCS VOC 120510A	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	27.2	20.00	0	136	21-206				12/5/2010 1314h
LCS VOC 120510A	1,1,2-Trichloroethane	µg/L	EPA624	18.0	20.00	0	90.3	80-123				12/5/2010 1314h
LCS VOC 120510A	1,1-Dichloropropene	µg/L	EPA624	46.4	40.00	0	116	10-140				12/5/2010 1314h
LCS VOC 120510A	1,1-Dichloroethane	µg/L	EPA624	21.3	20.00	0	107	70-130				12/5/2010 1314h
LCS VOC 120510A	1,1-Dichloroethene	µg/L	EPA624	27.9	20.00	0	140	52-171				12/5/2010 1314h
LCS VOC 120510A	1,2,3-Trichlorobenzene	µg/L	EPA624	16.6	20.00	0	82.8	67-131				12/5/2010 1314h
LCS VOC 120510A	1,2,3-Trichloropropane	µg/L	EPA624	17.8	20.00	0	88.8	62-116				12/5/2010 1314h
LCS VOC 120510A	1,2,3-Trimethylbenzene	µg/L	EPA624	19.5	20.00	0	97.4	76-140				12/5/2010 1314h
LCS VOC 120510A	1,2,4-Trichlorobenzene	µg/L	EPA624	16.0	20.00	0	80.2	58-133				12/5/2010 1314h
LCS VOC 120510A	1,2,4-Trimethylbenzene	µg/L	EPA624	18.9	20.00	0	94.3	79-151				12/5/2010 1314h
LCS VOC 120510A	1,2-Dibromo-3-chloropropane	µg/L	EPA624	15.6	20.00	0	78.2	64-129				12/5/2010 1314h
LCS VOC 120510A	1,2-Dibromoethane	µg/L	EPA624	18.2	20.00	0	91.0	70-126				12/5/2010 1314h
LCS VOC 120510A	1,2-Dichlorobenzene	µg/L	EPA624	18.7	20.00	0	93.3	67-135				12/5/2010 1314h
LCS VOC 120510A	1,2-Dichloroethane	µg/L	EPA624	21.9	20.00	0	110	60-137				12/5/2010 1314h
LCS VOC 120510A	1,2-Dichloropropane	µg/L	EPA624	19.2	20.00	0	96.2	59-135				12/5/2010 1314h
LCS VOC 120510A	1,3,5-Trimethylbenzene	µg/L	EPA624	18.9	20.00	0	94.4	77-151				12/5/2010 1314h
LCS VOC 120510A	1,3-Dichlorobenzene	µg/L	EPA624	18.9	20.00	0	94.3	78-134				12/5/2010 1314h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS VOC 120510A	1,3-Dichloropropane	µg/L	EPA624	18.2	20.00	0	91.2	78-116				12/5/2010 1314h
LCS VOC 120510A	1,4-Dichlorobenzene	µg/L	EPA624	18.4	20.00	0	92.0	72-139				12/5/2010 1314h
LCS VOC 120510A	1,4-Dioxane	µg/L	EPA624	189	200.0	0	94.6	33-149				12/5/2010 1314h
LCS VOC 120510A	2,2-Dichloropropane	µg/L	EPA624	21.0	30.00	0	69.9	13-180				12/5/2010 1314h
LCS VOC 120510A	2-Butanone	µg/L	EPA624	26.2	20.00	0	131	10-217				12/5/2010 1314h
LCS VOC 120510A	2-Chloroethyl vinyl ether	µg/L	EPA624	40.4	40.00	0	101	32-163				12/5/2010 1314h
LCS VOC 120510A	2-Chlorotoluene	µg/L	EPA624	18.7	20.00	0	93.4	79-142				12/5/2010 1314h
LCS VOC 120510A	2-Hexanone	µg/L	EPA624	15.0	20.00	0	75.0	50-156				12/5/2010 1314h
LCS VOC 120510A	2-Nitropropane	µg/L	EPA624	19.5	20.00	0	97.3	10-243				12/5/2010 1314h
LCS VOC 120510A	4-Chlorotoluene	µg/L	EPA624	18.9	20.00	0	94.6	68-128				12/5/2010 1314h
LCS VOC 120510A	4-Isopropyltoluene	µg/L	EPA624	18.0	20.00	0	90.2	73-156				12/5/2010 1314h
LCS VOC 120510A	4-Methyl-2-pentanone	µg/L	EPA624	16.2	20.00	0	80.8	10-214				12/5/2010 1314h
LCS VOC 120510A	Acetone	µg/L	EPA624	12.7	20.00	0	63.6	10-313				12/5/2010 1314h
LCS VOC 120510A	Acetonitrile	µg/L	EPA624	35.8	40.00	0	89.4	37-159				12/5/2010 1314h
LCS VOC 120510A	Acrolein	µg/L	EPA624	69.4	40.00	0	174	10-325				12/5/2010 1314h
LCS VOC 120510A	Acrylonitrile	µg/L	EPA624	17.2	20.00	0	85.9	53-134				12/5/2010 1314h
LCS VOC 120510A	Allyl chloride	µg/L	EPA624	20.5	20.00	0	102	10-243				12/5/2010 1314h
LCS VOC 120510A	Benzene	µg/L	EPA624	21.6	20.00	0	108	62-127				12/5/2010 1314h
LCS VOC 120510A	Benzyl chloride	µg/L	EPA624	14.9	20.00	0	74.5	40-146				12/5/2010 1314h
LCS VOC 120510A	Bis(2-chloroisopropyl) ether	µg/L	EPA624	15.8	20.00	0	79.0	54-146				12/5/2010 1314h

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QC SUMMARY REPORT

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Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS VOC 120510A	Bromobenzene	µg/L	EPA624	17.8	20.00	0	88.8	78-148				12/5/2010 1314h
LCS VOC 120510A	Bromochloromethane	µg/L	EPA624	20.7	20.00	0	104	75-134				12/5/2010 1314h
LCS VOC 120510A	Bromodichloromethane	µg/L	EPA624	20.8	20.00	0	104	74-121				12/5/2010 1314h
LCS VOC 120510A	Bromoform	µg/L	EPA624	18.4	20.00	0	91.8	68-131				12/5/2010 1314h
LCS VOC 120510A	Bromomethane	µg/L	EPA624	17.4	20.00	0	87.1	10-185				12/5/2010 1314h
LCS VOC 120510A	Butyl acetate	µg/L	EPA624	17.5	20.00	0	87.6	46-178				12/5/2010 1314h
LCS VOC 120510A	Carbon disulfide	µg/L	EPA624	34.1	20.00	0	170	21-224				12/5/2010 1314h
LCS VOC 120510A	Carbon tetrachloride	µg/L	EPA624	25.1	20.00	0	125	60-157				12/5/2010 1314h
LCS VOC 120510A	Chlorobenzene	µg/L	EPA624	19.0	20.00	0	94.9	63-140				12/5/2010 1314h
LCS VOC 120510A	Chloroethane	µg/L	EPA624	19.5	20.00	0	97.6	41-173				12/5/2010 1314h
LCS VOC 120510A	Chloroform	µg/L	EPA624	21.2	20.00	0	106	67-132				12/5/2010 1314h
LCS VOC 120510A	Chloromethane	µg/L	EPA624	15.7	20.00	0	78.5	10-138				12/5/2010 1314h
LCS VOC 120510A	Chloroprene	µg/L	EPA624	21.6	20.00	0	108	10-161				12/5/2010 1314h
LCS VOC 120510A	cis-1,2-Dichloroethene	µg/L	EPA624	21.0	20.00	0	105	72-137				12/5/2010 1314h
LCS VOC 120510A	cis-1,3-Dichloropropene	µg/L	EPA624	20.4	40.00	0	51.1	10-134				12/5/2010 1314h
LCS VOC 120510A	Cyclohexane	µg/L	EPA624	25.4	20.00	0	127	35-230				12/5/2010 1314h
LCS VOC 120510A	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	53.3	10-374				12/5/2010 1314h
LCS VOC 120510A	Dibromochloromethane	µg/L	EPA624	19.1	20.00	0	95.7	68-135				12/5/2010 1314h
LCS VOC 120510A	Dibromomethane	µg/L	EPA624	19.9	20.00	0	99.3	74-120				12/5/2010 1314h
LCS VOC 120510A	Dichlorodifluoromethane	µg/L	EPA624	14.2	20.00	0	71.1	10-150				12/5/2010 1314h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS VOC 120510A	Ethyl acetate	µg/L	EPA624	37.6	40.00	0	94.0	50-155				12/5/2010 1314h
LCS VOC 120510A	Ethyl ether	µg/L	EPA624	22.7	20.00	0	114	45-146				12/5/2010 1314h
LCS VOC 120510A	Ethyl methacrylate	µg/L	EPA624	15.9	20.00	0	79.4	64-113				12/5/2010 1314h
LCS VOC 120510A	Ethylbenzene	µg/L	EPA624	19.3	20.00	0	96.6	55-133				12/5/2010 1314h
LCS VOC 120510A	Hexachlorobutadiene	µg/L	EPA624	16.6	20.00	0	83.0	35-213				12/5/2010 1314h
LCS VOC 120510A	Iodomethane	µg/L	EPA624	20.8	20.00	0	104	10-233				12/5/2010 1314h
LCS VOC 120510A	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	76.1	12-202				12/5/2010 1314h
LCS VOC 120510A	Isopropyl acetate	µg/L	EPA624	18.8	20.00	0	94.2	55-145				12/5/2010 1314h
LCS VOC 120510A	Isopropyl alcohol	µg/L	EPA624	64.0	80.00	0	80.0	12-250				12/5/2010 1314h
LCS VOC 120510A	Isopropylbenzene	µg/L	EPA624	19.5	20.00	0	97.3	60-147				12/5/2010 1314h
LCS VOC 120510A	Isopropyltoluene	µg/L	EPA624	18.0	20.00	0	90.2	73-156				12/5/2010 1314h
LCS VOC 120510A	m,p-Xylene	µg/L	EPA624	39.8	40.00	0	99.6	70-130				12/5/2010 1314h
LCS VOC 120510A	Methacrylonitrile	µg/L	EPA624	17.1	20.00	0	85.4	79-123				12/5/2010 1314h
LCS VOC 120510A	Methyl Acetate	µg/L	EPA624	26.6	20.00	0	133	5-398				12/5/2010 1314h
LCS VOC 120510A	Methyl methacrylate	µg/L	EPA624	16.3	20.00	0	81.4	55-128				12/5/2010 1314h
LCS VOC 120510A	Methyl tert-butyl ether	µg/L	EPA624	16.3	20.00	0	81.6	37-189				12/5/2010 1314h
LCS VOC 120510A	Methylcyclohexane	µg/L	EPA624	24.8	20.00	0	124	65-175				12/5/2010 1314h
LCS VOC 120510A	Methylene chloride	µg/L	EPA624	15.6	20.00	0	77.8	55-138				12/5/2010 1314h
LCS VOC 120510A	n-Amyl acetate	µg/L	EPA624	11.5	20.00	0	57.3	10-187				12/5/2010 1314h
LCS VOC 120510A	Naphthalene	µg/L	EPA624	16.0	20.00	0	79.8	41-131				12/5/2010 1314h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS VOC 120510A	n-Butyl alcohol	µg/L	EPA624	57.7	80.00	0	72.1	10-226				12/5/2010 1314h
LCS VOC 120510A	n-Butylbenzene	µg/L	EPA624	18.0	20.00	0	89.8	40-158				12/5/2010 1314h
LCS VOC 120510A	n-Hexane	µg/L	EPA624	18.8	20.00	0	93.9	10-277				12/5/2010 1314h
LCS VOC 120510A	n-Octane	µg/L	EPA624	15.5	20.00	0	77.5	45-158				12/5/2010 1314h
LCS VOC 120510A	n-Propylbenzene	µg/L	EPA624	18.4	20.00	0	91.9	67-131				12/5/2010 1314h
LCS VOC 120510A	o-Xylene	µg/L	EPA624	19.3	20.00	0	96.6	70-130				12/5/2010 1314h
LCS VOC 120510A	Pentachloroethane	µg/L	EPA624	12.7	20.00	0	63.5	10-314				12/5/2010 1314h
LCS VOC 120510A	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	81.8	60-132				12/5/2010 1314h
LCS VOC 120510A	Propyl acetate	µg/L	EPA624	17.7	20.00	0	88.5	48-143				12/5/2010 1314h
LCS VOC 120510A	sec-Butylbenzene	µg/L	EPA624	18.7	20.00	0	93.6	72-157				12/5/2010 1314h
LCS VOC 120510A	Styrene	µg/L	EPA624	18.8	20.00	0	93.9	81-125				12/5/2010 1314h
LCS VOC 120510A	tert-Butyl alcohol	µg/L	EPA624	38.5	40.00	0	96.2	50-286				12/5/2010 1314h
LCS VOC 120510A	tert-Butylbenzene	µg/L	EPA624	18.2	20.00	0	90.8	75-157				12/5/2010 1314h
LCS VOC 120510A	Tetrachloroethene	µg/L	EPA624	25.2	20.00	0	126	49-163				12/5/2010 1314h
LCS VOC 120510A	Tetrahydrofuran	µg/L	EPA624	14.6	20.00	0	72.9	43-146				12/5/2010 1314h
LCS VOC 120510A	Toluene	µg/L	EPA624	19.3	20.00	0	96.5	67-128				12/5/2010 1314h
LCS VOC 120510A	trans-1,2-Dichloroethene	µg/L	EPA624	21.8	20.00	0	109	47-146				12/5/2010 1314h
LCS VOC 120510A	trans-1,3-Dichloropropene	µg/L	EPA624	20.4	20.00	0	102	29-143				12/5/2010 1314h
LCS VOC 120510A	trans-1,4-Dichloro-2-butene	µg/L	EPA624	20.8	20.00	0	104	20-214				12/5/2010 1314h
LCS VOC 120510A	Trichloroethene	µg/L	EPA624	22.3	20.00	0	111	54-152				12/5/2010 1314h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS VOC 120510A	Trichlorofluoromethane	µg/L	EPA624	20.1	20.00	0	100	56-166				12/5/2010 1314h
LCS VOC 120510A	Vinyl acetate	µg/L	EPA624	25.3	40.00	0	63.3	38-121				12/5/2010 1314h
LCS VOC 120510A	Vinyl chloride	µg/L	EPA624	17.8	20.00	0	89.2	13-155				12/5/2010 1314h
LCS VOC 120510A	Xylenes, Total	µg/L	EPA624	59.2	60.00	0	98.6	52-130				12/5/2010 1314h
LCS VOC 120510A	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	56.4	50.00		113	69-132				12/5/2010 1314h
LCS VOC 120510A	Surr: 4-Bromofluorobenzene	%REC	EPA624	49.0	50.00		98.1	85-118				12/5/2010 1314h
LCS VOC 120510A	Surr: Dibromofluoromethane	%REC	EPA624	53.6	50.00		107	80-120				12/5/2010 1314h
LCS VOC 120510A	Surr: Toluene-d8	%REC	EPA624	48.0	50.00		96.1	81-120				12/5/2010 1314h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB VOC 120510A	1,1,1,2-Tetrachloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1,1-Trichloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1,2,2-Tetrachloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1,2-Trichloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1-Dichloropropene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1-Dichloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,1-Dichloroethene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2,3-Trichlorobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2,3-Trichloropropane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2,3-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2,4-Trichlorobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2,4-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2-Dibromo-3-chloropropane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2-Dibromoethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2-Dichloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,2-Dichloropropane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,3,5-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,3-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB VOC 120510A	1,3-Dichloropropane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,4-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	1,4-Dioxane	µg/L	EPA624	< 40.0				-				12/5/2010 1352h
MB VOC 120510A	2,2-Dichloropropane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	2-Butanone	µg/L	EPA624	< 10.0				-				12/5/2010 1352h
MB VOC 120510A	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	2-Chlorotoluene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	2-Hexanone	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	2-Nitropropane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	4-Chlorotoluene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	4-Isopropyltoluene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	4-Methyl-2-pentanone	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Acetone	µg/L	EPA624	< 10.0				-				12/5/2010 1352h
MB VOC 120510A	Acetonitrile	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Acrolein	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Acrylonitrile	µg/L	EPA624	< 10.0				-				12/5/2010 1352h
MB VOC 120510A	Allyl chloride	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Benzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Benzyl chloride	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Bis(2-chloroisopropyl) ether	µg/L	EPA624	< 5.00				-				12/5/2010 1352h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB VOC 120510A	Bromobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Bromochloromethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Bromodichloromethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Bromoform	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Bromomethane	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Butyl acetate	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Carbon disulfide	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Carbon tetrachloride	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Chlorobenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Chloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Chloroform	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Chloromethane	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Chloroprene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	cis-1,2-Dichloroethene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	cis-1,3-Dichloropropene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Cyclohexane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Cyclohexanone	µg/L	EPA624	< 50.0				-				12/5/2010 1352h
MB VOC 120510A	Dibromochloromethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Dibromomethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Dichlorodifluoromethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB VOC 120510A	Ethyl acetate	µg/L	EPA624	< 10.0				-				12/5/2010 1352h
MB VOC 120510A	Ethyl ether	µg/L	EPA624	< 10.0				-				12/5/2010 1352h
MB VOC 120510A	Ethyl methacrylate	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Ethylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Hexachlorobutadiene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Iodomethane	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Isobutyl alcohol	µg/L	EPA624	< 100				-				12/5/2010 1352h
MB VOC 120510A	Isopropyl acetate	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Isopropyl alcohol	µg/L	EPA624	< 25.0				-				12/5/2010 1352h
MB VOC 120510A	Isopropylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Isopropyltoluene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	m,p-Xylene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Methacrylonitrile	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Methyl Acetate	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Methyl methacrylate	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Methyl tert-butyl ether	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Methylcyclohexane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Methylene chloride	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	n-Amyl acetate	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Naphthalene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB VOC 120510A	n-Butyl alcohol	µg/L	EPA624	< 25.0				-				12/5/2010 1352h
MB VOC 120510A	n-Butylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	n-Hexane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	n-Octane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	n-Propylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	o-Xylene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Pentachloroethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Propionitrile	µg/L	EPA624	< 25.0				-				12/5/2010 1352h
MB VOC 120510A	Propyl acetate	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	sec-Butylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Styrene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	tert-Butyl alcohol	µg/L	EPA624	< 20.0				-				12/5/2010 1352h
MB VOC 120510A	tert-Butylbenzene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Tetrachloroethene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Tetrahydrofuran	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Toluene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	TPH C11-C15 (DRO)	µg/L	EPA624	< 20.0				-				12/5/2010 1352h
MB VOC 120510A	TPH C6-C10 (GRO)	µg/L	EPA624	< 20.0				-				12/5/2010 1352h
MB VOC 120510A	trans-1,2-Dichloroethene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	trans-1,3-Dichloropropene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h

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QC SUMMARY REPORT

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Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB VOC 120510A	trans-1,4-Dichloro-2-butene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Trichloroethene	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Trichlorofluoromethane	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Vinyl acetate	µg/L	EPA624	< 5.00				-				12/5/2010 1352h
MB VOC 120510A	Vinyl chloride	µg/L	EPA624	< 1.00				-				12/5/2010 1352h
MB VOC 120510A	Xylenes, Total	µg/L	EPA624	< 2.00				-				12/5/2010 1352h
MB VOC 120510A	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	56.7	50.00		113	69-132				12/5/2010 1352h
MB VOC 120510A	Surr: 4-Bromofluorobenzene	%REC	EPA624	53.2	50.00		106	85-118				12/5/2010 1352h
MB VOC 120510A	Surr: Dibromofluoromethane	%REC	EPA624	52.7	50.00		105	80-120				12/5/2010 1352h
MB VOC 120510A	Surr: Toluene-d8	%REC	EPA624	48.6	50.00		97.3	81-120				12/5/2010 1352h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMS	1,1,1,2-Tetrachloroethane	µg/L	EPA624	18.9	20.00	0	94.3	74-117				12/5/2010 1508h
1012088-001AMS	1,1,1-Trichloroethane	µg/L	EPA624	23.8	20.00	0	119	67-147				12/5/2010 1508h
1012088-001AMS	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.8	20.00	0	79.0	67-119				12/5/2010 1508h
1012088-001AMS	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	27.4	20.00	0	137	21-206				12/5/2010 1508h
1012088-001AMS	1,1,2-Trichloroethane	µg/L	EPA624	17.7	20.00	0	88.7	80-123				12/5/2010 1508h
1012088-001AMS	1,1-Dichloropropene	µg/L	EPA624	46.5	40.00	0	116	10-140				12/5/2010 1508h
1012088-001AMS	1,1-Dichloroethane	µg/L	EPA624	20.8	20.00	0	104	70-130				12/5/2010 1508h
1012088-001AMS	1,1-Dichloroethene	µg/L	EPA624	27.1	20.00	0	135	62-152				12/5/2010 1508h
1012088-001AMS	1,2,3-Trichlorobenzene	µg/L	EPA624	15.7	20.00	0	78.7	67-131				12/5/2010 1508h
1012088-001AMS	1,2,3-Trichloropropane	µg/L	EPA624	18.3	20.00	0	91.3	62-116				12/5/2010 1508h
1012088-001AMS	1,2,3-Trimethylbenzene	µg/L	EPA624	19.5	20.00	0	97.4	76-140				12/5/2010 1508h
1012088-001AMS	1,2,4-Trichlorobenzene	µg/L	EPA624	15.2	20.00	0	75.8	58-133				12/5/2010 1508h
1012088-001AMS	1,2,4-Trimethylbenzene	µg/L	EPA624	18.6	20.00	0	93.0	79-151				12/5/2010 1508h
1012088-001AMS	1,2-Dibromo-3-chloropropane	µg/L	EPA624	17.1	20.00	0	85.7	64-129				12/5/2010 1508h
1012088-001AMS	1,2-Dibromoethane	µg/L	EPA624	18.0	20.00	0	90.3	70-126				12/5/2010 1508h
1012088-001AMS	1,2-Dichlorobenzene	µg/L	EPA624	18.6	20.00	0	93.2	70-130				12/5/2010 1508h
1012088-001AMS	1,2-Dichloroethane	µg/L	EPA624	21.8	20.00	0	109	39-162				12/5/2010 1508h
1012088-001AMS	1,2-Dichloropropane	µg/L	EPA624	18.3	20.00	0	91.6	59-135				12/5/2010 1508h
1012088-001AMS	1,3,5-Trimethylbenzene	µg/L	EPA624	18.9	20.00	0	94.4	77-151				12/5/2010 1508h
1012088-001AMS	1,3-Dichlorobenzene	µg/L	EPA624	18.2	20.00	0	91.1	78-134				12/5/2010 1508h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMS	1,3-Dichloropropane	µg/L	EPA624	17.6	20.00	0	88.2	78-116				12/5/2010 1508h
1012088-001AMS	1,4-Dichlorobenzene	µg/L	EPA624	17.6	20.00	0	88.0	72-139				12/5/2010 1508h
1012088-001AMS	1,4-Dioxane	µg/L	EPA624	161	200.0	0	80.5	33-149				12/5/2010 1508h
1012088-001AMS	2,2-Dichloropropane	µg/L	EPA624	22.5	30.00	0	74.9	13-180				12/5/2010 1508h
1012088-001AMS	2-Butanone	µg/L	EPA624	25.9	20.00	0	130	10-217				12/5/2010 1508h
1012088-001AMS	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163			1	12/5/2010 1508h
1012088-001AMS	2-Chlorotoluene	µg/L	EPA624	18.7	20.00	0	93.4	79-142				12/5/2010 1508h
1012088-001AMS	2-Hexanone	µg/L	EPA624	14.7	20.00	0	73.6	50-156				12/5/2010 1508h
1012088-001AMS	2-Nitropropane	µg/L	EPA624	19.8	20.00	0	99.0	10-243				12/5/2010 1508h
1012088-001AMS	4-Chlorotoluene	µg/L	EPA624	18.2	20.00	0	90.8	68-128				12/5/2010 1508h
1012088-001AMS	4-Isopropyltoluene	µg/L	EPA624	18.1	20.00	0	90.4	73-156				12/5/2010 1508h
1012088-001AMS	4-Methyl-2-pentanone	µg/L	EPA624	16.1	20.00	0	80.7	10-214				12/5/2010 1508h
1012088-001AMS	Acetone	µg/L	EPA624	13.0	20.00	0	65.0	10-313				12/5/2010 1508h
1012088-001AMS	Acetonitrile	µg/L	EPA624	34.8	40.00	0	87.1	37-159				12/5/2010 1508h
1012088-001AMS	Acrolein	µg/L	EPA624	68.8	40.00	0	172	10-325				12/5/2010 1508h
1012088-001AMS	Acrylonitrile	µg/L	EPA624	16.1	20.00	0	80.4	53-134				12/5/2010 1508h
1012088-001AMS	Allyl chloride	µg/L	EPA624	20.0	20.00	0	100	10-243				12/5/2010 1508h
1012088-001AMS	Benzene	µg/L	EPA624	21.2	20.00	0	106	66-145				12/5/2010 1508h
1012088-001AMS	Benzyl chloride	µg/L	EPA624	16.6	20.00	0	83.1	40-146				12/5/2010 1508h
1012088-001AMS	Bis(2-chloroisopropyl) ether	µg/L	EPA624	16.2	20.00	0	81.2	54-146				12/5/2010 1508h

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMS	Bromobenzene	µg/L	EPA624	17.5	20.00	0	87.6	78-148				12/5/2010 1508h
1012088-001AMS	Bromochloromethane	µg/L	EPA624	20.6	20.00	0	103	75-134				12/5/2010 1508h
1012088-001AMS	Bromodichloromethane	µg/L	EPA624	20.4	20.00	0	102	74-121				12/5/2010 1508h
1012088-001AMS	Bromoform	µg/L	EPA624	18.5	20.00	0	92.4	68-131				12/5/2010 1508h
1012088-001AMS	Bromomethane	µg/L	EPA624	15.8	20.00	0	79.0	10-185				12/5/2010 1508h
1012088-001AMS	Butyl acetate	µg/L	EPA624	16.5	20.00	0	82.7	46-178				12/5/2010 1508h
1012088-001AMS	Carbon disulfide	µg/L	EPA624	30.7	20.00	0	154	21-224				12/5/2010 1508h
1012088-001AMS	Carbon tetrachloride	µg/L	EPA624	25.1	20.00	0	126	60-157				12/5/2010 1508h
1012088-001AMS	Chlorobenzene	µg/L	EPA624	18.4	20.00	0	92.0	63-140				12/5/2010 1508h
1012088-001AMS	Chloroethane	µg/L	EPA624	19.2	20.00	0	96.0	41-173				12/5/2010 1508h
1012088-001AMS	Chloroform	µg/L	EPA624	21.1	20.00	0	105	50-146				12/5/2010 1508h
1012088-001AMS	Chloromethane	µg/L	EPA624	14.9	20.00	0	74.6	10-138				12/5/2010 1508h
1012088-001AMS	Chloroprene	µg/L	EPA624	20.6	20.00	0	103	10-161				12/5/2010 1508h
1012088-001AMS	cis-1,2-Dichloroethene	µg/L	EPA624	20.0	20.00	0	100	72-137				12/5/2010 1508h
1012088-001AMS	cis-1,3-Dichloropropene	µg/L	EPA624	19.6	40.00	0	49.1	10-134				12/5/2010 1508h
1012088-001AMS	Cyclohexane	µg/L	EPA624	25.6	20.00	0	128	35-230				12/5/2010 1508h
1012088-001AMS	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	46.0	10-374				12/5/2010 1508h
1012088-001AMS	Dibromochloromethane	µg/L	EPA624	18.5	20.00	0	92.4	68-135				12/5/2010 1508h
1012088-001AMS	Dibromomethane	µg/L	EPA624	19.5	20.00	0	97.4	74-120				12/5/2010 1508h
1012088-001AMS	Dichlorodifluoromethane	µg/L	EPA624	15.0	20.00	0	74.9	10-150				12/5/2010 1508h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMS	Ethyl acetate	µg/L	EPA624	38.0	40.00	0	95.1	50-155				12/5/2010 1508h
1012088-001AMS	Ethyl ether	µg/L	EPA624	20.6	20.00	0	103	45-146				12/5/2010 1508h
1012088-001AMS	Ethyl methacrylate	µg/L	EPA624	15.5	20.00	0	77.4	77-151				12/5/2010 1508h
1012088-001AMS	Ethylbenzene	µg/L	EPA624	19.0	20.00	0	95.0	69-133				12/5/2010 1508h
1012088-001AMS	Hexachlorobutadiene	µg/L	EPA624	17.0	20.00	0	85.0	35-213				12/5/2010 1508h
1012088-001AMS	Iodomethane	µg/L	EPA624	20.1	20.00	0	100	10-233				12/5/2010 1508h
1012088-001AMS	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	92.1	12-202				12/5/2010 1508h
1012088-001AMS	Isopropyl acetate	µg/L	EPA624	18.7	20.00	0	93.6	55-145				12/5/2010 1508h
1012088-001AMS	Isopropyl alcohol	µg/L	EPA624	65.0	80.00	0	81.2	12-250				12/5/2010 1508h
1012088-001AMS	Isopropylbenzene	µg/L	EPA624	19.2	20.00	0	96.2	60-147				12/5/2010 1508h
1012088-001AMS	Isopropyltoluene	µg/L	EPA624	18.1	20.00	0	90.4	73-156				12/5/2010 1508h
1012088-001AMS	m,p-Xylene	µg/L	EPA624	39.2	40.00	0	97.9	70-130				12/5/2010 1508h
1012088-001AMS	Methacrylonitrile	µg/L	EPA624	16.9	20.00	0	84.4	79-123				12/5/2010 1508h
1012088-001AMS	Methyl Acetate	µg/L	EPA624	27.4	20.00	0	137	5-398				12/5/2010 1508h
1012088-001AMS	Methyl methacrylate	µg/L	EPA624	15.9	20.00	0	79.6	55-128				12/5/2010 1508h
1012088-001AMS	Methyl tert-butyl ether	µg/L	EPA624	18.4	20.00	0	92.2	37-189				12/5/2010 1508h
1012088-001AMS	Methylcyclohexane	µg/L	EPA624	25.3	20.00	0	126	65-175				12/5/2010 1508h
1012088-001AMS	Methylene chloride	µg/L	EPA624	15.2	20.00	0	76.2	55-138				12/5/2010 1508h
1012088-001AMS	n-Amyl acetate	µg/L	EPA624	10.9	20.00	0	54.4	10-187				12/5/2010 1508h
1012088-001AMS	Naphthalene	µg/L	EPA624	15.1	20.00	0	75.7	41-131				12/5/2010 1508h

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QC SUMMARY REPORT

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Lab Set ID: 1012089
Project: Red Butte Spill

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMS	n-Butyl alcohol	µg/L	EPA624	58.3	80.00	0	72.8	10-226				12/5/2010 1508h
1012088-001AMS	n-Butylbenzene	µg/L	EPA624	17.5	20.00	0	87.5	40-158				12/5/2010 1508h
1012088-001AMS	n-Hexane	µg/L	EPA624	19.5	20.00	0	97.7	10-277				12/5/2010 1508h
1012088-001AMS	n-Octane	µg/L	EPA624	16.2	20.00	0	81.0	45-158				12/5/2010 1508h
1012088-001AMS	n-Propylbenzene	µg/L	EPA624	18.8	20.00	0	94.2	67-131				12/5/2010 1508h
1012088-001AMS	o-Xylene	µg/L	EPA624	18.8	20.00	0	94.0	70-130				12/5/2010 1508h
1012088-001AMS	Pentachloroethane	µg/L	EPA624	10.6	20.00	0	52.8	10-314				12/5/2010 1508h
1012088-001AMS	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	79.0	60-132				12/5/2010 1508h
1012088-001AMS	Propyl acetate	µg/L	EPA624	17.5	20.00	0	87.6	48-143				12/5/2010 1508h
1012088-001AMS	sec-Butylbenzene	µg/L	EPA624	19.2	20.00	0	95.9	72-157				12/5/2010 1508h
1012088-001AMS	Styrene	µg/L	EPA624	17.9	20.00	0	89.4	81-125				12/5/2010 1508h
1012088-001AMS	tert-Butyl alcohol	µg/L	EPA624	37.3	40.00	0	93.2	50-286				12/5/2010 1508h
1012088-001AMS	tert-Butylbenzene	µg/L	EPA624	18.0	20.00	0	89.8	75-157				12/5/2010 1508h
1012088-001AMS	Tetrachloroethene	µg/L	EPA624	25.6	20.00	0	128	49-163				12/5/2010 1508h
1012088-001AMS	Tetrahydrofuran	µg/L	EPA624	15.1	20.00	0	75.6	43-146				12/5/2010 1508h
1012088-001AMS	Toluene	µg/L	EPA624	19.3	20.00	0	96.6	18-192				12/5/2010 1508h
1012088-001AMS	trans-1,2-Dichloroethene	µg/L	EPA624	21.2	20.00	0	106	47-146				12/5/2010 1508h
1012088-001AMS	trans-1,3-Dichloropropene	µg/L	EPA624	19.9	20.00	0	99.4	29-143				12/5/2010 1508h
1012088-001AMS	trans-1,4-Dichloro-2-butene	µg/L	EPA624	19.7	20.00	0	98.6	20-214				12/5/2010 1508h
1012088-001AMS	Trichloroethene	µg/L	EPA624	22.4	20.00	0	112	61-153				12/5/2010 1508h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMS	Trichlorofluoromethane	µg/L	EPA624	22.5	20.00	0	113	56-166				12/5/2010 1508h
1012088-001AMS	Vinyl acetate	µg/L	EPA624	23.0	40.00	0	57.4	38-121				12/5/2010 1508h
1012088-001AMS	Vinyl chloride	µg/L	EPA624	17.7	20.00	0	88.3	13-155				12/5/2010 1508h
1012088-001AMS	Xylenes, Total	µg/L	EPA624	58.0	60.00	0	96.6	42-167				12/5/2010 1508h
1012088-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	58.1	50.00		116	77-144				12/5/2010 1508h
1012088-001AMS	Surr: 4-Bromofluorobenzene	%REC	EPA624	49.5	50.00		99.1	80-123				12/5/2010 1508h
1012088-001AMS	Surr: Dibromofluoromethane	%REC	EPA624	54.4	50.00		109	80-124				12/5/2010 1508h
1012088-001AMS	Surr: Toluene-d8	%REC	EPA624	46.9	50.00		93.9	80-125				12/5/2010 1508h
1012089-001AMS	1,1,1,2-Tetrachloroethane	µg/L	EPA624	18.4	20.00	0	92.2	74-117				12/5/2010 1546h
1012089-001AMS	1,1,1-Trichloroethane	µg/L	EPA624	22.8	20.00	0	114	67-147				12/5/2010 1546h
1012089-001AMS	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.7	20.00	0	78.7	67-119				12/5/2010 1546h
1012089-001AMS	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	27.0	20.00	0	135	21-206				12/5/2010 1546h
1012089-001AMS	1,1,2-Trichloroethane	µg/L	EPA624	17.2	20.00	0	85.9	80-123				12/5/2010 1546h
1012089-001AMS	1,1-Dichloropropene	µg/L	EPA624	46.3	40.00	0	116	10-140				12/5/2010 1546h
1012089-001AMS	1,1-Dichloroethane	µg/L	EPA624	20.3	20.00	0	102	70-130				12/5/2010 1546h
1012089-001AMS	1,1-Dichloroethene	µg/L	EPA624	26.5	20.00	0	132	62-152				12/5/2010 1546h
1012089-001AMS	1,2,3-Trichlorobenzene	µg/L	EPA624	15.4	20.00	0	76.9	67-131				12/5/2010 1546h
1012089-001AMS	1,2,3-Trichloropropane	µg/L	EPA624	17.3	20.00	0	86.6	62-116				12/5/2010 1546h
1012089-001AMS	1,2,3-Trimethylbenzene	µg/L	EPA624	19.5	20.00	0	97.5	76-140				12/5/2010 1546h
1012089-001AMS	1,2,4-Trichlorobenzene	µg/L	EPA624	14.6	20.00	0	73.0	58-133				12/5/2010 1546h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMS	1,2,4-Trimethylbenzene	µg/L	EPA624	17.7	20.00	0	88.4	79-151				12/5/2010 1546h
1012089-001AMS	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.4	20.00	0	82.0	64-129				12/5/2010 1546h
1012089-001AMS	1,2-Dibromoethane	µg/L	EPA624	17.5	20.00	0	87.7	70-126				12/5/2010 1546h
1012089-001AMS	1,2-Dichlorobenzene	µg/L	EPA624	17.5	20.00	0	87.5	70-130				12/5/2010 1546h
1012089-001AMS	1,2-Dichloroethane	µg/L	EPA624	20.9	20.00	0	104	39-162				12/5/2010 1546h
1012089-001AMS	1,2-Dichloropropane	µg/L	EPA624	17.8	20.00	0	89.2	59-135				12/5/2010 1546h
1012089-001AMS	1,3,5-Trimethylbenzene	µg/L	EPA624	18.0	20.00	0	89.9	77-151				12/5/2010 1546h
1012089-001AMS	1,3-Dichlorobenzene	µg/L	EPA624	17.2	20.00	0	86.0	78-134				12/5/2010 1546h
1012089-001AMS	1,3-Dichloropropane	µg/L	EPA624	17.1	20.00	0	85.5	78-116				12/5/2010 1546h
1012089-001AMS	1,4-Dichlorobenzene	µg/L	EPA624	17.0	20.00	0	84.8	72-139				12/5/2010 1546h
1012089-001AMS	1,4-Dioxane	µg/L	EPA624	192	200.0	0	96.2	33-149				12/5/2010 1546h
1012089-001AMS	2,2-Dichloropropane	µg/L	EPA624	21.2	30.00	0	70.5	13-180				12/5/2010 1546h
1012089-001AMS	2-Butanone	µg/L	EPA624	26.9	20.00	0	134	10-217				12/5/2010 1546h
1012089-001AMS	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163			1	12/5/2010 1546h
1012089-001AMS	2-Chlorotoluene	µg/L	EPA624	17.6	20.00	0	87.8	79-142				12/5/2010 1546h
1012089-001AMS	2-Hexanone	µg/L	EPA624	15.5	20.00	0	77.6	50-156				12/5/2010 1546h
1012089-001AMS	2-Nitropropane	µg/L	EPA624	19.9	20.00	0	99.7	10-243				12/5/2010 1546h
1012089-001AMS	4-Chlorotoluene	µg/L	EPA624	17.5	20.00	0	87.5	68-128				12/5/2010 1546h
1012089-001AMS	4-Isopropyltoluene	µg/L	EPA624	17.1	20.00	0	85.6	73-156				12/5/2010 1546h
1012089-001AMS	4-Methyl-2-pentanone	µg/L	EPA624	16.9	20.00	0	84.7	10-214				12/5/2010 1546h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMS	Acetone	µg/L	EPA624	38.9	20.00	27.72	56.0	10-313				12/5/2010 1546h
1012089-001AMS	Acetonitrile	µg/L	EPA624	38.3	40.00	0	95.7	37-159				12/5/2010 1546h
1012089-001AMS	Acrolein	µg/L	EPA624	71.3	40.00	0	178	10-325				12/5/2010 1546h
1012089-001AMS	Acrylonitrile	µg/L	EPA624	17.4	20.00	0	87.2	53-134				12/5/2010 1546h
1012089-001AMS	Allyl chloride	µg/L	EPA624	21.4	20.00	0	107	10-243				12/5/2010 1546h
1012089-001AMS	Benzene	µg/L	EPA624	20.5	20.00	0	103	66-145				12/5/2010 1546h
1012089-001AMS	Benzyl chloride	µg/L	EPA624	16.3	20.00	0	81.7	40-146				12/5/2010 1546h
1012089-001AMS	Bis(2-chloroisopropyl) ether	µg/L	EPA624	17.4	20.00	0	86.9	54-146				12/5/2010 1546h
1012089-001AMS	Bromobenzene	µg/L	EPA624	16.5	20.00	0	82.4	78-148				12/5/2010 1546h
1012089-001AMS	Bromochloromethane	µg/L	EPA624	19.8	20.00	0	98.9	75-134				12/5/2010 1546h
1012089-001AMS	Bromodichloromethane	µg/L	EPA624	19.6	20.00	0	97.9	74-121				12/5/2010 1546h
1012089-001AMS	Bromoform	µg/L	EPA624	17.5	20.00	0	87.6	68-131				12/5/2010 1546h
1012089-001AMS	Bromomethane	µg/L	EPA624	16.5	20.00	0	82.6	10-185				12/5/2010 1546h
1012089-001AMS	Butyl acetate	µg/L	EPA624	16.8	20.00	0	83.8	46-178				12/5/2010 1546h
1012089-001AMS	Carbon disulfide	µg/L	EPA624	33.5	20.00	0	167	21-224				12/5/2010 1546h
1012089-001AMS	Carbon tetrachloride	µg/L	EPA624	24.2	20.00	0	121	60-157				12/5/2010 1546h
1012089-001AMS	Chlorobenzene	µg/L	EPA624	17.6	20.00	0	88.1	63-140				12/5/2010 1546h
1012089-001AMS	Chloroethane	µg/L	EPA624	18.3	20.00	0	91.4	41-173				12/5/2010 1546h
1012089-001AMS	Chloroform	µg/L	EPA624	19.9	20.00	0	99.6	50-146				12/5/2010 1546h
1012089-001AMS	Chloromethane	µg/L	EPA624	14.5	20.00	0	72.4	10-138				12/5/2010 1546h

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1012089-001AMS	Chloroprene	µg/L	EPA624	20.5	20.00	0	103	10-161				12/5/2010 1546h
1012089-001AMS	cis-1,2-Dichloroethene	µg/L	EPA624	19.8	20.00	0	98.8	72-137				12/5/2010 1546h
1012089-001AMS	cis-1,3-Dichloropropene	µg/L	EPA624	18.7	40.00	0	46.8	10-134				12/5/2010 1546h
1012089-001AMS	Cyclohexane	µg/L	EPA624	25.6	20.00	0	128	35-230				12/5/2010 1546h
1012089-001AMS	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	52.2	10-374				12/5/2010 1546h
1012089-001AMS	Dibromochloromethane	µg/L	EPA624	18.3	20.00	0	91.5	68-135				12/5/2010 1546h
1012089-001AMS	Dibromomethane	µg/L	EPA624	18.9	20.00	0	94.5	74-120				12/5/2010 1546h
1012089-001AMS	Dichlorodifluoromethane	µg/L	EPA624	13.8	20.00	0	68.8	10-150				12/5/2010 1546h
1012089-001AMS	Ethyl acetate	µg/L	EPA624	38.1	40.00	0	95.3	50-155				12/5/2010 1546h
1012089-001AMS	Ethyl ether	µg/L	EPA624	21.8	20.00	0	109	45-146				12/5/2010 1546h
1012089-001AMS	Ethyl methacrylate	µg/L	EPA624	16.3	20.00	0	81.4	77-151				12/5/2010 1546h
1012089-001AMS	Ethylbenzene	µg/L	EPA624	17.9	20.00	0	89.7	69-133				12/5/2010 1546h
1012089-001AMS	Hexachlorobutadiene	µg/L	EPA624	16.1	20.00	0	80.4	35-213				12/5/2010 1546h
1012089-001AMS	Iodomethane	µg/L	EPA624	20.9	20.00	0	105	10-233				12/5/2010 1546h
1012089-001AMS	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	80.4	12-202				12/5/2010 1546h
1012089-001AMS	Isopropyl acetate	µg/L	EPA624	19.0	20.00	0	94.9	55-145				12/5/2010 1546h
1012089-001AMS	Isopropyl alcohol	µg/L	EPA624	110	80.00	0	138	12-250				12/5/2010 1546h
1012089-001AMS	Isopropylbenzene	µg/L	EPA624	18.3	20.00	0	91.7	60-147				12/5/2010 1546h
1012089-001AMS	Isopropyltoluene	µg/L	EPA624	17.1	20.00	0	85.6	73-156				12/5/2010 1546h
1012089-001AMS	m,p-Xylene	µg/L	EPA624	37.0	40.00	0	92.6	70-130				12/5/2010 1546h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMS	Methacrylonitrile	µg/L	EPA624	17.8	20.00	0	89.0	79-123				12/5/2010 1546h
1012089-001AMS	Methyl Acetate	µg/L	EPA624	26.4	20.00	0	132	5-398				12/5/2010 1546h
1012089-001AMS	Methyl methacrylate	µg/L	EPA624	16.5	20.00	0	82.7	55-128				12/5/2010 1546h
1012089-001AMS	Methyl tert-butyl ether	µg/L	EPA624	16.5	20.00	0	82.4	37-189				12/5/2010 1546h
1012089-001AMS	Methylcyclohexane	µg/L	EPA624	25.0	20.00	0	125	65-175				12/5/2010 1546h
1012089-001AMS	Methylene chloride	µg/L	EPA624	14.7	20.00	0	73.6	55-138				12/5/2010 1546h
1012089-001AMS	n-Amyl acetate	µg/L	EPA624	10.8	20.00	0	54.2	10-187				12/5/2010 1546h
1012089-001AMS	Naphthalene	µg/L	EPA624	14.7	20.00	0	73.7	41-131				12/5/2010 1546h
1012089-001AMS	n-Butyl alcohol	µg/L	EPA624	82.3	80.00	0	103	10-226				12/5/2010 1546h
1012089-001AMS	n-Butylbenzene	µg/L	EPA624	16.5	20.00	0	82.5	40-158				12/5/2010 1546h
1012089-001AMS	n-Hexane	µg/L	EPA624	19.7	20.00	0	98.6	10-277				12/5/2010 1546h
1012089-001AMS	n-Octane	µg/L	EPA624	15.6	20.00	0	77.9	45-158				12/5/2010 1546h
1012089-001AMS	n-Propylbenzene	µg/L	EPA624	17.8	20.00	0	88.8	67-131				12/5/2010 1546h
1012089-001AMS	o-Xylene	µg/L	EPA624	17.8	20.00	0	89.0	70-130				12/5/2010 1546h
1012089-001AMS	Pentachloroethane	µg/L	EPA624	12.2	20.00	0	60.8	10-314				12/5/2010 1546h
1012089-001AMS	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	89.0	60-132				12/5/2010 1546h
1012089-001AMS	Propyl acetate	µg/L	EPA624	17.8	20.00	0	89.0	48-143				12/5/2010 1546h
1012089-001AMS	sec-Butylbenzene	µg/L	EPA624	18.2	20.00	0	91.0	72-157				12/5/2010 1546h
1012089-001AMS	Styrene	µg/L	EPA624	16.7	20.00	0	83.6	81-125				12/5/2010 1546h
1012089-001AMS	tert-Butyl alcohol	µg/L	EPA624	45.0	40.00	0	113	50-286				12/5/2010 1546h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMS	tert-Butylbenzene	µg/L	EPA624	17.4	20.00	0	86.9	75-157				12/5/2010 1546h
1012089-001AMS	Tetrachloroethene	µg/L	EPA624	24.2	20.00	0	121	49-163				12/5/2010 1546h
1012089-001AMS	Tetrahydrofuran	µg/L	EPA624	16.6	20.00	0	83.0	43-146				12/5/2010 1546h
1012089-001AMS	Toluene	µg/L	EPA624	18.2	20.00	0	90.9	18-192				12/5/2010 1546h
1012089-001AMS	trans-1,2-Dichloroethene	µg/L	EPA624	20.7	20.00	0	104	47-146				12/5/2010 1546h
1012089-001AMS	trans-1,3-Dichloropropene	µg/L	EPA624	19.1	20.00	0	95.6	29-143				12/5/2010 1546h
1012089-001AMS	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.7	20.00	0	93.6	20-214				12/5/2010 1546h
1012089-001AMS	Trichloroethene	µg/L	EPA624	21.5	20.00	0	107	61-153				12/5/2010 1546h
1012089-001AMS	Trichlorofluoromethane	µg/L	EPA624	20.6	20.00	0	103	56-166				12/5/2010 1546h
1012089-001AMS	Vinyl acetate	µg/L	EPA624	24.0	40.00	0	60.1	38-121				12/5/2010 1546h
1012089-001AMS	Vinyl chloride	µg/L	EPA624	17.4	20.00	0	86.8	13-155				12/5/2010 1546h
1012089-001AMS	Xylenes, Total	µg/L	EPA624	54.8	60.00	0	91.4	42-167				12/5/2010 1546h
1012089-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	57.4	50.00		115	77-144				12/5/2010 1546h
1012089-001AMS	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.7	50.00		97.3	80-123				12/5/2010 1546h
1012089-001AMS	Surr: Dibromofluoromethane	%REC	EPA624	54.2	50.00		108	80-124				12/5/2010 1546h
1012089-001AMS	Surr: Toluene-d8	%REC	EPA624	47.6	50.00		95.3	80-125				12/5/2010 1546h

[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: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMSD	1,1,1,2-Tetrachloroethane	µg/L	EPA624	18.3	20.00	0	91.4	74-117	3.07	25		12/5/2010 1527h
1012088-001AMSD	1,1,1-Trichloroethane	µg/L	EPA624	22.9	20.00	0	115	67-147	3.73	25		12/5/2010 1527h
1012088-001AMSD	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.1	20.00	0	80.6	67-119	2.01	25		12/5/2010 1527h
1012088-001AMSD	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	26.2	20.00	0	131	21-206	4.59	25		12/5/2010 1527h
1012088-001AMSD	1,1,2-Trichloroethane	µg/L	EPA624	17.6	20.00	0	87.8	80-123	1.02	25		12/5/2010 1527h
1012088-001AMSD	1,1-Dichloropropene	µg/L	EPA624	45.3	40.00	0	113	10-140	2.72	25		12/5/2010 1527h
1012088-001AMSD	1,1-Dichloroethane	µg/L	EPA624	20.2	20.00	0	101	70-130	2.92	25		12/5/2010 1527h
1012088-001AMSD	1,1-Dichloroethene	µg/L	EPA624	26.6	20.00	0	133	62-152	1.83	25		12/5/2010 1527h
1012088-001AMSD	1,2,3-Trichlorobenzene	µg/L	EPA624	15.6	20.00	0	77.8	67-131	1.15	25		12/5/2010 1527h
1012088-001AMSD	1,2,3-Trichloropropane	µg/L	EPA624	17.8	20.00	0	89.2	62-116	2.38	25		12/5/2010 1527h
1012088-001AMSD	1,2,3-Trimethylbenzene	µg/L	EPA624	18.8	20.00	0	93.9	76-140	3.61	25		12/5/2010 1527h
1012088-001AMSD	1,2,4-Trichlorobenzene	µg/L	EPA624	14.8	20.00	0	73.8	58-133	2.61	25		12/5/2010 1527h
1012088-001AMSD	1,2,4-Trimethylbenzene	µg/L	EPA624	17.9	20.00	0	89.5	79-151	3.84	25		12/5/2010 1527h
1012088-001AMSD	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.7	20.00	0	83.6	64-129	2.48	25		12/5/2010 1527h
1012088-001AMSD	1,2-Dibromoethane	µg/L	EPA624	17.8	20.00	0	89.2	70-126	1.17	25		12/5/2010 1527h
1012088-001AMSD	1,2-Dichlorobenzene	µg/L	EPA624	18.0	20.00	0	90.2	70-130	3.33	25		12/5/2010 1527h
1012088-001AMSD	1,2-Dichloroethane	µg/L	EPA624	21.1	20.00	0	106	39-162	3.08	25		12/5/2010 1527h
1012088-001AMSD	1,2-Dichloropropane	µg/L	EPA624	18.1	20.00	0	90.4	59-135	1.37	25		12/5/2010 1527h
1012088-001AMSD	1,3,5-Trimethylbenzene	µg/L	EPA624	18.3	20.00	0	91.4	77-151	3.23	25		12/5/2010 1527h
1012088-001AMSD	1,3-Dichlorobenzene	µg/L	EPA624	17.6	20.00	0	88.0	78-134	3.41	25		12/5/2010 1527h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMSD	1,3-Dichloropropane	µg/L	EPA624	17.4	20.00	0	87.2	78-116	1.25	25		12/5/2010 1527h
1012088-001AMSD	1,4-Dichlorobenzene	µg/L	EPA624	17.4	20.00	0	86.9	72-139	1.31	25		12/5/2010 1527h
1012088-001AMSD	1,4-Dioxane	µg/L	EPA624	167	200.0	0	83.7	33-149	3.93	25		12/5/2010 1527h
1012088-001AMSD	2,2-Dichloropropane	µg/L	EPA624	21.0	30.00	0	70.1	13-180	6.62	25		12/5/2010 1527h
1012088-001AMSD	2-Butanone	µg/L	EPA624	25.1	20.00	0	126	10-217	3.29	25		12/5/2010 1527h
1012088-001AMSD	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163	0	25	1	12/5/2010 1527h
1012088-001AMSD	2-Chlorotoluene	µg/L	EPA624	17.9	20.00	0	89.3	79-142	4.49	25		12/5/2010 1527h
1012088-001AMSD	2-Hexanone	µg/L	EPA624	14.8	20.00	0	74.0	50-156	0.474	25		12/5/2010 1527h
1012088-001AMSD	2-Nitropropane	µg/L	EPA624	18.9	20.00	0	94.3	10-243	4.81	25		12/5/2010 1527h
1012088-001AMSD	4-Chlorotoluene	µg/L	EPA624	17.6	20.00	0	88.1	68-128	2.96	25		12/5/2010 1527h
1012088-001AMSD	4-Isopropyltoluene	µg/L	EPA624	17.4	20.00	0	87.2	73-156	3.55	25		12/5/2010 1527h
1012088-001AMSD	4-Methyl-2-pentanone	µg/L	EPA624	16.0	20.00	0	80.2	10-214	0.684	25		12/5/2010 1527h
1012088-001AMSD	Acetone	µg/L	EPA624	13.3	20.00	0	66.6	10-313	2.28	25		12/5/2010 1527h
1012088-001AMSD	Acetonitrile	µg/L	EPA624	36.3	40.00	0	90.8	37-159	4.10	25		12/5/2010 1527h
1012088-001AMSD	Acrolein	µg/L	EPA624	68.5	40.00	0	171	10-325	0.481	25		12/5/2010 1527h
1012088-001AMSD	Acrylonitrile	µg/L	EPA624	16.6	20.00	0	83.2	53-134	3.36	25		12/5/2010 1527h
1012088-001AMSD	Allyl chloride	µg/L	EPA624	19.4	20.00	0	96.8	10-243	3.30	25		12/5/2010 1527h
1012088-001AMSD	Benzene	µg/L	EPA624	20.6	20.00	0	103	66-145	3.11	25		12/5/2010 1527h
1012088-001AMSD	Benzyl chloride	µg/L	EPA624	16.2	20.00	0	80.9	40-146	2.74	25		12/5/2010 1527h
1012088-001AMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA624	17.2	20.00	0	86.1	54-146	5.86	25		12/5/2010 1527h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMSD	Bromobenzene	µg/L	EPA624	16.9	20.00	0	84.5	78-148	3.60	25		12/5/2010 1527h
1012088-001AMSD	Bromochloromethane	µg/L	EPA624	19.8	20.00	0	99.2	75-134	3.90	25		12/5/2010 1527h
1012088-001AMSD	Bromodichloromethane	µg/L	EPA624	19.6	20.00	0	98.2	74-121	3.94	25		12/5/2010 1527h
1012088-001AMSD	Bromoform	µg/L	EPA624	17.7	20.00	0	88.7	68-131	4.09	25		12/5/2010 1527h
1012088-001AMSD	Bromomethane	µg/L	EPA624	16.9	20.00	0	84.3	10-185	6.49	25		12/5/2010 1527h
1012088-001AMSD	Butyl acetate	µg/L	EPA624	16.3	20.00	0	81.4	46-178	1.52	25		12/5/2010 1527h
1012088-001AMSD	Carbon disulfide	µg/L	EPA624	30.2	20.00	0	151	21-224	1.74	25		12/5/2010 1527h
1012088-001AMSD	Carbon tetrachloride	µg/L	EPA624	24.3	20.00	0	122	60-157	3.36	25		12/5/2010 1527h
1012088-001AMSD	Chlorobenzene	µg/L	EPA624	18.0	20.00	0	90.1	63-140	2.09	25		12/5/2010 1527h
1012088-001AMSD	Chloroethane	µg/L	EPA624	19.8	20.00	0	99.0	41-173	2.97	25		12/5/2010 1527h
1012088-001AMSD	Chloroform	µg/L	EPA624	20.2	20.00	0	101	50-146	4.16	25		12/5/2010 1527h
1012088-001AMSD	Chloromethane	µg/L	EPA624	15.6	20.00	0	78.2	10-138	4.84	25		12/5/2010 1527h
1012088-001AMSD	Chloroprene	µg/L	EPA624	19.7	20.00	0	98.5	10-161	4.61	25		12/5/2010 1527h
1012088-001AMSD	cis-1,2-Dichloroethene	µg/L	EPA624	19.5	20.00	0	97.6	72-137	2.38	25		12/5/2010 1527h
1012088-001AMSD	cis-1,3-Dichloropropene	µg/L	EPA624	19.0	40.00	0	47.5	10-134	3.21	25		12/5/2010 1527h
1012088-001AMSD	Cyclohexane	µg/L	EPA624	24.8	20.00	0	124	35-230	3.13	25		12/5/2010 1527h
1012088-001AMSD	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	50.4	10-374	0	25		12/5/2010 1527h
1012088-001AMSD	Dibromochloromethane	µg/L	EPA624	18.5	20.00	0	92.4	68-135	0	25		12/5/2010 1527h
1012088-001AMSD	Dibromomethane	µg/L	EPA624	18.8	20.00	0	94.0	74-120	3.55	25		12/5/2010 1527h
1012088-001AMSD	Dichlorodifluoromethane	µg/L	EPA624	15.1	20.00	0	75.4	10-150	0.666	25		12/5/2010 1527h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMSD	Ethyl acetate	µg/L	EPA624	36.6	40.00	0	91.5	50-155	3.80	25		12/5/2010 1527h
1012088-001AMSD	Ethyl ether	µg/L	EPA624	19.9	20.00	0	99.3	45-146	3.41	25		12/5/2010 1527h
1012088-001AMSD	Ethyl methacrylate	µg/L	EPA624	15.1	20.00	0	75.4	77-151	2.75	25	1	12/5/2010 1527h
1012088-001AMSD	Ethylbenzene	µg/L	EPA624	18.5	20.00	0	92.3	69-133	2.88	25		12/5/2010 1527h
1012088-001AMSD	Hexachlorobutadiene	µg/L	EPA624	16.9	20.00	0	84.3	35-213	0.827	25		12/5/2010 1527h
1012088-001AMSD	Iodomethane	µg/L	EPA624	20.2	20.00	0	101	10-233	0.298	25		12/5/2010 1527h
1012088-001AMSD	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	89.8	12-202	0	25		12/5/2010 1527h
1012088-001AMSD	Isopropyl acetate	µg/L	EPA624	18.3	20.00	0	91.4	55-145	2.38	25		12/5/2010 1527h
1012088-001AMSD	Isopropyl alcohol	µg/L	EPA624	56.6	80.00	0	70.8	12-250	13.8	25		12/5/2010 1527h
1012088-001AMSD	Isopropylbenzene	µg/L	EPA624	18.6	20.00	0	93.2	60-147	3.17	25		12/5/2010 1527h
1012088-001AMSD	Isopropyltoluene	µg/L	EPA624	17.4	20.00	0	87.2	73-156	3.55	25		12/5/2010 1527h
1012088-001AMSD	m,p-Xylene	µg/L	EPA624	38.2	40.00	0	95.6	70-130	2.40	25		12/5/2010 1527h
1012088-001AMSD	Methacrylonitrile	µg/L	EPA624	16.2	20.00	0	81.2	79-123	3.87	25		12/5/2010 1527h
1012088-001AMSD	Methyl Acetate	µg/L	EPA624	25.8	20.00	0	129	5-398	6.27	25		12/5/2010 1527h
1012088-001AMSD	Methyl methacrylate	µg/L	EPA624	15.6	20.00	0	77.9	55-128	2.16	25		12/5/2010 1527h
1012088-001AMSD	Methyl tert-butyl ether	µg/L	EPA624	17.3	20.00	0	86.6	37-189	6.32	25		12/5/2010 1527h
1012088-001AMSD	Methylcyclohexane	µg/L	EPA624	24.4	20.00	0	122	65-175	3.71	25		12/5/2010 1527h
1012088-001AMSD	Methylene chloride	µg/L	EPA624	15.0	20.00	0	75.2	55-138	1.39	25		12/5/2010 1527h
1012088-001AMSD	n-Amyl acetate	µg/L	EPA624	10.3	20.00	0	51.5	10-187	5.57	25		12/5/2010 1527h
1012088-001AMSD	Naphthalene	µg/L	EPA624	14.9	20.00	0	74.6	41-131	1.46	25		12/5/2010 1527h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMSD	n-Butyl alcohol	µg/L	EPA624	59.0	80.00	0	73.7	10-226	1.23	25		12/5/2010 1527h
1012088-001AMSD	n-Butylbenzene	µg/L	EPA624	17.0	20.00	0	85.2	40-158	2.66	25		12/5/2010 1527h
1012088-001AMSD	n-Hexane	µg/L	EPA624	18.6	20.00	0	93.3	10-277	4.66	25		12/5/2010 1527h
1012088-001AMSD	n-Octane	µg/L	EPA624	15.9	20.00	0	79.6	45-158	1.62	25		12/5/2010 1527h
1012088-001AMSD	n-Propylbenzene	µg/L	EPA624	18.1	20.00	0	90.4	67-131	4.12	25		12/5/2010 1527h
1012088-001AMSD	o-Xylene	µg/L	EPA624	18.3	20.00	0	91.3	70-130	2.86	25		12/5/2010 1527h
1012088-001AMSD	Pentachloroethane	µg/L	EPA624	11.4	20.00	0	56.8	10-314	7.30	25		12/5/2010 1527h
1012088-001AMSD	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	80.4	60-132	0	25		12/5/2010 1527h
1012088-001AMSD	Propyl acetate	µg/L	EPA624	17.2	20.00	0	85.9	48-143	1.96	25		12/5/2010 1527h
1012088-001AMSD	sec-Butylbenzene	µg/L	EPA624	18.6	20.00	0	93.3	72-157	2.75	25		12/5/2010 1527h
1012088-001AMSD	Styrene	µg/L	EPA624	17.4	20.00	0	86.8	81-125	3.06	25		12/5/2010 1527h
1012088-001AMSD	tert-Butyl alcohol	µg/L	EPA624	36.1	40.00	0	90.2	50-286	3.27	25		12/5/2010 1527h
1012088-001AMSD	tert-Butylbenzene	µg/L	EPA624	17.9	20.00	0	89.3	75-157	0.558	25		12/5/2010 1527h
1012088-001AMSD	Tetrachloroethene	µg/L	EPA624	24.2	20.00	0	121	49-163	5.87	25		12/5/2010 1527h
1012088-001AMSD	Tetrahydrofuran	µg/L	EPA624	14.8	20.00	0	73.8	43-146	2.34	25		12/5/2010 1527h
1012088-001AMSD	Toluene	µg/L	EPA624	18.8	20.00	0	94.0	18-192	2.68	25		12/5/2010 1527h
1012088-001AMSD	trans-1,2-Dichloroethene	µg/L	EPA624	20.6	20.00	0	103	47-146	2.86	25		12/5/2010 1527h
1012088-001AMSD	trans-1,3-Dichloropropene	µg/L	EPA624	19.8	20.00	0	99.1	29-143	0.302	25		12/5/2010 1527h
1012088-001AMSD	trans-1,4-Dichloro-2-butene	µg/L	EPA624	19.1	20.00	0	95.7	20-214	2.99	25		12/5/2010 1527h
1012088-001AMSD	Trichloroethene	µg/L	EPA624	21.3	20.00	0	107	61-153	4.81	25		12/5/2010 1527h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001AMSD	Trichlorofluoromethane	µg/L	EPA624	21.5	20.00	0	107	56-166	4.64	25		12/5/2010 1527h
1012088-001AMSD	Vinyl acetate	µg/L	EPA624	22.1	40.00	0	55.3	38-121	3.64	25		12/5/2010 1527h
1012088-001AMSD	Vinyl chloride	µg/L	EPA624	18.4	20.00	0	92.2	13-155	4.38	25		12/5/2010 1527h
1012088-001AMSD	Xylenes, Total	µg/L	EPA624	56.5	60.00	0	94.2	42-167	2.55	25		12/5/2010 1527h
1012088-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	56.9	50.00		114	77-144				12/5/2010 1527h
1012088-001AMSD	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.9	50.00		97.8	80-123				12/5/2010 1527h
1012088-001AMSD	Surr: Dibromofluoromethane	%REC	EPA624	53.2	50.00		106	80-124				12/5/2010 1527h
1012088-001AMSD	Surr: Toluene-d8	%REC	EPA624	47.2	50.00		94.5	80-125				12/5/2010 1527h
1012089-001AMSD	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.8	20.00	0	89.0	74-117	3.48	25		12/5/2010 1605h
1012089-001AMSD	1,1,1-Trichloroethane	µg/L	EPA624	21.6	20.00	0	108	67-147	5.37	25		12/5/2010 1605h
1012089-001AMSD	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.3	20.00	0	76.6	67-119	2.64	25		12/5/2010 1605h
1012089-001AMSD	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	26.0	20.00	0	130	21-206	3.66	25		12/5/2010 1605h
1012089-001AMSD	1,1,2-Trichloroethane	µg/L	EPA624	17.0	20.00	0	84.8	80-123	1.35	25		12/5/2010 1605h
1012089-001AMSD	1,1-Dichloropropene	µg/L	EPA624	44.4	40.00	0	111	10-140	4.17	25		12/5/2010 1605h
1012089-001AMSD	1,1-Dichloroethane	µg/L	EPA624	19.2	20.00	0	96.2	70-130	5.41	25		12/5/2010 1605h
1012089-001AMSD	1,1-Dichloroethene	µg/L	EPA624	25.4	20.00	0	127	62-152	4.28	25		12/5/2010 1605h
1012089-001AMSD	1,2,3-Trichlorobenzene	µg/L	EPA624	14.7	20.00	0	73.5	67-131	4.52	25		12/5/2010 1605h
1012089-001AMSD	1,2,3-Trichloropropane	µg/L	EPA624	17.8	20.00	0	88.8	62-116	2.62	25		12/5/2010 1605h
1012089-001AMSD	1,2,3-Trimethylbenzene	µg/L	EPA624	18.4	20.00	0	92.2	76-140	5.59	25		12/5/2010 1605h
1012089-001AMSD	1,2,4-Trichlorobenzene	µg/L	EPA624	13.8	20.00	0	69.2	58-133	5.35	25		12/5/2010 1605h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMSD	1,2,4-Trimethylbenzene	µg/L	EPA624	16.8	20.00	0	83.9	79-151	5.34	25		12/5/2010 1605h
1012089-001AMSD	1,2-Dibromo-3-chloropropane	µg/L	EPA624	15.9	20.00	0	79.4	64-129	3.16	25		12/5/2010 1605h
1012089-001AMSD	1,2-Dibromoethane	µg/L	EPA624	17.3	20.00	0	86.4	70-126	1.49	25		12/5/2010 1605h
1012089-001AMSD	1,2-Dichlorobenzene	µg/L	EPA624	16.7	20.00	0	83.7	70-130	4.44	25		12/5/2010 1605h
1012089-001AMSD	1,2-Dichloroethane	µg/L	EPA624	20.3	20.00	0	102	39-162	2.81	25		12/5/2010 1605h
1012089-001AMSD	1,2-Dichloropropane	µg/L	EPA624	17.4	20.00	0	87.2	59-135	2.27	25		12/5/2010 1605h
1012089-001AMSD	1,3,5-Trimethylbenzene	µg/L	EPA624	16.9	20.00	0	84.4	77-151	6.37	25		12/5/2010 1605h
1012089-001AMSD	1,3-Dichlorobenzene	µg/L	EPA624	16.3	20.00	0	81.7	78-134	5.13	25		12/5/2010 1605h
1012089-001AMSD	1,3-Dichloropropane	µg/L	EPA624	16.7	20.00	0	83.4	78-116	2.43	25		12/5/2010 1605h
1012089-001AMSD	1,4-Dichlorobenzene	µg/L	EPA624	16.5	20.00	0	82.7	72-139	2.51	25		12/5/2010 1605h
1012089-001AMSD	1,4-Dioxane	µg/L	EPA624	181	200.0	0	90.4	33-149	6.21	25		12/5/2010 1605h
1012089-001AMSD	2,2-Dichloropropane	µg/L	EPA624	19.9	30.00	0	66.4	13-180	6.04	25		12/5/2010 1605h
1012089-001AMSD	2-Butanone	µg/L	EPA624	25.6	20.00	0	128	10-217	5.07	25		12/5/2010 1605h
1012089-001AMSD	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163	0	25	1	12/5/2010 1605h
1012089-001AMSD	2-Chlorotoluene	µg/L	EPA624	16.9	20.00	0	84.5	79-142	3.83	25		12/5/2010 1605h
1012089-001AMSD	2-Hexanone	µg/L	EPA624	16.0	20.00	0	79.8	50-156	2.80	25		12/5/2010 1605h
1012089-001AMSD	2-Nitropropane	µg/L	EPA624	20.4	20.00	0	102	10-243	2.04	25		12/5/2010 1605h
1012089-001AMSD	4-Chlorotoluene	µg/L	EPA624	16.7	20.00	0	83.5	68-128	4.62	25		12/5/2010 1605h
1012089-001AMSD	4-Isopropyltoluene	µg/L	EPA624	16.2	20.00	0	81.2	73-156	5.22	25		12/5/2010 1605h
1012089-001AMSD	4-Methyl-2-pentanone	µg/L	EPA624	17.2	20.00	0	85.8	10-214	1.29	25		12/5/2010 1605h

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QC SUMMARY REPORT

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMSD	Acetone	µg/L	EPA624	38.4	20.00	27.72	53.6	10-313	1.24	25		12/5/2010 1605h
1012089-001AMSD	Acetonitrile	µg/L	EPA624	37.5	40.00	0	93.7	37-159	2.06	25		12/5/2010 1605h
1012089-001AMSD	Acrolein	µg/L	EPA624	68.2	40.00	0	170	10-325	4.44	25		12/5/2010 1605h
1012089-001AMSD	Acrylonitrile	µg/L	EPA624	17.6	20.00	0	87.9	53-134	0.857	25		12/5/2010 1605h
1012089-001AMSD	Allyl chloride	µg/L	EPA624	20.0	20.00	0	100	10-243	6.80	25		12/5/2010 1605h
1012089-001AMSD	Benzene	µg/L	EPA624	19.7	20.00	0	98.6	66-145	4.07	25		12/5/2010 1605h
1012089-001AMSD	Benzyl chloride	µg/L	EPA624	15.7	20.00	0	78.7	40-146	3.74	25		12/5/2010 1605h
1012089-001AMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA624	15.9	20.00	0	79.5	54-146	8.84	25		12/5/2010 1605h
1012089-001AMSD	Bromobenzene	µg/L	EPA624	15.8	20.00	0	79.0	78-148	4.15	25		12/5/2010 1605h
1012089-001AMSD	Bromochloromethane	µg/L	EPA624	19.5	20.00	0	97.6	75-134	1.37	25		12/5/2010 1605h
1012089-001AMSD	Bromodichloromethane	µg/L	EPA624	19.0	20.00	0	94.9	74-121	3.11	25		12/5/2010 1605h
1012089-001AMSD	Bromoform	µg/L	EPA624	17.1	20.00	0	85.4	68-131	2.60	25		12/5/2010 1605h
1012089-001AMSD	Bromomethane	µg/L	EPA624	15.9	20.00	0	79.4	10-185	4.01	25		12/5/2010 1605h
1012089-001AMSD	Butyl acetate	µg/L	EPA624	16.3	20.00	0	81.4	46-178	2.84	25		12/5/2010 1605h
1012089-001AMSD	Carbon disulfide	µg/L	EPA624	31.5	20.00	0	158	21-224	6.06	25		12/5/2010 1605h
1012089-001AMSD	Carbon tetrachloride	µg/L	EPA624	23.0	20.00	0	115	60-157	5.25	25		12/5/2010 1605h
1012089-001AMSD	Chlorobenzene	µg/L	EPA624	17.1	20.00	0	85.6	63-140	2.88	25		12/5/2010 1605h
1012089-001AMSD	Chloroethane	µg/L	EPA624	17.4	20.00	0	87.0	41-173	4.88	25		12/5/2010 1605h
1012089-001AMSD	Chloroform	µg/L	EPA624	19.6	20.00	0	97.9	50-146	1.72	25		12/5/2010 1605h
1012089-001AMSD	Chloromethane	µg/L	EPA624	14.2	20.00	0	71.0	10-138	2.02	25		12/5/2010 1605h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMSD	Chloroprene	µg/L	EPA624	19.2	20.00	0	95.8	10-161	6.95	25		12/5/2010 1605h
1012089-001AMSD	cis-1,2-Dichloroethene	µg/L	EPA624	19.0	20.00	0	95.1	72-137	3.87	25		12/5/2010 1605h
1012089-001AMSD	cis-1,3-Dichloropropene	µg/L	EPA624	18.2	40.00	0	45.6	10-134	2.76	25		12/5/2010 1605h
1012089-001AMSD	Cyclohexane	µg/L	EPA624	25.0	20.00	0	125	35-230	2.41	25		12/5/2010 1605h
1012089-001AMSD	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	51.3	10-374	0	25		12/5/2010 1605h
1012089-001AMSD	Dibromochloromethane	µg/L	EPA624	17.7	20.00	0	88.3	68-135	3.56	25		12/5/2010 1605h
1012089-001AMSD	Dibromomethane	µg/L	EPA624	18.4	20.00	0	91.9	74-120	2.79	25		12/5/2010 1605h
1012089-001AMSD	Dichlorodifluoromethane	µg/L	EPA624	13.5	20.00	0	67.6	10-150	1.76	25		12/5/2010 1605h
1012089-001AMSD	Ethyl acetate	µg/L	EPA624	37.4	40.00	0	93.6	50-155	1.83	25		12/5/2010 1605h
1012089-001AMSD	Ethyl ether	µg/L	EPA624	21.2	20.00	0	106	45-146	2.93	25		12/5/2010 1605h
1012089-001AMSD	Ethyl methacrylate	µg/L	EPA624	16.4	20.00	0	81.8	77-151	0.368	25		12/5/2010 1605h
1012089-001AMSD	Ethylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	69-133	1.86	25		12/5/2010 1605h
1012089-001AMSD	Hexachlorobutadiene	µg/L	EPA624	14.9	20.00	0	74.7	35-213	7.35	25		12/5/2010 1605h
1012089-001AMSD	Iodomethane	µg/L	EPA624	20.5	20.00	0	102	10-233	2.13	25		12/5/2010 1605h
1012089-001AMSD	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	89.2	12-202	0	25		12/5/2010 1605h
1012089-001AMSD	Isopropyl acetate	µg/L	EPA624	18.8	20.00	0	94.1	55-145	0.847	25		12/5/2010 1605h
1012089-001AMSD	Isopropyl alcohol	µg/L	EPA624	103	80.00	0	129	12-250	7.06	25		12/5/2010 1605h
1012089-001AMSD	Isopropylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	60-147	4.17	25		12/5/2010 1605h
1012089-001AMSD	Isopropyltoluene	µg/L	EPA624	16.2	20.00	0	81.2	73-156	5.22	25		12/5/2010 1605h
1012089-001AMSD	m,p-Xylene	µg/L	EPA624	35.8	40.00	0	89.4	70-130	3.49	25		12/5/2010 1605h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMSD	Methacrylonitrile	µg/L	EPA624	17.0	20.00	0	85.1	79-123	4.54	25		12/5/2010 1605h
1012089-001AMSD	Methyl Acetate	µg/L	EPA624	25.7	20.00	0	128	5-398	2.69	25		12/5/2010 1605h
1012089-001AMSD	Methyl methacrylate	µg/L	EPA624	16.5	20.00	0	82.6	55-128	0.182	25		12/5/2010 1605h
1012089-001AMSD	Methyl tert-butyl ether	µg/L	EPA624	17.4	20.00	0	87.1	37-189	5.61	25		12/5/2010 1605h
1012089-001AMSD	Methylcyclohexane	µg/L	EPA624	24.0	20.00	0	120	65-175	3.80	25		12/5/2010 1605h
1012089-001AMSD	Methylene chloride	µg/L	EPA624	14.2	20.00	0	71.2	55-138	3.39	25		12/5/2010 1605h
1012089-001AMSD	n-Amyl acetate	µg/L	EPA624	10.5	20.00	0	52.4	10-187	3.56	25		12/5/2010 1605h
1012089-001AMSD	Naphthalene	µg/L	EPA624	14.3	20.00	0	71.6	41-131	2.96	25		12/5/2010 1605h
1012089-001AMSD	n-Butyl alcohol	µg/L	EPA624	86.8	80.00	0	109	10-226	5.36	25		12/5/2010 1605h
1012089-001AMSD	n-Butylbenzene	µg/L	EPA624	15.5	20.00	0	77.7	40-158	5.93	25		12/5/2010 1605h
1012089-001AMSD	n-Hexane	µg/L	EPA624	18.8	20.00	0	94.2	10-277	4.51	25		12/5/2010 1605h
1012089-001AMSD	n-Octane	µg/L	EPA624	15.4	20.00	0	76.8	45-158	1.36	25		12/5/2010 1605h
1012089-001AMSD	n-Propylbenzene	µg/L	EPA624	16.8	20.00	0	84.2	67-131	5.20	25		12/5/2010 1605h
1012089-001AMSD	o-Xylene	µg/L	EPA624	17.3	20.00	0	86.3	70-130	3.14	25		12/5/2010 1605h
1012089-001AMSD	Pentachloroethane	µg/L	EPA624	11.3	20.00	0	56.4	10-314	7.34	25		12/5/2010 1605h
1012089-001AMSD	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	82.5	60-132	0	25		12/5/2010 1605h
1012089-001AMSD	Propyl acetate	µg/L	EPA624	17.7	20.00	0	88.6	48-143	0.394	25		12/5/2010 1605h
1012089-001AMSD	sec-Butylbenzene	µg/L	EPA624	17.2	20.00	0	86.2	72-157	5.36	25		12/5/2010 1605h
1012089-001AMSD	Styrene	µg/L	EPA624	16.2	20.00	0	81.0	81-125	3.16	25		12/5/2010 1605h
1012089-001AMSD	tert-Butyl alcohol	µg/L	EPA624	44.7	40.00	0	112	50-286	0.713	25		12/5/2010 1605h

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Jose Rocha
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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012089-001AMSD	tert-Butylbenzene	µg/L	EPA624	16.5	20.00	0	82.6	75-157	5.08	25		12/5/2010 1605h
1012089-001AMSD	Tetrachloroethene	µg/L	EPA624	23.4	20.00	0	117	49-163	3.20	25		12/5/2010 1605h
1012089-001AMSD	Tetrahydrofuran	µg/L	EPA624	16.5	20.00	0	82.4	43-146	0.786	25		12/5/2010 1605h
1012089-001AMSD	Toluene	µg/L	EPA624	17.5	20.00	0	87.6	18-192	3.75	25		12/5/2010 1605h
1012089-001AMSD	trans-1,2-Dichloroethene	µg/L	EPA624	19.7	20.00	0	98.3	47-146	5.30	25		12/5/2010 1605h
1012089-001AMSD	trans-1,3-Dichloropropene	µg/L	EPA624	18.8	20.00	0	94.2	29-143	1.48	25		12/5/2010 1605h
1012089-001AMSD	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.3	20.00	0	91.6	20-214	2.27	25		12/5/2010 1605h
1012089-001AMSD	Trichloroethene	µg/L	EPA624	20.3	20.00	0	102	61-153	5.45	25		12/5/2010 1605h
1012089-001AMSD	Trichlorofluoromethane	µg/L	EPA624	19.4	20.00	0	96.9	56-166	5.96	25		12/5/2010 1605h
1012089-001AMSD	Vinyl acetate	µg/L	EPA624	22.5	40.00	0	56.2	38-121	6.62	25		12/5/2010 1605h
1012089-001AMSD	Vinyl chloride	µg/L	EPA624	16.8	20.00	0	84.2	13-155	2.98	25		12/5/2010 1605h
1012089-001AMSD	Xylenes, Total	µg/L	EPA624	53.0	60.00	0	88.4	42-167	3.37	25		12/5/2010 1605h
1012089-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	57.2	50.00		114	77-144				12/5/2010 1605h
1012089-001AMSD	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.5	50.00		96.9	80-123				12/5/2010 1605h
1012089-001AMSD	Surr: Dibromofluoromethane	%REC	EPA624	53.9	50.00		108	80-124				12/5/2010 1605h
1012089-001AMSD	Surr: Toluene-d8	%REC	EPA624	47.2	50.00		94.4	80-125				12/5/2010 1605h

[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: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: DUP

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001EDUP	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	3.00		2.140		-	33.5	20	#	12/5/2010 1151h
1012089-002EDUP	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	< 3.00		0		-	0	20		12/5/2010 1151h

 # - High RPD due to low analyte concentration. In this range, high RPDs are expected.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
LCS-R21163	Chemical Oxygen Demand	mg/L	HACH 8000	1,010	1,000	0	101	85-115				12/5/2010 1415h
LCS-2	Chemical Oxygen Demand	mg/L	HACH 8000	277	300.0	0	92.3	85-115				12/5/2010 1415h
LCS-3	Chemical Oxygen Demand	mg/L	HACH 8000	109	100.0	0	109	85-115				12/5/2010 1415h
LCS-4	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0	10.00	0	90.0	85-115				12/5/2010 1415h
LCS-R21164	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	18.3	20.00	1.900	82.0	64-132				12/5/2010 1151h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
MB-R21163	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0				-				12/5/2010 1415h
MB-R21164	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	< 3.00				-				12/5/2010 1151h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001FMS	Chemical Oxygen Demand	mg/L	HACH 8000	60.0	50.00	6.000	108	85-115				12/5/2010 1415h
1012089-001FMS	Chemical Oxygen Demand	mg/L	HACH 8000	55.0	50.00	0	110	85-115				12/5/2010 1415h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
1012088-001FMSD	Chemical Oxygen Demand	mg/L	HACH 8000	56.0	50.00	6.000	100	85-115	6.90	10		12/5/2010 1415h
1012089-001FMSD	Chemical Oxygen Demand	mg/L	HACH 8000	51.0	50.00	0	102	85-115	7.55	10		12/5/2010 1415h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: QCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
QCS-R21164	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	18.6	20.00	1.900	83.5	64-132				12/5/2010 1151h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012089
Project: Red Butte Spill

Dept: WC
QC Type: QCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Analysis Date
QCSD-R21164	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	18.9	20.00	1.900	85.0	64-132	1.60	34		12/5/2010 1151h

American West Analytical Laboratories

WORK ORDER Summary

RUSH

Work Order: **1012089**

12/5/2010

Client: Utah DEQ DERR
Client ID: UTD100
Project: Red Butte Spill
Comments: No Hard Copies. Next Day Rush. QC 2+;

Contact: Jim Harris
QC Level: LEVEL II+

WO Type: Standard

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012089-001A	RB Above Garden 4992095	12/5/2010 08:45:00 AM	12/5/2010 11:04:00 AM	12/6/2010	Aqueous	624-W	☑	voc	3
1012089-001B				12/6/2010		3510-SVOA-PR	☐	Walkin-Semi	
				12/6/2010		625-W	☑	Walkin-Semi	
				12/6/2010		8270-W	☑	Walkin-Semi	
1012089-001C				12/6/2010		3510-TPH-PR	☐	Walkin-TPH (Liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Walkin-TPH (Liters)	
1012089-001D				12/6/2010		3510-ORO-PR	☐	Walkin-ORO	
				12/6/2010		8015-W-ORO(1L)	☐	Walkin-ORO	
1012089-001E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012089-001F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012089-002A	RB Near Greenhouse	12/5/2010 09:10:00 AM		12/6/2010		624-W	☑	voc	3
1012089-002B				12/6/2010		3510-SVOA-PR	☐	Walkin-Semi	
				12/6/2010		625-W	☑	Walkin-Semi	
				12/6/2010		8270-W	☑	Walkin-Semi	
1012089-002C				12/6/2010		3510-TPH-PR	☐	Walkin-TPH (Liters)	
				12/6/2010		8015-W-TPH(1L)	☑	Walkin-TPH (Liters)	
1012089-002D				12/6/2010		3510-ORO-PR	☐	Walkin-ORO	
				12/6/2010		8015-W-ORO(1L)	☐	Walkin-ORO	
1012089-002E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	2
1012089-002F				12/6/2010		COD-HACH8000	☐	ww - cod	1
1012089-003A	RB @ Foothill	12/5/2010 09:30:00 AM		12/6/2010		624-W	☑	voc	3

WORK ORDER Summary

Work Order: **1012089**

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/5/2010

Project: Red Butte Spill **QC Level:** LEVEL II+ **WO Type:** Standard

Comments: No Hard Copies. Next Day Rush. QC 2+;

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012089-003B	RB @ Foothill	12/5/2010 09:30:00 AM	12/5/2010 11:04:00 AM	12/6/2010	Aqueous	3510-SVOA-PR	☐	Walkin-Semi	3
				12/6/2010		625-W	☑	Walkin-Semi	
				12/6/2010		8270-W	☑	Walkin-Semi	
1012089-003C				12/6/2010		3510-TPH-PR	☐	Walkin-TPH (Liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Walkin-TPH (Liters)	
1012089-003D				12/6/2010		3510-ORO-PR	☐	Walkin-ORO	
				12/6/2010		8015-W-ORO(1L)	☐	Walkin-ORO	
1012089-003E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012089-003F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012089-004A	RB @ Miller Park (1500 E.)	12/5/2010 09:50:00 AM		12/6/2010		624-W	☑	voc	3
1012089-004B				12/6/2010		3510-SVOA-PR	☐	Walkin-Semi	
				12/6/2010		625-W	☑	Walkin-Semi	
				12/6/2010		8270-W	☑	Walkin-Semi	
1012089-004C				12/6/2010		3510-TPH-PR	☐	Walkin-TPH (Liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Walkin-TPH (Liters)	
1012089-004D				12/6/2010		3510-ORO-PR	☐	Walkin-ORO	
				12/6/2010		8015-W-ORO(1L)	☐	Walkin-ORO	
1012089-004E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012089-004F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012089-005A	RB 1100 E.	12/5/2010 10:50:00 AM		12/6/2010		624-W	☑	voc	3
1012089-005B				12/6/2010		3510-SVOA-PR	☐	Walkin-Semi	

WORK ORDER Summary

Work Order: **1012089**

Client: Utah DEQ DERR

Client ID: UTD100

Contact: Jim Harris

Project: Red Butte Spill

QC Level: LEVEL II+

WO Type: Standard

Comments: No Hard Copies. Next Day Rush. QC 2+;

12/5/2010

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012089-005B	RB 1100 E.	12/5/2010 10:50:00 AM	12/5/2010 11:04:00 AM	12/6/2010	Aqueous	625-W	☑	Walkin-Semi	3
				12/6/2010		8270-W	☑	Walkin-Semi	
1012089-005C				12/6/2010		3510-TPH-PR	☐	Walkin-TPH (Liters)	2
				12/6/2010		8015-W-TPH(1L)	☑	Walkin-TPH (Liters)	
1012089-005D				12/6/2010		3510-ORO-PR	☐	Walkin-ORO	
				12/6/2010		8015-W-ORO(1L)	☐	Walkin-ORO	
1012089-005E				12/6/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012089-005F				12/6/2010		COD-HACH8000	☐	ww - cod	
1012089-006A	Trip Blank	12/5/2010		12/6/2010		624-W	☑	voc	3

Client DWQ
Address 195 N 1950 W
SLC (City) UT (State) 84114 (Zip)
Phone 5413069 Fax
Contact James Harris
E-mail jamesharris@utah.gov
Project Name Red Butte Spill
Project Number/P.O.#
Sampler Name J. Harris / B. Brown

AMERICAN WEST ANALYTICAL LABORATORIES
463 West 3600 South
Salt Lake City, Utah 84115
(801) 263-8686
(888) 263-8686
Fax (801) 263-8687
Email:awal@awal-labs.com

CHAIN OF CUSTODY

Lab Sample Set # 1012089
Page 1 of 1

Turn Around Time (Circle One)
(1 day) 2 day 3 day 4 day 5 day Standard

Sample ID	Date/Time Collected	Matrix	Number of Containers (Total)	TESTS REQUIRED: TDS	Tract. (8270 SIM)	DRO/ORO	VOC	SVOC	COD					QC LEVEL	COMMENTS
RB AB DUE GARDEN 4994095	12/5 0845		12						J					(1) 2 (2+) 3 3+ 4	.1 CFS (EST)
AB BEAR GREENHOUSE	12/5 0910		15												0.5 CFS (est)
RB @ FOOTHILL	12/5 0930		12												0.8 CFS (est)
RB @ MILLCREEK (1500E)	12/5 0950		12												0.18 cfs (m)
RB @ 1100 E	12/5 1050		12												1.06 cfs (m)
Trip Blank 12/5/10							X								

Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME: James Harris	Time: 1102	PRINT NAME: Kyle F. Gross	Time: 1104
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
Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME	Time	PRINT NAME	Time

Special Instructions:

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered (Y) N
Notes:
2 Ambient or (Chilled) Y N
Notes:
3 Temperature 4°C
4 Received Broken/Leaking (Improperly Sealed) Y (N)
Notes:
5 Properly Preserved (Y) N
Checked at Bench (Y) N
Notes:
6 Received Within Holding Times (Y) N
Notes:

COC Tape Was:
1 Present on Outer Package Y (N) NA
2 Unbroken on Outer Package Y N (NA)
3 Present on Sample Y (N) NA
4 Unbroken on Sample Y N (NA)

Discrepancies Between Sample Labels and COC Record? (Y) N
Notes:
Trip blanks

Sample Set: 1012089

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except	Except
Ammonia	pH <2 H_2SO_4																
COD	pH <2 H_2SO_4	✓															
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO_3																
NO_2 & NO_3	pH <2 H_2SO_4																
Nutrients	pH <2 H_2SO_4																
O & G	pH <2 HCL	✓															
Phenols	pH <2 H_2SO_4																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H_2SO_4																
TOC	pH <2 H_3PO_4																
TOX	pH <2 H_2SO_4																
T PO_4	pH <2 H_2SO_4																
TPH	pH <2 HCL																

Procedure:
1) Pour a small amount of sample in the sample lid
2) Pour sample from Lid gently over wide range pH paper
3) **Do Not** dip the pH paper in the sample bottle or lid
4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
5) Flag COC, notify client if requested
6) Place client conversation on COC
7) Samples may be adjusted

Frequency: All samples requiring preservation