AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
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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: 1012084

American West Analytical Laboratories received 3 sample(s) on 12/3/2010 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 17:21:56 -07'00'

Laboratory Director or designee

INORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Received Date: 12/3/2010 1750h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/4/2010 1030h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/4/2010 1056h	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: 1012084-002
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Received Date: 12/3/2010 1750h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/4/2010 1030h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/4/2010 1056h	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: 1012084-003
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Received Date: 12/3/2010 1750h

Analytical Results	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		12/4/2010 1030h	HACH 8000	10.0	< 10.0	
Total Recoverable Petroleum Hydrocarbons	mg/L		12/4/2010 1056h	E1664A-SGT	3.00	< 3.00	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001D
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/6/2010 1157h
Received Date: 12/3/2010 1750h
Extracted: 12/5/2010 1108h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		0.0500	< 0.0500	
Surr: C36		10-200	**139**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002D
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/6/2010 1215h
Received Date: 12/3/2010 1750h
Extracted: 12/5/2010 1108h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		0.0500	< 0.0500	
Surr: C36		10-200	**133**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003D
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/6/2010 1310h
Received Date: 12/3/2010 1750h
Extracted: 12/5/2010 1108h
Method Used: SW8015D

Analytical Results TPH-ORO by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Oil Range Organics (ORO) (C28-C36)		0.0500	< 0.0500	
Surr: C36		10-200	**142**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001C
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/4/2010 2306h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1229h
Method Used: SW8015D

Analytical Results TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	0.556	< 0.556	
Surr: 4-Bromofluorobenzene	460-00-4	10-190	**72.5**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002C
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0009h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1229h
Method Used: SW8015D

Analytical Results TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	0.500	< 0.500	
Surr: 4-Bromofluorobenzene	460-00-4	10-190	**75.0**	

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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003C
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/5/2010 0030h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1229h
Method Used: SW8015D

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Analytical Results TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Units: mg/L
Dilution Factor: 1

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics C10-C28	68476-34-6	0.500	< 0.500	
Surr: 4-Bromofluorobenzene	460-00-4	10-190	**61.0**	

Kyle F. Gross
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Jose Rocha
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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001B
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/5/2010 0712h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	**112**	
C11-C13 Alkyl Naphthalenes		10.0	< 10.0	
Total C12-C22 PAH**		10.0	< 10.0	
Surr: Terphenyl-d14	1718-51-0	10-199	**98.3**	

*** - 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: 1012084-002B
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0834h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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: 1012084-003B
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/5/2010 0902h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	**96.4**	

*** - 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: 1012084-001B
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/5/2010 0712h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	

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Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001B
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h **Analyzed:** 12/5/2010 0712h
Received Date: 12/3/2010 1750h **Extracted:** 12/4/2010 1240h
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	1
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	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001B
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/5/2010 0712h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	**94.3**	
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	1
Fluoranthene	206-44-0	10.0	< 10.0	

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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: 1012084-001B
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/5/2010 0712h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	1
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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Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001B
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/5/2010 0712h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	[1]
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	**63.4**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**70.4**	
Surr: 2-Fluorophenol	367-12-4	14-106	**41.4**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**63.8**	
Surr: Phenol-d6	13127-88-3	10-122	**24.6**	
Surr: Terphenyl-d14	1718-51-0	10-199	**98.3**	

[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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ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002B
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0834h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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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Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002B
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0834h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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
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	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002B
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0834h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002B
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0834h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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: 1012084-002B
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/5/2010 0834h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	**72.1**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**72.6**	
Surr: 2-Fluorophenol	367-12-4	14-106	**36.5**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**60.1**	
Surr: Phenol-d6	13127-88-3	10-122	**21.3**	
Surr: Terphenyl-d14	1718-51-0	10-199	**102**	

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

ORGANIC ANALYTICAL REPORT

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Jose Rocha
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Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003B
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h **Analyzed:** 12/5/2010 0902h
Received Date: 12/3/2010 1750h **Extracted:** 12/4/2010 1240h
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	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003B
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/5/2010 0902h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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
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	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003B
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/5/2010 0902h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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
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: 1012084-003B
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/5/2010 0902h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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: 1012084-003B
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/5/2010 0902h
Received Date: 12/3/2010 1750h
Extracted: 12/4/2010 1240h
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	**72.8**	
Surr: 2-Fluorobiphenyl	321-60-8	10-124	**77.9**	
Surr: 2-Fluorophenol	367-12-4	14-106	**42.1**	
Surr: Nitrobenzene-d5	4165-60-0	10-180	**64.1**	
Surr: Phenol-d6	13127-88-3	10-122	**23.8**	
Surr: Terphenyl-d14	1718-51-0	10-199	**96.4**	

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: 1012084-001A
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/4/2010 1443h
Received Date: 12/3/2010 1750h
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	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	

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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: 1012084-001A
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/4/2010 1443h
Received Date: 12/3/2010 1750h
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: 1012084-001A
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/4/2010 1443h
Received Date: 12/3/2010 1750h
Method Used: EPA624

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Jose Rocha
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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
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-001A
Client Sample ID: 4992095 RB Above Gardens
Collection Date: 12/3/2010 1600h
Analyzed: 12/4/2010 1443h
Received Date: 12/3/2010 1750h
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
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	**107**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**103**	
Surr: Toluene-d8	2037-26-5	80-125	**96.5**	

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

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Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002A
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/4/2010 1656h
Received Date: 12/3/2010 1750h
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	

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-002A
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/4/2010 1656h
Received Date: 12/3/2010 1750h
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

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: 1012084-002A
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/4/2010 1656h
Received Date: 12/3/2010 1750h
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: 1012084-002A
Client Sample ID: Red Butte Nr Greenhouse
Collection Date: 12/3/2010 1610h
Analyzed: 12/4/2010 1656h
Received Date: 12/3/2010 1750h
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
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	**114**	
Surr: 4-Bromofluorobenzene	460-00-4	80-123	**105**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**105**	
Surr: Toluene-d8	2037-26-5	80-125	**96.1**	

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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: 1012084-003A
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/4/2010 1715h
Received Date: 12/3/2010 1750h
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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Laboratory Director

Jose Rocha
QA Officer

ORGANIC ANALYTICAL REPORT

Client: Utah DEQ DERR
Contact: Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003A
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/4/2010 1715h
Received Date: 12/3/2010 1750h
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
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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Laboratory Director

Jose Rocha
QA Officer

Client: Utah DEQ DERR **Contact:** Jim Harris
Project: Red Butte Spill
Lab Sample ID: 1012084-003A
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h **Analyzed:** 12/4/2010 1715h
Received Date: 12/3/2010 1750h
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: 1012084-003A
Client Sample ID: 4992083 RB @ 1100 E.
Collection Date: 12/3/2010 1715h
Analyzed: 12/4/2010 1715h
Received Date: 12/3/2010 1750h
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
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	**106**	
Surr: Dibromofluoromethane	1868-53-7	80-124	**105**	
Surr: Toluene-d8	2037-26-5	80-125	**96.8**	

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9711	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.157	0.1600	0	98.0	10-200				12/6/2010 0721h
LCS-9711	Surr: C36	%REC	SW8015D	1.29	1.000		129	10-200				12/6/2010 0721h
LCS-9702	Diesel Range Organics C10-C28	mg/L	SW8015D	2.00	2.000	0	99.9	48-118				12/4/2010 1831h
LCS-9702	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.308	0.4000		77.0	18-95				12/4/2010 1831h
LCS-9702	Diesel Range Organics C10-C28	mg/L	SW8015D	2.00	2.000	0	99.9	48-118				12/4/2010 1831h
LCS-9702	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.308	0.4000		77.0	18-95				12/4/2010 1831h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9711	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	< 0.0500				-				12/6/2010 0702h
MB-9711	Surr: C36	%REC	SW8015D	1.23	1.000		123	10-200				12/6/2010 0702h
MB-9702	Diesel Range Organics C10-C28	mg/L	SW8015D	< 0.500				-				12/4/2010 1810h
MB-9702	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.244	0.4000		61.0	18-95				12/4/2010 1810h
MB-9702	Diesel Range Organics C10-C28	mg/L	SW8015D	< 0.500				-				12/4/2010 1810h
MB-9702	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.244	0.4000		61.0	18-95				12/4/2010 1810h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012071-002CMS	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.162	0.1600	0	101	10-200				12/6/2010 0816h
1012071-002CMS	Surr: C36	%REC	SW8015D	1.28	1.000		128	10-200				12/6/2010 0816h
1012083-001DMS	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.174	0.1600	0	109	10-200				12/6/2010 0929h
1012083-001DMS	Surr: C36	%REC	SW8015D	1.38	1.000		138	10-200				12/6/2010 0929h
1012084-002DMS	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.172	0.1600	0	108	10-200				12/6/2010 1234h
1012084-002DMS	Surr: C36	%REC	SW8015D	1.40	1.000		140	10-200				12/6/2010 1234h
1012083-001CMS	Diesel Range Organics C10-C28	mg/L	SW8015D	1.65	2.105	0	78.4	60-161				12/4/2010 2059h
1012083-001CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.201	0.4211		47.9	10-190				12/4/2010 2059h
1012084-001CMS	Diesel Range Organics C10-C28	mg/L	SW8015D	2.00	2.222	0	89.8	60-161				12/4/2010 2327h
1012084-001CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.296	0.4444		66.5	10-190				12/4/2010 2327h
1012086-002CMS	Diesel Range Organics C10-C28	mg/L	SW8015D	1.64	2.000	0	82.2	60-161				12/5/2010 0216h
1012086-002CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.232	0.4000		58.0	10-190				12/5/2010 0216h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: GC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012071-002CMSD	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.160	0.1600	0	100	10-200	0.764	30		12/6/2010 0834h
1012071-002CMSD	Surr: C36	%REC	SW8015D	1.29	1.000		129	10-200				12/6/2010 0834h
1012083-001DMSD	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.164	0.1600	0	102	10-200	6.08	30		12/6/2010 0947h
1012083-001DMSD	Surr: C36	%REC	SW8015D	1.32	1.000		132	10-200				12/6/2010 0947h
1012084-002DMSD	Oil Range Organics (ORO) (C28-	mg/L	SW8015D	0.167	0.1600	0	105	10-200	2.93	30		12/6/2010 1252h
1012084-002DMSD	Surr: C36	%REC	SW8015D	1.34	1.000		134	10-200				12/6/2010 1252h
1012083-001CMSD	Diesel Range Organics C10-C28	mg/L	SW8015D	1.63	2.041	0	80.1	60-161	0.964	25		12/4/2010 2120h
1012083-001CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.222	0.4082		54.5	10-190				12/4/2010 2120h
1012084-001CMSD	Diesel Range Organics C10-C28	mg/L	SW8015D	1.56	2.222	0	70.0	60-161	24.8	25		12/4/2010 2348h
1012084-001CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.240	0.4444		54.0	10-190				12/4/2010 2348h
1012086-002CMSD	Diesel Range Organics C10-C28	mg/L	SW8015D	1.78	2.000	0	88.9	60-161	7.83	25		12/5/2010 0237h
1012086-002CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.246	0.4000		61.5	10-190				12/5/2010 0237h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	1,1´-Biphenyl	µg/L	EPA625	44.3	80.00	0	55.4	22-104				12/5/2010 0430h
LCS-9704	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	35.7	80.00	0	44.7	13-102				12/5/2010 0430h
LCS-9704	1,2,4-Trichlorobenzene	µg/L	EPA625	18.5	80.00	0	23.1	10-104				12/5/2010 0430h
LCS-9704	1,2-Dichlorobenzene	µg/L	EPA625	16.3	80.00	0	20.4	10-68				12/5/2010 0430h
LCS-9704	1,3,5-Trinitrobenzene	µg/L	EPA625	131	80.00	0	163	18-209				12/5/2010 0430h
LCS-9704	1,3-Dichlorobenzene	µg/L	EPA625	13.8	80.00	0	17.2	10-60				12/5/2010 0430h
LCS-9704	1,3-Dinitrobenzene	µg/L	EPA625	105	80.00	0	132	10-165				12/5/2010 0430h
LCS-9704	1,4-Dichlorobenzene	µg/L	EPA625	14.8	80.00	0	18.5	10-118				12/5/2010 0430h
LCS-9704	1,4-Naphthoquinone	µg/L	EPA625	42.0	80.00	0	52.5	10-187				12/5/2010 0430h
LCS-9704	1,4-Phenylenediamine	µg/L	EPA625	31.7	80.00	0	39.6	10-80				12/5/2010 0430h
LCS-9704	1-Chloronaphthalene	µg/L	EPA625	38.5	80.00	0	48.1	13-123				12/5/2010 0430h
LCS-9704	1-Methylnaphthalene	µg/L	EPA625	16.6	80.00	0	20.7	13-105				12/5/2010 0430h
LCS-9704	1-Naphthylamine	µg/L	EPA625	30.8	80.00	0	38.4	32-256				12/5/2010 0430h
LCS-9704	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	88.9	80.00	0	111	44-158				12/5/2010 0430h
LCS-9704	2,4,5-Trichlorophenol	µg/L	EPA625	61.7	80.00	0	77.2	46-142				12/5/2010 0430h
LCS-9704	2,4,6-Trichlorophenol	µg/L	EPA625	50.7	80.00	0	63.4	42-113				12/5/2010 0430h
LCS-9704	2,4-Dichlorophenol	µg/L	EPA625	50.1	80.00	0	62.7	37-102				12/5/2010 0430h
LCS-9704	2,4-Dimethylphenol	µg/L	EPA625	49.0	80.00	0	61.3	37-99				12/5/2010 0430h
LCS-9704	2,4-Dinitrophenol	µg/L	EPA625	63.6	80.00	0	79.5	10-200				12/5/2010 0430h
LCS-9704	2,4-Dinitrotoluene	µg/L	EPA625	96.4	80.00	0	121	15-209				12/5/2010 0430h
LCS-9704	2,6-Dichlorophenol	µg/L	EPA625	55.6	80.00	0	69.5	44-111				12/5/2010 0430h
LCS-9704	2,6-Dinitrotoluene	µg/L	EPA625	79.5	80.00	0	99.4	13-183				12/5/2010 0430h
LCS-9704	2-Acetylaminofluorene	µg/L	EPA625	41.5	80.00	0	51.9	40-131				12/5/2010 0430h
LCS-9704	2-Chloronaphthalene	µg/L	EPA625	40.3	80.00	0	50.4	16-103				12/5/2010 0430h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	2-Chlorophenol	µg/L	EPA625	49.5	80.00	0	61.9	21-98				12/5/2010 0430h
LCS-9704	2-Methylnaphthalene	µg/L	EPA625	30.5	80.00	0	38.2	11-92				12/5/2010 0430h
LCS-9704	2-Methylphenol	µg/L	EPA625	24.4	80.00	0	30.4	24-92				12/5/2010 0430h
LCS-9704	2-Naphthylamine	µg/L	EPA625	45.7	80.00	0	57.1	48-193				12/5/2010 0430h
LCS-9704	2-Nitroaniline	µg/L	EPA625	88.8	80.00	0	111	10-216				12/5/2010 0430h
LCS-9704	2-Nitrophenol	µg/L	EPA625	60.6	80.00	0	75.7	10-173				12/5/2010 0430h
LCS-9704	2-Picoline	µg/L	EPA625	14.7	80.00	0	18.4	10-66				12/5/2010 0430h
LCS-9704	3&4-Methylphenol	µg/L	EPA625	23.1	80.00	0	28.8	10-88				12/5/2010 0430h
LCS-9704	3,3´-Dichlorobenzidine	µg/L	EPA625	70.8	80.00	0	88.5	38-131				12/5/2010 0430h
LCS-9704	3,3´-Dimethylbenzidine	µg/L	EPA625	50.7	80.00	0	63.4	10-172				12/5/2010 0430h
LCS-9704	3-Methylcholanthrene	µg/L	EPA625	74.8	80.00	0	93.5	48-206				12/5/2010 0430h
LCS-9704	3-Nitroaniline	µg/L	EPA625	73.8	80.00	0	92.3	31-172				12/5/2010 0430h
LCS-9704	4,6-Dinitro-2-methylphenol	µg/L	EPA625	110	80.00	0	138	10-190				12/5/2010 0430h
LCS-9704	4-Aminobiphenyl	µg/L	EPA625	69.9	80.00	0	87.4	10-202				12/5/2010 0430h
LCS-9704	4-Bromophenyl phenyl ether	µg/L	EPA625	66.0	80.00	0	82.5	55-136				12/5/2010 0430h
LCS-9704	4-Chloro-3-methylphenol	µg/L	EPA625	63.2	80.00	0	79.1	47-113				12/5/2010 0430h
LCS-9704	4-Chloroaniline	µg/L	EPA625	48.7	80.00	0	60.8	24-124				12/5/2010 0430h
LCS-9704	4-Chlorophenyl phenyl ether	µg/L	EPA625	62.3	80.00	0	77.8	41-119				12/5/2010 0430h
LCS-9704	4-Nitroaniline	µg/L	EPA625	70.3	80.00	0	87.9	27-159				12/5/2010 0430h
LCS-9704	4-Nitrophenol	µg/L	EPA625	28.5	80.00	0	35.7	10-157				12/5/2010 0430h
LCS-9704	5-Nitro-o-toluidine	µg/L	EPA625	87.7	80.00	0	110	60-168				12/5/2010 0430h
LCS-9704	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	45.2	80.00	0	56.5	42-277				12/5/2010 0430h
LCS-9704	a,a-Dimethylphenethylamine	µg/L	EPA625	42.3	80.00	0	52.9	10-160				12/5/2010 0430h
LCS-9704	Acenaphthene	µg/L	EPA625	55.9	80.00	0	69.8	29-112				12/5/2010 0430h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	Acenaphthylene	µg/L	EPA625	55.4	80.00	0	69.2	31-116				12/5/2010 0430h
LCS-9704	Acetophenone	µg/L	EPA625	47.2	80.00	0	59.1	10-105				12/5/2010 0430h
LCS-9704	alpha-Terpineol	µg/L	EPA625	60.0	80.00	0	74.9	14-98				12/5/2010 0430h
LCS-9704	Aniline	µg/L	EPA625	16.4	80.00	0	20.5	10-94				12/5/2010 0430h
LCS-9704	Anthracene	µg/L	EPA625	78.1	80.00	0	97.6	64-145				12/5/2010 0430h
LCS-9704	Aramite	µg/L	EPA625	54.4	80.00	0	68.0	46-162				12/5/2010 0430h
LCS-9704	Azobenzene	µg/L	EPA625	58.0	80.00	0	72.5	32-117				12/5/2010 0430h
LCS-9704	Benz(a)anthracene	µg/L	EPA625	72.7	80.00	0	90.9	50-134				12/5/2010 0430h
LCS-9704	Benzidine	µg/L	EPA625	48.9	80.00	0	61.1	10-211				12/5/2010 0430h
LCS-9704	Benzo(a)pyrene	µg/L	EPA625	94.4	80.00	0	118	39-152				12/5/2010 0430h
LCS-9704	Benzo(b)fluoranthene	µg/L	EPA625	75.9	80.00	0	94.9	46-256				12/5/2010 0430h
LCS-9704	Benzo(g,h,i)perylene	µg/L	EPA625	59.2	80.00	0	74.0	21-288				12/5/2010 0430h
LCS-9704	Benzo(k)fluoranthene	µg/L	EPA625	98.5	80.00	0	123	10-254				12/5/2010 0430h
LCS-9704	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	18.7	10-64				12/5/2010 0430h
LCS-9704	Benzyl alcohol	µg/L	EPA625	24.6	80.00	0	30.7	10-88				12/5/2010 0430h
LCS-9704	Bis(2-chloroethoxy)methane	µg/L	EPA625	32.0	80.00	0	40.0	10-98				12/5/2010 0430h
LCS-9704	Bis(2-chloroethyl) ether	µg/L	EPA625	32.0	80.00	0	40.0	10-99				12/5/2010 0430h
LCS-9704	Bis(2-chloroisopropyl) ether	µg/L	EPA625	30.8	80.00	0	38.6	10-92				12/5/2010 0430h
LCS-9704	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	79.3	80.00	0	99.1	10-233				12/5/2010 0430h
LCS-9704	bis(2-ethylhexyl)adipate	µg/L	EPA625	81.8	80.00	0	102	10-200				12/5/2010 0430h
LCS-9704	Butyl benzyl phthalate	µg/L	EPA625	77.0	80.00	0	96.2	10-178				12/5/2010 0430h
LCS-9704	Carbazole	µg/L	EPA625	77.6	80.00	0	97.0	61-140				12/5/2010 0430h
LCS-9704	Chlorobenzilate	µg/L	EPA625	72.5	80.00	0	90.6	10-218				12/5/2010 0430h
LCS-9704	Chrysene	µg/L	EPA625	78.6	80.00	0	98.2	54-130				12/5/2010 0430h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	Diallate (cis or trans)	µg/L	EPA625	62.3	80.00	0	77.8	41-132				12/5/2010 0430h
LCS-9704	Dibenz(a,h)anthracene	µg/L	EPA625	64.0	80.00	0	80.0	27-199				12/5/2010 0430h
LCS-9704	Dibenzofuran	µg/L	EPA625	57.9	80.00	0	72.3	38-117				12/5/2010 0430h
LCS-9704	Diethyl phthalate	µg/L	EPA625	66.1	80.00	0	82.7	20-128				12/5/2010 0430h
LCS-9704	Dimethoate	µg/L	EPA625	16.6	80.00	0	20.8	10-60				12/5/2010 0430h
LCS-9704	Dimethyl phthalate	µg/L	EPA625	52.1	80.00	0	65.1	10-105				12/5/2010 0430h
LCS-9704	Dimethylaminoazobenzene	µg/L	EPA625	74.7	80.00	0	93.4	30-151				12/5/2010 0430h
LCS-9704	Di-n-butyl phthalate	µg/L	EPA625	77.0	80.00	0	96.2	45-131				12/5/2010 0430h
LCS-9704	Di-n-octyl phthalate	µg/L	EPA625	111	80.00	0	139	10-252				12/5/2010 0430h
LCS-9704	Dinoseb	µg/L	EPA625	120	80.00	0	150	10-186				12/5/2010 0430h
LCS-9704	Diphenylamine	µg/L	EPA625	71.2	80.00	0	89.0	46-128				12/5/2010 0430h
LCS-9704	Disulfoton	µg/L	EPA625	53.6	80.00	0	67.1	10-124				12/5/2010 0430h
LCS-9704	Ethyl methanesulfonate	µg/L	EPA625	41.6	80.00	0	52.1	10-105				12/5/2010 0430h
LCS-9704	Famphur	µg/L	EPA625	149	80.00	0	186	10-298				12/5/2010 0430h
LCS-9704	Fluoranthene	µg/L	EPA625	76.9	80.00	0	96.1	61-138				12/5/2010 0430h
LCS-9704	Fluorene	µg/L	EPA625	63.8	80.00	0	79.7	45-116				12/5/2010 0430h
LCS-9704	Hexachlorobenzene	µg/L	EPA625	66.4	80.00	0	82.9	55-135				12/5/2010 0430h
LCS-9704	Hexachlorobutadiene	µg/L	EPA625	13.4	80.00	0	16.7	10-79				12/5/2010 0430h
LCS-9704	Hexachlorocyclopentadiene	µg/L	EPA625	< 10.0	80.00	0	11.2	10-104				12/5/2010 0430h
LCS-9704	Hexachloroethane	µg/L	EPA625	14.3	80.00	0	17.9	10-58				12/5/2010 0430h
LCS-9704	Hexachlorophene	µg/L	EPA625	55.8	80.00	0	69.8	10-242				12/5/2010 0430h
LCS-9704	Hexachloropropene	µg/L	EPA625	12.8	80.00	0	16.0	10-79				12/5/2010 0430h
LCS-9704	Indene	µg/L	EPA625	18.3	80.00	0	22.9	10-71				12/5/2010 0430h
LCS-9704	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	64.4	80.00	0	80.4	29-208				12/5/2010 0430h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	Isodrin	µg/L	EPA625	74.0	80.00	0	92.5	58-140				12/5/2010 0430h
LCS-9704	Isophorone	µg/L	EPA625	44.2	80.00	0	55.3	10-105				12/5/2010 0430h
LCS-9704	Isosafrole	µg/L	EPA625	37.7	80.00	0	47.1	12-108				12/5/2010 0430h
LCS-9704	Kepone	µg/L	EPA625	211	80.00	0	264	10-330				12/5/2010 0430h
LCS-9704	Methapyrilene	µg/L	EPA625	44.6	80.00	0	55.7	17-151				12/5/2010 0430h
LCS-9704	Methyl methanesulfonate	µg/L	EPA625	47.0	80.00	0	58.8	10-107				12/5/2010 0430h
LCS-9704	Naphthalene	µg/L	EPA625	21.9	80.00	0	27.4	10-79				12/5/2010 0430h
LCS-9704	n-Decane	µg/L	EPA625	< 10.0	80.00	0	11.8	10-45				12/5/2010 0430h
LCS-9704	Nitrobenzene	µg/L	EPA625	47.3	80.00	0	59.2	10-104				12/5/2010 0430h
LCS-9704	Nitroquinoline-1-oxide	µg/L	EPA625	39.2	80.00	0	49.0	10-165				12/5/2010 0430h
LCS-9704	N-Nitrosodiethylamine	µg/L	EPA625	37.9	80.00	0	47.4	10-96				12/5/2010 0430h
LCS-9704	N-Nitrosodimethylamine	µg/L	EPA625	15.2	80.00	0	19.0	10-55				12/5/2010 0430h
LCS-9704	N-Nitrosodi-n-butylamine	µg/L	EPA625	56.0	80.00	0	70.0	21-104				12/5/2010 0430h
LCS-9704	N-Nitrosodiphenylamine	µg/L	EPA625	70.1	80.00	0	87.7	45-126				12/5/2010 0430h
LCS-9704	N-Nitrosodi-n-propylamine	µg/L	EPA625	44.7	80.00	0	55.8	10-103				12/5/2010 0430h
LCS-9704	N-Nitrosomethylethylamine	µg/L	EPA625	31.2	80.00	0	39.0	10-84				12/5/2010 0430h
LCS-9704	N-Nitrosomorpholine	µg/L	EPA625	47.8	80.00	0	59.8	15-107				12/5/2010 0430h
LCS-9704	N-Nitrosopiperidine	µg/L	EPA625	47.0	80.00	0	58.8	10-108				12/5/2010 0430h
LCS-9704	N-Nitrosopyrrolidine	µg/L	EPA625	55.1	80.00	0	68.8	19-115				12/5/2010 0430h
LCS-9704	n-Octadecane	µg/L	EPA625	57.3	80.00	0	71.6	27-134				12/5/2010 0430h
LCS-9704	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	35.9	80.00	0	44.8	10-129				12/5/2010 0430h
LCS-9704	o-Toluidine	µg/L	EPA625	40.0	80.00	0	50.0	21-225				12/5/2010 0430h
LCS-9704	Parathion	µg/L	EPA625	106	80.00	0	133	10-165				12/5/2010 0430h
LCS-9704	Methyl parathion	µg/L	EPA625	100	80.00	0	125	10-165				12/5/2010 0430h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	Pentachlorobenzene	µg/L	EPA625	56.6	80.00	0	70.7	41-118				12/5/2010 0430h
LCS-9704	Pentachloronitrobenzene	µg/L	EPA625	77.2	80.00	0	96.5	35-185				12/5/2010 0430h
LCS-9704	Pentachlorophenol	µg/L	EPA625	61.5	80.00	0	76.8	14-144				12/5/2010 0430h
LCS-9704	Phenacetin	µg/L	EPA625	73.1	80.00	0	91.4	42-163				12/5/2010 0430h
LCS-9704	Phenanthrene	µg/L	EPA625	80.3	80.00	0	100	25-135				12/5/2010 0430h
LCS-9704	Phenol	µg/L	EPA625	25.1	80.00	0	31.3	10-53				12/5/2010 0430h
LCS-9704	Phorate	µg/L	EPA625	77.0	80.00	0	96.2	36-158				12/5/2010 0430h
LCS-9704	Pronamide	µg/L	EPA625	39.1	80.00	0	48.9	33-137				12/5/2010 0430h
LCS-9704	Pyrene	µg/L	EPA625	80.4	80.00	0	101	42-145				12/5/2010 0430h
LCS-9704	Pyridine	µg/L	EPA625	10.5	80.00	0	13.1	10-37				12/5/2010 0430h
LCS-9704	Quinoline	µg/L	EPA625	51.8	80.00	0	64.8	13-111				12/5/2010 0430h
LCS-9704	Safrole	µg/L	EPA625	46.9	80.00	0	58.6	24-111				12/5/2010 0430h
LCS-9704	Tetraethyl dithiopyrophosphate	µg/L	EPA625	68.3	80.00	0	85.4	52-138				12/5/2010 0430h
LCS-9704	Thionazin	µg/L	EPA625	64.2	80.00	0	80.2	45-123				12/5/2010 0430h
LCS-9704	Surr: 2,4,6-Tribromophenol	%REC	EPA625	68.7	80.00		85.9	64-130				12/5/2010 0430h
LCS-9704	Surr: 2-Fluorobiphenyl	%REC	EPA625	22.9	40.00		57.4	32-128				12/5/2010 0430h
LCS-9704	Surr: 2-Fluorophenol	%REC	EPA625	25.9	80.00		32.4	10-121				12/5/2010 0430h
LCS-9704	Surr: Nitrobenzene-d5	%REC	EPA625	23.4	40.00		58.6	17-133				12/5/2010 0430h
LCS-9704	Surr: Phenol-d6	%REC	EPA625	18.5	80.00		23.1	10-124				12/5/2010 0430h
LCS-9704	Surr: Terphenyl-d14	%REC	EPA625	42.1	40.00		105	51-221				12/5/2010 0430h
LCS-9704	Acenaphthene	µg/L	SW8270D	55.9	80.00	0	69.8	20-116				12/5/2010 0430h
LCS-9704	Benzo(a)pyrene	µg/L	SW8270D	94.4	80.00	0	118	39-152				12/5/2010 0430h
LCS-9704	Pyrene	µg/L	SW8270D	80.4	80.00	0	101	37-138				12/5/2010 0430h
LCS-9704	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	68.7	80.00		85.9	10-165				12/5/2010 0430h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-9704	Surr: 2-Fluorobiphenyl	%REC	SW8270D	22.9	40.00		57.4	32-128				12/5/2010 0430h
LCS-9704	Surr: 2-Fluorophenol	%REC	SW8270D	25.9	80.00		32.4	10-121				12/5/2010 0430h
LCS-9704	Surr: Nitrobenzene-d5	%REC	SW8270D	23.4	40.00		58.6	17-133				12/5/2010 0430h
LCS-9704	Surr: Phenol-d6	%REC	SW8270D	18.5	80.00		23.1	10-124				12/5/2010 0430h
LCS-9704	Surr: Terphenyl-d14	%REC	SW8270D	42.1	40.00		105	51-221				12/5/2010 0430h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9704	1,1´-Biphenyl	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,2,4-Trichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,2-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,3,5-Trinitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,3-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,3-Dinitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,4-Dichlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,4-Naphthoquinone	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1,4-Phenylenediamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1-Chloronaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1-Methylnaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	1-Naphthylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,4,5-Trichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,4,6-Trichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,4-Dichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,4-Dimethylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,4-Dinitrophenol	µg/L	EPA625	< 20.0				-				12/5/2010 0403h
MB-9704	2,4-Dinitrotoluene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,6-Dichlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2,6-Dinitrotoluene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Acetylaminofluorene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Chloronaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9704	2-Chlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Methylnaphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Naphthylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Nitroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Nitrophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	2-Picoline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	3&4-Methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	3,3´-Dichlorobenzidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	3,3´-Dimethylbenzidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	3-Methylcholanthrene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	3-Nitroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4,6-Dinitro-2-methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Aminobiphenyl	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Bromophenyl phenyl ether	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Chloro-3-methylphenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Chloroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Chlorophenyl phenyl ether	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Nitroaniline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	4-Nitrophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	5-Nitro-o-toluidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	a,a-Dimethylphenethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Acenaphthene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9704	Acenaphthylene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Acetophenone	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	alpha-Terpineol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Aniline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Aramite	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Azobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benz(a)anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benzidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(a)pyrene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(b)fluoranthene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(g,h,i)perylene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(k)fluoranthene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Benzoic acid	µg/L	EPA625	< 20.0				-				12/5/2010 0403h
MB-9704	Benzyl alcohol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Bis(2-chloroethoxy)methane	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Bis(2-chloroethyl) ether	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Bis(2-chloroisopropyl) ether	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	bis(2-ethylhexyl)adipate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Butyl benzyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Carbazole	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Chlorobenzilate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Chrysene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h

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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	Date Analyzed
MB-9704	Diallate (cis or trans)	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Dibenz(a,h)anthracene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Dibenzofuran	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Diethyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Dimethoate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Dimethyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Dimethylaminoazobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Di-n-butyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Di-n-octyl phthalate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Dinoseb	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Diphenylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Disulfoton	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Ethyl methanesulfonate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Famphur	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Fluoranthene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Fluorene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Hexachlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Hexachlorobutadiene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Hexachlorocyclopentadiene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Hexachloroethane	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Hexachlorophene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Hexachloropropene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Indene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h

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QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9704	Isodrin	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Isophorone	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Isosafrole	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Kepone	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Methapyrilene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Methyl methanesulfonate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Naphthalene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	n-Decane	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Nitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Nitroquinoline-1-oxide	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosodiethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosodimethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosodi-n-butylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosodiphenylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosodi-n-propylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosomethylethylamine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosomorpholine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosopiperidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	N-Nitrosopyrrolidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	n-Octadecane	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	o-Toluidine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Parathion	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Methyl parathion	µg/L	EPA625	< 10.0				-				12/5/2010 0403h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9704	Pentachlorobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Pentachloronitrobenzene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Pentachlorophenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Phenacetin	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Phenanthrene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Phenol	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Phorate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Pronamide	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Pyrene	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Pyridine	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Quinoline	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Safrole	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Tetraethyl dithiopyrophosphate	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Thionazin	µg/L	EPA625	< 10.0				-				12/5/2010 0403h
MB-9704	Surr: 2,4,6-Tribromophenol	%REC	EPA625	55.5	80.00		69.4	10-165				12/5/2010 0403h
MB-9704	Surr: 2-Fluorobiphenyl	%REC	EPA625	30.3	40.00		75.6	18-113				12/5/2010 0403h
MB-9704	Surr: 2-Fluorophenol	%REC	EPA625	35.7	80.00		44.6	10-121				12/5/2010 0403h
MB-9704	Surr: Nitrobenzene-d5	%REC	EPA625	24.6	40.00		61.4	17-133				12/5/2010 0403h
MB-9704	Surr: Phenol-d6	%REC	EPA625	18.8	80.00		23.5	10-124				12/5/2010 0403h
MB-9704	Surr: Terphenyl-d14	%REC	EPA625	41.3	40.00		103	28-163				12/5/2010 0403h
MB-9704	Acenaphthene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Acenaphthylene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Anthracene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-9704	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	C11-C12 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	C11-C13 Alkyl Naphthalenes	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	C13-C16 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	C17-C21 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	C22-C35 Aliphatic hydrocarbons	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Chrysene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Fluoranthene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Fluorene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Phenanthrene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Pyrene	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Total C12-C22 PAH**	µg/L	SW8270D	< 10.0				-				12/5/2010 0403h
MB-9704	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	55.5	80.00		69.4	10-165				12/5/2010 0403h
MB-9704	Surr: 2-Fluorobiphenyl	%REC	SW8270D	30.3	40.00		75.6	18-113				12/5/2010 0403h
MB-9704	Surr: 2-Fluorophenol	%REC	SW8270D	35.7	80.00		44.6	10-121				12/5/2010 0403h
MB-9704	Surr: Nitrobenzene-d5	%REC	SW8270D	24.6	40.00		61.4	17-133				12/5/2010 0403h
MB-9704	Surr: Phenol-d6	%REC	SW8270D	18.8	80.00		23.5	10-124				12/5/2010 0403h
MB-9704	Surr: Terphenyl-d14	%REC	SW8270D	41.3	40.00		103	28-163				12/5/2010 0403h

*** - 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: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMS	1,1´-Biphenyl	µg/L	EPA625	46.2	80.00	0	57.8	27-99				12/5/2010 0524h
1012083-001BMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	39.5	80.00	0	49.4	10-119				12/5/2010 0524h
1012083-001BMS	1,2,4-Trichlorobenzene	µg/L	EPA625	28.4	80.00	0	35.4	10-79				12/5/2010 0524h
1012083-001BMS	1,2-Dichlorobenzene	µg/L	EPA625	18.5	80.00	0	23.1	10-59				12/5/2010 0524h
1012083-001BMS	1,3,5-Trinitrobenzene	µg/L	EPA625	161	80.00	0	201	10-175			1	12/5/2010 0524h
1012083-001BMS	1,3-Dichlorobenzene	µg/L	EPA625	15.0	80.00	0	18.8	10-56				12/5/2010 0524h
1012083-001BMS	1,3-Dinitrobenzene	µg/L	EPA625	104	80.00	0	130	10-175				12/5/2010 0524h
1012083-001BMS	1,4-Dichlorobenzene	µg/L	EPA625	17.1	80.00	0	21.3	10-58				12/5/2010 0524h
1012083-001BMS	1,4-Naphthoquinone	µg/L	EPA625	61.2	80.00	0	76.5	10-177				12/5/2010 0524h
1012083-001BMS	1,4-Phenylenediamine	µg/L	EPA625	34.8	80.00	0	43.5	10-124				12/5/2010 0524h
1012083-001BMS	1-Chloronaphthalene	µg/L	EPA625	34.1	80.00	0	42.6	10-106				12/5/2010 0524h
1012083-001BMS	1-Methylnaphthalene	µg/L	EPA625	19.3	80.00	0	24.2	10-83				12/5/2010 0524h
1012083-001BMS	1-Naphthylamine	µg/L	EPA625	32.7	80.00	0	40.8	10-122				12/5/2010 0524h
1012083-001BMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	72.0	80.00	0	90.0	10-157				12/5/2010 0524h
1012083-001BMS	2,4,5-Trichlorophenol	µg/L	EPA625	57.9	80.00	0	72.4	10-148				12/5/2010 0524h
1012083-001BMS	2,4,6-Trichlorophenol	µg/L	EPA625	46.5	80.00	0	58.1	10-136				12/5/2010 0524h
1012083-001BMS	2,4-Dichlorophenol	µg/L	EPA625	47.4	80.00	0	59.2	10-123				12/5/2010 0524h
1012083-001BMS	2,4-Dimethylphenol	µg/L	EPA625	49.9	80.00	0	62.4	10-113				12/5/2010 0524h
1012083-001BMS	2,4-Dinitrophenol	µg/L	EPA625	59.1	80.00	0	73.9	10-175				12/5/2010 0524h
1012083-001BMS	2,4-Dinitrotoluene	µg/L	EPA625	102	80.00	0	127	10-175				12/5/2010 0524h
1012083-001BMS	2,6-Dichlorophenol	µg/L	EPA625	51.9	80.00	0	64.8	10-148				12/5/2010 0524h
1012083-001BMS	2,6-Dinitrotoluene	µg/L	EPA625	83.7	80.00	0	105	10-175				12/5/2010 0524h
1012083-001BMS	2-Acetylaminofluorene	µg/L	EPA625	43.5	80.00	0	54.4	10-94				12/5/2010 0524h
1012083-001BMS	2-Chloronaphthalene	µg/L	EPA625	46.0	80.00	0	57.5	10-93				12/5/2010 0524h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMS	2-Chlorophenol	µg/L	EPA625	43.7	80.00	0	54.6	10-92				12/5/2010 0524h
1012083-001BMS	2-Methylnaphthalene	µg/L	EPA625	36.4	80.00	0	45.5	15-78				12/5/2010 0524h
1012083-001BMS	2-Methylphenol	µg/L	EPA625	19.4	80.00	0	24.2	10-83				12/5/2010 0524h
1012083-001BMS	2-Naphthylamine	µg/L	EPA625	32.8	80.00	0	41.0	10-154				12/5/2010 0524h
1012083-001BMS	2-Nitroaniline	µg/L	EPA625	89.9	80.00	0	112	10-175				12/5/2010 0524h
1012083-001BMS	2-Nitrophenol	µg/L	EPA625	63.6	80.00	0	79.6	10-175				12/5/2010 0524h
1012083-001BMS	2-Picoline	µg/L	EPA625	10.9	80.00	0	13.6	10-61				12/5/2010 0524h
1012083-001BMS	3&4-Methylphenol	µg/L	EPA625	19.5	80.00	0	24.4	10-80				12/5/2010 0524h
1012083-001BMS	3,3´-Dichlorobenzidine	µg/L	EPA625	75.3	80.00	0	94.1	10-150				12/5/2010 0524h
1012083-001BMS	3,3´-Dimethylbenzidine	µg/L	EPA625	44.0	80.00	0	55.0	10-143				12/5/2010 0524h
1012083-001BMS	3-Methylcholanthrene	µg/L	EPA625	73.3	80.00	0	91.6	32-171				12/5/2010 0524h
1012083-001BMS	3-Nitroaniline	µg/L	EPA625	79.4	80.00	0	99.3	10-175				12/5/2010 0524h
1012083-001BMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	115	80.00	0	144	10-175				12/5/2010 0524h
1012083-001BMS	4-Aminobiphenyl	µg/L	EPA625	76.7	80.00	0	95.8	10-175				12/5/2010 0524h
1012083-001BMS	4-Bromophenyl phenyl ether	µg/L	EPA625	69.8	80.00	0	87.3	16-138				12/5/2010 0524h
1012083-001BMS	4-Chloro-3-methylphenol	µg/L	EPA625	60.1	80.00	0	75.1	10-131				12/5/2010 0524h
1012083-001BMS	4-Chloroaniline	µg/L	EPA625	41.9	80.00	0	52.3	10-98				12/5/2010 0524h
1012083-001BMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	61.2	80.00	0	76.5	31-108				12/5/2010 0524h
1012083-001BMS	4-Nitroaniline	µg/L	EPA625	76.9	80.00	0	96.1	10-175				12/5/2010 0524h
1012083-001BMS	4-Nitrophenol	µg/L	EPA625	25.4	80.00	0	31.8	10-97				12/5/2010 0524h
1012083-001BMS	5-Nitro-o-toluidine	µg/L	EPA625	94.6	80.00	0	118	10-175				12/5/2010 0524h
1012083-001BMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	44.3	80.00	0	55.3	26-174				12/5/2010 0524h
1012083-001BMS	a,a-Dimethylphenethylamine	µg/L	EPA625	37.0	80.00	0	46.3	10-175				12/5/2010 0524h
1012083-001BMS	Acenaphthene	µg/L	EPA625	54.7	80.00	0	68.4	29-97				12/5/2010 0524h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
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Contact: Jim Harris
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMS	Acenaphthylene	µg/L	EPA625	53.3	80.00	0	66.7	37-87				12/5/2010 0524h
1012083-001BMS	Acetophenone	µg/L	EPA625	38.0	80.00	0	47.5	10-96				12/5/2010 0524h
1012083-001BMS	alpha-Terpineol	µg/L	EPA625	52.4	80.00	0	65.5	10-67				12/5/2010 0524h
1012083-001BMS	Aniline	µg/L	EPA625	13.9	80.00	0	17.4	10-71				12/5/2010 0524h
1012083-001BMS	Anthracene	µg/L	EPA625	84.9	80.00	0	106	53-114				12/5/2010 0524h
1012083-001BMS	Aramite	µg/L	EPA625	59.9	80.00	0	74.9	29-160				12/5/2010 0524h
1012083-001BMS	Azobenzene	µg/L	EPA625	60.3	80.00	0	75.3	15-114				12/5/2010 0524h
1012083-001BMS	Benz(a)anthracene	µg/L	EPA625	74.5	80.00	0	93.1	39-129				12/5/2010 0524h
1012083-001BMS	Benzidine	µg/L	EPA625	50.3	80.00	0	62.9	10-99				12/5/2010 0524h
1012083-001BMS	Benzo(a)pyrene	µg/L	EPA625	92.4	80.00	0	116	29-175				12/5/2010 0524h
1012083-001BMS	Benzo(b)fluoranthene	µg/L	EPA625	75.5	80.00	0	94.4	15-140				12/5/2010 0524h
1012083-001BMS	Benzo(g,h,i)perylene	µg/L	EPA625	58.5	80.00	0	73.1	10-182				12/5/2010 0524h
1012083-001BMS	Benzo(k)fluoranthene	µg/L	EPA625	94.0	80.00	0	117	21-154				12/5/2010 0524h
1012083-001BMS	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	13.8	10-71				12/5/2010 0524h
1012083-001BMS	Benzyl alcohol	µg/L	EPA625	16.4	80.00	0	20.5	10-69				12/5/2010 0524h
1012083-001BMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	27.4	80.00	0	34.2	10-94				12/5/2010 0524h
1012083-001BMS	Bis(2-chloroethyl) ether	µg/L	EPA625	25.0	80.00	0	31.3	10-70				12/5/2010 0524h
1012083-001BMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	26.8	80.00	0	33.5	10-71				12/5/2010 0524h
1012083-001BMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	86.4	80.00	35.38	63.8	10-175				12/5/2010 0524h
1012083-001BMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	86.7	80.00	0	108	10-175				12/5/2010 0524h
1012083-001BMS	Butyl benzyl phthalate	µg/L	EPA625	84.2	80.00	0	105	10-175				12/5/2010 0524h
1012083-001BMS	Carbazole	µg/L	EPA625	84.8	80.00	0	106	10-151				12/5/2010 0524h
1012083-001BMS	Chlorobenzilate	µg/L	EPA625	79.2	80.00	0	98.9	18-175				12/5/2010 0524h
1012083-001BMS	Chrysene	µg/L	EPA625	83.8	80.00	0	105	38-133				12/5/2010 0524h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMS	Diallate (cis or trans)	µg/L	EPA625	67.5	80.00	0	84.3	10-157				12/5/2010 0524h
1012083-001BMS	Dibenz(a,h)anthracene	µg/L	EPA625	64.6	80.00	0	80.8	13-168				12/5/2010 0524h
1012083-001BMS	Dibenzofuran	µg/L	EPA625	55.4	80.00	0	69.2	29-103				12/5/2010 0524h
1012083-001BMS	Diethyl phthalate	µg/L	EPA625	73.2	80.00	0	91.4	10-139				12/5/2010 0524h
1012083-001BMS	Dimethoate	µg/L	EPA625	28.3	80.00	0	35.4	10-136				12/5/2010 0524h
1012083-001BMS	Dimethyl phthalate	µg/L	EPA625	59.6	80.00	0	74.5	10-122				12/5/2010 0524h
1012083-001BMS	Dimethylaminoazobenzene	µg/L	EPA625	79.3	80.00	0	99.2	34-142				12/5/2010 0524h
1012083-001BMS	Di-n-butyl phthalate	µg/L	EPA625	85.8	80.00	0	107	44-124				12/5/2010 0524h
1012083-001BMS	Di-n-octyl phthalate	µg/L	EPA625	110	80.00	0	137	10-175				12/5/2010 0524h
1012083-001BMS	Dinoseb	µg/L	EPA625	121	80.00	0	151	10-175				12/5/2010 0524h
1012083-001BMS	Diphenylamine	µg/L	EPA625	77.9	80.00	0	97.4	13-110				12/5/2010 0524h
1012083-001BMS	Disulfoton	µg/L	EPA625	59.5	80.00	0	74.3	10-121				12/5/2010 0524h
1012083-001BMS	Ethyl methanesulfonate	µg/L	EPA625	35.0	80.00	0	43.8	10-99				12/5/2010 0524h
1012083-001BMS	Famphur	µg/L	EPA625	151	80.00	0	189	10-71			1	12/5/2010 0524h
1012083-001BMS	Fluoranthene	µg/L	EPA625	82.9	80.00	0	104	23-135				12/5/2010 0524h
1012083-001BMS	Fluorene	µg/L	EPA625	64.5	80.00	0	80.6	34-108				12/5/2010 0524h
1012083-001BMS	Hexachlorobenzene	µg/L	EPA625	73.1	80.00	0	91.4	26-131				12/5/2010 0524h
1012083-001BMS	Hexachlorobutadiene	µg/L	EPA625	21.7	80.00	0	27.2	10-110				12/5/2010 0524h
1012083-001BMS	Hexachlorocyclopentadiene	µg/L	EPA625	13.1	80.00	0	16.4	10-45				12/5/2010 0524h
1012083-001BMS	Hexachloroethane	µg/L	EPA625	15.9	80.00	0	19.8	10-58				12/5/2010 0524h
1012083-001BMS	Hexachlorophene	µg/L	EPA625	48.6	80.00	0	60.7	10-168				12/5/2010 0524h
1012083-001BMS	Hexachloropropene	µg/L	EPA625	21.2	80.00	0	26.4	10-72				12/5/2010 0524h
1012083-001BMS	Indene	µg/L	EPA625	21.0	80.00	0	26.3	10-35				12/5/2010 0524h
1012083-001BMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	63.9	80.00	0	79.9	10-176				12/5/2010 0524h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMS	Isodrin	µg/L	EPA625	81.8	80.00	0	102	15-165				12/5/2010 0524h
1012083-001BMS	Isophorone	µg/L	EPA625	39.0	80.00	0	48.7	10-99				12/5/2010 0524h
1012083-001BMS	Isosafrole	µg/L	EPA625	39.8	80.00	0	49.7	10-167				12/5/2010 0524h
1012083-001BMS	Kepone	µg/L	EPA625	200	80.00	0	250	10-175			1	12/5/2010 0524h
1012083-001BMS	Methapyrilene	µg/L	EPA625	48.6	80.00	0	60.8	10-149				12/5/2010 0524h
1012083-001BMS	Methyl methanesulfonate	µg/L	EPA625	40.4	80.00	0	50.5	10-132				12/5/2010 0524h
1012083-001BMS	Naphthalene	µg/L	EPA625	31.0	80.00	0	38.7	10-82				12/5/2010 0524h
1012083-001BMS	n-Decane	µg/L	EPA625	< 10.0	80.00	0	11.8	10-27				12/5/2010 0524h
1012083-001BMS	Nitrobenzene	µg/L	EPA625	43.3	80.00	0	54.1	10-119				12/5/2010 0524h
1012083-001BMS	Nitroquinoline-1-oxide	µg/L	EPA625	50.4	80.00	0	63.0	10-170				12/5/2010 0524h
1012083-001BMS	N-Nitrosodiethylamine	µg/L	EPA625	30.2	80.00	0	37.8	10-91				12/5/2010 0524h
1012083-001BMS	N-Nitrosodimethylamine	µg/L	EPA625	13.1	80.00	0	16.4	10-42				12/5/2010 0524h
1012083-001BMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	50.5	80.00	0	63.1	10-175				12/5/2010 0524h
1012083-001BMS	N-Nitrosodiphenylamine	µg/L	EPA625	76.3	80.00	0	95.3	12-112				12/5/2010 0524h
1012083-001BMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	36.8	80.00	0	46.0	10-77				12/5/2010 0524h
1012083-001BMS	N-Nitrosomethylethylamine	µg/L	EPA625	25.2	80.00	0	31.5	10-75				12/5/2010 0524h
1012083-001BMS	N-Nitrosomorpholine	µg/L	EPA625	41.9	80.00	0	52.3	10-175				12/5/2010 0524h
1012083-001BMS	N-Nitrosopiperidine	µg/L	EPA625	41.3	80.00	0	51.6	10-105				12/5/2010 0524h
1012083-001BMS	N-Nitrosopyrrolidine	µg/L	EPA625	46.4	80.00	0	58.0	10-88				12/5/2010 0524h
1012083-001BMS	n-Octadecane	µg/L	EPA625	57.6	80.00	0	72.0	10-121				12/5/2010 0524h
1012083-001BMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	41.0	80.00	0	51.2	10-93				12/5/2010 0524h
1012083-001BMS	o-Toluidine	µg/L	EPA625	35.5	80.00	0	44.3	10-107				12/5/2010 0524h
1012083-001BMS	Parathion	µg/L	EPA625	116	80.00	0	145	10-175				12/5/2010 0524h
1012083-001BMS	Methyl parathion	µg/L	EPA625	110	80.00	0	137	10-175				12/5/2010 0524h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMS	Pentachlorobenzene	µg/L	EPA625	54.3	80.00	0	67.9	25-134				12/5/2010 0524h
1012083-001BMS	Pentachloronitrobenzene	µg/L	EPA625	82.2	80.00	0	103	10-175				12/5/2010 0524h
1012083-001BMS	Pentachlorophenol	µg/L	EPA625	22.1	80.00	0	27.6	10-163				12/5/2010 0524h
1012083-001BMS	Phenacetin	µg/L	EPA625	81.8	80.00	0	102	10-175				12/5/2010 0524h
1012083-001BMS	Phenanthrene	µg/L	EPA625	91.0	80.00	0	114	31-126				12/5/2010 0524h
1012083-001BMS	Phenol	µg/L	EPA625	20.8	80.00	0	26.0	10-175				12/5/2010 0524h
1012083-001BMS	Phorate	µg/L	EPA625	86.8	80.00	0	108	10-175				12/5/2010 0524h
1012083-001BMS	Pronamide	µg/L	EPA625	41.3	80.00	0	51.6	10-95				12/5/2010 0524h
1012083-001BMS	Pyrene	µg/L	EPA625	86.0	80.00	0	108	51-139				12/5/2010 0524h
1012083-001BMS	Pyridine	µg/L	EPA625	< 10.0	80.00	0	0	10-25			1	12/5/2010 0524h
1012083-001BMS	Quinoline	µg/L	EPA625	45.9	80.00	0	57.4	10-63				12/5/2010 0524h
1012083-001BMS	Safrole	µg/L	EPA625	45.8	80.00	0	57.2	10-120				12/5/2010 0524h
1012083-001BMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	77.2	80.00	0	96.6	13-160				12/5/2010 0524h
1012083-001BMS	Thionazin	µg/L	EPA625	72.1	80.00	0	90.2	10-139				12/5/2010 0524h
1012083-001BMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	73.7	80.00		92.2	21-154				12/5/2010 0524h
1012083-001BMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	25.3	40.00		63.3	10-106				12/5/2010 0524h
1012083-001BMS	Surr: 2-Fluorophenol	%REC	EPA625	26.7	80.00		33.3	10-56				12/5/2010 0524h
1012083-001BMS	Surr: Nitrobenzene-d5	%REC	EPA625	22.5	40.00		56.2	10-101				12/5/2010 0524h
1012083-001BMS	Surr: Phenol-d6	%REC	EPA625	18.3	80.00		22.9	10-45				12/5/2010 0524h
1012083-001BMS	Surr: Terphenyl-d14	%REC	EPA625	43.9	40.00		110	10-160				12/5/2010 0524h
1012084-001BMS	1,1´-Biphenyl	µg/L	EPA625	106	160.0	0	66.1	27-99				12/5/2010 0740h
1012084-001BMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	90.8	160.0	0	56.8	10-119				12/5/2010 0740h
1012084-001BMS	1,2,4-Trichlorobenzene	µg/L	EPA625	53.0	160.0	0	33.1	10-79				12/5/2010 0740h
1012084-001BMS	1,2-Dichlorobenzene	µg/L	EPA625	38.9	160.0	0	24.3	10-59				12/5/2010 0740h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	1,3,5-Trinitrobenzene	µg/L	EPA625	313	160.0	0	195	10-175			1	12/5/2010 0740h
1012084-001BMS	1,3-Dichlorobenzene	µg/L	EPA625	32.9	160.0	0	20.6	10-56				12/5/2010 0740h
1012084-001BMS	1,3-Dinitrobenzene	µg/L	EPA625	215	160.0	0	135	10-175				12/5/2010 0740h
1012084-001BMS	1,4-Dichlorobenzene	µg/L	EPA625	36.7	160.0	0	22.9	10-58				12/5/2010 0740h
1012084-001BMS	1,4-Naphthoquinone	µg/L	EPA625	137	160.0	0	85.5	10-177				12/5/2010 0740h
1012084-001BMS	1,4-Phenylenediamine	µg/L	EPA625	78.6	160.0	0	49.1	10-124				12/5/2010 0740h
1012084-001BMS	1-Chloronaphthalene	µg/L	EPA625	82.4	160.0	0	51.5	10-106				12/5/2010 0740h
1012084-001BMS	1-Methylnaphthalene	µg/L	EPA625	43.1	160.0	0	26.9	10-83				12/5/2010 0740h
1012084-001BMS	1-Naphthylamine	µg/L	EPA625	65.2	160.0	0	40.8	10-122				12/5/2010 0740h
1012084-001BMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	198	160.0	0	124	10-157				12/5/2010 0740h
1012084-001BMS	2,4,5-Trichlorophenol	µg/L	EPA625	138	160.0	0	86.0	10-148				12/5/2010 0740h
1012084-001BMS	2,4,6-Trichlorophenol	µg/L	EPA625	108	160.0	0	67.5	10-136				12/5/2010 0740h
1012084-001BMS	2,4-Dichlorophenol	µg/L	EPA625	108	160.0	0	67.4	10-123				12/5/2010 0740h
1012084-001BMS	2,4-Dimethylphenol	µg/L	EPA625	114	160.0	0	71.4	10-113				12/5/2010 0740h
1012084-001BMS	2,4-Dinitrophenol	µg/L	EPA625	148	160.0	0	92.5	10-175				12/5/2010 0740h
1012084-001BMS	2,4-Dinitrotoluene	µg/L	EPA625	202	160.0	0	127	10-175				12/5/2010 0740h
1012084-001BMS	2,6-Dichlorophenol	µg/L	EPA625	117	160.0	0	72.9	10-148				12/5/2010 0740h
1012084-001BMS	2,6-Dinitrotoluene	µg/L	EPA625	169	160.0	0	106	10-175				12/5/2010 0740h
1012084-001BMS	2-Acetylaminofluorene	µg/L	EPA625	85.2	160.0	0	53.2	10-94				12/5/2010 0740h
1012084-001BMS	2-Chloronaphthalene	µg/L	EPA625	106	160.0	0	66.0	10-93				12/5/2010 0740h
1012084-001BMS	2-Chlorophenol	µg/L	EPA625	97.4	160.0	0	60.9	10-92				12/5/2010 0740h
1012084-001BMS	2-Methylnaphthalene	µg/L	EPA625	78.5	160.0	0	49.1	15-78				12/5/2010 0740h
1012084-001BMS	2-Methylphenol	µg/L	EPA625	49.3	160.0	0	30.8	10-83				12/5/2010 0740h
1012084-001BMS	2-Naphthylamine	µg/L	EPA625	67.7	160.0	0	42.3	10-154				12/5/2010 0740h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
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Contact: Jim Harris
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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	2-Nitroaniline	µg/L	EPA625	193	160.0	0	121	10-175				12/5/2010 0740h
1012084-001BMS	2-Nitrophenol	µg/L	EPA625	127	160.0	0	79.6	10-175				12/5/2010 0740h
1012084-001BMS	2-Picoline	µg/L	EPA625	26.0	160.0	0	16.2	10-61				12/5/2010 0740h
1012084-001BMS	3&4-Methylphenol	µg/L	EPA625	47.8	160.0	0	29.8	10-80				12/5/2010 0740h
1012084-001BMS	3,3´-Dichlorobenzidine	µg/L	EPA625	149	160.0	0	93.4	10-150				12/5/2010 0740h
1012084-001BMS	3,3´-Dimethylbenzidine	µg/L	EPA625	106	160.0	0	66.1	10-143				12/5/2010 0740h
1012084-001BMS	3-Methylcholanthrene	µg/L	EPA625	141	160.0	0	87.9	32-171				12/5/2010 0740h
1012084-001BMS	3-Nitroaniline	µg/L	EPA625	161	160.0	0	100	10-175				12/5/2010 0740h
1012084-001BMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	244	160.0	0	152	10-175				12/5/2010 0740h
1012084-001BMS	4-Aminobiphenyl	µg/L	EPA625	151	160.0	0	94.6	10-175				12/5/2010 0740h
1012084-001BMS	4-Bromophenyl phenyl ether	µg/L	EPA625	139	160.0	0	86.7	16-138				12/5/2010 0740h
1012084-001BMS	4-Chloro-3-methylphenol	µg/L	EPA625	135	160.0	0	84.3	10-131				12/5/2010 0740h
1012084-001BMS	4-Chloroaniline	µg/L	EPA625	98.4	160.0	0	61.5	10-98				12/5/2010 0740h
1012084-001BMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	133	160.0	0	83.0	31-108				12/5/2010 0740h
1012084-001BMS	4-Nitroaniline	µg/L	EPA625	154	160.0	0	96.0	10-175				12/5/2010 0740h
1012084-001BMS	4-Nitrophenol	µg/L	EPA625	56.4	160.0	0	35.2	10-97				12/5/2010 0740h
1012084-001BMS	5-Nitro-o-toluidine	µg/L	EPA625	191	160.0	0	119	10-175				12/5/2010 0740h
1012084-001BMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	83.2	160.0	0	52.0	26-174				12/5/2010 0740h
1012084-001BMS	a,a-Dimethylphenethylamine	µg/L	EPA625	80.8	160.0	0	50.5	10-175				12/5/2010 0740h
1012084-001BMS	Acenaphthene	µg/L	EPA625	125	160.0	0	78.3	29-97				12/5/2010 0740h
1012084-001BMS	Acenaphthylene	µg/L	EPA625	122	160.0	0	76.1	37-87				12/5/2010 0740h
1012084-001BMS	Acetophenone	µg/L	EPA625	93.9	160.0	0	58.7	10-96				12/5/2010 0740h
1012084-001BMS	alpha-Terpineol	µg/L	EPA625	128	160.0	0	79.7	10-67			1	12/5/2010 0740h
1012084-001BMS	Aniline	µg/L	EPA625	31.4	160.0	0	19.6	10-71				12/5/2010 0740h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	Anthracene	µg/L	EPA625	166	160.0	0	104	53-114				12/5/2010 0740h
1012084-001BMS	Aramite	µg/L	EPA625	117	160.0	0	72.9	29-160				12/5/2010 0740h
1012084-001BMS	Azobenzene	µg/L	EPA625	122	160.0	0	76.3	15-114				12/5/2010 0740h
1012084-001BMS	Benz(a)anthracene	µg/L	EPA625	146	160.0	0	91.5	39-129				12/5/2010 0740h
1012084-001BMS	Benzidine	µg/L	EPA625	103	160.0	0	64.6	10-99				12/5/2010 0740h
1012084-001BMS	Benzo(a)pyrene	µg/L	EPA625	176	160.0	0	110	29-175				12/5/2010 0740h
1012084-001BMS	Benzo(b)fluoranthene	µg/L	EPA625	144	160.0	0	90.2	15-140				12/5/2010 0740h
1012084-001BMS	Benzo(g,h,i)perylene	µg/L	EPA625	110	160.0	0	68.6	10-182				12/5/2010 0740h
1012084-001BMS	Benzo(k)fluoranthene	µg/L	EPA625	176	160.0	0	110	21-154				12/5/2010 0740h
1012084-001BMS	Benzoic acid	µg/L	EPA625	< 40.0	160.0	0	19.1	10-71				12/5/2010 0740h
1012084-001BMS	Benzyl alcohol	µg/L	EPA625	43.8	160.0	0	27.4	10-69				12/5/2010 0740h
1012084-001BMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	66.5	160.0	0	41.6	10-94				12/5/2010 0740h
1012084-001BMS	Bis(2-chloroethyl) ether	µg/L	EPA625	70.9	160.0	0	44.3	10-70				12/5/2010 0740h
1012084-001BMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	62.5	160.0	0	39.1	10-71				12/5/2010 0740h
1012084-001BMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	165	160.0	94.32	44.3	10-175				12/5/2010 0740h
1012084-001BMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	168	160.0	0	105	10-175				12/5/2010 0740h
1012084-001BMS	Butyl benzyl phthalate	µg/L	EPA625	163	160.0	0	102	10-175				12/5/2010 0740h
1012084-001BMS	Carbazole	µg/L	EPA625	168	160.0	0	105	10-151				12/5/2010 0740h
1012084-001BMS	Chlorobenzilate	µg/L	EPA625	150	160.0	0	94.0	18-175				12/5/2010 0740h
1012084-001BMS	Chrysene	µg/L	EPA625	162	160.0	0	101	38-133				12/5/2010 0740h
1012084-001BMS	Diallate (cis or trans)	µg/L	EPA625	134	160.0	0	83.6	10-157				12/5/2010 0740h
1012084-001BMS	Dibenz(a,h)anthracene	µg/L	EPA625	120	160.0	0	74.7	13-168				12/5/2010 0740h
1012084-001BMS	Dibenzofuran	µg/L	EPA625	123	160.0	0	76.8	29-103				12/5/2010 0740h
1012084-001BMS	Diethyl phthalate	µg/L	EPA625	146	160.0	0	91.4	10-139				12/5/2010 0740h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	Dimethoate	µg/L	EPA625	50.4	160.0	0	31.5	10-136				12/5/2010 0740h
1012084-001BMS	Dimethyl phthalate	µg/L	EPA625	123	160.0	0	77.0	10-122				12/5/2010 0740h
1012084-001BMS	Dimethylaminoazobenzene	µg/L	EPA625	154	160.0	0	96.0	34-142				12/5/2010 0740h
1012084-001BMS	Di-n-butyl phthalate	µg/L	EPA625	169	160.0	0	106	44-124				12/5/2010 0740h
1012084-001BMS	Di-n-octyl phthalate	µg/L	EPA625	208	160.0	0	130	10-175				12/5/2010 0740h
1012084-001BMS	Dinoseb	µg/L	EPA625	253	160.0	0	158	10-175				12/5/2010 0740h
1012084-001BMS	Diphenylamine	µg/L	EPA625	154	160.0	0	96.3	13-110				12/5/2010 0740h
1012084-001BMS	Disulfoton	µg/L	EPA625	114	160.0	0	71.0	10-121				12/5/2010 0740h
1012084-001BMS	Ethyl methanesulfonate	µg/L	EPA625	87.0	160.0	0	54.4	10-99				12/5/2010 0740h
1012084-001BMS	Famphur	µg/L	EPA625	269	160.0	0	168	10-71			1	12/5/2010 0740h
1012084-001BMS	Fluoranthene	µg/L	EPA625	164	160.0	0	103	23-135				12/5/2010 0740h
1012084-001BMS	Fluorene	µg/L	EPA625	139	160.0	0	87.2	34-108				12/5/2010 0740h
1012084-001BMS	Hexachlorobenzene	µg/L	EPA625	142	160.0	0	88.8	26-131				12/5/2010 0740h
1012084-001BMS	Hexachlorobutadiene	µg/L	EPA625	39.9	160.0	0	25.0	10-110				12/5/2010 0740h
1012084-001BMS	Hexachlorocyclopentadiene	µg/L	EPA625	30.1	160.0	0	18.8	10-45				12/5/2010 0740h
1012084-001BMS	Hexachloroethane	µg/L	EPA625	33.8	160.0	0	21.1	10-58				12/5/2010 0740h
1012084-001BMS	Hexachlorophene	µg/L	EPA625	118	160.0	0	74.0	10-168				12/5/2010 0740h
1012084-001BMS	Hexachloropropene	µg/L	EPA625	40.4	160.0	0	25.3	10-72				12/5/2010 0740h
1012084-001BMS	Indene	µg/L	EPA625	42.9	160.0	0	26.8	10-35				12/5/2010 0740h
1012084-001BMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	121	160.0	0	75.6	10-176				12/5/2010 0740h
1012084-001BMS	Isodrin	µg/L	EPA625	156	160.0	0	97.7	15-165				12/5/2010 0740h
1012084-001BMS	Isophorone	µg/L	EPA625	94.1	160.0	0	58.8	10-99				12/5/2010 0740h
1012084-001BMS	Isosafrole	µg/L	EPA625	91.3	160.0	0	57.1	10-167				12/5/2010 0740h
1012084-001BMS	Kepone	µg/L	EPA625	396	160.0	0	248	10-175			1	12/5/2010 0740h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	Methapyrilene	µg/L	EPA625	95.1	160.0	0	59.4	10-149				12/5/2010 0740h
1012084-001BMS	Methyl methanesulfonate	µg/L	EPA625	102	160.0	0	63.6	10-132				12/5/2010 0740h
1012084-001BMS	Naphthalene	µg/L	EPA625	62.4	160.0	0	39.0	10-82				12/5/2010 0740h
1012084-001BMS	n-Decane	µg/L	EPA625	25.5	160.0	0	15.9	10-27				12/5/2010 0740h
1012084-001BMS	Nitrobenzene	µg/L	EPA625	103	160.0	0	64.6	10-119				12/5/2010 0740h
1012084-001BMS	Nitroquinoline-1-oxide	µg/L	EPA625	102	160.0	0	63.8	10-170				12/5/2010 0740h
1012084-001BMS	N-Nitrosodiethylamine	µg/L	EPA625	76.9	160.0	0	48.1	10-91				12/5/2010 0740h
1012084-001BMS	N-Nitrosodimethylamine	µg/L	EPA625	31.0	160.0	0	19.4	10-42				12/5/2010 0740h
1012084-001BMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	117	160.0	0	73.1	10-175				12/5/2010 0740h
1012084-001BMS	N-Nitrosodiphenylamine	µg/L	EPA625	152	160.0	0	94.8	12-112				12/5/2010 0740h
1012084-001BMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	87.6	160.0	0	54.8	10-77				12/5/2010 0740h
1012084-001BMS	N-Nitrosomethylethylamine	µg/L	EPA625	65.0	160.0	0	40.6	10-75				12/5/2010 0740h
1012084-001BMS	N-Nitrosomorpholine	µg/L	EPA625	96.2	160.0	0	60.2	10-175				12/5/2010 0740h
1012084-001BMS	N-Nitrosopiperidine	µg/L	EPA625	100	160.0	0	62.8	10-105				12/5/2010 0740h
1012084-001BMS	N-Nitrosopyrrolidine	µg/L	EPA625	112	160.0	0	69.7	10-88				12/5/2010 0740h
1012084-001BMS	n-Octadecane	µg/L	EPA625	119	160.0	0	74.6	10-121				12/5/2010 0740h
1012084-001BMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	93.5	160.0	0	58.4	10-93				12/5/2010 0740h
1012084-001BMS	o-Toluidine	µg/L	EPA625	84.0	160.0	0	52.5	10-107				12/5/2010 0740h
1012084-001BMS	Parathion	µg/L	EPA625	233	160.0	0	146	10-175				12/5/2010 0740h
1012084-001BMS	Methyl parathion	µg/L	EPA625	212	160.0	0	133	10-175				12/5/2010 0740h
1012084-001BMS	Pentachlorobenzene	µg/L	EPA625	123	160.0	0	76.6	25-134				12/5/2010 0740h
1012084-001BMS	Pentachloronitrobenzene	µg/L	EPA625	162	160.0	0	101	10-175				12/5/2010 0740h
1012084-001BMS	Pentachlorophenol	µg/L	EPA625	123	160.0	0	77.1	10-163				12/5/2010 0740h
1012084-001BMS	Phenacetin	µg/L	EPA625	163	160.0	0	102	10-175				12/5/2010 0740h

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QC SUMMARY REPORT

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Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	Phenanthrene	µg/L	EPA625	177	160.0	0	111	31-126				12/5/2010 0740h
1012084-001BMS	Phenol	µg/L	EPA625	53.3	160.0	0	33.3	10-175				12/5/2010 0740h
1012084-001BMS	Phorate	µg/L	EPA625	169	160.0	0	106	10-175				12/5/2010 0740h
1012084-001BMS	Pronamide	µg/L	EPA625	77.8	160.0	0	48.6	10-95				12/5/2010 0740h
1012084-001BMS	Pyrene	µg/L	EPA625	167	160.0	0	104	51-139				12/5/2010 0740h
1012084-001BMS	Pyridine	µg/L	EPA625	< 20.0	160.0	0	0	10-25			1	12/5/2010 0740h
1012084-001BMS	Quinoline	µg/L	EPA625	108	160.0	0	67.2	10-63			1	12/5/2010 0740h
1012084-001BMS	Safrole	µg/L	EPA625	110	160.0	0	68.7	10-120				12/5/2010 0740h
1012084-001BMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	150	160.0	0	93.5	13-160				12/5/2010 0740h
1012084-001BMS	Thionazin	µg/L	EPA625	145	160.0	0	90.3	10-139				12/5/2010 0740h
1012084-001BMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	147	160.0		92.1	21-154				12/5/2010 0740h
1012084-001BMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	47.2	80.00		59.0	10-106				12/5/2010 0740h
1012084-001BMS	Surr: 2-Fluorophenol	%REC	EPA625	61.1	160.0		38.2	10-56				12/5/2010 0740h
1012084-001BMS	Surr: Nitrobenzene-d5	%REC	EPA625	47.7	80.00		59.6	10-101				12/5/2010 0740h
1012084-001BMS	Surr: Phenol-d6	%REC	EPA625	44.1	160.0		27.6	10-45				12/5/2010 0740h
1012084-001BMS	Surr: Terphenyl-d14	%REC	EPA625	79.8	80.00		99.8	10-160				12/5/2010 0740h
1012086-002BMS	1,1´-Biphenyl	µg/L	EPA625	57.4	80.00	0	71.7	27-99				12/5/2010 1024h
1012086-002BMS	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	52.1	80.00	0	65.2	10-119				12/5/2010 1024h
1012086-002BMS	1,2,4-Trichlorobenzene	µg/L	EPA625	41.6	80.00	0	52.0	10-79				12/5/2010 1024h
1012086-002BMS	1,2-Dichlorobenzene	µg/L	EPA625	34.7	80.00	0	43.4	10-59				12/5/2010 1024h
1012086-002BMS	1,3,5-Trinitrobenzene	µg/L	EPA625	154	80.00	0	192	10-175			1	12/5/2010 1024h
1012086-002BMS	1,3-Dichlorobenzene	µg/L	EPA625	30.1	80.00	0	37.6	10-56				12/5/2010 1024h
1012086-002BMS	1,3-Dinitrobenzene	µg/L	EPA625	108	80.00	0	135	10-175				12/5/2010 1024h
1012086-002BMS	1,4-Dichlorobenzene	µg/L	EPA625	31.9	80.00	0	39.9	10-58				12/5/2010 1024h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMS	1,4-Naphthoquinone	µg/L	EPA625	65.7	80.00	0	82.1	10-177				12/5/2010 1024h
1012086-002BMS	1,4-Phenylenediamine	µg/L	EPA625	47.2	80.00	0	59.0	10-124				12/5/2010 1024h
1012086-002BMS	1-Chloronaphthalene	µg/L	EPA625	52.3	80.00	0	65.4	10-106				12/5/2010 1024h
1012086-002BMS	1-Methylnaphthalene	µg/L	EPA625	28.0	80.00	0	35.1	10-83				12/5/2010 1024h
1012086-002BMS	1-Naphthylamine	µg/L	EPA625	31.1	80.00	0	38.8	10-122				12/5/2010 1024h
1012086-002BMS	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	90.6	80.00	0	113	10-157				12/5/2010 1024h
1012086-002BMS	2,4,5-Trichlorophenol	µg/L	EPA625	68.8	80.00	0	86.0	10-148				12/5/2010 1024h
1012086-002BMS	2,4,6-Trichlorophenol	µg/L	EPA625	55.8	80.00	0	69.7	10-136				12/5/2010 1024h
1012086-002BMS	2,4-Dichlorophenol	µg/L	EPA625	57.4	80.00	0	71.8	10-123				12/5/2010 1024h
1012086-002BMS	2,4-Dimethylphenol	µg/L	EPA625	55.6	80.00	0	69.5	10-113				12/5/2010 1024h
1012086-002BMS	2,4-Dinitrophenol	µg/L	EPA625	73.5	80.00	0	91.9	10-175				12/5/2010 1024h
1012086-002BMS	2,4-Dinitrotoluene	µg/L	EPA625	97.1	80.00	0	121	10-175				12/5/2010 1024h
1012086-002BMS	2,6-Dichlorophenol	µg/L	EPA625	62.6	80.00	0	78.2	10-148				12/5/2010 1024h
1012086-002BMS	2,6-Dinitrotoluene	µg/L	EPA625	81.3	80.00	0	102	10-175				12/5/2010 1024h
1012086-002BMS	2-Acetylaminofluorene	µg/L	EPA625	42.2	80.00	0	52.7	10-94				12/5/2010 1024h
1012086-002BMS	2-Chloronaphthalene	µg/L	EPA625	53.8	80.00	0	67.3	10-93				12/5/2010 1024h
1012086-002BMS	2-Chlorophenol	µg/L	EPA625	50.2	80.00	0	62.7	10-92				12/5/2010 1024h
1012086-002BMS	2-Methylnaphthalene	µg/L	EPA625	49.5	80.00	0	61.9	15-78				12/5/2010 1024h
1012086-002BMS	2-Methylphenol	µg/L	EPA625	25.5	80.00	0	31.8	10-83				12/5/2010 1024h
1012086-002BMS	2-Naphthylamine	µg/L	EPA625	31.4	80.00	0	39.2	10-154				12/5/2010 1024h
1012086-002BMS	2-Nitroaniline	µg/L	EPA625	96.1	80.00	0	120	10-175				12/5/2010 1024h
1012086-002BMS	2-Nitrophenol	µg/L	EPA625	69.8	80.00	0	87.2	10-175				12/5/2010 1024h
1012086-002BMS	2-Picoline	µg/L	EPA625	16.7	80.00	0	20.9	10-61				12/5/2010 1024h
1012086-002BMS	3&4-Methylphenol	µg/L	EPA625	23.1	80.00	0	28.9	10-80				12/5/2010 1024h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
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Contact: Jim Harris
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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMS	3,3´-Dichlorobenzidine	µg/L	EPA625	73.5	80.00	0	91.9	10-150				12/5/2010 1024h
1012086-002BMS	3,3´-Dimethylbenzidine	µg/L	EPA625	45.5	80.00	0	56.9	10-143				12/5/2010 1024h
1012086-002BMS	3-Methylcholanthrene	µg/L	EPA625	66.9	80.00	0	83.6	32-171				12/5/2010 1024h
1012086-002BMS	3-Nitroaniline	µg/L	EPA625	76.0	80.00	0	95.0	10-175				12/5/2010 1024h
1012086-002BMS	4,6-Dinitro-2-methylphenol	µg/L	EPA625	121	80.00	0	152	10-175				12/5/2010 1024h
1012086-002BMS	4-Aminobiphenyl	µg/L	EPA625	73.1	80.00	0	91.4	10-175				12/5/2010 1024h
1012086-002BMS	4-Bromophenyl phenyl ether	µg/L	EPA625	71.4	80.00	0	89.2	16-138				12/5/2010 1024h
1012086-002BMS	4-Chloro-3-methylphenol	µg/L	EPA625	68.2	80.00	0	85.3	10-131				12/5/2010 1024h
1012086-002BMS	4-Chloroaniline	µg/L	EPA625	53.5	80.00	0	66.9	10-98				12/5/2010 1024h
1012086-002BMS	4-Chlorophenyl phenyl ether	µg/L	EPA625	66.7	80.00	0	83.4	31-108				12/5/2010 1024h
1012086-002BMS	4-Nitroaniline	µg/L	EPA625	73.1	80.00	0	91.4	10-175				12/5/2010 1024h
1012086-002BMS	4-Nitrophenol	µg/L	EPA625	26.9	80.00	0	33.6	10-97				12/5/2010 1024h
1012086-002BMS	5-Nitro-o-toluidine	µg/L	EPA625	90.0	80.00	0	112	10-175				12/5/2010 1024h
1012086-002BMS	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	39.9	80.00	0	49.9	26-174				12/5/2010 1024h
1012086-002BMS	a,a-Dimethylphenethylamine	µg/L	EPA625	36.4	80.00	0	45.5	10-175				12/5/2010 1024h
1012086-002BMS	Acenaphthene	µg/L	EPA625	64.7	80.00	0	80.9	29-97				12/5/2010 1024h
1012086-002BMS	Acenaphthylene	µg/L	EPA625	63.8	80.00	0	79.8	37-87				12/5/2010 1024h
1012086-002BMS	Acetophenone	µg/L	EPA625	52.3	80.00	0	65.3	10-96				12/5/2010 1024h
1012086-002BMS	alpha-Terpineol	µg/L	EPA625	67.5	80.00	0	84.4	10-67			1	12/5/2010 1024h
1012086-002BMS	Aniline	µg/L	EPA625	18.6	80.00	0	23.3	10-71				12/5/2010 1024h
1012086-002BMS	Anthracene	µg/L	EPA625	83.2	80.00	0	104	53-114				12/5/2010 1024h
1012086-002BMS	Aramite	µg/L	EPA625	56.3	80.00	0	70.4	29-160				12/5/2010 1024h
1012086-002BMS	Azobenzene	µg/L	EPA625	64.2	80.00	0	80.3	15-114				12/5/2010 1024h
1012086-002BMS	Benz(a)anthracene	µg/L	EPA625	72.0	80.00	0	89.9	39-129				12/5/2010 1024h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMS	Benzidine	µg/L	EPA625	47.7	80.00	0	59.6	10-99				12/5/2010 1024h
1012086-002BMS	Benzo(a)pyrene	µg/L	EPA625	84.2	80.00	0	105	29-175				12/5/2010 1024h
1012086-002BMS	Benzo(b)fluoranthene	µg/L	EPA625	66.3	80.00	0	82.8	15-140				12/5/2010 1024h
1012086-002BMS	Benzo(g,h,i)perylene	µg/L	EPA625	53.1	80.00	0	66.3	10-182				12/5/2010 1024h
1012086-002BMS	Benzo(k)fluoranthene	µg/L	EPA625	86.6	80.00	0	108	21-154				12/5/2010 1024h
1012086-002BMS	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	19.7	10-71				12/5/2010 1024h
1012086-002BMS	Benzyl alcohol	µg/L	EPA625	27.4	80.00	0	34.3	10-69				12/5/2010 1024h
1012086-002BMS	Bis(2-chloroethoxy)methane	µg/L	EPA625	37.3	80.00	0	46.6	10-94				12/5/2010 1024h
1012086-002BMS	Bis(2-chloroethyl) ether	µg/L	EPA625	37.5	80.00	0	46.9	10-70				12/5/2010 1024h
1012086-002BMS	Bis(2-chloroisopropyl) ether	µg/L	EPA625	37.9	80.00	0	47.4	10-71				12/5/2010 1024h
1012086-002BMS	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	81.5	80.00	0	102	10-175				12/5/2010 1024h
1012086-002BMS	bis(2-ethylhexyl)adipate	µg/L	EPA625	84.3	80.00	0	105	10-175				12/5/2010 1024h
1012086-002BMS	Butyl benzyl phthalate	µg/L	EPA625	82.3	80.00	0	103	10-175				12/5/2010 1024h
1012086-002BMS	Carbazole	µg/L	EPA625	83.2	80.00	0	104	10-151				12/5/2010 1024h
1012086-002BMS	Chlorobenzilate	µg/L	EPA625	74.0	80.00	0	92.6	18-175				12/5/2010 1024h
1012086-002BMS	Chrysene	µg/L	EPA625	80.1	80.00	0	100	38-133				12/5/2010 1024h
1012086-002BMS	Diallate (cis or trans)	µg/L	EPA625	66.2	80.00	0	82.8	10-157				12/5/2010 1024h
1012086-002BMS	Dibenz(a,h)anthracene	µg/L	EPA625	57.4	80.00	0	71.7	13-168				12/5/2010 1024h
1012086-002BMS	Dibenzofuran	µg/L	EPA625	63.2	80.00	0	79.0	29-103				12/5/2010 1024h
1012086-002BMS	Diethyl phthalate	µg/L	EPA625	63.8	80.00	0	79.7	10-139				12/5/2010 1024h
1012086-002BMS	Dimethoate	µg/L	EPA625	20.5	80.00	0	25.7	10-136				12/5/2010 1024h
1012086-002BMS	Dimethyl phthalate	µg/L	EPA625	50.2	80.00	0	62.7	10-122				12/5/2010 1024h
1012086-002BMS	Dimethylaminoazobenzene	µg/L	EPA625	77.0	80.00	0	96.2	34-142				12/5/2010 1024h
1012086-002BMS	Di-n-butyl phthalate	µg/L	EPA625	81.4	80.00	0	102	44-124				12/5/2010 1024h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMS	Di-n-octyl phthalate	µg/L	EPA625	98.4	80.00	0	123	10-175				12/5/2010 1024h
1012086-002BMS	Dinoseb	µg/L	EPA625	126	80.00	0	158	10-175				12/5/2010 1024h
1012086-002BMS	Diphenylamine	µg/L	EPA625	75.7	80.00	0	94.6	13-110				12/5/2010 1024h
1012086-002BMS	Disulfoton	µg/L	EPA625	56.6	80.00	0	70.8	10-121				12/5/2010 1024h
1012086-002BMS	Ethyl methanesulfonate	µg/L	EPA625	46.7	80.00	0	58.4	10-99				12/5/2010 1024h
1012086-002BMS	Famphur	µg/L	EPA625	140	80.00	0	175	10-71			1	12/5/2010 1024h
1012086-002BMS	Fluoranthene	µg/L	EPA625	81.5	80.00	0	102	23-135				12/5/2010 1024h
1012086-002BMS	Fluorene	µg/L	EPA625	67.7	80.00	0	84.6	34-108				12/5/2010 1024h
1012086-002BMS	Hexachlorobenzene	µg/L	EPA625	70.6	80.00	0	88.2	26-131				12/5/2010 1024h
1012086-002BMS	Hexachlorobutadiene	µg/L	EPA625	34.5	80.00	0	43.2	10-110				12/5/2010 1024h
1012086-002BMS	Hexachlorocyclopentadiene	µg/L	EPA625	21.8	80.00	0	27.3	10-45				12/5/2010 1024h
1012086-002BMS	Hexachloroethane	µg/L	EPA625	30.6	80.00	0	38.3	10-58				12/5/2010 1024h
1012086-002BMS	Hexachlorophene	µg/L	EPA625	51.1	80.00	0	63.8	10-168				12/5/2010 1024h
1012086-002BMS	Hexachloropropene	µg/L	EPA625	34.6	80.00	0	43.3	10-72				12/5/2010 1024h
1012086-002BMS	Indene	µg/L	EPA625	35.2	80.00	0	44.0	10-35			1	12/5/2010 1024h
1012086-002BMS	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	57.8	80.00	0	72.2	10-176				12/5/2010 1024h
1012086-002BMS	Isodrin	µg/L	EPA625	78.7	80.00	0	98.4	15-165				12/5/2010 1024h
1012086-002BMS	Isophorone	µg/L	EPA625	50.2	80.00	0	62.7	10-99				12/5/2010 1024h
1012086-002BMS	Isosafrole	µg/L	EPA625	52.5	80.00	0	65.6	10-167				12/5/2010 1024h
1012086-002BMS	Kepone	µg/L	EPA625	187	80.00	0	234	10-175			1	12/5/2010 1024h
1012086-002BMS	Methapyrilene	µg/L	EPA625	45.3	80.00	0	56.6	10-149				12/5/2010 1024h
1012086-002BMS	Methyl methanesulfonate	µg/L	EPA625	55.2	80.00	0	69.0	10-132				12/5/2010 1024h
1012086-002BMS	Naphthalene	µg/L	EPA625	46.2	80.00	0	57.7	10-82				12/5/2010 1024h
1012086-002BMS	n-Decane	µg/L	EPA625	20.5	80.00	0	25.6	10-27				12/5/2010 1024h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMS	Nitrobenzene	µg/L	EPA625	59.4	80.00	0	74.2	10-119				12/5/2010 1024h
1012086-002BMS	Nitroquinoline-1-oxide	µg/L	EPA625	47.4	80.00	0	59.2	10-170				12/5/2010 1024h
1012086-002BMS	N-Nitrosodiethylamine	µg/L	EPA625	43.0	80.00	0	53.7	10-91				12/5/2010 1024h
1012086-002BMS	N-Nitrosodimethylamine	µg/L	EPA625	18.6	80.00	0	23.2	10-42				12/5/2010 1024h
1012086-002BMS	N-Nitrosodi-n-butylamine	µg/L	EPA625	64.5	80.00	0	80.6	10-175				12/5/2010 1024h
1012086-002BMS	N-Nitrosodiphenylamine	µg/L	EPA625	74.7	80.00	0	93.4	12-112				12/5/2010 1024h
1012086-002BMS	N-Nitrosodi-n-propylamine	µg/L	EPA625	47.7	80.00	0	59.6	10-77				12/5/2010 1024h
1012086-002BMS	N-Nitrosomethylethylamine	µg/L	EPA625	35.1	80.00	0	43.8	10-75				12/5/2010 1024h
1012086-002BMS	N-Nitrosomorpholine	µg/L	EPA625	50.1	80.00	0	62.6	10-175				12/5/2010 1024h
1012086-002BMS	N-Nitrosopiperidine	µg/L	EPA625	53.8	80.00	0	67.3	10-105				12/5/2010 1024h
1012086-002BMS	N-Nitrosopyrrolidine	µg/L	EPA625	57.2	80.00	0	71.5	10-88				12/5/2010 1024h
1012086-002BMS	n-Octadecane	µg/L	EPA625	64.1	80.00	0	80.2	10-121				12/5/2010 1024h
1012086-002BMS	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	53.5	80.00	0	66.9	10-93				12/5/2010 1024h
1012086-002BMS	o-Toluidine	µg/L	EPA625	46.8	80.00	0	58.5	10-107				12/5/2010 1024h
1012086-002BMS	Parathion	µg/L	EPA625	109	80.00	0	136	10-175				12/5/2010 1024h
1012086-002BMS	Methyl parathion	µg/L	EPA625	105	80.00	0	132	10-175				12/5/2010 1024h
1012086-002BMS	Pentachlorobenzene	µg/L	EPA625	62.8	80.00	0	78.5	25-134				12/5/2010 1024h
1012086-002BMS	Pentachloronitrobenzene	µg/L	EPA625	79.5	80.00	0	99.4	10-175				12/5/2010 1024h
1012086-002BMS	Pentachlorophenol	µg/L	EPA625	57.4	80.00	0	71.7	10-163				12/5/2010 1024h
1012086-002BMS	Phenacetin	µg/L	EPA625	78.2	80.00	0	97.8	10-175				12/5/2010 1024h
1012086-002BMS	Phenanthrene	µg/L	EPA625	85.8	80.00	0	107	31-126				12/5/2010 1024h
1012086-002BMS	Phenol	µg/L	EPA625	27.2	80.00	0	34.0	10-175				12/5/2010 1024h
1012086-002BMS	Phorate	µg/L	EPA625	84.6	80.00	0	106	10-175				12/5/2010 1024h
1012086-002BMS	Pronamide	µg/L	EPA625	39.9	80.00	0	49.9	10-95				12/5/2010 1024h

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QC SUMMARY REPORT

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMS	Pyrene	µg/L	EPA625	84.2	80.00	0	105	51-139				12/5/2010 1024h
1012086-002BMS	Pyridine	µg/L	EPA625	< 10.0	80.00	0	6.35	10-25			1	12/5/2010 1024h
1012086-002BMS	Quinoline	µg/L	EPA625	58.7	80.00	0	73.4	10-63			1	12/5/2010 1024h
1012086-002BMS	Safrole	µg/L	EPA625	57.7	80.00	0	72.2	10-120				12/5/2010 1024h
1012086-002BMS	Tetraethyl dithiopyrophosphate	µg/L	EPA625	70.8	80.00	0	88.5	13-160				12/5/2010 1024h
1012086-002BMS	Thionazin	µg/L	EPA625	66.0	80.00	0	82.5	10-139				12/5/2010 1024h
1012086-002BMS	Surr: 2,4,6-Tribromophenol	%REC	EPA625	68.6	80.00		85.8	21-154				12/5/2010 1024h
1012086-002BMS	Surr: 2-Fluorobiphenyl	%REC	EPA625	28.1	40.00		70.2	10-106				12/5/2010 1024h
1012086-002BMS	Surr: 2-Fluorophenol	%REC	EPA625	28.5	80.00		35.6	10-56				12/5/2010 1024h
1012086-002BMS	Surr: Nitrobenzene-d5	%REC	EPA625	26.9	40.00		67.2	10-101				12/5/2010 1024h
1012086-002BMS	Surr: Phenol-d6	%REC	EPA625	20.3	80.00		25.4	10-45				12/5/2010 1024h
1012086-002BMS	Surr: Terphenyl-d14	%REC	EPA625	39.9	40.00		99.7	10-160				12/5/2010 1024h
1012083-001BMS	Acenaphthene	µg/L	SW8270D	54.7	80.00	0	68.4	21-113				12/5/2010 0524h
1012083-001BMS	Benzo(a)pyrene	µg/L	SW8270D	92.4	80.00	0	116	15-169				12/5/2010 0524h
1012083-001BMS	Pyrene	µg/L	SW8270D	86.0	80.00	0	108	23-150				12/5/2010 0524h
1012083-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	73.7	80.00		92.2	14-159				12/5/2010 0524h
1012083-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	25.3	40.00		63.3	10-124				12/5/2010 0524h
1012083-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	26.7	80.00		33.3	10-106				12/5/2010 0524h
1012083-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	22.5	40.00		56.2	10-180				12/5/2010 0524h
1012083-001BMS	Surr: Phenol-d6	%REC	SW8270D	18.3	80.00		22.9	10-122				12/5/2010 0524h
1012083-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	43.9	40.00		110	10-199				12/5/2010 0524h
1012084-001BMS	Acenaphthene	µg/L	SW8270D	125	160.0	0	78.3	21-113				12/5/2010 0740h
1012084-001BMS	Benzo(a)pyrene	µg/L	SW8270D	176	160.0	0	110	15-169				12/5/2010 0740h
1012084-001BMS	Pyrene	µg/L	SW8270D	167	160.0	0	104	23-150				12/5/2010 0740h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	147	160.0		92.1	14-159				12/5/2010 0740h
1012084-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	47.2	80.00		59.0	10-124				12/5/2010 0740h
1012084-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	61.1	160.0		38.2	10-106				12/5/2010 0740h
1012084-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	47.7	80.00		59.6	10-180				12/5/2010 0740h
1012084-001BMS	Surr: Phenol-d6	%REC	SW8270D	44.1	160.0		27.6	10-122				12/5/2010 0740h
1012084-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	79.8	80.00		99.8	10-199				12/5/2010 0740h
1012086-002BMS	Acenaphthene	µg/L	SW8270D	64.7	80.00	0	80.9	21-113				12/5/2010 1024h
1012086-002BMS	Benzo(a)pyrene	µg/L	SW8270D	84.2	80.00	0	105	15-169				12/5/2010 1024h
1012086-002BMS	Pyrene	µg/L	SW8270D	84.2	80.00	0	105	23-150				12/5/2010 1024h
1012086-002BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	68.6	80.00		85.8	14-159				12/5/2010 1024h
1012086-002BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	28.1	40.00		70.2	10-124				12/5/2010 1024h
1012086-002BMS	Surr: 2-Fluorophenol	%REC	SW8270D	28.5	80.00		35.6	10-106				12/5/2010 1024h
1012086-002BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	26.9	40.00		67.2	10-180				12/5/2010 1024h
1012086-002BMS	Surr: Phenol-d6	%REC	SW8270D	20.3	80.00		25.4	10-122				12/5/2010 1024h
1012086-002BMS	Surr: Terphenyl-d14	%REC	SW8270D	39.9	40.00		99.7	10-199				12/5/2010 1024h

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

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMSD	1,1´-Biphenyl	µg/L	EPA625	53.2	80.00	0	66.4	27-99	13.9	49		12/5/2010 0552h
1012083-001BMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	49.3	80.00	0	61.7	10-119	22.0	52		12/5/2010 0552h
1012083-001BMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	35.8	80.00	0	44.7	10-79	23.2	49		12/5/2010 0552h
1012083-001BMSD	1,2-Dichlorobenzene	µg/L	EPA625	28.4	80.00	0	35.5	10-59	42.1	46		12/5/2010 0552h
1012083-001BMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	165	80.00	0	206	10-175	2.15	33	1	12/5/2010 0552h
1012083-001BMSD	1,3-Dichlorobenzene	µg/L	EPA625	24.3	80.00	0	30.4	10-56	47.1	49		12/5/2010 0552h
1012083-001BMSD	1,3-Dinitrobenzene	µg/L	EPA625	118	80.00	0	148	10-175	12.8	29		12/5/2010 0552h
1012083-001BMSD	1,4-Dichlorobenzene	µg/L	EPA625	26.0	80.00	0	32.6	10-58	41.7	51		12/5/2010 0552h
1012083-001BMSD	1,4-Naphthoquinone	µg/L	EPA625	82.8	80.00	0	103	10-177	29.9	99		12/5/2010 0552h
1012083-001BMSD	1,4-Phenylenediamine	µg/L	EPA625	43.4	80.00	0	54.2	10-124	22.0	48		12/5/2010 0552h
1012083-001BMSD	1-Chloronaphthalene	µg/L	EPA625	46.7	80.00	0	58.3	10-106	31.2	47		12/5/2010 0552h
1012083-001BMSD	1-Methylnaphthalene	µg/L	EPA625	24.2	80.00	0	30.3	10-83	22.5	44		12/5/2010 0552h
1012083-001BMSD	1-Naphthylamine	µg/L	EPA625	33.5	80.00	0	41.8	10-122	2.45	57		12/5/2010 0552h
1012083-001BMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	84.2	80.00	0	105	10-157	15.7	39		12/5/2010 0552h
1012083-001BMSD	2,4,5-Trichlorophenol	µg/L	EPA625	68.9	80.00	0	86.2	10-148	17.3	56		12/5/2010 0552h
1012083-001BMSD	2,4,6-Trichlorophenol	µg/L	EPA625	55.7	80.00	0	69.6	10-136	17.9	52		12/5/2010 0552h
1012083-001BMSD	2,4-Dichlorophenol	µg/L	EPA625	56.1	80.00	0	70.1	10-123	16.8	67		12/5/2010 0552h
1012083-001BMSD	2,4-Dimethylphenol	µg/L	EPA625	54.4	80.00	0	68.1	10-113	8.70	32		12/5/2010 0552h
1012083-001BMSD	2,4-Dinitrophenol	µg/L	EPA625	75.4	80.00	0	94.3	10-175	24.2	78		12/5/2010 0552h
1012083-001BMSD	2,4-Dinitrotoluene	µg/L	EPA625	102	80.00	0	128	10-175	0.510	26		12/5/2010 0552h
1012083-001BMSD	2,6-Dichlorophenol	µg/L	EPA625	60.4	80.00	0	75.4	10-148	15.1	56		12/5/2010 0552h
1012083-001BMSD	2,6-Dinitrotoluene	µg/L	EPA625	86.1	80.00	0	108	10-175	2.87	74		12/5/2010 0552h
1012083-001BMSD	2-Acetylaminofluorene	µg/L	EPA625	44.2	80.00	0	55.3	10-94	1.62	52		12/5/2010 0552h
1012083-001BMSD	2-Chloronaphthalene	µg/L	EPA625	52.1	80.00	0	65.2	10-93	12.5	49		12/5/2010 0552h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMSD	2-Chlorophenol	µg/L	EPA625	53.0	80.00	0	66.3	10-92	19.3	58		12/5/2010 0552h
1012083-001BMSD	2-Methylnaphthalene	µg/L	EPA625	43.2	80.00	0	54.0	15-78	17.3	39		12/5/2010 0552h
1012083-001BMSD	2-Methylphenol	µg/L	EPA625	24.4	80.00	0	30.5	10-83	22.9	49		12/5/2010 0552h
1012083-001BMSD	2-Naphthylamine	µg/L	EPA625	33.0	80.00	0	41.2	10-154	0.578	37		12/5/2010 0552h
1012083-001BMSD	2-Nitroaniline	µg/L	EPA625	98.7	80.00	0	123	10-175	9.29	87		12/5/2010 0552h
1012083-001BMSD	2-Nitrophenol	µg/L	EPA625	72.0	80.00	0	90.0	10-175	12.3	64		12/5/2010 0552h
1012083-001BMSD	2-Picoline	µg/L	EPA625	15.5	80.00	0	19.4	10-61	35.1	63		12/5/2010 0552h
1012083-001BMSD	3&4-Methylphenol	µg/L	EPA625	23.1	80.00	0	28.9	10-80	16.7	99		12/5/2010 0552h
1012083-001BMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	75.6	80.00	0	94.5	10-150	0.424	63		12/5/2010 0552h
1012083-001BMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	41.0	80.00	0	51.2	10-143	7.15	99		12/5/2010 0552h
1012083-001BMSD	3-Methylcholanthrene	µg/L	EPA625	75.0	80.00	0	93.7	32-171	2.25	46		12/5/2010 0552h
1012083-001BMSD	3-Nitroaniline	µg/L	EPA625	82.5	80.00	0	103	10-175	3.79	29		12/5/2010 0552h
1012083-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	122	80.00	0	153	10-175	5.54	70		12/5/2010 0552h
1012083-001BMSD	4-Aminobiphenyl	µg/L	EPA625	75.1	80.00	0	93.9	10-175	2.03	79		12/5/2010 0552h
1012083-001BMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	71.1	80.00	0	88.8	16-138	1.75	31		12/5/2010 0552h
1012083-001BMSD	4-Chloro-3-methylphenol	µg/L	EPA625	65.6	80.00	0	82.0	10-131	8.75	37		12/5/2010 0552h
1012083-001BMSD	4-Chloroaniline	µg/L	EPA625	51.2	80.00	0	63.9	10-98	20.0	41		12/5/2010 0552h
1012083-001BMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	66.8	80.00	0	83.5	31-108	8.76	30		12/5/2010 0552h
1012083-001BMSD	4-Nitroaniline	µg/L	EPA625	78.1	80.00	0	97.7	10-175	1.59	99		12/5/2010 0552h
1012083-001BMSD	4-Nitrophenol	µg/L	EPA625	27.1	80.00	0	33.8	10-97	6.21	69		12/5/2010 0552h
1012083-001BMSD	5-Nitro-o-toluidine	µg/L	EPA625	94.4	80.00	0	118	10-175	0.275	26		12/5/2010 0552h
1012083-001BMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	44.8	80.00	0	55.9	26-174	1.10	40		12/5/2010 0552h
1012083-001BMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	32.0	80.00	0	40.0	10-175	14.7	99		12/5/2010 0552h
1012083-001BMSD	Acenaphthene	µg/L	EPA625	61.3	80.00	0	76.7	29-97	11.4	38		12/5/2010 0552h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMSD	Acenaphthylene	µg/L	EPA625	61.7	80.00	0	77.2	37-87	14.6	37		12/5/2010 0552h
1012083-001BMSD	Acetophenone	µg/L	EPA625	51.6	80.00	0	64.4	10-96	30.3	48		12/5/2010 0552h
1012083-001BMSD	alpha-Terpineol	µg/L	EPA625	66.0	80.00	0	82.5	10-67	23.0	46	1	12/5/2010 0552h
1012083-001BMSD	Aniline	µg/L	EPA625	19.8	80.00	0	24.8	10-71	35.1	48		12/5/2010 0552h
1012083-001BMSD	Anthracene	µg/L	EPA625	81.9	80.00	0	102	53-114	3.63	26		12/5/2010 0552h
1012083-001BMSD	Aramite	µg/L	EPA625	55.8	80.00	0	69.7	29-160	7.16	30		12/5/2010 0552h
1012083-001BMSD	Azobenzene	µg/L	EPA625	61.8	80.00	0	77.2	15-114	2.44	36		12/5/2010 0552h
1012083-001BMSD	Benz(a)anthracene	µg/L	EPA625	74.3	80.00	0	92.9	39-129	0.215	32		12/5/2010 0552h
1012083-001BMSD	Benzidine	µg/L	EPA625	48.9	80.00	0	61.2	10-99	2.74	99		12/5/2010 0552h
1012083-001BMSD	Benzo(a)pyrene	µg/L	EPA625	94.3	80.00	0	118	29-175	2.00	45		12/5/2010 0552h
1012083-001BMSD	Benzo(b)fluoranthene	µg/L	EPA625	75.5	80.00	0	94.4	15-140	0.0397	44		12/5/2010 0552h
1012083-001BMSD	Benzo(g,h,i)perylene	µg/L	EPA625	59.9	80.00	0	74.9	10-182	2.43	48		12/5/2010 0552h
1012083-001BMSD	Benzo(k)fluoranthene	µg/L	EPA625	96.3	80.00	0	120	21-154	2.45	52		12/5/2010 0552h
1012083-001BMSD	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	13.6	10-71	0	78		12/5/2010 0552h
1012083-001BMSD	Benzyl alcohol	µg/L	EPA625	26.7	80.00	0	33.4	10-69	47.8	52		12/5/2010 0552h
1012083-001BMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	35.5	80.00	0	44.3	10-94	25.7	45		12/5/2010 0552h
1012083-001BMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	38.0	80.00	0	47.5	10-70	41.2	47		12/5/2010 0552h
1012083-001BMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	37.7	80.00	0	47.1	10-71	33.8	49		12/5/2010 0552h
1012083-001BMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	142	80.00	35.38	134	10-175	48.9	28	@	12/5/2010 0552h
1012083-001BMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	85.6	80.00	0	107	10-175	1.30	25		12/5/2010 0552h
1012083-001BMSD	Butyl benzyl phthalate	µg/L	EPA625	82.4	80.00	0	103	10-175	2.26	99		12/5/2010 0552h
1012083-001BMSD	Carbazole	µg/L	EPA625	81.4	80.00	0	102	10-151	4.08	30		12/5/2010 0552h
1012083-001BMSD	Chlorobenzilate	µg/L	EPA625	78.7	80.00	0	98.4	18-175	0.570	25		12/5/2010 0552h
1012083-001BMSD	Chrysene	µg/L	EPA625	81.1	80.00	0	101	38-133	3.17	28		12/5/2010 0552h

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QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMSD	Diallate (cis or trans)	µg/L	EPA625	67.4	80.00	0	84.2	10-157	0.178	29		12/5/2010 0552h
1012083-001BMSD	Dibenz(a,h)anthracene	µg/L	EPA625	64.1	80.00	0	80.1	13-168	0.886	51		12/5/2010 0552h
1012083-001BMSD	Dibenzofuran	µg/L	EPA625	61.9	80.00	0	77.4	29-103	11.1	34		12/5/2010 0552h
1012083-001BMSD	Diethyl phthalate	µg/L	EPA625	72.9	80.00	0	91.2	10-139	0.301	32		12/5/2010 0552h
1012083-001BMSD	Dimethoate	µg/L	EPA625	30.6	80.00	0	38.3	10-136	7.87	45		12/5/2010 0552h
1012083-001BMSD	Dimethyl phthalate	µg/L	EPA625	64.8	80.00	0	81.0	10-122	8.39	57		12/5/2010 0552h
1012083-001BMSD	Dimethylaminoazobenzene	µg/L	EPA625	79.5	80.00	0	99.3	34-142	0.189	26		12/5/2010 0552h
1012083-001BMSD	Di-n-butyl phthalate	µg/L	EPA625	81.9	80.00	0	102	44-124	4.65	25		12/5/2010 0552h
1012083-001BMSD	Di-n-octyl phthalate	µg/L	EPA625	110	80.00	0	137	10-175	0.118	50		12/5/2010 0552h
1012083-001BMSD	Dinoseb	µg/L	EPA625	125	80.00	0	156	10-175	3.73	42		12/5/2010 0552h
1012083-001BMSD	Diphenylamine	µg/L	EPA625	77.5	80.00	0	96.9	13-110	0.592	34		12/5/2010 0552h
1012083-001BMSD	Disulfoton	µg/L	EPA625	56.9	80.00	0	71.2	10-121	4.38	25		12/5/2010 0552h
1012083-001BMSD	Ethyl methanesulfonate	µg/L	EPA625	47.6	80.00	0	59.6	10-99	30.5	46		12/5/2010 0552h
1012083-001BMSD	Famphur	µg/L	EPA625	146	80.00	0	183	10-71	3.17	25	1	12/5/2010 0552h
1012083-001BMSD	Fluoranthene	µg/L	EPA625	80.4	80.00	0	100	23-135	3.14	25		12/5/2010 0552h
1012083-001BMSD	Fluorene	µg/L	EPA625	67.4	80.00	0	84.3	34-108	4.46	28		12/5/2010 0552h
1012083-001BMSD	Hexachlorobenzene	µg/L	EPA625	71.4	80.00	0	89.2	26-131	2.38	28		12/5/2010 0552h
1012083-001BMSD	Hexachlorobutadiene	µg/L	EPA625	28.4	80.00	0	35.5	10-110	26.6	68		12/5/2010 0552h
1012083-001BMSD	Hexachlorocyclopentadiene	µg/L	EPA625	18.1	80.00	0	22.6	10-45	31.8	79		12/5/2010 0552h
1012083-001BMSD	Hexachloroethane	µg/L	EPA625	25.2	80.00	0	31.4	10-58	45.3	42	@	12/5/2010 0552h
1012083-001BMSD	Hexachlorophene	µg/L	EPA625	49.1	80.00	0	61.4	10-168	1.13	25		12/5/2010 0552h
1012083-001BMSD	Hexachloropropene	µg/L	EPA625	27.8	80.00	0	34.7	10-72	27.1	63		12/5/2010 0552h
1012083-001BMSD	Indene	µg/L	EPA625	29.6	80.00	0	37.0	10-35	33.9	35	1	12/5/2010 0552h
1012083-001BMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	65.1	80.00	0	81.4	10-176	1.92	48		12/5/2010 0552h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMSD	Isodrin	µg/L	EPA625	79.2	80.00	0	99.0	15-165	3.23	25		12/5/2010 0552h
1012083-001BMSD	Isophorone	µg/L	EPA625	48.5	80.00	0	60.6	10-99	21.7	41		12/5/2010 0552h
1012083-001BMSD	Isosafrole	µg/L	EPA625	50.0	80.00	0	62.5	10-167	22.9	50		12/5/2010 0552h
1012083-001BMSD	Kepone	µg/L	EPA625	194	80.00	0	242	10-175	3.05	46	1	12/5/2010 0552h
1012083-001BMSD	Methapyrilene	µg/L	EPA625	45.9	80.00	0	57.3	10-149	5.90	51		12/5/2010 0552h
1012083-001BMSD	Methyl methanesulfonate	µg/L	EPA625	57.0	80.00	0	71.2	10-132	34.0	45		12/5/2010 0552h
1012083-001BMSD	Naphthalene	µg/L	EPA625	39.0	80.00	0	48.7	10-82	22.8	43		12/5/2010 0552h
1012083-001BMSD	n-Decane	µg/L	EPA625	17.5	80.00	0	21.9	10-27	59.6	32	@	12/5/2010 0552h
1012083-001BMSD	Nitrobenzene	µg/L	EPA625	57.7	80.00	0	72.1	10-119	28.5	49		12/5/2010 0552h
1012083-001BMSD	Nitroquinoline-1-oxide	µg/L	EPA625	51.0	80.00	0	63.7	10-170	1.11	97		12/5/2010 0552h
1012083-001BMSD	N-Nitrosodiethylamine	µg/L	EPA625	45.4	80.00	0	56.7	10-91	40.0	54		12/5/2010 0552h
1012083-001BMSD	N-Nitrosodimethylamine	µg/L	EPA625	18.0	80.00	0	22.6	10-42	31.7	66		12/5/2010 0552h
1012083-001BMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	59.1	80.00	0	73.9	10-175	15.7	80		12/5/2010 0552h
1012083-001BMSD	N-Nitrosodiphenylamine	µg/L	EPA625	76.5	80.00	0	95.7	12-112	0.340	30		12/5/2010 0552h
1012083-001BMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	46.8	80.00	0	58.5	10-77	24.0	47		12/5/2010 0552h
1012083-001BMSD	N-Nitrosomethylethylamine	µg/L	EPA625	36.3	80.00	0	45.4	10-75	36.0	60		12/5/2010 0552h
1012083-001BMSD	N-Nitrosomorpholine	µg/L	EPA625	51.0	80.00	0	63.8	10-175	19.7	73		12/5/2010 0552h
1012083-001BMSD	N-Nitrosopiperidine	µg/L	EPA625	54.7	80.00	0	68.4	10-105	28.0	44		12/5/2010 0552h
1012083-001BMSD	N-Nitrosopyrrolidine	µg/L	EPA625	58.9	80.00	0	73.7	10-88	23.7	40		12/5/2010 0552h
1012083-001BMSD	n-Octadecane	µg/L	EPA625	61.6	80.00	0	77.0	10-121	6.63	40		12/5/2010 0552h
1012083-001BMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	50.3	80.00	0	62.9	10-93	20.4	44		12/5/2010 0552h
1012083-001BMSD	o-Toluidine	µg/L	EPA625	47.1	80.00	0	58.9	10-107	28.2	46		12/5/2010 0552h
1012083-001BMSD	Parathion	µg/L	EPA625	111	80.00	0	139	10-175	4.06	28		12/5/2010 0552h
1012083-001BMSD	Methyl parathion	µg/L	EPA625	105	80.00	0	131	10-175	4.78	26		12/5/2010 0552h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001BMSD	Pentachlorobenzene	µg/L	EPA625	60.8	80.00	0	76.1	25-134	11.4	35		12/5/2010 0552h
1012083-001BMSD	Pentachloronitrobenzene	µg/L	EPA625	79.5	80.00	0	99.4	10-175	3.24	25		12/5/2010 0552h
1012083-001BMSD	Pentachlorophenol	µg/L	EPA625	32.4	80.00	0	40.5	10-163	37.9	58		12/5/2010 0552h
1012083-001BMSD	Phenacetin	µg/L	EPA625	81.6	80.00	0	102	10-175	0.330	38		12/5/2010 0552h
1012083-001BMSD	Phenanthrene	µg/L	EPA625	87.7	80.00	0	110	31-126	3.63	32		12/5/2010 0552h
1012083-001BMSD	Phenol	µg/L	EPA625	26.9	80.00	0	33.7	10-175	25.9	71		12/5/2010 0552h
1012083-001BMSD	Phorate	µg/L	EPA625	85.8	80.00	0	107	10-175	1.14	42		12/5/2010 0552h
1012083-001BMSD	Pronamide	µg/L	EPA625	39.2	80.00	0	49.0	10-95	5.17	26		12/5/2010 0552h
1012083-001BMSD	Pyrene	µg/L	EPA625	85.9	80.00	0	107	51-139	0.140	27		12/5/2010 0552h
1012083-001BMSD	Pyridine	µg/L	EPA625	< 10.0	80.00	0	7.64	10-25	0	61	1	12/5/2010 0552h
1012083-001BMSD	Quinoline	µg/L	EPA625	55.3	80.00	0	69.1	10-63	18.5	99	1	12/5/2010 0552h
1012083-001BMSD	Safrole	µg/L	EPA625	54.5	80.00	0	68.2	10-120	17.5	51		12/5/2010 0552h
1012083-001BMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	75.5	80.00	0	94.4	13-160	2.24	35		12/5/2010 0552h
1012083-001BMSD	Thionazin	µg/L	EPA625	70.8	80.00	0	88.5	10-139	1.82	25		12/5/2010 0552h
1012083-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	68.7	80.00		85.9	21-154				12/5/2010 0552h
1012083-001BMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	25.3	40.00		63.2	10-106				12/5/2010 0552h
1012083-001BMSD	Surr: 2-Fluorophenol	%REC	EPA625	29.3	80.00		36.6	10-56				12/5/2010 0552h
1012083-001BMSD	Surr: Nitrobenzene-d5	%REC	EPA625	26.2	40.00		65.6	10-101				12/5/2010 0552h
1012083-001BMSD	Surr: Phenol-d6	%REC	EPA625	20.0	80.00		25.0	10-45				12/5/2010 0552h
1012083-001BMSD	Surr: Terphenyl-d14	%REC	EPA625	32.8	40.00		82.0	10-160				12/5/2010 0552h
1012084-001BMSD	1,1´-Biphenyl	µg/L	EPA625	84.7	160.0	0	52.9	27-99	22.2	49		12/5/2010 0807h
1012084-001BMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	71.2	160.0	0	44.5	10-119	24.2	52		12/5/2010 0807h
1012084-001BMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	46.4	160.0	0	29.0	10-79	13.3	49		12/5/2010 0807h
1012084-001BMSD	1,2-Dichlorobenzene	µg/L	EPA625	31.6	160.0	0	19.8	10-59	20.7	46		12/5/2010 0807h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
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Contact: Jim Harris
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QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	259	160.0	0	162	10-175	18.7	33		12/5/2010 0807h
1012084-001BMSD	1,3-Dichlorobenzene	µg/L	EPA625	25.5	160.0	0	16.0	10-56	25.2	49		12/5/2010 0807h
1012084-001BMSD	1,3-Dinitrobenzene	µg/L	EPA625	163	160.0	0	102	10-175	27.5	29		12/5/2010 0807h
1012084-001BMSD	1,4-Dichlorobenzene	µg/L	EPA625	27.8	160.0	0	17.4	10-58	27.5	51		12/5/2010 0807h
1012084-001BMSD	1,4-Naphthoquinone	µg/L	EPA625	62.6	160.0	0	39.1	10-177	74.5	99		12/5/2010 0807h
1012084-001BMSD	1,4-Phenylenediamine	µg/L	EPA625	61.5	160.0	0	38.4	10-124	24.4	48		12/5/2010 0807h
1012084-001BMSD	1-Chloronaphthalene	µg/L	EPA625	71.1	160.0	0	44.5	10-106	14.7	47		12/5/2010 0807h
1012084-001BMSD	1-Methylnaphthalene	µg/L	EPA625	34.3	160.0	0	21.4	10-83	22.7	44		12/5/2010 0807h
1012084-001BMSD	1-Naphthylamine	µg/L	EPA625	52.3	160.0	0	32.7	10-122	22.1	57		12/5/2010 0807h
1012084-001BMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	185	160.0	0	116	10-157	6.88	39		12/5/2010 0807h
1012084-001BMSD	2,4,5-Trichlorophenol	µg/L	EPA625	120	160.0	0	75.3	10-148	13.3	56		12/5/2010 0807h
1012084-001BMSD	2,4,6-Trichlorophenol	µg/L	EPA625	95.7	160.0	0	59.8	10-136	12.1	52		12/5/2010 0807h
1012084-001BMSD	2,4-Dichlorophenol	µg/L	EPA625	85.2	160.0	0	53.2	10-123	23.5	67		12/5/2010 0807h
1012084-001BMSD	2,4-Dimethylphenol	µg/L	EPA625	91.5	160.0	0	57.2	10-113	22.1	32		12/5/2010 0807h
1012084-001BMSD	2,4-Dinitrophenol	µg/L	EPA625	117	160.0	0	73.2	10-175	23.2	78		12/5/2010 0807h
1012084-001BMSD	2,4-Dinitrotoluene	µg/L	EPA625	170	160.0	0	106	10-175	17.7	26		12/5/2010 0807h
1012084-001BMSD	2,6-Dichlorophenol	µg/L	EPA625	96.7	160.0	0	60.4	10-148	18.7	56		12/5/2010 0807h
1012084-001BMSD	2,6-Dinitrotoluene	µg/L	EPA625	144	160.0	0	90.1	10-175	15.7	74		12/5/2010 0807h
1012084-001BMSD	2-Acetylaminofluorene	µg/L	EPA625	71.2	160.0	0	44.5	10-94	18.0	52		12/5/2010 0807h
1012084-001BMSD	2-Chloronaphthalene	µg/L	EPA625	80.5	160.0	0	50.3	10-93	27.0	49		12/5/2010 0807h
1012084-001BMSD	2-Chlorophenol	µg/L	EPA625	66.4	160.0	0	41.5	10-92	37.9	58		12/5/2010 0807h
1012084-001BMSD	2-Methylnaphthalene	µg/L	EPA625	64.9	160.0	0	40.6	15-78	19.0	39		12/5/2010 0807h
1012084-001BMSD	2-Methylphenol	µg/L	EPA625	36.0	160.0	0	22.5	10-83	31.1	49		12/5/2010 0807h
1012084-001BMSD	2-Naphthylamine	µg/L	EPA625	54.0	160.0	0	33.8	10-154	22.5	37		12/5/2010 0807h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	2-Nitroaniline	µg/L	EPA625	161	160.0	0	101	10-175	18.0	87		12/5/2010 0807h
1012084-001BMSD	2-Nitrophenol	µg/L	EPA625	109	160.0	0	67.9	10-175	16.0	64		12/5/2010 0807h
1012084-001BMSD	2-Picoline	µg/L	EPA625	< 20.0	160.0	0	12.2	10-61	0	63		12/5/2010 0807h
1012084-001BMSD	3&4-Methylphenol	µg/L	EPA625	34.6	160.0	0	21.6	10-80	31.9	99		12/5/2010 0807h
1012084-001BMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	121	160.0	0	75.6	10-150	21.1	63		12/5/2010 0807h
1012084-001BMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	78.2	160.0	0	48.9	10-143	29.9	99		12/5/2010 0807h
1012084-001BMSD	3-Methylcholanthrene	µg/L	EPA625	118	160.0	0	74.0	32-171	17.2	46		12/5/2010 0807h
1012084-001BMSD	3-Nitroaniline	µg/L	EPA625	134	160.0	0	84.0	10-175	17.8	29		12/5/2010 0807h
1012084-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	236	160.0	0	147	10-175	3.37	70		12/5/2010 0807h
1012084-001BMSD	4-Aminobiphenyl	µg/L	EPA625	128	160.0	0	79.8	10-175	16.9	79		12/5/2010 0807h
1012084-001BMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	115	160.0	0	71.7	16-138	19.0	31		12/5/2010 0807h
1012084-001BMSD	4-Chloro-3-methylphenol	µg/L	EPA625	113	160.0	0	70.6	10-131	17.8	37		12/5/2010 0807h
1012084-001BMSD	4-Chloroaniline	µg/L	EPA625	79.5	160.0	0	49.7	10-98	21.2	41		12/5/2010 0807h
1012084-001BMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	110	160.0	0	68.7	31-108	18.8	30		12/5/2010 0807h
1012084-001BMSD	4-Nitroaniline	µg/L	EPA625	132	160.0	0	82.5	10-175	15.0	99		12/5/2010 0807h
1012084-001BMSD	4-Nitrophenol	µg/L	EPA625	46.1	160.0	0	28.8	10-97	20.0	69		12/5/2010 0807h
1012084-001BMSD	5-Nitro-o-toluidine	µg/L	EPA625	158	160.0	0	98.4	10-175	19.0	26		12/5/2010 0807h
1012084-001BMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	70.5	160.0	0	44.1	26-174	16.4	40		12/5/2010 0807h
1012084-001BMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	88.9	160.0	0	55.5	10-175	9.45	99		12/5/2010 0807h
1012084-001BMSD	Acenaphthene	µg/L	EPA625	101	160.0	0	63.4	29-97	21.1	38		12/5/2010 0807h
1012084-001BMSD	Acenaphthylene	µg/L	EPA625	98.5	160.0	0	61.6	37-87	21.1	37		12/5/2010 0807h
1012084-001BMSD	Acetophenone	µg/L	EPA625	71.8	160.0	0	44.8	10-96	26.7	48		12/5/2010 0807h
1012084-001BMSD	alpha-Terpineol	µg/L	EPA625	102	160.0	0	63.6	10-67	22.4	46		12/5/2010 0807h
1012084-001BMSD	Aniline	µg/L	EPA625	23.3	160.0	0	14.6	10-71	29.4	48		12/5/2010 0807h

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Kyle F. Gross
Laboratory Director
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QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	Anthracene	µg/L	EPA625	142	160.0	0	88.6	53-114	15.6	26		12/5/2010 0807h
1012084-001BMSD	Aramite	µg/L	EPA625	94.1	160.0	0	58.8	29-160	21.4	30		12/5/2010 0807h
1012084-001BMSD	Azobenzene	µg/L	EPA625	104	160.0	0	65.1	15-114	15.8	36		12/5/2010 0807h
1012084-001BMSD	Benz(a)anthracene	µg/L	EPA625	115	160.0	0	72.0	39-129	23.9	32		12/5/2010 0807h
1012084-001BMSD	Benzidine	µg/L	EPA625	80.6	160.0	0	50.4	10-99	24.7	99		12/5/2010 0807h
1012084-001BMSD	Benzo(a)pyrene	µg/L	EPA625	149	160.0	0	93.1	29-175	16.5	45		12/5/2010 0807h
1012084-001BMSD	Benzo(b)fluoranthene	µg/L	EPA625	122	160.0	0	76.0	15-140	17.1	44		12/5/2010 0807h
1012084-001BMSD	Benzo(g,h,i)perylene	µg/L	EPA625	95.7	160.0	0	59.8	10-182	13.8	48		12/5/2010 0807h
1012084-001BMSD	Benzo(k)fluoranthene	µg/L	EPA625	153	160.0	0	95.7	21-154	14.1	52		12/5/2010 0807h
1012084-001BMSD	Benzoic acid	µg/L	EPA625	< 40.0	160.0	0	13.7	10-71	0	78		12/5/2010 0807h
1012084-001BMSD	Benzyl alcohol	µg/L	EPA625	36.7	160.0	0	22.9	10-69	17.7	52		12/5/2010 0807h
1012084-001BMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	53.4	160.0	0	33.4	10-94	21.8	45		12/5/2010 0807h
1012084-001BMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	45.9	160.0	0	28.7	10-70	42.8	47		12/5/2010 0807h
1012084-001BMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	49.0	160.0	0	30.6	10-71	24.2	49		12/5/2010 0807h
1012084-001BMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	233	160.0	0	146	10-175	34.1	28	@	12/5/2010 0807h
1012084-001BMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	135	160.0	0	84.4	10-175	22.0	25		12/5/2010 0807h
1012084-001BMSD	Butyl benzyl phthalate	µg/L	EPA625	130	160.0	0	81.2	10-175	22.8	99		12/5/2010 0807h
1012084-001BMSD	Carbazole	µg/L	EPA625	143	160.0	0	89.5	10-151	16.0	30		12/5/2010 0807h
1012084-001BMSD	Chlorobenzilate	µg/L	EPA625	115	160.0	0	71.8	18-175	26.9	25	@	12/5/2010 0807h
1012084-001BMSD	Chrysene	µg/L	EPA625	129	160.0	0	80.4	38-133	22.9	28		12/5/2010 0807h
1012084-001BMSD	Diallate (cis or trans)	µg/L	EPA625	113	160.0	0	70.4	10-157	17.1	29		12/5/2010 0807h
1012084-001BMSD	Dibenz(a,h)anthracene	µg/L	EPA625	104	160.0	0	65.2	13-168	13.6	51		12/5/2010 0807h
1012084-001BMSD	Dibenzofuran	µg/L	EPA625	101	160.0	0	63.4	29-103	19.1	34		12/5/2010 0807h
1012084-001BMSD	Diethyl phthalate	µg/L	EPA625	108	160.0	0	67.5	10-139	30.1	32		12/5/2010 0807h

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QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	Dimethoate	µg/L	EPA625	21.2	160.0	0	13.2	10-136	81.7	45	@	12/5/2010 0807h
1012084-001BMSD	Dimethyl phthalate	µg/L	EPA625	73.8	160.0	0	46.1	10-122	50.2	57		12/5/2010 0807h
1012084-001BMSD	Dimethylaminoazobenzene	µg/L	EPA625	123	160.0	0	76.6	34-142	22.5	26		12/5/2010 0807h
1012084-001BMSD	Di-n-butyl phthalate	µg/L	EPA625	140	160.0	0	87.8	44-124	18.5	25		12/5/2010 0807h
1012084-001BMSD	Di-n-octyl phthalate	µg/L	EPA625	173	160.0	0	108	10-175	18.5	50		12/5/2010 0807h
1012084-001BMSD	Dinoseb	µg/L	EPA625	249	160.0	0	155	10-175	1.56	42		12/5/2010 0807h
1012084-001BMSD	Diphenylamine	µg/L	EPA625	129	160.0	0	80.6	13-110	17.7	34		12/5/2010 0807h
1012084-001BMSD	Disulfoton	µg/L	EPA625	95.8	160.0	0	59.9	10-121	17.0	25		12/5/2010 0807h
1012084-001BMSD	Ethyl methanesulfonate	µg/L	EPA625	66.2	160.0	0	41.4	10-99	27.1	46		12/5/2010 0807h
1012084-001BMSD	Famphur	µg/L	EPA625	257	160.0	0	161	10-71	4.48	25	1	12/5/2010 0807h
1012084-001BMSD	Fluoranthene	µg/L	EPA625	141	160.0	0	87.8	23-135	15.7	25		12/5/2010 0807h
1012084-001BMSD	Fluorene	µg/L	EPA625	114	160.0	0	71.1	34-108	20.3	28		12/5/2010 0807h
1012084-001BMSD	Hexachlorobenzene	µg/L	EPA625	117	160.0	0	72.8	26-131	19.7	28		12/5/2010 0807h
1012084-001BMSD	Hexachlorobutadiene	µg/L	EPA625	32.1	160.0	0	20.1	10-110	21.6	68		12/5/2010 0807h
1012084-001BMSD	Hexachlorocyclopentadiene	µg/L	EPA625	21.1	160.0	0	13.2	10-45	34.9	79		12/5/2010 0807h
1012084-001BMSD	Hexachloroethane	µg/L	EPA625	26.6	160.0	0	16.6	10-58	23.9	42		12/5/2010 0807h
1012084-001BMSD	Hexachlorophene	µg/L	EPA625	89.7	160.0	0	56.1	10-168	27.6	25	@	12/5/2010 0807h
1012084-001BMSD	Hexachloropropene	µg/L	EPA625	33.0	160.0	0	20.6	10-72	20.1	63		12/5/2010 0807h
1012084-001BMSD	Indene	µg/L	EPA625	36.1	160.0	0	22.6	10-35	17.1	35		12/5/2010 0807h
1012084-001BMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	103	160.0	0	64.5	10-176	15.9	48		12/5/2010 0807h
1012084-001BMSD	Isodrin	µg/L	EPA625	133	160.0	0	82.9	15-165	16.4	25		12/5/2010 0807h
1012084-001BMSD	Isophorone	µg/L	EPA625	77.4	160.0	0	48.4	10-99	19.5	41		12/5/2010 0807h
1012084-001BMSD	Isosafrole	µg/L	EPA625	75.4	160.0	0	47.1	10-167	19.1	50		12/5/2010 0807h
1012084-001BMSD	Kepone	µg/L	EPA625	395	160.0	0	247	10-175	0.303	46	1	12/5/2010 0807h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	Methapyrilene	µg/L	EPA625	77.5	160.0	0	48.4	10-149	20.4	51		12/5/2010 0807h
1012084-001BMSD	Methyl methanesulfonate	µg/L	EPA625	74.6	160.0	0	46.6	10-132	30.8	45		12/5/2010 0807h
1012084-001BMSD	Naphthalene	µg/L	EPA625	55.1	160.0	0	34.5	10-82	12.4	43		12/5/2010 0807h
1012084-001BMSD	n-Decane	µg/L	EPA625	< 20.0	160.0	0	10.7	10-27	0	32		12/5/2010 0807h
1012084-001BMSD	Nitrobenzene	µg/L	EPA625	83.0	160.0	0	51.8	10-119	22.0	49		12/5/2010 0807h
1012084-001BMSD	Nitroquinoline-1-oxide	µg/L	EPA625	76.0	160.0	0	47.5	10-170	29.2	97		12/5/2010 0807h
1012084-001BMSD	N-Nitrosodiethylamine	µg/L	EPA625	57.3	160.0	0	35.8	10-91	29.3	54		12/5/2010 0807h
1012084-001BMSD	N-Nitrosodimethylamine	µg/L	EPA625	22.8	160.0	0	14.2	10-42	30.6	66		12/5/2010 0807h
1012084-001BMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	97.7	160.0	0	61.1	10-175	17.9	80		12/5/2010 0807h
1012084-001BMSD	N-Nitrosodiphenylamine	µg/L	EPA625	126	160.0	0	79.0	12-112	18.2	30		12/5/2010 0807h
1012084-001BMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	67.7	160.0	0	42.3	10-77	25.7	47		12/5/2010 0807h
1012084-001BMSD	N-Nitrosomethylethylamine	µg/L	EPA625	46.7	160.0	0	29.2	10-75	32.7	60		12/5/2010 0807h
1012084-001BMSD	N-Nitrosomorpholine	µg/L	EPA625	76.0	160.0	0	47.5	10-175	23.5	73		12/5/2010 0807h
1012084-001BMSD	N-Nitrosopiperidine	µg/L	EPA625	83.3	160.0	0	52.0	10-105	18.7	44		12/5/2010 0807h
1012084-001BMSD	N-Nitrosopyrrolidine	µg/L	EPA625	87.8	160.0	0	54.9	10-88	23.8	40		12/5/2010 0807h
1012084-001BMSD	n-Octadecane	µg/L	EPA625	98.8	160.0	0	61.8	10-121	18.9	40		12/5/2010 0807h
1012084-001BMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	79.0	160.0	0	49.4	10-93	16.8	44		12/5/2010 0807h
1012084-001BMSD	o-Toluidine	µg/L	EPA625	64.9	160.0	0	40.6	10-107	25.7	46		12/5/2010 0807h
1012084-001BMSD	Parathion	µg/L	EPA625	194	160.0	0	121	10-175	18.5	28		12/5/2010 0807h
1012084-001BMSD	Methyl parathion	µg/L	EPA625	179	160.0	0	112	10-175	16.9	26		12/5/2010 0807h
1012084-001BMSD	Pentachlorobenzene	µg/L	EPA625	98.5	160.0	0	61.6	25-134	21.8	35		12/5/2010 0807h
1012084-001BMSD	Pentachloronitrobenzene	µg/L	EPA625	135	160.0	0	84.6	10-175	17.8	25		12/5/2010 0807h
1012084-001BMSD	Pentachlorophenol	µg/L	EPA625	119	160.0	0	74.6	10-163	3.38	58		12/5/2010 0807h
1012084-001BMSD	Phenacetin	µg/L	EPA625	135	160.0	0	84.4	10-175	18.7	38		12/5/2010 0807h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
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QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	Phenanthrene	µg/L	EPA625	144	160.0	0	90.0	31-126	20.7	32		12/5/2010 0807h
1012084-001BMSD	Phenol	µg/L	EPA625	40.1	160.0	0	25.1	10-175	28.2	71		12/5/2010 0807h
1012084-001BMSD	Phorate	µg/L	EPA625	141	160.0	0	88.1	10-175	18.1	42		12/5/2010 0807h
1012084-001BMSD	Pronamide	µg/L	EPA625	67.2	160.0	0	42.0	10-95	14.6	26		12/5/2010 0807h
1012084-001BMSD	Pyrene	µg/L	EPA625	135	160.0	0	84.6	51-139	20.8	27		12/5/2010 0807h
1012084-001BMSD	Pyridine	µg/L	EPA625	< 20.0	160.0	0	0	10-25	0	61	1	12/5/2010 0807h
1012084-001BMSD	Quinoline	µg/L	EPA625	89.5	160.0	0	55.9	10-63	18.3	99		12/5/2010 0807h
1012084-001BMSD	Safrole	µg/L	EPA625	85.5	160.0	0	53.4	10-120	25.0	51		12/5/2010 0807h
1012084-001BMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	124	160.0	0	77.2	13-160	19.2	35		12/5/2010 0807h
1012084-001BMSD	Thionazin	µg/L	EPA625	114	160.0	0	71.4	10-139	23.5	25		12/5/2010 0807h
1012084-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	147	160.0		91.7	21-154				12/5/2010 0807h
1012084-001BMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	49.5	80.00		61.8	10-106				12/5/2010 0807h
1012084-001BMSD	Surr: 2-Fluorophenol	%REC	EPA625	39.9	160.0		24.9	10-56				12/5/2010 0807h
1012084-001BMSD	Surr: Nitrobenzene-d5	%REC	EPA625	47.3	80.00		59.1	10-101				12/5/2010 0807h
1012084-001BMSD	Surr: Phenol-d6	%REC	EPA625	31.0	160.0		19.4	10-45				12/5/2010 0807h
1012084-001BMSD	Surr: Terphenyl-d14	%REC	EPA625	78.9	80.00		98.6	10-160				12/5/2010 0807h
1012086-002BMSD	1,1´-Biphenyl	µg/L	EPA625	61.8	80.00	0	77.2	27-99	7.40	49		12/5/2010 1051h
1012086-002BMSD	1,2,4,5-Tetrachlorobenzene	µg/L	EPA625	57.9	80.00	0	72.3	10-119	10.4	52		12/5/2010 1051h
1012086-002BMSD	1,2,4-Trichlorobenzene	µg/L	EPA625	46.6	80.00	0	58.2	10-79	11.2	49		12/5/2010 1051h
1012086-002BMSD	1,2-Dichlorobenzene	µg/L	EPA625	38.3	80.00	0	47.8	10-59	9.75	46		12/5/2010 1051h
1012086-002BMSD	1,3,5-Trinitrobenzene	µg/L	EPA625	169	80.00	0	212	10-175	9.61	33	1	12/5/2010 1051h
1012086-002BMSD	1,3-Dichlorobenzene	µg/L	EPA625	34.1	80.00	0	42.7	10-56	12.6	49		12/5/2010 1051h
1012086-002BMSD	1,3-Dinitrobenzene	µg/L	EPA625	117	80.00	0	146	10-175	7.55	29		12/5/2010 1051h
1012086-002BMSD	1,4-Dichlorobenzene	µg/L	EPA625	36.6	80.00	0	45.8	10-58	13.7	51		12/5/2010 1051h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMSD	1,4-Naphthoquinone	µg/L	EPA625	56.8	80.00	0	71.0	10-177	14.6	99		12/5/2010 1051h
1012086-002BMSD	1,4-Phenylenediamine	µg/L	EPA625	51.6	80.00	0	64.6	10-124	9.09	48		12/5/2010 1051h
1012086-002BMSD	1-Chloronaphthalene	µg/L	EPA625	55.5	80.00	0	69.3	10-106	5.88	47		12/5/2010 1051h
1012086-002BMSD	1-Methylnaphthalene	µg/L	EPA625	30.2	80.00	0	37.8	10-83	7.51	44		12/5/2010 1051h
1012086-002BMSD	1-Naphthylamine	µg/L	EPA625	33.0	80.00	0	41.3	10-122	6.21	57		12/5/2010 1051h
1012086-002BMSD	2,3,4,6-Tetrachlorophenol	µg/L	EPA625	103	80.00	0	128	10-157	12.4	39		12/5/2010 1051h
1012086-002BMSD	2,4,5-Trichlorophenol	µg/L	EPA625	75.4	80.00	0	94.2	10-148	9.16	56		12/5/2010 1051h
1012086-002BMSD	2,4,6-Trichlorophenol	µg/L	EPA625	61.6	80.00	0	77.0	10-136	9.99	52		12/5/2010 1051h
1012086-002BMSD	2,4-Dichlorophenol	µg/L	EPA625	62.8	80.00	0	78.4	10-123	8.92	67		12/5/2010 1051h
1012086-002BMSD	2,4-Dimethylphenol	µg/L	EPA625	61.9	80.00	0	77.3	10-113	10.7	32		12/5/2010 1051h
1012086-002BMSD	2,4-Dinitrophenol	µg/L	EPA625	93.9	80.00	0	117	10-175	24.3	78		12/5/2010 1051h
1012086-002BMSD	2,4-Dinitrotoluene	µg/L	EPA625	105	80.00	0	132	10-175	8.18	26		12/5/2010 1051h
1012086-002BMSD	2,6-Dichlorophenol	µg/L	EPA625	66.9	80.00	0	83.7	10-148	6.72	56		12/5/2010 1051h
1012086-002BMSD	2,6-Dinitrotoluene	µg/L	EPA625	87.5	80.00	0	109	10-175	7.33	74		12/5/2010 1051h
1012086-002BMSD	2-Acetylaminofluorene	µg/L	EPA625	45.7	80.00	0	57.2	10-94	8.07	52		12/5/2010 1051h
1012086-002BMSD	2-Chloronaphthalene	µg/L	EPA625	60.6	80.00	0	75.8	10-93	11.9	49		12/5/2010 1051h
1012086-002BMSD	2-Chlorophenol	µg/L	EPA625	56.0	80.00	0	70.0	10-92	10.9	58		12/5/2010 1051h
1012086-002BMSD	2-Methylnaphthalene	µg/L	EPA625	52.6	80.00	0	65.8	15-78	6.09	39		12/5/2010 1051h
1012086-002BMSD	2-Methylphenol	µg/L	EPA625	28.6	80.00	0	35.7	10-83	11.5	49		12/5/2010 1051h
1012086-002BMSD	2-Naphthylamine	µg/L	EPA625	34.0	80.00	0	42.4	10-154	7.90	37		12/5/2010 1051h
1012086-002BMSD	2-Nitroaniline	µg/L	EPA625	101	80.00	0	126	10-175	5.06	87		12/5/2010 1051h
1012086-002BMSD	2-Nitrophenol	µg/L	EPA625	76.8	80.00	0	96.0	10-175	9.60	64		12/5/2010 1051h
1012086-002BMSD	2-Picoline	µg/L	EPA625	16.7	80.00	0	20.9	10-61	0.239	63		12/5/2010 1051h
1012086-002BMSD	3&4-Methylphenol	µg/L	EPA625	26.9	80.00	0	33.6	10-80	15.2	99		12/5/2010 1051h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMSD	3,3´-Dichlorobenzidine	µg/L	EPA625	78.5	80.00	0	98.1	10-150	6.55	63		12/5/2010 1051h
1012086-002BMSD	3,3´-Dimethylbenzidine	µg/L	EPA625	49.0	80.00	0	61.3	10-143	7.53	99		12/5/2010 1051h
1012086-002BMSD	3-Methylcholanthrene	µg/L	EPA625	72.2	80.00	0	90.2	32-171	7.56	46		12/5/2010 1051h
1012086-002BMSD	3-Nitroaniline	µg/L	EPA625	81.4	80.00	0	102	10-175	6.90	29		12/5/2010 1051h
1012086-002BMSD	4,6-Dinitro-2-methylphenol	µg/L	EPA625	139	80.00	0	174	10-175	13.5	70		12/5/2010 1051h
1012086-002BMSD	4-Aminobiphenyl	µg/L	EPA625	79.3	80.00	0	99.2	10-175	8.12	79		12/5/2010 1051h
1012086-002BMSD	4-Bromophenyl phenyl ether	µg/L	EPA625	79.1	80.00	0	98.9	16-138	10.3	31		12/5/2010 1051h
1012086-002BMSD	4-Chloro-3-methylphenol	µg/L	EPA625	70.9	80.00	0	88.7	10-131	3.92	37		12/5/2010 1051h
1012086-002BMSD	4-Chloroaniline	µg/L	EPA625	54.8	80.00	0	68.5	10-98	2.38	41		12/5/2010 1051h
1012086-002BMSD	4-Chlorophenyl phenyl ether	µg/L	EPA625	71.9	80.00	0	89.9	31-108	7.47	30		12/5/2010 1051h
1012086-002BMSD	4-Nitroaniline	µg/L	EPA625	77.3	80.00	0	96.6	10-175	5.49	99		12/5/2010 1051h
1012086-002BMSD	4-Nitrophenol	µg/L	EPA625	25.2	80.00	0	31.5	10-97	6.41	69		12/5/2010 1051h
1012086-002BMSD	5-Nitro-o-toluidine	µg/L	EPA625	95.7	80.00	0	120	10-175	6.14	26		12/5/2010 1051h
1012086-002BMSD	7,12-Dimethylbenz(a)anthracene	µg/L	EPA625	43.1	80.00	0	53.8	26-174	7.57	40		12/5/2010 1051h
1012086-002BMSD	a,a-Dimethylphenethylamine	µg/L	EPA625	37.1	80.00	0	46.4	10-175	1.99	99		12/5/2010 1051h
1012086-002BMSD	Acenaphthene	µg/L	EPA625	69.0	80.00	0	86.3	29-97	6.41	38		12/5/2010 1051h
1012086-002BMSD	Acenaphthylene	µg/L	EPA625	68.2	80.00	0	85.3	37-87	6.65	37		12/5/2010 1051h
1012086-002BMSD	Acetophenone	µg/L	EPA625	57.6	80.00	0	72.0	10-96	9.69	48		12/5/2010 1051h
1012086-002BMSD	alpha-Terpineol	µg/L	EPA625	73.5	80.00	0	91.9	10-67	8.44	46	1	12/5/2010 1051h
1012086-002BMSD	Aniline	µg/L	EPA625	20.7	80.00	0	25.9	10-71	10.6	48		12/5/2010 1051h
1012086-002BMSD	Anthracene	µg/L	EPA625	90.4	80.00	0	113	53-114	8.24	26		12/5/2010 1051h
1012086-002BMSD	Aramite	µg/L	EPA625	60.2	80.00	0	75.3	29-160	6.64	30		12/5/2010 1051h
1012086-002BMSD	Azobenzene	µg/L	EPA625	82.2	80.00	0	103	15-114	24.6	36		12/5/2010 1051h
1012086-002BMSD	Benz(a)anthracene	µg/L	EPA625	77.0	80.00	0	96.2	39-129	6.75	32		12/5/2010 1051h

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Kyle F. Gross
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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMSD	Benzidine	µg/L	EPA625	48.6	80.00	0	60.8	10-99	1.97	99		12/5/2010 1051h
1012086-002BMSD	Benzo(a)pyrene	µg/L	EPA625	91.4	80.00	0	114	29-175	8.19	45		12/5/2010 1051h
1012086-002BMSD	Benzo(b)fluoranthene	µg/L	EPA625	73.8	80.00	0	92.3	15-140	10.8	44		12/5/2010 1051h
1012086-002BMSD	Benzo(g,h,i)perylene	µg/L	EPA625	57.0	80.00	0	71.3	10-182	7.18	48		12/5/2010 1051h
1012086-002BMSD	Benzo(k)fluoranthene	µg/L	EPA625	92.3	80.00	0	115	21-154	6.37	52		12/5/2010 1051h
1012086-002BMSD	Benzoic acid	µg/L	EPA625	< 20.0	80.00	0	13.8	10-71	0	78		12/5/2010 1051h
1012086-002BMSD	Benzyl alcohol	µg/L	EPA625	31.9	80.00	0	39.9	10-69	15.2	52		12/5/2010 1051h
1012086-002BMSD	Bis(2-chloroethoxy)methane	µg/L	EPA625	39.7	80.00	0	49.6	10-94	6.21	45		12/5/2010 1051h
1012086-002BMSD	Bis(2-chloroethyl) ether	µg/L	EPA625	41.8	80.00	0	52.2	10-70	10.8	47		12/5/2010 1051h
1012086-002BMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA625	41.7	80.00	0	52.1	10-71	9.48	49		12/5/2010 1051h
1012086-002BMSD	Bis(2-ethylhexyl) phthalate	µg/L	EPA625	86.3	80.00	0	108	10-175	5.69	28		12/5/2010 1051h
1012086-002BMSD	bis(2-ethylhexyl)adipate	µg/L	EPA625	89.8	80.00	0	112	10-175	6.37	25		12/5/2010 1051h
1012086-002BMSD	Butyl benzyl phthalate	µg/L	EPA625	87.8	80.00	0	110	10-175	6.54	99		12/5/2010 1051h
1012086-002BMSD	Carbazole	µg/L	EPA625	90.2	80.00	0	113	10-151	8.11	30		12/5/2010 1051h
1012086-002BMSD	Chlorobenzilate	µg/L	EPA625	78.7	80.00	0	98.4	18-175	6.15	25		12/5/2010 1051h
1012086-002BMSD	Chrysene	µg/L	EPA625	86.3	80.00	0	108	38-133	7.48	28		12/5/2010 1051h
1012086-002BMSD	Diallate (cis or trans)	µg/L	EPA625	74.1	80.00	0	92.6	10-157	11.2	29		12/5/2010 1051h
1012086-002BMSD	Dibenz(a,h)anthracene	µg/L	EPA625	61.8	80.00	0	77.3	13-168	7.47	51		12/5/2010 1051h
1012086-002BMSD	Dibenzofuran	µg/L	EPA625	68.7	80.00	0	85.9	29-103	8.29	34		12/5/2010 1051h
1012086-002BMSD	Diethyl phthalate	µg/L	EPA625	67.9	80.00	0	84.8	10-139	6.28	32		12/5/2010 1051h
1012086-002BMSD	Dimethoate	µg/L	EPA625	18.7	80.00	0	23.3	10-136	9.49	45		12/5/2010 1051h
1012086-002BMSD	Dimethyl phthalate	µg/L	EPA625	51.3	80.00	0	64.2	10-122	2.27	57		12/5/2010 1051h
1012086-002BMSD	Dimethylaminoazobenzene	µg/L	EPA625	83.0	80.00	0	104	34-142	7.61	26		12/5/2010 1051h
1012086-002BMSD	Di-n-butyl phthalate	µg/L	EPA625	87.0	80.00	0	109	44-124	6.61	25		12/5/2010 1051h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMSD	Di-n-octyl phthalate	µg/L	EPA625	108	80.00	0	135	10-175	9.46	50		12/5/2010 1051h
1012086-002BMSD	Dinoseb	µg/L	EPA625	144	80.00	0	179	10-175	12.9	42	1	12/5/2010 1051h
1012086-002BMSD	Diphenylamine	µg/L	EPA625	82.0	80.00	0	103	13-110	8.04	34		12/5/2010 1051h
1012086-002BMSD	Disulfoton	µg/L	EPA625	60.6	80.00	0	75.8	10-121	6.82	25		12/5/2010 1051h
1012086-002BMSD	Ethyl methanesulfonate	µg/L	EPA625	52.1	80.00	0	65.1	10-99	10.9	46		12/5/2010 1051h
1012086-002BMSD	Famphur	µg/L	EPA625	147	80.00	0	184	10-71	4.76	25	1	12/5/2010 1051h
1012086-002BMSD	Fluoranthene	µg/L	EPA625	87.0	80.00	0	109	23-135	6.46	25		12/5/2010 1051h
1012086-002BMSD	Fluorene	µg/L	EPA625	72.8	80.00	0	91.0	34-108	7.29	28		12/5/2010 1051h
1012086-002BMSD	Hexachlorobenzene	µg/L	EPA625	76.5	80.00	0	95.6	26-131	8.09	28		12/5/2010 1051h
1012086-002BMSD	Hexachlorobutadiene	µg/L	EPA625	39.4	80.00	0	49.3	10-110	13.3	68		12/5/2010 1051h
1012086-002BMSD	Hexachlorocyclopentadiene	µg/L	EPA625	26.4	80.00	0	33.1	10-45	19.2	79		12/5/2010 1051h
1012086-002BMSD	Hexachloroethane	µg/L	EPA625	35.0	80.00	0	43.8	10-58	13.4	42		12/5/2010 1051h
1012086-002BMSD	Hexachlorophene	µg/L	EPA625	54.7	80.00	0	68.4	10-168	6.84	25		12/5/2010 1051h
1012086-002BMSD	Hexachloropropene	µg/L	EPA625	39.1	80.00	0	48.8	10-72	12.1	63		12/5/2010 1051h
1012086-002BMSD	Indene	µg/L	EPA625	39.4	80.00	0	49.3	10-35	11.4	35	1	12/5/2010 1051h
1012086-002BMSD	Indeno(1,2,3-cd)pyrene	µg/L	EPA625	62.0	80.00	0	77.5	10-176	7.03	48		12/5/2010 1051h
1012086-002BMSD	Isodrin	µg/L	EPA625	86.3	80.00	0	108	15-165	9.10	25		12/5/2010 1051h
1012086-002BMSD	Isophorone	µg/L	EPA625	54.6	80.00	0	68.3	10-99	8.55	41		12/5/2010 1051h
1012086-002BMSD	Isosafrole	µg/L	EPA625	58.2	80.00	0	72.8	10-167	10.3	50		12/5/2010 1051h
1012086-002BMSD	Kepone	µg/L	EPA625	194	80.00	0	242	10-175	3.37	46	1	12/5/2010 1051h
1012086-002BMSD	Methapyrilene	µg/L	EPA625	48.1	80.00	0	60.2	10-149	6.01	51		12/5/2010 1051h
1012086-002BMSD	Methyl methanesulfonate	µg/L	EPA625	61.8	80.00	0	77.3	10-132	11.3	45		12/5/2010 1051h
1012086-002BMSD	Naphthalene	µg/L	EPA625	50.8	80.00	0	63.6	10-82	9.61	43		12/5/2010 1051h
1012086-002BMSD	n-Decane	µg/L	EPA625	22.7	80.00	0	28.3	10-27	10.1	32	1	12/5/2010 1051h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMSD	Nitrobenzene	µg/L	EPA625	63.8	80.00	0	79.8	10-119	7.29	49		12/5/2010 1051h
1012086-002BMSD	Nitroquinoline-1-oxide	µg/L	EPA625	53.1	80.00	0	66.4	10-170	11.3	97		12/5/2010 1051h
1012086-002BMSD	N-Nitrosodiethylamine	µg/L	EPA625	47.4	80.00	0	59.2	10-91	9.70	54		12/5/2010 1051h
1012086-002BMSD	N-Nitrosodimethylamine	µg/L	EPA625	20.8	80.00	0	26.1	10-42	11.5	66		12/5/2010 1051h
1012086-002BMSD	N-Nitrosodi-n-butylamine	µg/L	EPA625	66.4	80.00	0	83.0	10-175	2.96	80		12/5/2010 1051h
1012086-002BMSD	N-Nitrosodiphenylamine	µg/L	EPA625	81.4	80.00	0	102	12-112	8.51	30		12/5/2010 1051h
1012086-002BMSD	N-Nitrosodi-n-propylamine	µg/L	EPA625	51.6	80.00	0	64.5	10-77	7.91	47		12/5/2010 1051h
1012086-002BMSD	N-Nitrosomethylethylamine	µg/L	EPA625	40.0	80.00	0	50.0	10-75	13.1	60		12/5/2010 1051h
1012086-002BMSD	N-Nitrosomorpholine	µg/L	EPA625	54.9	80.00	0	68.6	10-175	9.14	73		12/5/2010 1051h
1012086-002BMSD	N-Nitrosopiperidine	µg/L	EPA625	58.9	80.00	0	73.6	10-105	9.03	44		12/5/2010 1051h
1012086-002BMSD	N-Nitrosopyrrolidine	µg/L	EPA625	63.6	80.00	0	79.5	10-88	10.6	40		12/5/2010 1051h
1012086-002BMSD	n-Octadecane	µg/L	EPA625	67.0	80.00	0	83.8	10-121	4.38	40		12/5/2010 1051h
1012086-002BMSD	O,O,O-Triethyl phosphorothioate	µg/L	EPA625	58.2	80.00	0	72.7	10-93	8.38	44		12/5/2010 1051h
1012086-002BMSD	o-Toluidine	µg/L	EPA625	50.6	80.00	0	63.2	10-107	7.85	46		12/5/2010 1051h
1012086-002BMSD	Parathion	µg/L	EPA625	121	80.00	0	151	10-175	10.7	28		12/5/2010 1051h
1012086-002BMSD	Methyl parathion	µg/L	EPA625	111	80.00	0	139	10-175	5.48	26		12/5/2010 1051h
1012086-002BMSD	Pentachlorobenzene	µg/L	EPA625	66.5	80.00	0	83.2	25-134	5.77	35		12/5/2010 1051h
1012086-002BMSD	Pentachloronitrobenzene	µg/L	EPA625	88.3	80.00	0	110	10-175	10.5	25		12/5/2010 1051h
1012086-002BMSD	Pentachlorophenol	µg/L	EPA625	69.0	80.00	0	86.3	10-163	18.5	58		12/5/2010 1051h
1012086-002BMSD	Phenacetin	µg/L	EPA625	86.8	80.00	0	108	10-175	10.4	38		12/5/2010 1051h
1012086-002BMSD	Phenanthrene	µg/L	EPA625	97.0	80.00	0	121	31-126	12.3	32		12/5/2010 1051h
1012086-002BMSD	Phenol	µg/L	EPA625	32.2	80.00	0	40.3	10-175	17.0	71		12/5/2010 1051h
1012086-002BMSD	Phorate	µg/L	EPA625	92.5	80.00	0	116	10-175	8.83	42		12/5/2010 1051h
1012086-002BMSD	Pronamide	µg/L	EPA625	43.7	80.00	0	54.7	10-95	9.16	26		12/5/2010 1051h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-002BMSD	Pyrene	µg/L	EPA625	90.6	80.00	0	113	51-139	7.38	27		12/5/2010 1051h
1012086-002BMSD	Pyridine	µg/L	EPA625	< 10.0	80.00	0	7.43	10-25	0	61	1	12/5/2010 1051h
1012086-002BMSD	Quinoline	µg/L	EPA625	60.2	80.00	0	75.3	10-63	2.56	99	1	12/5/2010 1051h
1012086-002BMSD	Safrole	µg/L	EPA625	62.0	80.00	0	77.5	10-120	7.12	51		12/5/2010 1051h
1012086-002BMSD	Tetraethyl dithiopyrophosphate	µg/L	EPA625	79.5	80.00	0	99.4	13-160	11.6	35		12/5/2010 1051h
1012086-002BMSD	Thionazin	µg/L	EPA625	70.8	80.00	0	88.5	10-139	7.05	25		12/5/2010 1051h
1012086-002BMSD	Surr: 2,4,6-Tribromophenol	%REC	EPA625	74.4	80.00		93.1	21-154				12/5/2010 1051h
1012086-002BMSD	Surr: 2-Fluorobiphenyl	%REC	EPA625	30.6	40.00		76.4	10-106				12/5/2010 1051h
1012086-002BMSD	Surr: 2-Fluorophenol	%REC	EPA625	33.3	80.00		41.6	10-56				12/5/2010 1051h
1012086-002BMSD	Surr: Nitrobenzene-d5	%REC	EPA625	28.6	40.00		71.6	10-101				12/5/2010 1051h
1012086-002BMSD	Surr: Phenol-d6	%REC	EPA625	24.4	80.00		30.4	10-45				12/5/2010 1051h
1012086-002BMSD	Surr: Terphenyl-d14	%REC	EPA625	42.4	40.00		106	10-160				12/5/2010 1051h
1012083-001BMSD	Acenaphthene	µg/L	SW8270D	61.3	80.00	0	76.7	21-113	11.4	25		12/5/2010 0552h
1012083-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	94.3	80.00	0	118	15-169	2.00	25		12/5/2010 0552h
1012083-001BMSD	Pyrene	µg/L	SW8270D	85.9	80.00	0	107	23-150	0.140	25		12/5/2010 0552h
1012083-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	68.7	80.00		85.9	14-159				12/5/2010 0552h
1012083-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	25.3	40.00		63.2	10-124				12/5/2010 0552h
1012083-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	29.3	80.00		36.6	10-106				12/5/2010 0552h
1012083-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	26.2	40.00		65.6	10-180				12/5/2010 0552h
1012083-001BMSD	Surr: Phenol-d6	%REC	SW8270D	20.0	80.00		25.0	10-122				12/5/2010 0552h
1012083-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	32.8	40.00		82.0	10-199				12/5/2010 0552h
1012084-001BMSD	Acenaphthene	µg/L	SW8270D	101	160.0	0	63.4	21-113	21.1	25		12/5/2010 0807h
1012084-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	149	160.0	0	93.1	15-169	16.5	25		12/5/2010 0807h
1012084-001BMSD	Pyrene	µg/L	SW8270D	135	160.0	0	84.6	23-150	20.8	25		12/5/2010 0807h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	147	160.0		91.7	14-159				12/5/2010 0807h
1012084-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	49.5	80.00		61.8	10-124				12/5/2010 0807h
1012084-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	39.9	160.0		24.9	10-106				12/5/2010 0807h
1012084-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	47.3	80.00		59.1	10-180				12/5/2010 0807h
1012084-001BMSD	Surr: Phenol-d6	%REC	SW8270D	31.0	160.0		19.4	10-122				12/5/2010 0807h
1012084-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	78.9	80.00		98.6	10-199				12/5/2010 0807h
1012086-002BMSD	Acenaphthene	µg/L	SW8270D	69.0	80.00	0	86.3	21-113	6.41	25		12/5/2010 1051h
1012086-002BMSD	Benzo(a)pyrene	µg/L	SW8270D	91.4	80.00	0	114	15-169	8.19	25		12/5/2010 1051h
1012086-002BMSD	Pyrene	µg/L	SW8270D	90.6	80.00	0	113	23-150	7.38	25		12/5/2010 1051h
1012086-002BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	74.4	80.00		93.1	14-159				12/5/2010 1051h
1012086-002BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	30.6	40.00		76.4	10-124				12/5/2010 1051h
1012086-002BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	33.3	80.00		41.6	10-106				12/5/2010 1051h
1012086-002BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	28.6	40.00		71.6	10-180				12/5/2010 1051h
1012086-002BMSD	Surr: Phenol-d6	%REC	SW8270D	24.4	80.00		30.4	10-122				12/5/2010 1051h
1012086-002BMSD	Surr: Terphenyl-d14	%REC	SW8270D	42.4	40.00		106	10-199				12/5/2010 1051h

@ - High RPD due to suspected sample non-homogeneity or matrix interference.
[1] - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120410A	1,1,1,2-Tetrachloroethane	µg/L	EPA624	19.3	20.00	0	96.7	74-117				12/4/2010 1327h
LCS VOC 120410A	1,1,1-Trichloroethane	µg/L	EPA624	21.6	20.00	0	108	49-140				12/4/2010 1327h
LCS VOC 120410A	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.0	20.00	0	80.2	67-119				12/4/2010 1327h
LCS VOC 120410A	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	24.8	20.00	0	124	21-206				12/4/2010 1327h
LCS VOC 120410A	1,1,2-Trichloroethane	µg/L	EPA624	18.3	20.00	0	91.6	80-123				12/4/2010 1327h
LCS VOC 120410A	1,1-Dichloropropene	µg/L	EPA624	43.7	40.00	0	109	10-140				12/4/2010 1327h
LCS VOC 120410A	1,1-Dichloroethane	µg/L	EPA624	20.3	20.00	0	101	70-130				12/4/2010 1327h
LCS VOC 120410A	1,1-Dichloroethene	µg/L	EPA624	25.5	20.00	0	128	52-171				12/4/2010 1327h
LCS VOC 120410A	1,2,3-Trichlorobenzene	µg/L	EPA624	16.8	20.00	0	84.1	67-131				12/4/2010 1327h
LCS VOC 120410A	1,2,3-Trichloropropane	µg/L	EPA624	17.7	20.00	0	88.7	62-116				12/4/2010 1327h
LCS VOC 120410A	1,2,3-Trimethylbenzene	µg/L	EPA624	19.3	20.00	0	96.3	76-140				12/4/2010 1327h
LCS VOC 120410A	1,2,4-Trichlorobenzene	µg/L	EPA624	16.4	20.00	0	82.2	58-133				12/4/2010 1327h
LCS VOC 120410A	1,2,4-Trimethylbenzene	µg/L	EPA624	18.3	20.00	0	91.7	79-151				12/4/2010 1327h
LCS VOC 120410A	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.4	20.00	0	82.2	64-129				12/4/2010 1327h
LCS VOC 120410A	1,2-Dibromoethane	µg/L	EPA624	18.6	20.00	0	92.8	70-126				12/4/2010 1327h
LCS VOC 120410A	1,2-Dichlorobenzene	µg/L	EPA624	18.5	20.00	0	92.4	67-135				12/4/2010 1327h
LCS VOC 120410A	1,2-Dichloroethane	µg/L	EPA624	20.9	20.00	0	104	60-137				12/4/2010 1327h
LCS VOC 120410A	1,2-Dichloropropane	µg/L	EPA624	18.7	20.00	0	93.5	59-135				12/4/2010 1327h
LCS VOC 120410A	1,3,5-Trimethylbenzene	µg/L	EPA624	18.4	20.00	0	92.2	77-151				12/4/2010 1327h
LCS VOC 120410A	1,3-Dichlorobenzene	µg/L	EPA624	18.4	20.00	0	92.1	78-134				12/4/2010 1327h
LCS VOC 120410A	1,3-Dichloropropane	µg/L	EPA624	17.9	20.00	0	89.7	78-116				12/4/2010 1327h
LCS VOC 120410A	1,4-Dichlorobenzene	µg/L	EPA624	18.0	20.00	0	90.1	72-139				12/4/2010 1327h
LCS VOC 120410A	1,4-Dioxane	µg/L	EPA624	183	200.0	0	91.4	33-149				12/4/2010 1327h
LCS VOC 120410A	2,2-Dichloropropane	µg/L	EPA624	21.3	30.00	0	71.0	13-180				12/4/2010 1327h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120410A	2-Butanone	µg/L	EPA624	27.1	20.00	0	135	10-217				12/4/2010 1327h
LCS VOC 120410A	2-Chloroethyl vinyl ether	µg/L	EPA624	40.6	40.00	0	102	32-163				12/4/2010 1327h
LCS VOC 120410A	2-Chlorotoluene	µg/L	EPA624	18.4	20.00	0	92.0	79-142				12/4/2010 1327h
LCS VOC 120410A	2-Hexanone	µg/L	EPA624	17.0	20.00	0	85.0	50-156				12/4/2010 1327h
LCS VOC 120410A	2-Nitropropane	µg/L	EPA624	18.9	20.00	0	94.3	10-243				12/4/2010 1327h
LCS VOC 120410A	4-Chlorotoluene	µg/L	EPA624	18.3	20.00	0	91.6	68-128				12/4/2010 1327h
LCS VOC 120410A	4-Isopropyltoluene	µg/L	EPA624	17.5	20.00	0	87.4	73-156				12/4/2010 1327h
LCS VOC 120410A	4-Methyl-2-pentanone	µg/L	EPA624	16.2	20.00	0	80.8	10-214				12/4/2010 1327h
LCS VOC 120410A	Acetone	µg/L	EPA624	16.6	20.00	0	83.1	10-313				12/4/2010 1327h
LCS VOC 120410A	Acetonitrile	µg/L	EPA624	37.7	40.00	0	94.3	37-159				12/4/2010 1327h
LCS VOC 120410A	Acrolein	µg/L	EPA624	66.0	40.00	0	165	10-325				12/4/2010 1327h
LCS VOC 120410A	Acrylonitrile	µg/L	EPA624	17.8	20.00	0	88.8	53-134				12/4/2010 1327h
LCS VOC 120410A	Allyl chloride	µg/L	EPA624	19.9	20.00	0	99.3	10-243				12/4/2010 1327h
LCS VOC 120410A	Benzene	µg/L	EPA624	20.7	20.00	0	104	62-127				12/4/2010 1327h
LCS VOC 120410A	Benzyl chloride	µg/L	EPA624	17.2	20.00	0	86.1	40-146				12/4/2010 1327h
LCS VOC 120410A	Bis(2-chloroisopropyl) ether	µg/L	EPA624	16.3	20.00	0	81.7	54-146				12/4/2010 1327h
LCS VOC 120410A	Bromobenzene	µg/L	EPA624	17.7	20.00	0	88.3	78-148				12/4/2010 1327h
LCS VOC 120410A	Bromochloromethane	µg/L	EPA624	20.0	20.00	0	100	75-134				12/4/2010 1327h
LCS VOC 120410A	Bromodichloromethane	µg/L	EPA624	19.8	20.00	0	99.2	74-121				12/4/2010 1327h
LCS VOC 120410A	Bromoform	µg/L	EPA624	18.0	20.00	0	90.3	68-131				12/4/2010 1327h
LCS VOC 120410A	Bromomethane	µg/L	EPA624	13.3	20.00	0	66.4	10-185				12/4/2010 1327h
LCS VOC 120410A	Butyl acetate	µg/L	EPA624	18.1	20.00	0	90.3	46-178				12/4/2010 1327h
LCS VOC 120410A	Carbon disulfide	µg/L	EPA624	31.4	20.00	0	157	21-224				12/4/2010 1327h
LCS VOC 120410A	Carbon tetrachloride	µg/L	EPA624	22.8	20.00	0	114	60-157				12/4/2010 1327h

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QC SUMMARY REPORT

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Contact: Jim Harris
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QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120410A	Chlorobenzene	µg/L	EPA624	18.5	20.00	0	92.6	63-140				12/4/2010 1327h
LCS VOC 120410A	Chloroethane	µg/L	EPA624	18.4	20.00	0	92.0	41-173				12/4/2010 1327h
LCS VOC 120410A	Chloroform	µg/L	EPA624	20.1	20.00	0	101	67-132				12/4/2010 1327h
LCS VOC 120410A	Chloromethane	µg/L	EPA624	14.0	20.00	0	70.0	10-138				12/4/2010 1327h
LCS VOC 120410A	Chloroprene	µg/L	EPA624	20.1	20.00	0	101	10-161				12/4/2010 1327h
LCS VOC 120410A	cis-1,2-Dichloroethene	µg/L	EPA624	20.2	20.00	0	101	72-137				12/4/2010 1327h
LCS VOC 120410A	cis-1,3-Dichloropropene	µg/L	EPA624	20.4	40.00	0	50.9	10-134				12/4/2010 1327h
LCS VOC 120410A	Cyclohexane	µg/L	EPA624	24.2	20.00	0	121	35-230				12/4/2010 1327h
LCS VOC 120410A	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	57.0	10-374				12/4/2010 1327h
LCS VOC 120410A	Dibromochloromethane	µg/L	EPA624	19.0	20.00	0	94.8	68-135				12/4/2010 1327h
LCS VOC 120410A	Dibromomethane	µg/L	EPA624	18.9	20.00	0	94.4	74-120				12/4/2010 1327h
LCS VOC 120410A	Dichlorodifluoromethane	µg/L	EPA624	12.8	20.00	0	64.2	10-150				12/4/2010 1327h
LCS VOC 120410A	Ethyl acetate	µg/L	EPA624	38.7	40.00	0	96.9	50-155				12/4/2010 1327h
LCS VOC 120410A	Ethyl ether	µg/L	EPA624	21.8	20.00	0	109	45-146				12/4/2010 1327h
LCS VOC 120410A	Ethyl methacrylate	µg/L	EPA624	16.3	20.00	0	81.4	64-113				12/4/2010 1327h
LCS VOC 120410A	Ethylbenzene	µg/L	EPA624	18.8	20.00	0	93.9	55-133				12/4/2010 1327h
LCS VOC 120410A	Hexachlorobutadiene	µg/L	EPA624	16.5	20.00	0	82.5	35-213				12/4/2010 1327h
LCS VOC 120410A	Iodomethane	µg/L	EPA624	15.4	20.00	0	77.0	10-233				12/4/2010 1327h
LCS VOC 120410A	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	74.9	12-202				12/4/2010 1327h
LCS VOC 120410A	Isopropyl acetate	µg/L	EPA624	18.9	20.00	0	94.4	55-145				12/4/2010 1327h
LCS VOC 120410A	Isopropyl alcohol	µg/L	EPA624	60.5	80.00	0	75.7	12-250				12/4/2010 1327h
LCS VOC 120410A	Isopropylbenzene	µg/L	EPA624	18.6	20.00	0	93.0	60-147				12/4/2010 1327h
LCS VOC 120410A	Isopropyltoluene	µg/L	EPA624	17.5	20.00	0	87.4	73-156				12/4/2010 1327h
LCS VOC 120410A	m,p-Xylene	µg/L	EPA624	38.5	40.00	0	96.3	70-130				12/4/2010 1327h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120410A	Methacrylonitrile	µg/L	EPA624	16.6	20.00	0	83.0	79-123				12/4/2010 1327h
LCS VOC 120410A	Methyl Acetate	µg/L	EPA624	25.5	20.00	0	127	5-398				12/4/2010 1327h
LCS VOC 120410A	Methyl methacrylate	µg/L	EPA624	16.5	20.00	0	82.7	55-128				12/4/2010 1327h
LCS VOC 120410A	Methyl tert-butyl ether	µg/L	EPA624	15.6	20.00	0	77.8	37-189				12/4/2010 1327h
LCS VOC 120410A	Methylcyclohexane	µg/L	EPA624	23.6	20.00	0	118	65-175				12/4/2010 1327h
LCS VOC 120410A	Methylene chloride	µg/L	EPA624	14.4	20.00	0	72.0	55-138				12/4/2010 1327h
LCS VOC 120410A	n-Amyl acetate	µg/L	EPA624	11.6	20.00	0	58.1	10-187				12/4/2010 1327h
LCS VOC 120410A	Naphthalene	µg/L	EPA624	16.7	20.00	0	83.5	41-131				12/4/2010 1327h
LCS VOC 120410A	n-Butyl alcohol	µg/L	EPA624	62.9	80.00	0	78.6	10-226				12/4/2010 1327h
LCS VOC 120410A	n-Butylbenzene	µg/L	EPA624	17.3	20.00	0	86.4	40-158				12/4/2010 1327h
LCS VOC 120410A	n-Hexane	µg/L	EPA624	19.2	20.00	0	96.0	10-277				12/4/2010 1327h
LCS VOC 120410A	n-Octane	µg/L	EPA624	17.9	20.00	0	89.4	45-158				12/4/2010 1327h
LCS VOC 120410A	n-Propylbenzene	µg/L	EPA624	17.9	20.00	0	89.6	67-131				12/4/2010 1327h
LCS VOC 120410A	o-Xylene	µg/L	EPA624	18.7	20.00	0	93.5	70-130				12/4/2010 1327h
LCS VOC 120410A	Pentachloroethane	µg/L	EPA624	12.6	20.00	0	63.0	10-314				12/4/2010 1327h
LCS VOC 120410A	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	81.7	60-132				12/4/2010 1327h
LCS VOC 120410A	Propyl acetate	µg/L	EPA624	18.4	20.00	0	92.1	48-143				12/4/2010 1327h
LCS VOC 120410A	sec-Butylbenzene	µg/L	EPA624	18.2	20.00	0	91.0	72-157				12/4/2010 1327h
LCS VOC 120410A	Styrene	µg/L	EPA624	18.4	20.00	0	91.9	81-125				12/4/2010 1327h
LCS VOC 120410A	tert-Butyl alcohol	µg/L	EPA624	32.5	40.00	0	81.2	50-286				12/4/2010 1327h
LCS VOC 120410A	tert-Butylbenzene	µg/L	EPA624	17.4	20.00	0	87.2	75-157				12/4/2010 1327h
LCS VOC 120410A	Tetrachloroethene	µg/L	EPA624	23.8	20.00	0	119	49-163				12/4/2010 1327h
LCS VOC 120410A	Tetrahydrofuran	µg/L	EPA624	15.6	20.00	0	78.0	43-146				12/4/2010 1327h
LCS VOC 120410A	Toluene	µg/L	EPA624	18.8	20.00	0	94.2	67-128				12/4/2010 1327h

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QC SUMMARY REPORT

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Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 120410A	trans-1,2-Dichloroethene	µg/L	EPA624	19.8	20.00	0	99.0	47-146				12/4/2010 1327h
LCS VOC 120410A	trans-1,3-Dichloropropene	µg/L	EPA624	20.3	20.00	0	101	29-143				12/4/2010 1327h
LCS VOC 120410A	trans-1,4-Dichloro-2-butene	µg/L	EPA624	20.2	20.00	0	101	20-214				12/4/2010 1327h
LCS VOC 120410A	Trichloroethene	µg/L	EPA624	21.0	20.00	0	105	54-152				12/4/2010 1327h
LCS VOC 120410A	Trichlorofluoromethane	µg/L	EPA624	18.0	20.00	0	90.3	56-166				12/4/2010 1327h
LCS VOC 120410A	Vinyl acetate	µg/L	EPA624	25.9	40.00	0	64.8	38-121				12/4/2010 1327h
LCS VOC 120410A	Vinyl chloride	µg/L	EPA624	16.1	20.00	0	80.5	13-155				12/4/2010 1327h
LCS VOC 120410A	Xylenes, Total	µg/L	EPA624	57.2	60.00	0	95.4	52-130				12/4/2010 1327h
LCS VOC 120410A	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	55.5	50.00		111	69-132				12/4/2010 1327h
LCS VOC 120410A	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.9	50.00		97.9	85-118				12/4/2010 1327h
LCS VOC 120410A	Surr: Dibromofluoromethane	%REC	EPA624	52.0	50.00		104	80-120				12/4/2010 1327h
LCS VOC 120410A	Surr: Toluene-d8	%REC	EPA624	48.0	50.00		96.1	81-120				12/4/2010 1327h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120410A	1,1,1,2-Tetrachloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1,1-Trichloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1,2,2-Tetrachloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1,2-Trichloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1-Dichloropropene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1-Dichloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,1-Dichloroethene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2,3-Trichlorobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2,3-Trichloropropane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2,3-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2,4-Trichlorobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2,4-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2-Dibromo-3-chloropropane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2-Dibromoethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2-Dichloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,2-Dichloropropane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,3,5-Trimethylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,3-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,3-Dichloropropane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,4-Dichlorobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	1,4-Dioxane	µg/L	EPA624	< 40.0				-				12/4/2010 1405h
MB VOC 120410A	2,2-Dichloropropane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

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Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120410A	2-Butanone	µg/L	EPA624	< 10.0				-				12/4/2010 1405h
MB VOC 120410A	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	2-Chlorotoluene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	2-Hexanone	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	2-Nitropropane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	4-Chlorotoluene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	4-Isopropyltoluene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	4-Methyl-2-pentanone	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Acetone	µg/L	EPA624	< 10.0				-				12/4/2010 1405h
MB VOC 120410A	Acetonitrile	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Acrolein	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Acrylonitrile	µg/L	EPA624	< 10.0				-				12/4/2010 1405h
MB VOC 120410A	Allyl chloride	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Benzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Benzyl chloride	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Bis(2-chloroisopropyl) ether	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Bromobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Bromochloromethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Bromodichloromethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Bromoform	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Bromomethane	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Butyl acetate	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Carbon disulfide	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Carbon tetrachloride	µg/L	EPA624	< 2.00				-				12/4/2010 1405h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120410A	Chlorobenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Chloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Chloroform	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Chloromethane	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Chloroprene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	cis-1,2-Dichloroethene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	cis-1,3-Dichloropropene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Cyclohexane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Cyclohexanone	µg/L	EPA624	< 50.0				-				12/4/2010 1405h
MB VOC 120410A	Dibromochloromethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Dibromomethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Dichlorodifluoromethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Ethyl acetate	µg/L	EPA624	< 10.0				-				12/4/2010 1405h
MB VOC 120410A	Ethyl ether	µg/L	EPA624	< 10.0				-				12/4/2010 1405h
MB VOC 120410A	Ethyl methacrylate	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Ethylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Hexachlorobutadiene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Iodomethane	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Isobutyl alcohol	µg/L	EPA624	< 100				-				12/4/2010 1405h
MB VOC 120410A	Isopropyl acetate	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Isopropyl alcohol	µg/L	EPA624	< 25.0				-				12/4/2010 1405h
MB VOC 120410A	Isopropylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Isopropyltoluene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	m,p-Xylene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120410A	Methacrylonitrile	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Methyl Acetate	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Methyl methacrylate	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Methyl tert-butyl ether	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Methylcyclohexane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Methylene chloride	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	n-Amyl acetate	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Naphthalene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	n-Butyl alcohol	µg/L	EPA624	< 25.0				-				12/4/2010 1405h
MB VOC 120410A	n-Butylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	n-Hexane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	n-Octane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	n-Propylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	o-Xylene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Pentachloroethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Propionitrile	µg/L	EPA624	< 25.0				-				12/4/2010 1405h
MB VOC 120410A	Propyl acetate	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	sec-Butylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Styrene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	tert-Butyl alcohol	µg/L	EPA624	< 20.0				-				12/4/2010 1405h
MB VOC 120410A	tert-Butylbenzene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Tetrachloroethene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Tetrahydrofuran	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Toluene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h

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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 120410A	TPH C11-C15 (DRO)	µg/L	EPA624	< 20.0				-				12/4/2010 1405h
MB VOC 120410A	TPH C6-C10 (GRO)	µg/L	EPA624	< 20.0				-				12/4/2010 1405h
MB VOC 120410A	trans-1,2-Dichloroethene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	trans-1,3-Dichloropropene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	trans-1,4-Dichloro-2-butene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Trichloroethene	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Trichlorofluoromethane	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Vinyl acetate	µg/L	EPA624	< 5.00				-				12/4/2010 1405h
MB VOC 120410A	Vinyl chloride	µg/L	EPA624	< 1.00				-				12/4/2010 1405h
MB VOC 120410A	Xylenes, Total	µg/L	EPA624	< 2.00				-				12/4/2010 1405h
MB VOC 120410A	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	56.7	50.00		113	69-132				12/4/2010 1405h
MB VOC 120410A	Surr: 4-Bromofluorobenzene	%REC	EPA624	52.4	50.00		105	85-118				12/4/2010 1405h
MB VOC 120410A	Surr: Dibromofluoromethane	%REC	EPA624	52.3	50.00		105	80-120				12/4/2010 1405h
MB VOC 120410A	Surr: Toluene-d8	%REC	EPA624	47.7	50.00		95.4	81-120				12/4/2010 1405h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMS	1,1,1,2-Tetrachloroethane	µg/L	EPA624	18.0	20.00	0	89.8	74-117				12/4/2010 1502h
1012083-003AMS	1,1,1-Trichloroethane	µg/L	EPA624	22.6	20.00	0	113	67-147				12/4/2010 1502h
1012083-003AMS	1,1,2,2-Tetrachloroethane	µg/L	EPA624	16.0	20.00	0	79.8	67-119				12/4/2010 1502h
1012083-003AMS	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	25.0	20.00	0	125	21-206				12/4/2010 1502h
1012083-003AMS	1,1,2-Trichloroethane	µg/L	EPA624	17.5	20.00	0	87.4	80-123				12/4/2010 1502h
1012083-003AMS	1,1-Dichloropropene	µg/L	EPA624	44.1	40.00	0	110	10-140				12/4/2010 1502h
1012083-003AMS	1,1-Dichloroethane	µg/L	EPA624	20.2	20.00	0	101	70-130				12/4/2010 1502h
1012083-003AMS	1,1-Dichloroethene	µg/L	EPA624	26.2	20.00	0	131	62-152				12/4/2010 1502h
1012083-003AMS	1,2,3-Trichlorobenzene	µg/L	EPA624	15.3	20.00	0	76.4	67-131				12/4/2010 1502h
1012083-003AMS	1,2,3-Trichloropropane	µg/L	EPA624	17.8	20.00	0	89.1	62-116				12/4/2010 1502h
1012083-003AMS	1,2,3-Trimethylbenzene	µg/L	EPA624	17.8	20.00	0	88.9	76-140				12/4/2010 1502h
1012083-003AMS	1,2,4-Trichlorobenzene	µg/L	EPA624	14.4	20.00	0	72.2	58-133				12/4/2010 1502h
1012083-003AMS	1,2,4-Trimethylbenzene	µg/L	EPA624	17.8	20.00	0	89.2	79-151				12/4/2010 1502h
1012083-003AMS	1,2-Dibromo-3-chloropropane	µg/L	EPA624	15.6	20.00	0	77.8	64-129				12/4/2010 1502h
1012083-003AMS	1,2-Dibromoethane	µg/L	EPA624	17.5	20.00	0	87.6	70-126				12/4/2010 1502h
1012083-003AMS	1,2-Dichlorobenzene	µg/L	EPA624	17.4	20.00	0	87.1	70-130				12/4/2010 1502h
1012083-003AMS	1,2-Dichloroethane	µg/L	EPA624	20.7	20.00	0	104	39-162				12/4/2010 1502h
1012083-003AMS	1,2-Dichloropropane	µg/L	EPA624	17.7	20.00	0	88.6	59-135				12/4/2010 1502h
1012083-003AMS	1,3,5-Trimethylbenzene	µg/L	EPA624	18.0	20.00	0	90.3	77-151				12/4/2010 1502h
1012083-003AMS	1,3-Dichlorobenzene	µg/L	EPA624	17.3	20.00	0	86.4	78-134				12/4/2010 1502h
1012083-003AMS	1,3-Dichloropropane	µg/L	EPA624	17.2	20.00	0	86.0	78-116				12/4/2010 1502h
1012083-003AMS	1,4-Dichlorobenzene	µg/L	EPA624	17.2	20.00	0	85.9	72-139				12/4/2010 1502h
1012083-003AMS	1,4-Dioxane	µg/L	EPA624	158	200.0	0	78.8	33-149				12/4/2010 1502h
1012083-003AMS	2,2-Dichloropropane	µg/L	EPA624	22.0	30.00	0	73.4	13-180				12/4/2010 1502h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMS	2-Butanone	µg/L	EPA624	25.9	20.00	0	130	10-217				12/4/2010 1502h
1012083-003AMS	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163			1	12/4/2010 1502h
1012083-003AMS	2-Chlorotoluene	µg/L	EPA624	17.8	20.00	0	89.2	79-142				12/4/2010 1502h
1012083-003AMS	2-Hexanone	µg/L	EPA624	15.2	20.00	0	75.9	50-156				12/4/2010 1502h
1012083-003AMS	2-Nitropropane	µg/L	EPA624	19.5	20.00	0	97.3	10-243				12/4/2010 1502h
1012083-003AMS	4-Chlorotoluene	µg/L	EPA624	17.2	20.00	0	86.1	68-128				12/4/2010 1502h
1012083-003AMS	4-Isopropyltoluene	µg/L	EPA624	17.7	20.00	0	88.3	73-156				12/4/2010 1502h
1012083-003AMS	4-Methyl-2-pentanone	µg/L	EPA624	16.4	20.00	0	82.0	10-214				12/4/2010 1502h
1012083-003AMS	Acetone	µg/L	EPA624	14.0	20.00	0	70.0	10-313				12/4/2010 1502h
1012083-003AMS	Acetonitrile	µg/L	EPA624	33.4	40.00	0	83.5	37-159				12/4/2010 1502h
1012083-003AMS	Acrolein	µg/L	EPA624	67.0	40.00	0	167	10-325				12/4/2010 1502h
1012083-003AMS	Acrylonitrile	µg/L	EPA624	17.4	20.00	0	87.0	53-134				12/4/2010 1502h
1012083-003AMS	Allyl chloride	µg/L	EPA624	20.0	20.00	0	100	10-243				12/4/2010 1502h
1012083-003AMS	Benzene	µg/L	EPA624	20.4	20.00	0	102	66-145				12/4/2010 1502h
1012083-003AMS	Benzyl chloride	µg/L	EPA624	15.6	20.00	0	78.0	40-146				12/4/2010 1502h
1012083-003AMS	Bis(2-chloroisopropyl) ether	µg/L	EPA624	14.8	20.00	0	73.8	54-146				12/4/2010 1502h
1012083-003AMS	Bromobenzene	µg/L	EPA624	16.7	20.00	0	83.4	78-148				12/4/2010 1502h
1012083-003AMS	Bromochloromethane	µg/L	EPA624	20.0	20.00	0	100	75-134				12/4/2010 1502h
1012083-003AMS	Bromodichloromethane	µg/L	EPA624	19.4	20.00	0	97.0	74-121				12/4/2010 1502h
1012083-003AMS	Bromoform	µg/L	EPA624	17.2	20.00	0	86.2	68-131				12/4/2010 1502h
1012083-003AMS	Bromomethane	µg/L	EPA624	14.0	20.00	0	70.0	10-185				12/4/2010 1502h
1012083-003AMS	Butyl acetate	µg/L	EPA624	15.9	20.00	0	79.6	46-178				12/4/2010 1502h
1012083-003AMS	Carbon disulfide	µg/L	EPA624	31.4	20.00	0	157	21-224				12/4/2010 1502h
1012083-003AMS	Carbon tetrachloride	µg/L	EPA624	23.9	20.00	0	120	60-157				12/4/2010 1502h

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Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMS	Chlorobenzene	µg/L	EPA624	17.8	20.00	0	88.8	63-140				12/4/2010 1502h
1012083-003AMS	Chloroethane	µg/L	EPA624	18.7	20.00	0	93.3	41-173				12/4/2010 1502h
1012083-003AMS	Chloroform	µg/L	EPA624	20.2	20.00	0	101	50-146				12/4/2010 1502h
1012083-003AMS	Chloromethane	µg/L	EPA624	14.5	20.00	0	72.4	10-138				12/4/2010 1502h
1012083-003AMS	Chloroprene	µg/L	EPA624	20.9	20.00	0	105	10-161				12/4/2010 1502h
1012083-003AMS	cis-1,2-Dichloroethene	µg/L	EPA624	19.8	20.00	0	98.9	72-137				12/4/2010 1502h
1012083-003AMS	cis-1,3-Dichloropropene	µg/L	EPA624	18.8	40.00	0	47.0	10-134				12/4/2010 1502h
1012083-003AMS	Cyclohexane	µg/L	EPA624	24.2	20.00	0	121	35-230				12/4/2010 1502h
1012083-003AMS	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	45.9	10-374				12/4/2010 1502h
1012083-003AMS	Dibromochloromethane	µg/L	EPA624	17.7	20.00	0	88.6	68-135				12/4/2010 1502h
1012083-003AMS	Dibromomethane	µg/L	EPA624	18.6	20.00	0	92.8	74-120				12/4/2010 1502h
1012083-003AMS	Dichlorodifluoromethane	µg/L	EPA624	14.8	20.00	0	73.8	10-150				12/4/2010 1502h
1012083-003AMS	Ethyl acetate	µg/L	EPA624	35.8	40.00	0	89.6	50-155				12/4/2010 1502h
1012083-003AMS	Ethyl ether	µg/L	EPA624	20.3	20.00	0	101	45-146				12/4/2010 1502h
1012083-003AMS	Ethyl methacrylate	µg/L	EPA624	15.8	20.00	0	79.2	77-151				12/4/2010 1502h
1012083-003AMS	Ethylbenzene	µg/L	EPA624	18.4	20.00	0	92.2	69-133				12/4/2010 1502h
1012083-003AMS	Hexachlorobutadiene	µg/L	EPA624	16.6	20.00	0	83.2	35-213				12/4/2010 1502h
1012083-003AMS	Iodomethane	µg/L	EPA624	17.5	20.00	0	87.6	10-233				12/4/2010 1502h
1012083-003AMS	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	73.8	12-202				12/4/2010 1502h
1012083-003AMS	Isopropyl acetate	µg/L	EPA624	17.5	20.00	0	87.4	55-145				12/4/2010 1502h
1012083-003AMS	Isopropyl alcohol	µg/L	EPA624	50.0	80.00	0	62.5	12-250				12/4/2010 1502h
1012083-003AMS	Isopropylbenzene	µg/L	EPA624	18.7	20.00	0	93.3	60-147				12/4/2010 1502h
1012083-003AMS	Isopropyltoluene	µg/L	EPA624	17.7	20.00	0	88.3	73-156				12/4/2010 1502h
1012083-003AMS	m,p-Xylene	µg/L	EPA624	37.3	40.00	0	93.3	70-130				12/4/2010 1502h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMS	Methacrylonitrile	µg/L	EPA624	16.8	20.00	0	84.2	79-123				12/4/2010 1502h
1012083-003AMS	Methyl Acetate	µg/L	EPA624	24.7	20.00	0	124	5-398				12/4/2010 1502h
1012083-003AMS	Methyl methacrylate	µg/L	EPA624	15.6	20.00	0	77.8	55-128				12/4/2010 1502h
1012083-003AMS	Methyl tert-butyl ether	µg/L	EPA624	15.5	20.00	0	77.7	37-189				12/4/2010 1502h
1012083-003AMS	Methylcyclohexane	µg/L	EPA624	23.9	20.00	0	119	65-175				12/4/2010 1502h
1012083-003AMS	Methylene chloride	µg/L	EPA624	14.4	20.00	0	72.0	55-138				12/4/2010 1502h
1012083-003AMS	n-Amyl acetate	µg/L	EPA624	10.2	20.00	0	50.9	10-187				12/4/2010 1502h
1012083-003AMS	Naphthalene	µg/L	EPA624	14.7	20.00	0	73.5	41-131				12/4/2010 1502h
1012083-003AMS	n-Butyl alcohol	µg/L	EPA624	52.1	80.00	0	65.1	10-226				12/4/2010 1502h
1012083-003AMS	n-Butylbenzene	µg/L	EPA624	16.9	20.00	0	84.7	40-158				12/4/2010 1502h
1012083-003AMS	n-Hexane	µg/L	EPA624	18.4	20.00	0	92.0	10-277				12/4/2010 1502h
1012083-003AMS	n-Octane	µg/L	EPA624	15.7	20.00	0	78.7	45-158				12/4/2010 1502h
1012083-003AMS	n-Propylbenzene	µg/L	EPA624	17.8	20.00	0	88.8	67-131				12/4/2010 1502h
1012083-003AMS	o-Xylene	µg/L	EPA624	18.0	20.00	0	90.0	70-130				12/4/2010 1502h
1012083-003AMS	Pentachloroethane	µg/L	EPA624	11.5	20.00	0	57.6	10-314				12/4/2010 1502h
1012083-003AMS	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	83.2	60-132				12/4/2010 1502h
1012083-003AMS	Propyl acetate	µg/L	EPA624	16.2	20.00	0	81.2	48-143				12/4/2010 1502h
1012083-003AMS	sec-Butylbenzene	µg/L	EPA624	18.6	20.00	0	93.0	72-157				12/4/2010 1502h
1012083-003AMS	Styrene	µg/L	EPA624	17.2	20.00	0	86.2	81-125				12/4/2010 1502h
1012083-003AMS	tert-Butyl alcohol	µg/L	EPA624	28.1	40.00	0	70.3	50-286				12/4/2010 1502h
1012083-003AMS	tert-Butylbenzene	µg/L	EPA624	17.5	20.00	0	87.5	75-157				12/4/2010 1502h
1012083-003AMS	Tetrachloroethene	µg/L	EPA624	23.8	20.00	0	119	49-163				12/4/2010 1502h
1012083-003AMS	Tetrahydrofuran	µg/L	EPA624	15.2	20.00	0	76.2	43-146				12/4/2010 1502h
1012083-003AMS	Toluene	µg/L	EPA624	18.7	20.00	0	93.4	18-192				12/4/2010 1502h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMS	trans-1,2-Dichloroethene	µg/L	EPA624	20.8	20.00	0	104	47-146				12/4/2010 1502h
1012083-003AMS	trans-1,3-Dichloropropene	µg/L	EPA624	19.0	20.00	0	95.1	29-143				12/4/2010 1502h
1012083-003AMS	trans-1,4-Dichloro-2-butene	µg/L	EPA624	19.5	20.00	0	97.7	20-214				12/4/2010 1502h
1012083-003AMS	Trichloroethene	µg/L	EPA624	21.3	20.00	0	106	61-153				12/4/2010 1502h
1012083-003AMS	Trichlorofluoromethane	µg/L	EPA624	21.3	20.00	0	107	56-166				12/4/2010 1502h
1012083-003AMS	Vinyl acetate	µg/L	EPA624	22.0	40.00	0	55.0	38-121				12/4/2010 1502h
1012083-003AMS	Vinyl chloride	µg/L	EPA624	17.1	20.00	0	85.7	13-155				12/4/2010 1502h
1012083-003AMS	Xylenes, Total	µg/L	EPA624	55.3	60.00	0	92.2	42-167				12/4/2010 1502h
1012083-003AMS	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	58.1	50.00		116	77-144				12/4/2010 1502h
1012083-003AMS	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.6	50.00		97.3	80-123				12/4/2010 1502h
1012083-003AMS	Surr: Dibromofluoromethane	%REC	EPA624	53.4	50.00		107	80-124				12/4/2010 1502h
1012083-003AMS	Surr: Toluene-d8	%REC	EPA624	47.3	50.00		94.7	80-125				12/4/2010 1502h
1012084-001AMS	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.9	20.00	0	89.6	74-117				12/4/2010 1540h
1012084-001AMS	1,1,1-Trichloroethane	µg/L	EPA624	22.6	20.00	0	113	67-147				12/4/2010 1540h
1012084-001AMS	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.4	20.00	0	77.0	67-119				12/4/2010 1540h
1012084-001AMS	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	24.7	20.00	0	124	21-206				12/4/2010 1540h
1012084-001AMS	1,1,2-Trichloroethane	µg/L	EPA624	16.8	20.00	0	84.0	80-123				12/4/2010 1540h
1012084-001AMS	1,1-Dichloropropene	µg/L	EPA624	45.0	40.00	0	112	10-140				12/4/2010 1540h
1012084-001AMS	1,1-Dichloroethane	µg/L	EPA624	20.0	20.00	0	100	70-130				12/4/2010 1540h
1012084-001AMS	1,1-Dichloroethene	µg/L	EPA624	26.1	20.00	0	130	62-152				12/4/2010 1540h
1012084-001AMS	1,2,3-Trichlorobenzene	µg/L	EPA624	15.6	20.00	0	77.8	67-131				12/4/2010 1540h
1012084-001AMS	1,2,3-Trichloropropane	µg/L	EPA624	17.4	20.00	0	87.0	62-116				12/4/2010 1540h
1012084-001AMS	1,2,3-Trimethylbenzene	µg/L	EPA624	18.4	20.00	0	92.2	76-140				12/4/2010 1540h
1012084-001AMS	1,2,4-Trichlorobenzene	µg/L	EPA624	15.0	20.00	0	75.1	58-133				12/4/2010 1540h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMS	1,2,4-Trimethylbenzene	µg/L	EPA624	18.1	20.00	0	90.7	79-151				12/4/2010 1540h
1012084-001AMS	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.4	20.00	0	81.8	64-129				12/4/2010 1540h
1012084-001AMS	1,2-Dibromoethane	µg/L	EPA624	17.1	20.00	0	85.7	70-126				12/4/2010 1540h
1012084-001AMS	1,2-Dichlorobenzene	µg/L	EPA624	17.9	20.00	0	89.3	70-130				12/4/2010 1540h
1012084-001AMS	1,2-Dichloroethane	µg/L	EPA624	20.6	20.00	0	103	39-162				12/4/2010 1540h
1012084-001AMS	1,2-Dichloropropane	µg/L	EPA624	18.3	20.00	0	91.4	59-135				12/4/2010 1540h
1012084-001AMS	1,3,5-Trimethylbenzene	µg/L	EPA624	18.3	20.00	0	91.3	77-151				12/4/2010 1540h
1012084-001AMS	1,3-Dichlorobenzene	µg/L	EPA624	18.0	20.00	0	90.0	78-134				12/4/2010 1540h
1012084-001AMS	1,3-Dichloropropane	µg/L	EPA624	16.9	20.00	0	84.4	78-116				12/4/2010 1540h
1012084-001AMS	1,4-Dichlorobenzene	µg/L	EPA624	16.8	20.00	0	83.8	72-139				12/4/2010 1540h
1012084-001AMS	1,4-Dioxane	µg/L	EPA624	190	200.0	0	94.9	33-149				12/4/2010 1540h
1012084-001AMS	2,2-Dichloropropane	µg/L	EPA624	21.6	30.00	0	72.0	13-180				12/4/2010 1540h
1012084-001AMS	2-Butanone	µg/L	EPA624	26.3	20.00	0	132	10-217				12/4/2010 1540h
1012084-001AMS	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163			1	12/4/2010 1540h
1012084-001AMS	2-Chlorotoluene	µg/L	EPA624	17.9	20.00	0	89.7	79-142				12/4/2010 1540h
1012084-001AMS	2-Hexanone	µg/L	EPA624	16.0	20.00	0	80.2	50-156				12/4/2010 1540h
1012084-001AMS	2-Nitropropane	µg/L	EPA624	19.4	20.00	0	97.2	10-243				12/4/2010 1540h
1012084-001AMS	4-Chlorotoluene	µg/L	EPA624	17.9	20.00	0	89.4	68-128				12/4/2010 1540h
1012084-001AMS	4-Isopropyltoluene	µg/L	EPA624	17.5	20.00	0	87.3	73-156				12/4/2010 1540h
1012084-001AMS	4-Methyl-2-pentanone	µg/L	EPA624	17.0	20.00	0	84.9	10-214				12/4/2010 1540h
1012084-001AMS	Acetone	µg/L	EPA624	18.8	20.00	0	94.1	10-313				12/4/2010 1540h
1012084-001AMS	Acetonitrile	µg/L	EPA624	36.9	40.00	0	92.2	37-159				12/4/2010 1540h
1012084-001AMS	Acrolein	µg/L	EPA624	70.2	40.00	0	175	10-325				12/4/2010 1540h
1012084-001AMS	Acrylonitrile	µg/L	EPA624	17.3	20.00	0	86.7	53-134				12/4/2010 1540h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMS	Allyl chloride	µg/L	EPA624	20.7	20.00	0	104	10-243				12/4/2010 1540h
1012084-001AMS	Benzene	µg/L	EPA624	20.6	20.00	0	103	66-145				12/4/2010 1540h
1012084-001AMS	Benzyl chloride	µg/L	EPA624	16.1	20.00	0	80.4	40-146				12/4/2010 1540h
1012084-001AMS	Bis(2-chloroisopropyl) ether	µg/L	EPA624	16.8	20.00	0	84.2	54-146				12/4/2010 1540h
1012084-001AMS	Bromobenzene	µg/L	EPA624	17.0	20.00	0	84.8	78-148				12/4/2010 1540h
1012084-001AMS	Bromochloromethane	µg/L	EPA624	19.4	20.00	0	96.9	75-134				12/4/2010 1540h
1012084-001AMS	Bromodichloromethane	µg/L	EPA624	19.2	20.00	0	96.0	74-121				12/4/2010 1540h
1012084-001AMS	Bromoform	µg/L	EPA624	17.0	20.00	0	84.8	68-131				12/4/2010 1540h
1012084-001AMS	Bromomethane	µg/L	EPA624	15.5	20.00	0	77.7	10-185				12/4/2010 1540h
1012084-001AMS	Butyl acetate	µg/L	EPA624	16.1	20.00	0	80.6	46-178				12/4/2010 1540h
1012084-001AMS	Carbon disulfide	µg/L	EPA624	33.3	20.00	0	166	21-224				12/4/2010 1540h
1012084-001AMS	Carbon tetrachloride	µg/L	EPA624	23.9	20.00	0	119	60-157				12/4/2010 1540h
1012084-001AMS	Chlorobenzene	µg/L	EPA624	17.6	20.00	0	88.0	63-140				12/4/2010 1540h
1012084-001AMS	Chloroethane	µg/L	EPA624	19.1	20.00	0	95.4	41-173				12/4/2010 1540h
1012084-001AMS	Chloroform	µg/L	EPA624	19.8	20.00	0	99.2	50-146				12/4/2010 1540h
1012084-001AMS	Chloromethane	µg/L	EPA624	15.0	20.00	0	75.0	10-138				12/4/2010 1540h
1012084-001AMS	Chloroprene	µg/L	EPA624	20.6	20.00	0	103	10-161				12/4/2010 1540h
1012084-001AMS	cis-1,2-Dichloroethene	µg/L	EPA624	19.8	20.00	0	99.0	72-137				12/4/2010 1540h
1012084-001AMS	cis-1,3-Dichloropropene	µg/L	EPA624	18.7	40.00	0	46.7	10-134				12/4/2010 1540h
1012084-001AMS	Cyclohexane	µg/L	EPA624	24.3	20.00	0	121	35-230				12/4/2010 1540h
1012084-001AMS	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	52.6	10-374				12/4/2010 1540h
1012084-001AMS	Dibromochloromethane	µg/L	EPA624	17.4	20.00	0	86.9	68-135				12/4/2010 1540h
1012084-001AMS	Dibromomethane	µg/L	EPA624	18.5	20.00	0	92.6	74-120				12/4/2010 1540h
1012084-001AMS	Dichlorodifluoromethane	µg/L	EPA624	14.7	20.00	0	73.6	10-150				12/4/2010 1540h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMS	Ethyl acetate	µg/L	EPA624	37.4	40.00	0	93.5	50-155				12/4/2010 1540h
1012084-001AMS	Ethyl ether	µg/L	EPA624	21.3	20.00	0	106	45-146				12/4/2010 1540h
1012084-001AMS	Ethyl methacrylate	µg/L	EPA624	16.4	20.00	0	82.2	77-151				12/4/2010 1540h
1012084-001AMS	Ethylbenzene	µg/L	EPA624	18.3	20.00	0	91.4	69-133				12/4/2010 1540h
1012084-001AMS	Hexachlorobutadiene	µg/L	EPA624	16.4	20.00	0	81.8	35-213				12/4/2010 1540h
1012084-001AMS	Iodomethane	µg/L	EPA624	18.7	20.00	0	93.4	10-233				12/4/2010 1540h
1012084-001AMS	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	97.9	12-202				12/4/2010 1540h
1012084-001AMS	Isopropyl acetate	µg/L	EPA624	17.9	20.00	0	89.6	55-145				12/4/2010 1540h
1012084-001AMS	Isopropyl alcohol	µg/L	EPA624	76.8	80.00	0	96.0	12-250				12/4/2010 1540h
1012084-001AMS	Isopropylbenzene	µg/L	EPA624	18.3	20.00	0	91.3	60-147				12/4/2010 1540h
1012084-001AMS	Isopropyltoluene	µg/L	EPA624	17.5	20.00	0	87.3	73-156				12/4/2010 1540h
1012084-001AMS	m,p-Xylene	µg/L	EPA624	37.4	40.00	0	93.5	70-130				12/4/2010 1540h
1012084-001AMS	Methacrylonitrile	µg/L	EPA624	17.0	20.00	0	84.8	79-123				12/4/2010 1540h
1012084-001AMS	Methyl Acetate	µg/L	EPA624	31.0	20.00	0	155	5-398				12/4/2010 1540h
1012084-001AMS	Methyl methacrylate	µg/L	EPA624	16.7	20.00	0	83.6	55-128				12/4/2010 1540h
1012084-001AMS	Methyl tert-butyl ether	µg/L	EPA624	19.3	20.00	0	96.7	37-189				12/4/2010 1540h
1012084-001AMS	Methylcyclohexane	µg/L	EPA624	23.7	20.00	0	119	65-175				12/4/2010 1540h
1012084-001AMS	Methylene chloride	µg/L	EPA624	14.6	20.00	0	73.2	55-138				12/4/2010 1540h
1012084-001AMS	n-Amyl acetate	µg/L	EPA624	10.6	20.00	0	52.8	10-187				12/4/2010 1540h
1012084-001AMS	Naphthalene	µg/L	EPA624	15.3	20.00	0	76.5	41-131				12/4/2010 1540h
1012084-001AMS	n-Butyl alcohol	µg/L	EPA624	62.3	80.00	0	77.8	10-226				12/4/2010 1540h
1012084-001AMS	n-Butylbenzene	µg/L	EPA624	17.1	20.00	0	85.4	40-158				12/4/2010 1540h
1012084-001AMS	n-Hexane	µg/L	EPA624	23.1	20.00	0	116	10-277				12/4/2010 1540h
1012084-001AMS	n-Octane	µg/L	EPA624	15.1	20.00	0	75.6	45-158				12/4/2010 1540h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMS	n-Propylbenzene	µg/L	EPA624	18.0	20.00	0	90.2	67-131				12/4/2010 1540h
1012084-001AMS	o-Xylene	µg/L	EPA624	17.8	20.00	0	89.2	70-130				12/4/2010 1540h
1012084-001AMS	Pentachloroethane	µg/L	EPA624	11.9	20.00	0	59.7	10-314				12/4/2010 1540h
1012084-001AMS	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	89.3	60-132				12/4/2010 1540h
1012084-001AMS	Propyl acetate	µg/L	EPA624	17.0	20.00	0	84.8	48-143				12/4/2010 1540h
1012084-001AMS	sec-Butylbenzene	µg/L	EPA624	18.7	20.00	0	93.4	72-157				12/4/2010 1540h
1012084-001AMS	Styrene	µg/L	EPA624	17.0	20.00	0	85.2	81-125				12/4/2010 1540h
1012084-001AMS	tert-Butyl alcohol	µg/L	EPA624	38.9	40.00	0	97.2	50-286				12/4/2010 1540h
1012084-001AMS	tert-Butylbenzene	µg/L	EPA624	17.8	20.00	0	88.8	75-157				12/4/2010 1540h
1012084-001AMS	Tetrachloroethene	µg/L	EPA624	23.9	20.00	0	119	49-163				12/4/2010 1540h
1012084-001AMS	Tetrahydrofuran	µg/L	EPA624	15.8	20.00	0	78.9	43-146				12/4/2010 1540h
1012084-001AMS	Toluene	µg/L	EPA624	18.3	20.00	0	91.5	18-192				12/4/2010 1540h
1012084-001AMS	trans-1,2-Dichloroethene	µg/L	EPA624	20.1	20.00	0	100	47-146				12/4/2010 1540h
1012084-001AMS	trans-1,3-Dichloropropene	µg/L	EPA624	19.1	20.00	0	95.7	29-143				12/4/2010 1540h
1012084-001AMS	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.9	20.00	0	94.6	20-214				12/4/2010 1540h
1012084-001AMS	Trichloroethene	µg/L	EPA624	21.3	20.00	0	106	61-153				12/4/2010 1540h
1012084-001AMS	Trichlorofluoromethane	µg/L	EPA624	20.7	20.00	0	103	56-166				12/4/2010 1540h
1012084-001AMS	Vinyl acetate	µg/L	EPA624	22.7	40.00	0	56.7	38-121				12/4/2010 1540h
1012084-001AMS	Vinyl chloride	µg/L	EPA624	18.4	20.00	0	92.2	13-155				12/4/2010 1540h
1012084-001AMS	Xylenes, Total	µg/L	EPA624	55.2	60.00	0	92.0	42-167				12/4/2010 1540h
1012084-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	56.7	50.00		113	77-144				12/4/2010 1540h
1012084-001AMS	Surr: 4-Bromofluorobenzene	%REC	EPA624	49.6	50.00		99.1	80-123				12/4/2010 1540h
1012084-001AMS	Surr: Dibromofluoromethane	%REC	EPA624	52.5	50.00		105	80-124				12/4/2010 1540h
1012084-001AMS	Surr: Toluene-d8	%REC	EPA624	46.9	50.00		93.8	80-125				12/4/2010 1540h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMS	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.9	20.00	0	89.6	74-117				12/4/2010 2200h
1012086-001AMS	1,1,1-Trichloroethane	µg/L	EPA624	22.8	20.00	0	114	67-147				12/4/2010 2200h
1012086-001AMS	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.7	20.00	0	78.3	67-119				12/4/2010 2200h
1012086-001AMS	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	24.9	20.00	0	125	21-206				12/4/2010 2200h
1012086-001AMS	1,1,2-Trichloroethane	µg/L	EPA624	17.1	20.00	0	85.4	80-123				12/4/2010 2200h
1012086-001AMS	1,1-Dichloropropene	µg/L	EPA624	43.9	40.00	0	110	10-140				12/4/2010 2200h
1012086-001AMS	1,1-Dichloroethane	µg/L	EPA624	20.3	20.00	0	101	70-130				12/4/2010 2200h
1012086-001AMS	1,1-Dichloroethene	µg/L	EPA624	26.4	20.00	0	132	62-152				12/4/2010 2200h
1012086-001AMS	1,2,3-Trichlorobenzene	µg/L	EPA624	14.8	20.00	0	74.2	67-131				12/4/2010 2200h
1012086-001AMS	1,2,3-Trichloropropane	µg/L	EPA624	17.6	20.00	0	87.9	62-116				12/4/2010 2200h
1012086-001AMS	1,2,3-Trimethylbenzene	µg/L	EPA624	17.4	20.00	0	87.0	76-140				12/4/2010 2200h
1012086-001AMS	1,2,4-Trichlorobenzene	µg/L	EPA624	14.0	20.00	0	70.0	58-133				12/4/2010 2200h
1012086-001AMS	1,2,4-Trimethylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	79-151				12/4/2010 2200h
1012086-001AMS	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.0	20.00	0	79.9	64-129				12/4/2010 2200h
1012086-001AMS	1,2-Dibromoethane	µg/L	EPA624	17.0	20.00	0	85.0	70-126				12/4/2010 2200h
1012086-001AMS	1,2-Dichlorobenzene	µg/L	EPA624	17.5	20.00	0	87.3	70-130				12/4/2010 2200h
1012086-001AMS	1,2-Dichloroethane	µg/L	EPA624	21.1	20.00	0	106	39-162				12/4/2010 2200h
1012086-001AMS	1,2-Dichloropropane	µg/L	EPA624	17.6	20.00	0	88.2	59-135				12/4/2010 2200h
1012086-001AMS	1,3,5-Trimethylbenzene	µg/L	EPA624	18.0	20.00	0	89.8	77-151				12/4/2010 2200h
1012086-001AMS	1,3-Dichlorobenzene	µg/L	EPA624	17.1	20.00	0	85.4	78-134				12/4/2010 2200h
1012086-001AMS	1,3-Dichloropropane	µg/L	EPA624	16.6	20.00	0	82.8	78-116				12/4/2010 2200h
1012086-001AMS	1,4-Dichlorobenzene	µg/L	EPA624	16.8	20.00	0	84.0	72-139				12/4/2010 2200h
1012086-001AMS	1,4-Dioxane	µg/L	EPA624	164	200.0	0	81.8	33-149				12/4/2010 2200h
1012086-001AMS	2,2-Dichloropropane	µg/L	EPA624	21.0	30.00	0	70.0	13-180				12/4/2010 2200h

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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	Date Analyzed
1012086-001AMS	2-Butanone	µg/L	EPA624	25.2	20.00	0	126	10-217				12/4/2010 2200h
1012086-001AMS	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163			1	12/4/2010 2200h
1012086-001AMS	2-Chlorotoluene	µg/L	EPA624	17.7	20.00	0	88.3	79-142				12/4/2010 2200h
1012086-001AMS	2-Hexanone	µg/L	EPA624	14.5	20.00	0	72.5	50-156				12/4/2010 2200h
1012086-001AMS	2-Nitropropane	µg/L	EPA624	19.0	20.00	0	95.1	10-243				12/4/2010 2200h
1012086-001AMS	4-Chlorotoluene	µg/L	EPA624	16.9	20.00	0	84.6	68-128				12/4/2010 2200h
1012086-001AMS	4-Isopropyltoluene	µg/L	EPA624	17.2	20.00	0	85.8	73-156				12/4/2010 2200h
1012086-001AMS	4-Methyl-2-pentanone	µg/L	EPA624	16.0	20.00	0	80.2	10-214				12/4/2010 2200h
1012086-001AMS	Acetone	µg/L	EPA624	12.5	20.00	0	62.6	10-313				12/4/2010 2200h
1012086-001AMS	Acetonitrile	µg/L	EPA624	34.8	40.00	0	86.9	37-159				12/4/2010 2200h
1012086-001AMS	Acrolein	µg/L	EPA624	67.6	40.00	0	169	10-325				12/4/2010 2200h
1012086-001AMS	Acrylonitrile	µg/L	EPA624	16.8	20.00	0	84.2	53-134				12/4/2010 2200h
1012086-001AMS	Allyl chloride	µg/L	EPA624	19.8	20.00	0	99.0	10-243				12/4/2010 2200h
1012086-001AMS	Benzene	µg/L	EPA624	20.2	20.00	0	101	66-145				12/4/2010 2200h
1012086-001AMS	Benzyl chloride	µg/L	EPA624	14.9	20.00	0	74.4	40-146				12/4/2010 2200h
1012086-001AMS	Bis(2-chloroisopropyl) ether	µg/L	EPA624	15.6	20.00	0	77.8	54-146				12/4/2010 2200h
1012086-001AMS	Bromobenzene	µg/L	EPA624	16.6	20.00	0	83.0	78-148				12/4/2010 2200h
1012086-001AMS	Bromochloromethane	µg/L	EPA624	19.6	20.00	0	97.9	75-134				12/4/2010 2200h
1012086-001AMS	Bromodichloromethane	µg/L	EPA624	19.5	20.00	0	97.3	74-121				12/4/2010 2200h
1012086-001AMS	Bromoform	µg/L	EPA624	17.1	20.00	0	85.7	68-131				12/4/2010 2200h
1012086-001AMS	Bromomethane	µg/L	EPA624	12.6	20.00	0	63.3	10-185				12/4/2010 2200h
1012086-001AMS	Butyl acetate	µg/L	EPA624	14.5	20.00	0	72.4	46-178				12/4/2010 2200h
1012086-001AMS	Carbon disulfide	µg/L	EPA624	30.7	20.00	0	154	21-224				12/4/2010 2200h
1012086-001AMS	Carbon tetrachloride	µg/L	EPA624	24.5	20.00	0	123	60-157				12/4/2010 2200h

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QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMS	Chlorobenzene	µg/L	EPA624	17.3	20.00	0	86.5	63-140				12/4/2010 2200h
1012086-001AMS	Chloroethane	µg/L	EPA624	17.9	20.00	0	89.4	41-173				12/4/2010 2200h
1012086-001AMS	Chloroform	µg/L	EPA624	20.0	20.00	0	99.8	50-146				12/4/2010 2200h
1012086-001AMS	Chloromethane	µg/L	EPA624	13.7	20.00	0	68.7	10-138				12/4/2010 2200h
1012086-001AMS	Chloroprene	µg/L	EPA624	19.6	20.00	0	97.8	10-161				12/4/2010 2200h
1012086-001AMS	cis-1,2-Dichloroethene	µg/L	EPA624	18.9	20.00	0	94.4	72-137				12/4/2010 2200h
1012086-001AMS	cis-1,3-Dichloropropene	µg/L	EPA624	18.4	40.00	0	46.1	10-134				12/4/2010 2200h
1012086-001AMS	Cyclohexane	µg/L	EPA624	23.3	20.00	0	116	35-230				12/4/2010 2200h
1012086-001AMS	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	48.8	10-374				12/4/2010 2200h
1012086-001AMS	Dibromochloromethane	µg/L	EPA624	17.6	20.00	0	88.0	68-135				12/4/2010 2200h
1012086-001AMS	Dibromomethane	µg/L	EPA624	18.8	20.00	0	93.8	74-120				12/4/2010 2200h
1012086-001AMS	Dichlorodifluoromethane	µg/L	EPA624	14.0	20.00	0	69.8	10-150				12/4/2010 2200h
1012086-001AMS	Ethyl acetate	µg/L	EPA624	34.3	40.00	0	85.7	50-155				12/4/2010 2200h
1012086-001AMS	Ethyl ether	µg/L	EPA624	20.0	20.00	0	100	45-146				12/4/2010 2200h
1012086-001AMS	Ethyl methacrylate	µg/L	EPA624	15.0	20.00	0	75.0	77-151			1	12/4/2010 2200h
1012086-001AMS	Ethylbenzene	µg/L	EPA624	18.1	20.00	0	90.4	69-133				12/4/2010 2200h
1012086-001AMS	Hexachlorobutadiene	µg/L	EPA624	15.7	20.00	0	78.3	35-213				12/4/2010 2200h
1012086-001AMS	Iodomethane	µg/L	EPA624	18.5	20.00	0	92.5	10-233				12/4/2010 2200h
1012086-001AMS	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	83.0	12-202				12/4/2010 2200h
1012086-001AMS	Isopropyl acetate	µg/L	EPA624	17.1	20.00	0	85.4	55-145				12/4/2010 2200h
1012086-001AMS	Isopropyl alcohol	µg/L	EPA624	63.4	80.00	0	79.3	12-250				12/4/2010 2200h
1012086-001AMS	Isopropylbenzene	µg/L	EPA624	18.2	20.00	0	90.8	60-147				12/4/2010 2200h
1012086-001AMS	Isopropyltoluene	µg/L	EPA624	17.2	20.00	0	85.8	73-156				12/4/2010 2200h
1012086-001AMS	m,p-Xylene	µg/L	EPA624	36.7	40.00	0	91.7	70-130				12/4/2010 2200h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMS	Methacrylonitrile	µg/L	EPA624	15.9	20.00	0	79.6	79-123				12/4/2010 2200h
1012086-001AMS	Methyl Acetate	µg/L	EPA624	24.8	20.00	0	124	5-398				12/4/2010 2200h
1012086-001AMS	Methyl methacrylate	µg/L	EPA624	15.5	20.00	0	77.4	55-128				12/4/2010 2200h
1012086-001AMS	Methyl tert-butyl ether	µg/L	EPA624	16.5	20.00	0	82.3	37-189				12/4/2010 2200h
1012086-001AMS	Methylcyclohexane	µg/L	EPA624	23.2	20.00	0	116	65-175				12/4/2010 2200h
1012086-001AMS	Methylene chloride	µg/L	EPA624	14.9	20.00	0	74.7	55-138				12/4/2010 2200h
1012086-001AMS	n-Amyl acetate	µg/L	EPA624	9.46	20.00	0	47.3	10-187				12/4/2010 2200h
1012086-001AMS	Naphthalene	µg/L	EPA624	14.2	20.00	0	70.8	41-131				12/4/2010 2200h
1012086-001AMS	n-Butyl alcohol	µg/L	EPA624	59.2	80.00	0	74.1	10-226				12/4/2010 2200h
1012086-001AMS	n-Butylbenzene	µg/L	EPA624	16.5	20.00	0	82.5	40-158				12/4/2010 2200h
1012086-001AMS	n-Hexane	µg/L	EPA624	17.2	20.00	0	85.8	10-277				12/4/2010 2200h
1012086-001AMS	n-Octane	µg/L	EPA624	13.9	20.00	0	69.4	45-158				12/4/2010 2200h
1012086-001AMS	n-Propylbenzene	µg/L	EPA624	17.5	20.00	0	87.6	67-131				12/4/2010 2200h
1012086-001AMS	o-Xylene	µg/L	EPA624	17.7	20.00	0	88.4	70-130				12/4/2010 2200h
1012086-001AMS	Pentachloroethane	µg/L	EPA624	10.5	20.00	0	52.6	10-314				12/4/2010 2200h
1012086-001AMS	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	85.4	60-132				12/4/2010 2200h
1012086-001AMS	Propyl acetate	µg/L	EPA624	15.8	20.00	0	79.1	48-143				12/4/2010 2200h
1012086-001AMS	sec-Butylbenzene	µg/L	EPA624	18.0	20.00	0	89.8	72-157				12/4/2010 2200h
1012086-001AMS	Styrene	µg/L	EPA624	16.7	20.00	0	83.4	81-125				12/4/2010 2200h
1012086-001AMS	tert-Butyl alcohol	µg/L	EPA624	34.6	40.00	0	86.6	50-286				12/4/2010 2200h
1012086-001AMS	tert-Butylbenzene	µg/L	EPA624	17.0	20.00	0	84.8	75-157				12/4/2010 2200h
1012086-001AMS	Tetrachloroethene	µg/L	EPA624	23.8	20.00	0	119	49-163				12/4/2010 2200h
1012086-001AMS	Tetrahydrofuran	µg/L	EPA624	15.6	20.00	0	77.8	43-146				12/4/2010 2200h
1012086-001AMS	Toluene	µg/L	EPA624	17.9	20.00	0	89.5	18-192				12/4/2010 2200h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMS	trans-1,2-Dichloroethene	µg/L	EPA624	20.5	20.00	0	102	47-146				12/4/2010 2200h
1012086-001AMS	trans-1,3-Dichloropropene	µg/L	EPA624	19.0	20.00	0	95.2	29-143				12/4/2010 2200h
1012086-001AMS	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.7	20.00	0	93.6	20-214				12/4/2010 2200h
1012086-001AMS	Trichloroethene	µg/L	EPA624	21.2	20.00	0	106	61-153				12/4/2010 2200h
1012086-001AMS	Trichlorofluoromethane	µg/L	EPA624	20.8	20.00	0	104	56-166				12/4/2010 2200h
1012086-001AMS	Vinyl acetate	µg/L	EPA624	20.7	40.00	0	51.8	38-121				12/4/2010 2200h
1012086-001AMS	Vinyl chloride	µg/L	EPA624	15.9	20.00	0	79.7	13-155				12/4/2010 2200h
1012086-001AMS	Xylenes, Total	µg/L	EPA624	54.4	60.00	0	90.6	42-167				12/4/2010 2200h
1012086-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	58.8	50.00		118	77-144				12/4/2010 2200h
1012086-001AMS	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.5	50.00		97.1	80-123				12/4/2010 2200h
1012086-001AMS	Surr: Dibromofluoromethane	%REC	EPA624	53.8	50.00		108	80-124				12/4/2010 2200h
1012086-001AMS	Surr: Toluene-d8	%REC	EPA624	46.6	50.00		93.1	80-125				12/4/2010 2200h

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

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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	Date Analyzed
1012083-003AMSD	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.3	20.00	0	86.6	74-117	3.69	25		12/4/2010 1521h
1012083-003AMSD	1,1,1-Trichloroethane	µg/L	EPA624	21.7	20.00	0	109	67-147	3.93	25		12/4/2010 1521h
1012083-003AMSD	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.2	20.00	0	75.8	67-119	5.08	25		12/4/2010 1521h
1012083-003AMSD	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	24.0	20.00	0	120	21-206	4.16	25		12/4/2010 1521h
1012083-003AMSD	1,1,2-Trichloroethane	µg/L	EPA624	16.8	20.00	0	84.2	80-123	3.61	25		12/4/2010 1521h
1012083-003AMSD	1,1-Dichloropropene	µg/L	EPA624	42.0	40.00	0	105	10-140	4.95	25		12/4/2010 1521h
1012083-003AMSD	1,1-Dichloroethane	µg/L	EPA624	19.6	20.00	0	97.9	70-130	3.37	25		12/4/2010 1521h
1012083-003AMSD	1,1-Dichloroethene	µg/L	EPA624	24.7	20.00	0	124	62-152	5.70	25		12/4/2010 1521h
1012083-003AMSD	1,2,3-Trichlorobenzene	µg/L	EPA624	15.3	20.00	0	76.3	67-131	0.131	25		12/4/2010 1521h
1012083-003AMSD	1,2,3-Trichloropropane	µg/L	EPA624	17.3	20.00	0	86.6	62-116	2.85	25		12/4/2010 1521h
1012083-003AMSD	1,2,3-Trimethylbenzene	µg/L	EPA624	17.0	20.00	0	85.0	76-140	4.54	25		12/4/2010 1521h
1012083-003AMSD	1,2,4-Trichlorobenzene	µg/L	EPA624	14.1	20.00	0	70.6	58-133	2.17	25		12/4/2010 1521h
1012083-003AMSD	1,2,4-Trimethylbenzene	µg/L	EPA624	17.3	20.00	0	86.3	79-151	3.25	25		12/4/2010 1521h
1012083-003AMSD	1,2-Dibromo-3-chloropropane	µg/L	EPA624	16.2	20.00	0	81.1	64-129	4.22	25		12/4/2010 1521h
1012083-003AMSD	1,2-Dibromoethane	µg/L	EPA624	17.2	20.00	0	86.0	70-126	1.79	25		12/4/2010 1521h
1012083-003AMSD	1,2-Dichlorobenzene	µg/L	EPA624	17.0	20.00	0	85.1	70-130	2.32	25		12/4/2010 1521h
1012083-003AMSD	1,2-Dichloroethane	µg/L	EPA624	20.3	20.00	0	102	39-162	1.85	25		12/4/2010 1521h
1012083-003AMSD	1,2-Dichloropropane	µg/L	EPA624	17.5	20.00	0	87.5	59-135	1.25	25		12/4/2010 1521h
1012083-003AMSD	1,3,5-Trimethylbenzene	µg/L	EPA624	17.4	20.00	0	87.2	77-151	3.49	25		12/4/2010 1521h
1012083-003AMSD	1,3-Dichlorobenzene	µg/L	EPA624	16.9	20.00	0	84.4	78-134	2.22	25		12/4/2010 1521h
1012083-003AMSD	1,3-Dichloropropane	µg/L	EPA624	16.6	20.00	0	83.3	78-116	3.19	25		12/4/2010 1521h
1012083-003AMSD	1,4-Dichlorobenzene	µg/L	EPA624	16.4	20.00	0	81.8	72-139	4.83	25		12/4/2010 1521h
1012083-003AMSD	1,4-Dioxane	µg/L	EPA624	175	200.0	0	87.4	33-149	10.4	25		12/4/2010 1521h
1012083-003AMSD	2,2-Dichloropropane	µg/L	EPA624	20.6	30.00	0	68.8	13-180	6.42	25		12/4/2010 1521h

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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	Date Analyzed
1012083-003AMSD	2-Butanone	µg/L	EPA624	25.3	20.00	0	127	10-217	2.46	25		12/4/2010 1521h
1012083-003AMSD	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163	0	25	1	12/4/2010 1521h
1012083-003AMSD	2-Chlorotoluene	µg/L	EPA624	17.3	20.00	0	86.7	79-142	2.96	25		12/4/2010 1521h
1012083-003AMSD	2-Hexanone	µg/L	EPA624	15.1	20.00	0	75.6	50-156	0.330	25		12/4/2010 1521h
1012083-003AMSD	2-Nitropropane	µg/L	EPA624	19.6	20.00	0	97.9	10-243	0.615	25		12/4/2010 1521h
1012083-003AMSD	4-Chlorotoluene	µg/L	EPA624	16.9	20.00	0	84.6	68-128	1.76	25		12/4/2010 1521h
1012083-003AMSD	4-Isopropyltoluene	µg/L	EPA624	16.8	20.00	0	83.9	73-156	5.11	25		12/4/2010 1521h
1012083-003AMSD	4-Methyl-2-pentanone	µg/L	EPA624	16.4	20.00	0	81.8	10-214	0.366	25		12/4/2010 1521h
1012083-003AMSD	Acetone	µg/L	EPA624	13.8	20.00	0	68.9	10-313	1.51	25		12/4/2010 1521h
1012083-003AMSD	Acetonitrile	µg/L	EPA624	32.8	40.00	0	81.9	37-159	1.90	25		12/4/2010 1521h
1012083-003AMSD	Acrolein	µg/L	EPA624	67.7	40.00	0	169	10-325	1.04	25		12/4/2010 1521h
1012083-003AMSD	Acrylonitrile	µg/L	EPA624	16.7	20.00	0	83.6	53-134	3.87	25		12/4/2010 1521h
1012083-003AMSD	Allyl chloride	µg/L	EPA624	19.0	20.00	0	95.1	10-243	5.17	25		12/4/2010 1521h
1012083-003AMSD	Benzene	µg/L	EPA624	19.6	20.00	0	98.2	66-145	3.99	25		12/4/2010 1521h
1012083-003AMSD	Benzyl chloride	µg/L	EPA624	15.5	20.00	0	77.6	40-146	0.579	25		12/4/2010 1521h
1012083-003AMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA624	15.2	20.00	0	75.8	54-146	2.74	25		12/4/2010 1521h
1012083-003AMSD	Bromobenzene	µg/L	EPA624	16.2	20.00	0	81.2	78-148	2.61	25		12/4/2010 1521h
1012083-003AMSD	Bromochloromethane	µg/L	EPA624	19.0	20.00	0	95.1	75-134	4.97	25		12/4/2010 1521h
1012083-003AMSD	Bromodichloromethane	µg/L	EPA624	18.8	20.00	0	93.8	74-121	3.30	25		12/4/2010 1521h
1012083-003AMSD	Bromoform	µg/L	EPA624	16.7	20.00	0	83.6	68-131	3.00	25		12/4/2010 1521h
1012083-003AMSD	Bromomethane	µg/L	EPA624	14.3	20.00	0	71.7	10-185	2.40	25		12/4/2010 1521h
1012083-003AMSD	Butyl acetate	µg/L	EPA624	15.7	20.00	0	78.4	46-178	1.65	25		12/4/2010 1521h
1012083-003AMSD	Carbon disulfide	µg/L	EPA624	29.9	20.00	0	149	21-224	4.90	25		12/4/2010 1521h
1012083-003AMSD	Carbon tetrachloride	µg/L	EPA624	23.3	20.00	0	116	60-157	2.67	25		12/4/2010 1521h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
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Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMSD	Chlorobenzene	µg/L	EPA624	16.8	20.00	0	84.1	63-140	5.44	25		12/4/2010 1521h
1012083-003AMSD	Chloroethane	µg/L	EPA624	18.3	20.00	0	91.4	41-173	2.06	25		12/4/2010 1521h
1012083-003AMSD	Chloroform	µg/L	EPA624	19.4	20.00	0	97.0	50-146	3.94	25		12/4/2010 1521h
1012083-003AMSD	Chloromethane	µg/L	EPA624	14.1	20.00	0	70.4	10-138	2.73	25		12/4/2010 1521h
1012083-003AMSD	Chloroprene	µg/L	EPA624	19.5	20.00	0	97.6	10-161	6.92	25		12/4/2010 1521h
1012083-003AMSD	cis-1,2-Dichloroethene	µg/L	EPA624	18.8	20.00	0	94.0	72-137	5.13	25		12/4/2010 1521h
1012083-003AMSD	cis-1,3-Dichloropropene	µg/L	EPA624	18.1	40.00	0	45.3	10-134	3.63	25		12/4/2010 1521h
1012083-003AMSD	Cyclohexane	µg/L	EPA624	22.9	20.00	0	114	35-230	5.52	25		12/4/2010 1521h
1012083-003AMSD	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	49.0	10-374	0	25		12/4/2010 1521h
1012083-003AMSD	Dibromochloromethane	µg/L	EPA624	17.4	20.00	0	86.9	68-135	1.99	25		12/4/2010 1521h
1012083-003AMSD	Dibromomethane	µg/L	EPA624	18.4	20.00	0	91.8	74-120	1.14	25		12/4/2010 1521h
1012083-003AMSD	Dichlorodifluoromethane	µg/L	EPA624	14.1	20.00	0	70.3	10-150	4.79	25		12/4/2010 1521h
1012083-003AMSD	Ethyl acetate	µg/L	EPA624	36.0	40.00	0	90.0	50-155	0.501	25		12/4/2010 1521h
1012083-003AMSD	Ethyl ether	µg/L	EPA624	20.3	20.00	0	102	45-146	0.296	25		12/4/2010 1521h
1012083-003AMSD	Ethyl methacrylate	µg/L	EPA624	15.5	20.00	0	77.4	77-151	2.23	25		12/4/2010 1521h
1012083-003AMSD	Ethylbenzene	µg/L	EPA624	17.4	20.00	0	87.2	69-133	5.63	25		12/4/2010 1521h
1012083-003AMSD	Hexachlorobutadiene	µg/L	EPA624	16.0	20.00	0	79.8	35-213	4.17	25		12/4/2010 1521h
1012083-003AMSD	Iodomethane	µg/L	EPA624	17.0	20.00	0	84.8	10-233	3.31	25		12/4/2010 1521h
1012083-003AMSD	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	75.7	12-202	0	25		12/4/2010 1521h
1012083-003AMSD	Isopropyl acetate	µg/L	EPA624	17.2	20.00	0	86.2	55-145	1.33	25		12/4/2010 1521h
1012083-003AMSD	Isopropyl alcohol	µg/L	EPA624	58.2	80.00	0	72.7	12-250	15.1	25		12/4/2010 1521h
1012083-003AMSD	Isopropylbenzene	µg/L	EPA624	17.7	20.00	0	88.6	60-147	5.22	25		12/4/2010 1521h
1012083-003AMSD	Isopropyltoluene	µg/L	EPA624	16.8	20.00	0	83.9	73-156	5.11	25		12/4/2010 1521h
1012083-003AMSD	m,p-Xylene	µg/L	EPA624	35.5	40.00	0	88.8	70-130	5.00	25		12/4/2010 1521h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMSD	Methacrylonitrile	µg/L	EPA624	16.9	20.00	0	84.6	79-123	0.474	25		12/4/2010 1521h
1012083-003AMSD	Methyl Acetate	µg/L	EPA624	24.4	20.00	0	122	5-398	1.47	25		12/4/2010 1521h
1012083-003AMSD	Methyl methacrylate	µg/L	EPA624	15.7	20.00	0	78.5	55-128	0.960	25		12/4/2010 1521h
1012083-003AMSD	Methyl tert-butyl ether	µg/L	EPA624	15.6	20.00	0	78.0	37-189	0.386	25		12/4/2010 1521h
1012083-003AMSD	Methylcyclohexane	µg/L	EPA624	22.4	20.00	0	112	65-175	6.39	25		12/4/2010 1521h
1012083-003AMSD	Methylene chloride	µg/L	EPA624	14.1	20.00	0	70.3	55-138	2.39	25		12/4/2010 1521h
1012083-003AMSD	n-Amyl acetate	µg/L	EPA624	9.87	20.00	0	49.4	10-187	2.99	25		12/4/2010 1521h
1012083-003AMSD	Naphthalene	µg/L	EPA624	14.9	20.00	0	74.4	41-131	1.28	25		12/4/2010 1521h
1012083-003AMSD	n-Butyl alcohol	µg/L	EPA624	50.9	80.00	0	63.6	10-226	2.35	25		12/4/2010 1521h
1012083-003AMSD	n-Butylbenzene	µg/L	EPA624	16.4	20.00	0	81.8	40-158	3.48	25		12/4/2010 1521h
1012083-003AMSD	n-Hexane	µg/L	EPA624	18.2	20.00	0	90.8	10-277	1.37	25		12/4/2010 1521h
1012083-003AMSD	n-Octane	µg/L	EPA624	15.2	20.00	0	75.9	45-158	3.62	25		12/4/2010 1521h
1012083-003AMSD	n-Propylbenzene	µg/L	EPA624	17.1	20.00	0	85.6	67-131	3.73	25		12/4/2010 1521h
1012083-003AMSD	o-Xylene	µg/L	EPA624	16.9	20.00	0	84.7	70-130	6.07	25		12/4/2010 1521h
1012083-003AMSD	Pentachloroethane	µg/L	EPA624	11.3	20.00	0	56.5	10-314	1.84	25		12/4/2010 1521h
1012083-003AMSD	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	83.2	60-132	0	25		12/4/2010 1521h
1012083-003AMSD	Propyl acetate	µg/L	EPA624	16.5	20.00	0	82.4	48-143	1.41	25		12/4/2010 1521h
1012083-003AMSD	sec-Butylbenzene	µg/L	EPA624	17.8	20.00	0	88.9	72-157	4.51	25		12/4/2010 1521h
1012083-003AMSD	Styrene	µg/L	EPA624	16.5	20.00	0	82.5	81-125	4.45	25		12/4/2010 1521h
1012083-003AMSD	tert-Butyl alcohol	µg/L	EPA624	33.4	40.00	0	83.4	50-286	17.0	25		12/4/2010 1521h
1012083-003AMSD	tert-Butylbenzene	µg/L	EPA624	16.9	20.00	0	84.6	75-157	3.37	25		12/4/2010 1521h
1012083-003AMSD	Tetrachloroethene	µg/L	EPA624	23.0	20.00	0	115	49-163	3.55	25		12/4/2010 1521h
1012083-003AMSD	Tetrahydrofuran	µg/L	EPA624	15.7	20.00	0	78.7	43-146	3.10	25		12/4/2010 1521h
1012083-003AMSD	Toluene	µg/L	EPA624	17.5	20.00	0	87.5	18-192	6.47	25		12/4/2010 1521h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-003AMSD	trans-1,2-Dichloroethene	µg/L	EPA624	19.4	20.00	0	96.8	47-146	7.17	25		12/4/2010 1521h
1012083-003AMSD	trans-1,3-Dichloropropene	µg/L	EPA624	18.9	20.00	0	94.6	29-143	0.475	25		12/4/2010 1521h
1012083-003AMSD	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.2	20.00	0	91.1	20-214	6.99	25		12/4/2010 1521h
1012083-003AMSD	Trichloroethene	µg/L	EPA624	20.1	20.00	0	101	61-153	5.66	25		12/4/2010 1521h
1012083-003AMSD	Trichlorofluoromethane	µg/L	EPA624	20.2	20.00	0	101	56-166	5.24	25		12/4/2010 1521h
1012083-003AMSD	Vinyl acetate	µg/L	EPA624	22.6	40.00	0	56.4	38-121	2.51	25		12/4/2010 1521h
1012083-003AMSD	Vinyl chloride	µg/L	EPA624	17.2	20.00	0	86.2	13-155	0.640	25		12/4/2010 1521h
1012083-003AMSD	Xylenes, Total	µg/L	EPA624	52.4	60.00	0	87.4	42-167	5.34	25		12/4/2010 1521h
1012083-003AMSD	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	57.1	50.00		114	77-144				12/4/2010 1521h
1012083-003AMSD	Surr: 4-Bromofluorobenzene	%REC	EPA624	49.2	50.00		98.3	80-123				12/4/2010 1521h
1012083-003AMSD	Surr: Dibromofluoromethane	%REC	EPA624	53.3	50.00		107	80-124				12/4/2010 1521h
1012083-003AMSD	Surr: Toluene-d8	%REC	EPA624	46.9	50.00		93.8	80-125				12/4/2010 1521h
1012084-001AMSD	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.3	20.00	0	86.3	74-117	3.70	25		12/4/2010 1559h
1012084-001AMSD	1,1,1-Trichloroethane	µg/L	EPA624	21.4	20.00	0	107	67-147	5.14	25		12/4/2010 1559h
1012084-001AMSD	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.4	20.00	0	77.0	67-119	0.130	25		12/4/2010 1559h
1012084-001AMSD	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	23.6	20.00	0	118	21-206	4.60	25		12/4/2010 1559h
1012084-001AMSD	1,1,2-Trichloroethane	µg/L	EPA624	17.0	20.00	0	85.0	80-123	1.12	25		12/4/2010 1559h
1012084-001AMSD	1,1-Dichloropropene	µg/L	EPA624	42.3	40.00	0	106	10-140	6.10	25		12/4/2010 1559h
1012084-001AMSD	1,1-Dichloroethane	µg/L	EPA624	19.6	20.00	0	98.0	70-130	1.97	25		12/4/2010 1559h
1012084-001AMSD	1,1-Dichloroethene	µg/L	EPA624	24.6	20.00	0	123	62-152	5.96	25		12/4/2010 1559h
1012084-001AMSD	1,2,3-Trichlorobenzene	µg/L	EPA624	15.0	20.00	0	75.1	67-131	3.53	25		12/4/2010 1559h
1012084-001AMSD	1,2,3-Trichloropropane	µg/L	EPA624	17.6	20.00	0	88.0	62-116	1.14	25		12/4/2010 1559h
1012084-001AMSD	1,2,3-Trimethylbenzene	µg/L	EPA624	17.4	20.00	0	87.0	76-140	5.75	25		12/4/2010 1559h
1012084-001AMSD	1,2,4-Trichlorobenzene	µg/L	EPA624	14.3	20.00	0	71.4	58-133	5.12	25		12/4/2010 1559h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMSD	1,2,4-Trimethylbenzene	µg/L	EPA624	16.9	20.00	0	84.6	79-151	6.96	25		12/4/2010 1559h
1012084-001AMSD	1,2-Dibromo-3-chloropropane	µg/L	EPA624	15.9	20.00	0	79.6	64-129	2.79	25		12/4/2010 1559h
1012084-001AMSD	1,2-Dibromoethane	µg/L	EPA624	17.0	20.00	0	85.0	70-126	0.821	25		12/4/2010 1559h
1012084-001AMSD	1,2-Dichlorobenzene	µg/L	EPA624	17.0	20.00	0	85.0	70-130	4.99	25		12/4/2010 1559h
1012084-001AMSD	1,2-Dichloroethane	µg/L	EPA624	20.4	20.00	0	102	39-162	1.37	25		12/4/2010 1559h
1012084-001AMSD	1,2-Dichloropropane	µg/L	EPA624	17.9	20.00	0	89.4	59-135	2.32	25		12/4/2010 1559h
1012084-001AMSD	1,3,5-Trimethylbenzene	µg/L	EPA624	17.2	20.00	0	85.9	77-151	6.09	25		12/4/2010 1559h
1012084-001AMSD	1,3-Dichlorobenzene	µg/L	EPA624	16.4	20.00	0	82.1	78-134	9.18	25		12/4/2010 1559h
1012084-001AMSD	1,3-Dichloropropane	µg/L	EPA624	17.0	20.00	0	84.9	78-116	0.591	25		12/4/2010 1559h
1012084-001AMSD	1,4-Dichlorobenzene	µg/L	EPA624	16.4	20.00	0	81.8	72-139	2.48	25		12/4/2010 1559h
1012084-001AMSD	1,4-Dioxane	µg/L	EPA624	159	200.0	0	79.4	33-149	17.8	25		12/4/2010 1559h
1012084-001AMSD	2,2-Dichloropropane	µg/L	EPA624	20.2	30.00	0	67.5	13-180	6.55	25		12/4/2010 1559h
1012084-001AMSD	2-Butanone	µg/L	EPA624	25.8	20.00	0	129	10-217	1.96	25		12/4/2010 1559h
1012084-001AMSD	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163	0	25	1	12/4/2010 1559h
1012084-001AMSD	2-Chlorotoluene	µg/L	EPA624	16.8	20.00	0	83.9	79-142	6.74	25		12/4/2010 1559h
1012084-001AMSD	2-Hexanone	µg/L	EPA624	16.0	20.00	0	80.1	50-156	0.125	25		12/4/2010 1559h
1012084-001AMSD	2-Nitropropane	µg/L	EPA624	20.1	20.00	0	101	10-243	3.49	25		12/4/2010 1559h
1012084-001AMSD	4-Chlorotoluene	µg/L	EPA624	16.8	20.00	0	83.9	68-128	6.41	25		12/4/2010 1559h
1012084-001AMSD	4-Isopropyltoluene	µg/L	EPA624	16.4	20.00	0	82.0	73-156	6.32	25		12/4/2010 1559h
1012084-001AMSD	4-Methyl-2-pentanone	µg/L	EPA624	17.4	20.00	0	87.0	10-214	2.44	25		12/4/2010 1559h
1012084-001AMSD	Acetone	µg/L	EPA624	18.8	20.00	0	94.0	10-313	0.106	25		12/4/2010 1559h
1012084-001AMSD	Acetonitrile	µg/L	EPA624	35.9	40.00	0	89.8	37-159	2.67	25		12/4/2010 1559h
1012084-001AMSD	Acrolein	µg/L	EPA624	70.6	40.00	0	176	10-325	0.526	25		12/4/2010 1559h
1012084-001AMSD	Acrylonitrile	µg/L	EPA624	17.1	20.00	0	85.4	53-134	1.45	25		12/4/2010 1559h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMSD	Allyl chloride	µg/L	EPA624	19.5	20.00	0	97.6	10-243	5.92	25		12/4/2010 1559h
1012084-001AMSD	Benzene	µg/L	EPA624	19.9	20.00	0	99.3	66-145	3.61	25		12/4/2010 1559h
1012084-001AMSD	Benzyl chloride	µg/L	EPA624	14.8	20.00	0	74.0	40-146	8.23	25		12/4/2010 1559h
1012084-001AMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA624	16.5	20.00	0	82.4	54-146	2.10	25		12/4/2010 1559h
1012084-001AMSD	Bromobenzene	µg/L	EPA624	16.1	20.00	0	80.6	78-148	5.08	25		12/4/2010 1559h
1012084-001AMSD	Bromochloromethane	µg/L	EPA624	19.5	20.00	0	97.6	75-134	0.720	25		12/4/2010 1559h
1012084-001AMSD	Bromodichloromethane	µg/L	EPA624	18.6	20.00	0	92.8	74-121	3.39	25		12/4/2010 1559h
1012084-001AMSD	Bromoform	µg/L	EPA624	16.7	20.00	0	83.7	68-131	1.36	25		12/4/2010 1559h
1012084-001AMSD	Bromomethane	µg/L	EPA624	14.8	20.00	0	74.0	10-185	4.88	25		12/4/2010 1559h
1012084-001AMSD	Butyl acetate	µg/L	EPA624	16.2	20.00	0	81.0	46-178	0.619	25		12/4/2010 1559h
1012084-001AMSD	Carbon disulfide	µg/L	EPA624	30.9	20.00	0	154	21-224	7.48	25		12/4/2010 1559h
1012084-001AMSD	Carbon tetrachloride	µg/L	EPA624	22.7	20.00	0	114	60-157	5.02	25		12/4/2010 1559h
1012084-001AMSD	Chlorobenzene	µg/L	EPA624	16.9	20.00	0	84.4	63-140	4.17	25		12/4/2010 1559h
1012084-001AMSD	Chloroethane	µg/L	EPA624	17.4	20.00	0	86.9	41-173	9.27	25		12/4/2010 1559h
1012084-001AMSD	Chloroform	µg/L	EPA624	19.3	20.00	0	96.7	50-146	2.55	25		12/4/2010 1559h
1012084-001AMSD	Chloromethane	µg/L	EPA624	13.6	20.00	0	68.2	10-138	9.36	25		12/4/2010 1559h
1012084-001AMSD	Chloroprene	µg/L	EPA624	19.6	20.00	0	98.0	10-161	4.92	25		12/4/2010 1559h
1012084-001AMSD	cis-1,2-Dichloroethene	µg/L	EPA624	19.0	20.00	0	95.1	72-137	4.02	25		12/4/2010 1559h
1012084-001AMSD	cis-1,3-Dichloropropene	µg/L	EPA624	18.3	40.00	0	45.7	10-134	2.11	25		12/4/2010 1559h
1012084-001AMSD	Cyclohexane	µg/L	EPA624	23.3	20.00	0	116	35-230	4.16	25		12/4/2010 1559h
1012084-001AMSD	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	47.0	10-374	0	25		12/4/2010 1559h
1012084-001AMSD	Dibromochloromethane	µg/L	EPA624	17.3	20.00	0	86.7	68-135	0.173	25		12/4/2010 1559h
1012084-001AMSD	Dibromomethane	µg/L	EPA624	18.4	20.00	0	91.8	74-120	0.922	25		12/4/2010 1559h
1012084-001AMSD	Dichlorodifluoromethane	µg/L	EPA624	13.8	20.00	0	69.2	10-150	6.30	25		12/4/2010 1559h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMSD	Ethyl acetate	µg/L	EPA624	37.3	40.00	0	93.4	50-155	0.107	25		12/4/2010 1559h
1012084-001AMSD	Ethyl ether	µg/L	EPA624	21.3	20.00	0	106	45-146	0	25		12/4/2010 1559h
1012084-001AMSD	Ethyl methacrylate	µg/L	EPA624	16.2	20.00	0	81.0	77-151	1.35	25		12/4/2010 1559h
1012084-001AMSD	Ethylbenzene	µg/L	EPA624	17.6	20.00	0	88.0	69-133	3.90	25		12/4/2010 1559h
1012084-001AMSD	Hexachlorobutadiene	µg/L	EPA624	15.1	20.00	0	75.6	35-213	8.01	25		12/4/2010 1559h
1012084-001AMSD	Iodomethane	µg/L	EPA624	17.6	20.00	0	88.2	10-233	5.62	25		12/4/2010 1559h
1012084-001AMSD	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	99.4	12-202	0	25		12/4/2010 1559h
1012084-001AMSD	Isopropyl acetate	µg/L	EPA624	17.9	20.00	0	89.6	55-145	0	25		12/4/2010 1559h
1012084-001AMSD	Isopropyl alcohol	µg/L	EPA624	78.7	80.00	0	98.3	12-250	2.42	25		12/4/2010 1559h
1012084-001AMSD	Isopropylbenzene	µg/L	EPA624	17.5	20.00	0	87.7	60-147	4.02	25		12/4/2010 1559h
1012084-001AMSD	Isopropyltoluene	µg/L	EPA624	16.4	20.00	0	82.0	73-156	6.32	25		12/4/2010 1559h
1012084-001AMSD	m,p-Xylene	µg/L	EPA624	35.1	40.00	0	87.8	70-130	6.21	25		12/4/2010 1559h
1012084-001AMSD	Methacrylonitrile	µg/L	EPA624	17.8	20.00	0	89.0	79-123	4.72	25		12/4/2010 1559h
1012084-001AMSD	Methyl Acetate	µg/L	EPA624	27.2	20.00	0	136	5-398	13.1	25		12/4/2010 1559h
1012084-001AMSD	Methyl methacrylate	µg/L	EPA624	17.1	20.00	0	85.3	55-128	2.01	25		12/4/2010 1559h
1012084-001AMSD	Methyl tert-butyl ether	µg/L	EPA624	19.2	20.00	0	96.0	37-189	0.675	25		12/4/2010 1559h
1012084-001AMSD	Methylcyclohexane	µg/L	EPA624	22.8	20.00	0	114	65-175	4.26	25		12/4/2010 1559h
1012084-001AMSD	Methylene chloride	µg/L	EPA624	13.7	20.00	0	68.4	55-138	6.64	25		12/4/2010 1559h
1012084-001AMSD	n-Amyl acetate	µg/L	EPA624	10.3	20.00	0	51.3	10-187	2.98	25		12/4/2010 1559h
1012084-001AMSD	Naphthalene	µg/L	EPA624	15.2	20.00	0	76.1	41-131	0.459	25		12/4/2010 1559h
1012084-001AMSD	n-Butyl alcohol	µg/L	EPA624	66.0	80.00	0	82.5	10-226	5.80	25		12/4/2010 1559h
1012084-001AMSD	n-Butylbenzene	µg/L	EPA624	15.8	20.00	0	78.8	40-158	8.16	25		12/4/2010 1559h
1012084-001AMSD	n-Hexane	µg/L	EPA624	20.5	20.00	0	103	10-277	11.9	25		12/4/2010 1559h
1012084-001AMSD	n-Octane	µg/L	EPA624	14.4	20.00	0	72.3	45-158	4.60	25		12/4/2010 1559h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012084-001AMSD	n-Propylbenzene	µg/L	EPA624	17.0	20.00	0	85.2	67-131	5.59	25		12/4/2010 1559h
1012084-001AMSD	o-Xylene	µg/L	EPA624	16.9	20.00	0	84.6	70-130	5.23	25		12/4/2010 1559h
1012084-001AMSD	Pentachloroethane	µg/L	EPA624	10.8	20.00	0	54.2	10-314	9.75	25		12/4/2010 1559h
1012084-001AMSD	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	83.5	60-132	0	25		12/4/2010 1559h
1012084-001AMSD	Propyl acetate	µg/L	EPA624	17.0	20.00	0	84.8	48-143	0.0589	25		12/4/2010 1559h
1012084-001AMSD	sec-Butylbenzene	µg/L	EPA624	17.2	20.00	0	86.2	72-157	8.02	25		12/4/2010 1559h
1012084-001AMSD	Styrene	µg/L	EPA624	16.3	20.00	0	81.3	81-125	4.74	25		12/4/2010 1559h
1012084-001AMSD	tert-Butyl alcohol	µg/L	EPA624	36.9	40.00	0	92.3	50-286	5.12	25		12/4/2010 1559h
1012084-001AMSD	tert-Butylbenzene	µg/L	EPA624	16.6	20.00	0	83.0	75-157	6.70	25		12/4/2010 1559h
1012084-001AMSD	Tetrachloroethene	µg/L	EPA624	23.7	20.00	0	118	49-163	0.925	25		12/4/2010 1559h
1012084-001AMSD	Tetrahydrofuran	µg/L	EPA624	16.4	20.00	0	82.0	43-146	3.85	25		12/4/2010 1559h
1012084-001AMSD	Toluene	µg/L	EPA624	17.4	20.00	0	87.2	18-192	4.81	25		12/4/2010 1559h
1012084-001AMSD	trans-1,2-Dichloroethene	µg/L	EPA624	19.4	20.00	0	97.1	47-146	3.34	25		12/4/2010 1559h
1012084-001AMSD	trans-1,3-Dichloropropene	µg/L	EPA624	18.7	20.00	0	93.3	29-143	2.49	25		12/4/2010 1559h
1012084-001AMSD	trans-1,4-Dichloro-2-butene	µg/L	EPA624	17.6	20.00	0	88.2	20-214	7.01	25		12/4/2010 1559h
1012084-001AMSD	Trichloroethene	µg/L	EPA624	20.2	20.00	0	101	61-153	4.92	25		12/4/2010 1559h
1012084-001AMSD	Trichlorofluoromethane	µg/L	EPA624	19.7	20.00	0	98.4	56-166	4.96	25		12/4/2010 1559h
1012084-001AMSD	Vinyl acetate	µg/L	EPA624	22.8	40.00	0	57.0	38-121	0.615	25		12/4/2010 1559h
1012084-001AMSD	Vinyl chloride	µg/L	EPA624	16.9	20.00	0	84.6	13-155	8.54	25		12/4/2010 1559h
1012084-001AMSD	Xylenes, Total	µg/L	EPA624	52.1	60.00	0	86.8	42-167	5.89	25		12/4/2010 1559h
1012084-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	57.3	50.00		115	77-144				12/4/2010 1559h
1012084-001AMSD	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.4	50.00		96.9	80-123				12/4/2010 1559h
1012084-001AMSD	Surr: Dibromofluoromethane	%REC	EPA624	53.0	50.00		106	80-124				12/4/2010 1559h
1012084-001AMSD	Surr: Toluene-d8	%REC	EPA624	46.9	50.00		93.9	80-125				12/4/2010 1559h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMSD	1,1,1,2-Tetrachloroethane	µg/L	EPA624	17.7	20.00	0	88.4	74-117	1.29	25		12/4/2010 2219h
1012086-001AMSD	1,1,1-Trichloroethane	µg/L	EPA624	21.7	20.00	0	109	67-147	4.76	25		12/4/2010 2219h
1012086-001AMSD	1,1,2,2-Tetrachloroethane	µg/L	EPA624	15.4	20.00	0	76.8	67-119	1.87	25		12/4/2010 2219h
1012086-001AMSD	1,1,2-Trichloro-1,2,2-trifluoroetha	µg/L	EPA624	23.7	20.00	0	119	21-206	4.93	25		12/4/2010 2219h
1012086-001AMSD	1,1,2-Trichloroethane	µg/L	EPA624	16.8	20.00	0	84.2	80-123	1.53	25		12/4/2010 2219h
1012086-001AMSD	1,1-Dichloropropene	µg/L	EPA624	41.7	40.00	0	104	10-140	5.23	25		12/4/2010 2219h
1012086-001AMSD	1,1-Dichloroethane	µg/L	EPA624	19.5	20.00	0	97.4	70-130	3.97	25		12/4/2010 2219h
1012086-001AMSD	1,1-Dichloroethene	µg/L	EPA624	24.8	20.00	0	124	62-152	5.98	25		12/4/2010 2219h
1012086-001AMSD	1,2,3-Trichlorobenzene	µg/L	EPA624	14.8	20.00	0	74.1	67-131	0.0675	25		12/4/2010 2219h
1012086-001AMSD	1,2,3-Trichloropropane	µg/L	EPA624	17.3	20.00	0	86.5	62-116	1.61	25		12/4/2010 2219h
1012086-001AMSD	1,2,3-Trimethylbenzene	µg/L	EPA624	16.9	20.00	0	84.4	76-140	2.98	25		12/4/2010 2219h
1012086-001AMSD	1,2,4-Trichlorobenzene	µg/L	EPA624	13.9	20.00	0	69.5	58-133	0.788	25		12/4/2010 2219h
1012086-001AMSD	1,2,4-Trimethylbenzene	µg/L	EPA624	17.1	20.00	0	85.3	79-151	3.06	25		12/4/2010 2219h
1012086-001AMSD	1,2-Dibromo-3-chloropropane	µg/L	EPA624	15.6	20.00	0	77.9	64-129	2.53	25		12/4/2010 2219h
1012086-001AMSD	1,2-Dibromoethane	µg/L	EPA624	16.8	20.00	0	84.2	70-126	1.00	25		12/4/2010 2219h
1012086-001AMSD	1,2-Dichlorobenzene	µg/L	EPA624	16.8	20.00	0	84.2	70-130	3.56	25		12/4/2010 2219h
1012086-001AMSD	1,2-Dichloroethane	µg/L	EPA624	20.8	20.00	0	104	39-162	1.43	25		12/4/2010 2219h
1012086-001AMSD	1,2-Dichloropropane	µg/L	EPA624	17.1	20.00	0	85.3	59-135	3.40	25		12/4/2010 2219h
1012086-001AMSD	1,3,5-Trimethylbenzene	µg/L	EPA624	17.2	20.00	0	86.2	77-151	3.98	25		12/4/2010 2219h
1012086-001AMSD	1,3-Dichlorobenzene	µg/L	EPA624	16.9	20.00	0	84.5	78-134	1.06	25		12/4/2010 2219h
1012086-001AMSD	1,3-Dichloropropane	µg/L	EPA624	16.8	20.00	0	83.9	78-116	1.38	25		12/4/2010 2219h
1012086-001AMSD	1,4-Dichlorobenzene	µg/L	EPA624	16.1	20.00	0	80.6	72-139	4.13	25		12/4/2010 2219h
1012086-001AMSD	1,4-Dioxane	µg/L	EPA624	176	200.0	0	87.8	33-149	7.04	25		12/4/2010 2219h
1012086-001AMSD	2,2-Dichloropropane	µg/L	EPA624	20.1	30.00	0	67.0	13-180	4.38	25		12/4/2010 2219h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMSD	2-Butanone	µg/L	EPA624	23.9	20.00	0	120	10-217	5.37	25		12/4/2010 2219h
1012086-001AMSD	2-Chloroethyl vinyl ether	µg/L	EPA624	< 5.00	40.00	0	0	32-163	0	25	1	12/4/2010 2219h
1012086-001AMSD	2-Chlorotoluene	µg/L	EPA624	17.1	20.00	0	85.3	79-142	3.46	25		12/4/2010 2219h
1012086-001AMSD	2-Hexanone	µg/L	EPA624	14.9	20.00	0	74.6	50-156	2.79	25		12/4/2010 2219h
1012086-001AMSD	2-Nitropropane	µg/L	EPA624	18.4	20.00	0	92.2	10-243	3.15	25		12/4/2010 2219h
1012086-001AMSD	4-Chlorotoluene	µg/L	EPA624	16.7	20.00	0	83.3	68-128	1.61	25		12/4/2010 2219h
1012086-001AMSD	4-Isopropyltoluene	µg/L	EPA624	16.4	20.00	0	82.2	73-156	4.35	25		12/4/2010 2219h
1012086-001AMSD	4-Methyl-2-pentanone	µg/L	EPA624	16.1	20.00	0	80.6	10-214	0.435	25		12/4/2010 2219h
1012086-001AMSD	Acetone	µg/L	EPA624	13.7	20.00	0	68.4	10-313	8.93	25		12/4/2010 2219h
1012086-001AMSD	Acetonitrile	µg/L	EPA624	35.2	40.00	0	87.9	37-159	1.14	25		12/4/2010 2219h
1012086-001AMSD	Acrolein	µg/L	EPA624	66.0	40.00	0	165	10-325	2.45	25		12/4/2010 2219h
1012086-001AMSD	Acrylonitrile	µg/L	EPA624	15.8	20.00	0	79.0	53-134	6.43	25		12/4/2010 2219h
1012086-001AMSD	Allyl chloride	µg/L	EPA624	18.9	20.00	0	94.4	10-243	4.81	25		12/4/2010 2219h
1012086-001AMSD	Benzene	µg/L	EPA624	19.7	20.00	0	98.3	66-145	2.86	25		12/4/2010 2219h
1012086-001AMSD	Benzyl chloride	µg/L	EPA624	14.1	20.00	0	70.6	40-146	5.31	25		12/4/2010 2219h
1012086-001AMSD	Bis(2-chloroisopropyl) ether	µg/L	EPA624	15.6	20.00	0	78.0	54-146	0.257	25		12/4/2010 2219h
1012086-001AMSD	Bromobenzene	µg/L	EPA624	16.2	20.00	0	80.8	78-148	2.75	25		12/4/2010 2219h
1012086-001AMSD	Bromochloromethane	µg/L	EPA624	19.6	20.00	0	97.9	75-134	0	25		12/4/2010 2219h
1012086-001AMSD	Bromodichloromethane	µg/L	EPA624	19.0	20.00	0	95.0	74-121	2.44	25		12/4/2010 2219h
1012086-001AMSD	Bromoform	µg/L	EPA624	16.9	20.00	0	84.6	68-131	1.17	25		12/4/2010 2219h
1012086-001AMSD	Bromomethane	µg/L	EPA624	13.8	20.00	0	69.2	10-185	8.98	25		12/4/2010 2219h
1012086-001AMSD	Butyl acetate	µg/L	EPA624	14.8	20.00	0	73.8	46-178	1.92	25		12/4/2010 2219h
1012086-001AMSD	Carbon disulfide	µg/L	EPA624	29.5	20.00	0	148	21-224	3.98	25		12/4/2010 2219h
1012086-001AMSD	Carbon tetrachloride	µg/L	EPA624	23.1	20.00	0	116	60-157	6.05	25		12/4/2010 2219h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMSD	Chlorobenzene	µg/L	EPA624	17.3	20.00	0	86.4	63-140	0.116	25		12/4/2010 2219h
1012086-001AMSD	Chloroethane	µg/L	EPA624	19.1	20.00	0	95.3	41-173	6.39	25		12/4/2010 2219h
1012086-001AMSD	Chloroform	µg/L	EPA624	19.7	20.00	0	98.4	50-146	1.36	25		12/4/2010 2219h
1012086-001AMSD	Chloromethane	µg/L	EPA624	13.9	20.00	0	69.6	10-138	1.23	25		12/4/2010 2219h
1012086-001AMSD	Chloroprene	µg/L	EPA624	18.8	20.00	0	94.1	10-161	3.86	25		12/4/2010 2219h
1012086-001AMSD	cis-1,2-Dichloroethene	µg/L	EPA624	18.6	20.00	0	93.2	72-137	1.33	25		12/4/2010 2219h
1012086-001AMSD	cis-1,3-Dichloropropene	µg/L	EPA624	18.1	40.00	0	45.2	10-134	1.81	25		12/4/2010 2219h
1012086-001AMSD	Cyclohexane	µg/L	EPA624	22.4	20.00	0	112	35-230	3.94	25		12/4/2010 2219h
1012086-001AMSD	Cyclohexanone	µg/L	EPA624	< 50.0	40.00	0	50.4	10-374	0	25		12/4/2010 2219h
1012086-001AMSD	Dibromochloromethane	µg/L	EPA624	17.2	20.00	0	86.2	68-135	1.95	25		12/4/2010 2219h
1012086-001AMSD	Dibromomethane	µg/L	EPA624	18.5	20.00	0	92.6	74-120	1.23	25		12/4/2010 2219h
1012086-001AMSD	Dichlorodifluoromethane	µg/L	EPA624	13.8	20.00	0	69.2	10-150	0.719	25		12/4/2010 2219h
1012086-001AMSD	Ethyl acetate	µg/L	EPA624	34.2	40.00	0	85.4	50-155	0.351	25		12/4/2010 2219h
1012086-001AMSD	Ethyl ether	µg/L	EPA624	20.4	20.00	0	102	45-146	1.78	25		12/4/2010 2219h
1012086-001AMSD	Ethyl methacrylate	µg/L	EPA624	15.0	20.00	0	74.8	77-151	0.334	25	1	12/4/2010 2219h
1012086-001AMSD	Ethylbenzene	µg/L	EPA624	17.4	20.00	0	87.0	69-133	3.84	25		12/4/2010 2219h
1012086-001AMSD	Hexachlorobutadiene	µg/L	EPA624	14.8	20.00	0	73.9	35-213	5.78	25		12/4/2010 2219h
1012086-001AMSD	Iodomethane	µg/L	EPA624	19.0	20.00	0	95.2	10-233	2.82	25		12/4/2010 2219h
1012086-001AMSD	Isobutyl alcohol	µg/L	EPA624	< 100	80.00	0	93.8	12-202	0	25		12/4/2010 2219h
1012086-001AMSD	Isopropyl acetate	µg/L	EPA624	17.1	20.00	0	85.6	55-145	0.117	25		12/4/2010 2219h
1012086-001AMSD	Isopropyl alcohol	µg/L	EPA624	68.6	80.00	0	85.8	12-250	7.87	25		12/4/2010 2219h
1012086-001AMSD	Isopropylbenzene	µg/L	EPA624	17.7	20.00	0	88.4	60-147	2.74	25		12/4/2010 2219h
1012086-001AMSD	Isopropyltoluene	µg/L	EPA624	16.4	20.00	0	82.2	73-156	4.35	25		12/4/2010 2219h
1012086-001AMSD	m,p-Xylene	µg/L	EPA624	35.9	40.00	0	89.7	70-130	2.15	25		12/4/2010 2219h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMSD	Methacrylonitrile	µg/L	EPA624	16.6	20.00	0	82.8	79-123	4.00	25		12/4/2010 2219h
1012086-001AMSD	Methyl Acetate	µg/L	EPA624	24.6	20.00	0	123	5-398	0.486	25		12/4/2010 2219h
1012086-001AMSD	Methyl methacrylate	µg/L	EPA624	15.6	20.00	0	77.8	55-128	0.451	25		12/4/2010 2219h
1012086-001AMSD	Methyl tert-butyl ether	µg/L	EPA624	18.0	20.00	0	90.0	37-189	8.94	25		12/4/2010 2219h
1012086-001AMSD	Methylcyclohexane	µg/L	EPA624	21.9	20.00	0	109	65-175	5.77	25		12/4/2010 2219h
1012086-001AMSD	Methylene chloride	µg/L	EPA624	14.6	20.00	0	72.8	55-138	2.51	25		12/4/2010 2219h
1012086-001AMSD	n-Amyl acetate	µg/L	EPA624	9.41	20.00	0	47.1	10-187	0.530	25		12/4/2010 2219h
1012086-001AMSD	Naphthalene	µg/L	EPA624	14.3	20.00	0	71.7	41-131	1.26	25		12/4/2010 2219h
1012086-001AMSD	n-Butyl alcohol	µg/L	EPA624	60.0	80.00	0	75.1	10-226	1.34	25		12/4/2010 2219h
1012086-001AMSD	n-Butylbenzene	µg/L	EPA624	15.8	20.00	0	79.0	40-158	4.21	25		12/4/2010 2219h
1012086-001AMSD	n-Hexane	µg/L	EPA624	17.5	20.00	0	87.6	10-277	2.13	25		12/4/2010 2219h
1012086-001AMSD	n-Octane	µg/L	EPA624	13.2	20.00	0	66.1	45-158	4.95	25		12/4/2010 2219h
1012086-001AMSD	n-Propylbenzene	µg/L	EPA624	16.9	20.00	0	84.7	67-131	3.31	25		12/4/2010 2219h
1012086-001AMSD	o-Xylene	µg/L	EPA624	17.2	20.00	0	86.2	70-130	2.52	25		12/4/2010 2219h
1012086-001AMSD	Pentachloroethane	µg/L	EPA624	10.3	20.00	0	51.4	10-314	2.12	25		12/4/2010 2219h
1012086-001AMSD	Propionitrile	µg/L	EPA624	< 25.0	20.00	0	79.4	60-132	0	25		12/4/2010 2219h
1012086-001AMSD	Propyl acetate	µg/L	EPA624	15.8	20.00	0	78.8	48-143	0.380	25		12/4/2010 2219h
1012086-001AMSD	sec-Butylbenzene	µg/L	EPA624	17.4	20.00	0	86.8	72-157	3.51	25		12/4/2010 2219h
1012086-001AMSD	Styrene	µg/L	EPA624	16.6	20.00	0	83.1	81-125	0.360	25		12/4/2010 2219h
1012086-001AMSD	tert-Butyl alcohol	µg/L	EPA624	35.1	40.00	0	87.9	50-286	1.43	25		12/4/2010 2219h
1012086-001AMSD	tert-Butylbenzene	µg/L	EPA624	16.4	20.00	0	82.0	75-157	3.42	25		12/4/2010 2219h
1012086-001AMSD	Tetrachloroethene	µg/L	EPA624	23.2	20.00	0	116	49-163	2.51	25		12/4/2010 2219h
1012086-001AMSD	Tetrahydrofuran	µg/L	EPA624	16.3	20.00	0	81.7	43-146	4.89	25		12/4/2010 2219h
1012086-001AMSD	Toluene	µg/L	EPA624	17.6	20.00	0	87.8	18-192	1.97	25		12/4/2010 2219h

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Kyle F. Gross
Laboratory Director
Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012086-001AMSD	trans-1,2-Dichloroethene	µg/L	EPA624	19.7	20.00	0	98.3	47-146	4.09	25		12/4/2010 2219h
1012086-001AMSD	trans-1,3-Dichloropropene	µg/L	EPA624	18.5	20.00	0	92.7	29-143	2.66	25		12/4/2010 2219h
1012086-001AMSD	trans-1,4-Dichloro-2-butene	µg/L	EPA624	18.2	20.00	0	91.2	20-214	2.71	25		12/4/2010 2219h
1012086-001AMSD	Trichloroethene	µg/L	EPA624	20.4	20.00	0	102	61-153	3.79	25		12/4/2010 2219h
1012086-001AMSD	Trichlorofluoromethane	µg/L	EPA624	19.7	20.00	0	98.7	56-166	5.18	25		12/4/2010 2219h
1012086-001AMSD	Vinyl acetate	µg/L	EPA624	20.9	40.00	0	52.2	38-121	0.769	25		12/4/2010 2219h
1012086-001AMSD	Vinyl chloride	µg/L	EPA624	16.6	20.00	0	83.0	13-155	4.00	25		12/4/2010 2219h
1012086-001AMSD	Xylenes, Total	µg/L	EPA624	53.1	60.00	0	88.6	42-167	2.27	25		12/4/2010 2219h
1012086-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	EPA624	58.1	50.00		116	77-144				12/4/2010 2219h
1012086-001AMSD	Surr: 4-Bromofluorobenzene	%REC	EPA624	48.4	50.00		96.8	80-123				12/4/2010 2219h
1012086-001AMSD	Surr: Dibromofluoromethane	%REC	EPA624	53.6	50.00		107	80-124				12/4/2010 2219h
1012086-001AMSD	Surr: Toluene-d8	%REC	EPA624	46.9	50.00		93.9	80-125				12/4/2010 2219h

[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: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-R21140	Chemical Oxygen Demand	mg/L	HACH 8000	1,030	1,000	0	103	85-115				12/4/2010 1030h
LCS-2-R21140	Chemical Oxygen Demand	mg/L	HACH 8000	281	300.0	0	93.7	85-115				12/4/2010 1030h
LCS-3-R21140	Chemical Oxygen Demand	mg/L	HACH 8000	110	100.0	0	110	85-115				12/4/2010 1030h
LCS-4-R21140	Chemical Oxygen Demand	mg/L	HACH 8000	9.00	10.00	0	90.0	85-115				12/4/2010 1030h
LCS-R21141	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	18.3	20.00	0	91.5	64-132				12/4/2010 1056h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-R21140	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0				-				12/4/2010 1030h
MB-R21141	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	< 3.00				-				12/4/2010 1056h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001FMS	Chemical Oxygen Demand	mg/L	HACH 8000	47.0	50.00	0	94.0	85-115				12/4/2010 1030h
1012084-002FMS	Chemical Oxygen Demand	mg/L	HACH 8000	44.0	50.00	0	88.0	85-115				12/4/2010 1030h
1012086-001FMS	Chemical Oxygen Demand	mg/L	HACH 8000	52.0	50.00	0	104	85-115				12/4/2010 1230h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1012083-001FMSD	Chemical Oxygen Demand	mg/L	HACH 8000	46.0	50.00	0	92.0	85-115	2.15	10		12/4/2010 1030h
1012084-002FMSD	Chemical Oxygen Demand	mg/L	HACH 8000	47.0	50.00	0	94.0	85-115	6.59	10		12/4/2010 1030h
1012086-001FMSD	Chemical Oxygen Demand	mg/L	HACH 8000	49.0	50.00	0	98.0	85-115	5.94	10		12/4/2010 1230h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: QCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
QCS-R21141	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	19.2	20.00	0	96.0	64-132				12/4/2010 1056h

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QC SUMMARY REPORT

Client: Utah DEQ DERR
Lab Set ID: 1012084
Project: Red Butte Spill

Contact: Jim Harris
Dept: WC
QC Type: QCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
QCSD-R21141	Total Recoverable Petroleum Hydr	mg/L	E1664A-SG	18.8	20.00	0	94.0	64-132	2.11	34		12/4/2010 1056h

American West Analytical Laboratories

RUSH

WORK ORDER Summary

Work Order: 1012084

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/3/2010

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

Comments: No Hard Copies. QC 2+ / Next Day Rush / Report out TIC's for Semi's -(Use #2 as MS/MSD) / client was notified that ORO would take longer, he said to send partial reports and do the best we can;

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012084-001A	4992095 RB Above Gardens	12/3/2010 4:00:00 PM	12/3/2010 5:50:00 PM	12/7/2010	Aqueous	624-W	☑	voc	3
1012084-001B				12/7/2010		3510-SVOA-PR	☐	walkin semi	
				12/7/2010		625-W	☑	walkin semi	
				12/7/2010		8270-W	☑	walkin semi	
1012084-001C				12/7/2010		3510-TPH-PR	☐	Hall-TPH (liters)	2
				12/7/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012084-001D				12/7/2010		3510-ORO-PR	☐	Hall-ORO (liters)	
				12/7/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012084-001E				12/7/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012084-001F				12/7/2010		COD-HACH8000	☐	ww - cod	
1012084-002A	Red Butte Nr Greenhouse	12/3/2010 4:10:00 PM		12/7/2010		624-W	☑	voc	3
1012084-002B				12/7/2010		3510-SVOA-PR	☐	walkin semi	
				12/7/2010		625-W	☑	walkin semi	
				12/7/2010		8270-W	☑	walkin semi	
1012084-002C				12/7/2010		3510-TPH-PR	☐	Hall-TPH (liters)	
				12/7/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012084-002D				12/7/2010		3510-ORO-PR	☐	Hall-ORO (liters)	
				12/7/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012084-002E				12/7/2010		OGF-W-1664SGT	☐	OGFFridge	
1012084-002F				12/7/2010		COD-HACH8000	☐	ww - cod	1
1012084-003A	4992083 RB @ 1100 E.	12/3/2010 5:15:00 PM		12/7/2010		624-W	☑	voc	3
1012084-003B				12/7/2010		3510-SVOA-PR	☐	walkin semi	
				12/7/2010		625-W	☑	walkin semi	
				12/7/2010		8270-W	☑	walkin semi	

WORK ORDER Summary

Work Order: **1012084**

Client: Utah DEQ DERR

Client ID: UTD100 **Contact:** Jim Harris 12/3/2010

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

Comments: No Hard Copies. QC 2+ / Next Day Rush / Report out TIC's for Semi's -(Use #2 as MS/MSD) / client was notified that ORO would take longer, he said to send partial reports and do the best we can;

Sample ID	Client Sample ID	Collected Date	Received Date	Date Due	Matrix	Test Code	Sel	Storage	
1012084-003C	4992083 RB @ 1100 E.	12/3/2010 5:15:00 PM	12/3/2010 5:50:00 PM	12/7/2010	Aqueous	3510-TPH-PR	☐	Hall-TPH (liters)	2
				12/7/2010		8015-W-TPH(1L)	☑	Hall-TPH (liters)	
1012084-003D				12/7/2010		3510-ORO-PR	☐	Hall-ORO (liters)	
				12/7/2010		8015-W-ORO(1L)	☐	Hall-ORO (liters)	
1012084-003E				12/7/2010		OGF-W-1664SGT	☐	OGFFridge	1
1012084-003F				12/7/2010		COD-HACH8000	☐	ww - cod	

Client DIV. OF WATER QUALITY
Address 195 N 1950 W
SLC UT 84114
City State Zip
Phone 541-3069 Fax
Contact James Harris
E-mail jamesharris@utah.gov
Project Name RED BUTTE SPILL
Project Number/P.O.#
Sampler Name J. HARRIS

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CHAIN OF CUSTODY

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Lab Sample Set # 1012084
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)	TRPH/Fract	TPH ORO/DRO	VOCs	SVOCs	COD	QC LEVEL	COMMENTS
4992095 RB ABOVE GARDENS	12/3/10 1600			1				1	1 2 (2+) 3 3+ 4	
RED BUTTE VR GARDENS GREENHOUSE	12/3/10 1610							1		MS/MSD
4992083 RB @ 1100 E	12/3/10 1715			1				1		

LABORATORY USE ONLY

SAMPLES WERE:
1 Shipped or hand delivered
Notes:
2 Ambient or Chilled
Notes: ONICE
3 Temperature 1.7
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:

Relinquished By: Signature	Date	Received By: Signature	Date
PRINT NAME JAMES HARRIS	Time 1750	PRINT NAME Samantha Broadhead	Time 1750
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:

Sample Set: 1012084

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