



Technical Report for

HRL Compliance Solutions

PDC Parachute Creek #5 Job#10-351

Accutest Job Number: D12826

Sampling Date: 04/26/10



Report to:

HRL Compliance Solutions

hlucero@hrlcomp.com

ATTN: Herman Lucero

Total number of pages in report: 79



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Jesse L. Smith
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

May 10, 2010

Herman Lucero
HRL Compliance Solution
744 Horizon Court #140
Grand Junction, CO 81506

Reference: Accutest Job D12826 (Revision 1)

Dear Mr. Lucero:

The final report for Accutest job number D12826 has been revised to change the client sample ID of sample "SAKS Line Exc" to "Sales Line Exc" (D12826-1) per your request.

Thank you for using the services of this laboratory.

Sincerely,



Joseph J Egry IV
Quality Assurance
Accutest Mountain States

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Sample Summary

HRL Compliance Solutions

Job No: D12826

PDC Parachute Creek #5 Job#10-351

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D12826-1	04/26/10	15:05 MM	04/28/10	SO	Soil	SALES LINE EXC
D12826-2	04/26/10	15:25 MM	04/28/10	SO	Soil	MAIN EXC BTM NORTH
D12826-3	04/26/10	15:30 MM	04/28/10	SO	Soil	NE CORNER WALL
D12826-4	04/26/10	15:40 MM	04/28/10	SO	Soil	MAIN EXC BTM SOUTH

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: HRL Compliance Solutions

Job No D12826

Site: PDC Parachute Creek #5 Job#10-351

Report Dat 5/7/2010 2:20:15 PM

On 04/28/2010, four (4) samples were received at Accutest Mountain States at a temperature of 2.4°C. The samples were intact and properly preserved, unless noted below. An Accutest Mountain States Job Number of D12826 was assigned to the project. The laboratory sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO	Batch ID: OP1782
------------------	-------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D12826-1MS and D12826-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB227
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D12778-1MS and D12778-1MSD were used as the QC samples indicated.
- The matrix spike and matrix spike duplicate (MS/MSD) recoveries of TPH-GRO (C6-C10) are outside control limits. The blank spike (BS) recovery of TPH-GRO (C6-C10) is within QC limits, proving the analysis is in control.
- Sample D12778-1MSD has the surrogate outside control limits due to coeluting interference. This does not affect the analysis of the target analytes, which elute before the interference.

Volatiles by GC By Method SW846 8021B

Matrix SO	Batch ID: GTB227
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- Samples D12778-1MS and D12778-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The matrix spike and matrix spike duplicate (MS/MSD) recoveries of Benzene and Toluene and the MSD recoveries of Ethylbenzene, m,p-Xylene, and o-Xylene are outside control limits. The blank spike (BS) recoveries of these analytes are within QC limits, proving the analysis is in control.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP1771
------------------	-------------------------

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D12810-1MS and D12810-1MSD were used as the QC samples indicated.

Metals By Method SW846 6010B

Matrix SO	Batch ID: MP1796
------------------	-------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D12826-1MS, D12826-1MSD, and D12826-1SDL were used as the QC samples for the metals analysis.
- The matrix spike and matrix spike duplicate (MS/MSD) recoveries of Barium, Cadmium, Lead, Nickel, Selenium, and Zinc and the MSD recovery of Chromium are outside control limits. The blank spike (BS) recoveries of these analytes are within QC limits, proving the analysis is in control.
- The serial dilution RPDs for Cadmium, Selenium, Nickel, and Zinc are outside control limits for sample MP1796-SD1. The percent differences are acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 6020

Matrix SO	Batch ID: MP1797
------------------	-------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D12826-1MS, D12826-1MSD, and D12826-1SDL were used as the QC samples for the metals analysis.

Metals By Method SW846 7471A

Matrix SO	Batch ID: MP1788
------------------	-------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D12826-1MS and D12826-1MSD were used as the QC samples for the Mercury analysis.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO	Batch ID: M:GN31738
------------------	----------------------------

- The data for ASTM E1498-76M meets quality control requirements.
- The following samples were run outside of holding time for method ASTM E1498-76M: D12826-1, D12826-2, D12826-3, D12826-4
- Redox Potential Vs H2: Analysis performed at Accutest Laboratories, Marlborough, MA.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN4132
------------------	-------------------------

- The data for SM19 2540B M meets quality control requirements.

Wet Chemistry By Method SW846 3060/7196A M

Matrix SO	Batch ID: R2128
------------------	------------------------

- The data for SW846 3060/7196A M meets quality control requirements.
- Trivalent Chromium: Calculated as: (Chromium) - (Hexavalent Chromium)

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO	Batch ID: M:GP11568
------------------	----------------------------

- The data for SW846 3060A/7196A meets quality control requirements.
- Hexavalent Chromium: Analysis performed at Accutest Laboratories, Marlborough, MA.

Accutest Mountain States certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest Mountain States's Quality System precision, accuracy and complete

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Mountain States is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Mountain States indicated via signature on the report cov

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Mountain States

Job No D12826

Site: HRLCCOGJ: PDC Parachute Creek #5 Job#10-351

Report Date 5/4/2010 4:03:54 PM

4 Sample(s) were collected on 04/26/2010 and were received at Accutest on 04/28/2010 properly preserved, at 3.7 Deg. C and intact. These Samples received an Accutest job number of D12826. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Wet Chemistry By Method ASTM E1498-76M

Matrix SO

Batch ID: GN31738

- Sample(s) D12826-IDUP were used as the QC samples for Redox Potential Vs H2.

Wet Chemistry By Method SW846 3060A/7196A

Matrix SO

Batch ID: GP11568

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D12806-IDUP, D12806-1MS were used as the QC samples for Chromium, Hexavalent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(D12826).



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SALES LINE EXC	
Lab Sample ID:	D12826-1	Date Sampled: 04/26/10
Matrix:	SO - Soil	Date Received: 04/28/10
Method:	SW846 8270C BY SIM SW846 3540C	Percent Solids: 83.3
Project:	PDC Parachute Creek #5 Job#10-351	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G00670.D	1	05/03/10	TMB	04/30/10	OP1782	E3G9
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	8.0	7.5	ug/kg	
208-96-8	Acenaphthylene	ND	40	8.2	ug/kg	
120-12-7	Anthracene	ND	8.0	5.2	ug/kg	
56-55-3	Benzo(a)anthracene	ND	8.0	7.8	ug/kg	
50-32-8	Benzo(a)pyrene	ND	8.0	5.0	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	8.0	5.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	8.0	5.0	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	8.0	5.0	ug/kg	
218-01-9	Chrysene	ND	8.0	4.0	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	8.0	5.9	ug/kg	
206-44-0	Fluoranthene	ND	8.0	4.9	ug/kg	
86-73-7	Fluorene	ND	8.0	7.8	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	8.0	5.2	ug/kg	
90-12-0	1-Methylnaphthalene	ND	8.0	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	40	12	ug/kg	
91-20-3	Naphthalene	ND	40	8.8	ug/kg	
85-01-8	Phenanthrene	ND	8.0	6.4	ug/kg	
129-00-0	Pyrene	ND	8.0	5.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%		10-193%
321-60-8	2-Fluorobiphenyl	85%		20-138%
1718-51-0	Terphenyl-d14	93%		17-174%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: SALES LINE EXC	Date Sampled: 04/26/10
Lab Sample ID: D12826-1	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 83.3
Method: SW846 8015B	
Project: PDC Parachute Creek #5 Job#10-351	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB4173.D	1	05/01/10	DG	n/a	n/a	GGB227
Run #2							

Run #	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.2	1.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	93%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: SALES LINE EXC	
Lab Sample ID: D12826-1	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8021B	Percent Solids: 83.3
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB4173.D	1	05/01/10	DG	n/a	n/a	GTB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.0	6.0	ug/kg	
108-88-3	Toluene	ND	12	12	ug/kg	
100-41-4	Ethylbenzene	ND	12	12	ug/kg	
	m,p-Xylene	ND	12	12	ug/kg	
95-47-6	o-Xylene	ND	12	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.1
3

Client Sample ID: SALES LINE EXC	
Lab Sample ID: D12826-1	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846-8015B SW846 3550B	Percent Solids: 83.3
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC2722.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	112%		63-130%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SALES LINE EXC	Date Sampled: 04/26/10
Lab Sample ID: D12826-1	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 83.3
Project: PDC Parachute Creek #5 Job#10-351	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.1	0.37	mg/kg	5	05/04/10	05/05/10 SES	SW846 6020 ⁴	SW846 3050B ⁷
Barium	168	0.93	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Cadmium	< 0.93	0.93	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Chromium	6.9	0.93	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Copper	16.5	0.47	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Lead	10.6	4.7	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Mercury	< 0.11	0.11	mg/kg	1	05/04/10	05/06/10 NC	SW846 7471A ²	SW846 7471A ⁵
Nickel	13.5	2.8	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Selenium	< 4.7	4.7	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Silver	< 2.8	2.8	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Zinc	53.1	2.8	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶

- (1) Instrument QC Batch: MA637
- (2) Instrument QC Batch: MA639
- (3) Instrument QC Batch: MA642
- (4) Instrument QC Batch: MA643
- (5) Prep QC Batch: MP1788
- (6) Prep QC Batch: MP1796
- (7) Prep QC Batch: MP1797

RL = Reporting Limit

Report of Analysis

Client Sample ID: SALES LINE EXC	Date Sampled: 04/26/10
Lab Sample ID: D12826-1	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 83.3
Project: PDC Parachute Creek #5 Job#10-351	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.4	2.4	mg/kg	1	05/04/10 14:59	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	6.9	3.3	mg/kg	1	05/04/10 18:01	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	338		mv	1	04/30/10	AMA	ASTM E1498-76M
Solids, Percent	83.3		%	1	04/28/10	SWT	SM19 2540B M
pH	8.22		su	1	04/28/10 10:50	CJ	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

32
3

Client Sample ID:	MAIN EXC BTM NORTH		
Lab Sample ID:	D12826-2	Date Sampled:	04/26/10
Matrix:	SO - Soil	Date Received:	04/28/10
Method:	SW846 8270C BY SIM SW846 3540C	Percent Solids:	83.4
Project:	PDC Parachute Creek #5 Job#10-351		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G00692.D	1	05/04/10	TMB	04/30/10	OP1782	E3G9
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	8.0	7.5	ug/kg	
208-96-8	Acenaphthylene	ND	40	8.2	ug/kg	
120-12-7	Anthracene	ND	8.0	5.1	ug/kg	
56-55-3	Benzo(a)anthracene	ND	8.0	7.8	ug/kg	
50-32-8	Benzo(a)pyrene	ND	8.0	5.0	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	8.0	5.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	8.0	5.0	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	8.0	5.0	ug/kg	
218-01-9	Chrysene	ND	8.0	4.0	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	8.0	5.9	ug/kg	
206-44-0	Fluoranthene	ND	8.0	4.9	ug/kg	
86-73-7	Fluorene	ND	8.0	7.8	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	8.0	5.2	ug/kg	
90-12-0	1-Methylnaphthalene	ND	8.0	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	40	12	ug/kg	
91-20-3	Naphthalene	ND	40	8.8	ug/kg	
85-01-8	Phenanthrene	ND	8.0	6.3	ug/kg	
129-00-0	Pyrene	ND	8.0	5.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	95%		10-193%
321-60-8	2-Fluorobiphenyl	84%		20-138%
1718-51-0	Terphenyl-d14	86%		17-174%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MAIN EXC BTM NORTH	
Lab Sample ID: D12826-2	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8015B	Percent Solids: 83.4
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB4174.D	1	05/01/10	DG	n/a	n/a	GGB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.2	1.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MAIN EXC BTM NORTH	
Lab Sample ID: D12826-2	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8021B	Percent Solids: 83.4
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB4174.D	1	05/01/10	DG	n/a	n/a	GTB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.0	6.0	ug/kg	
108-88-3	Toluene	ND	12	12	ug/kg	
100-41-4	Ethylbenzene	ND	12	12	ug/kg	
	m,p-Xylene	ND	12	12	ug/kg	
95-47-6	o-Xylene	ND	12	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	95%		60-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MAIN EXC BTM NORTH	
Lab Sample ID: D12826-2	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846-8015B SW846 3550B	Percent Solids: 83.4
Project: PDC Parachute Creek #5 Job#10-351	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC2723.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.2 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	100%		63-130%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MAIN EXC BTM NORTH	Date Sampled: 04/26/10
Lab Sample ID: D12826-2	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 83.4
Project: PDC Parachute Creek #5 Job#10-351	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.7	0.35	mg/kg	5	05/04/10	05/05/10 SES	SW846 6020 ⁴	SW846 3050B ⁷
Barium	160	0.88	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Cadmium	< 0.88	0.88	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Chromium	8.0	0.88	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Copper	15.3	0.44	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Lead	9.6	4.4	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Mercury	< 0.12	0.12	mg/kg	1	05/04/10	05/06/10 NC	SW846 7471A ²	SW846 7471A ⁵
Nickel	14.2	2.6	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Selenium	< 4.4	4.4	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Silver	< 2.6	2.6	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Zinc	52.7	2.6	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶

- (1) Instrument QC Batch: MA637
- (2) Instrument QC Batch: MA639
- (3) Instrument QC Batch: MA642
- (4) Instrument QC Batch: MA643
- (5) Prep QC Batch: MP1788
- (6) Prep QC Batch: MP1796
- (7) Prep QC Batch: MP1797

RL = Reporting Limit

Report of Analysis

Client Sample ID: MAIN EXC BTM NORTH	
Lab Sample ID: D12826-2	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
	Percent Solids: 83.4
Project: PDC Parachute Creek #5 Job#10-351	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.4	2.4	mg/kg	1	05/04/10 15:01	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	8.0	3.3	mg/kg	1	05/04/10 18:58	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	324		mv	1	04/30/10	AMA	ASTM E1498-76M
Solids, Percent	83.4		%	1	04/28/10	SWT	SM19 2540B M
pH	8.18		su	1	04/28/10 10:50	CJ	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID: NE CORNER WALL	
Lab Sample ID: D12826-3	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8270C BY SIM SW846 3540C	Percent Solids: 83.6
Project: PDC Parachute Creek #5 Job#10-351	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G00694.D	1	05/04/10	TMB	04/30/10	OP1782	E3G9
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	8.0	7.4	ug/kg	
208-96-8	Acenaphthylene	ND	40	8.2	ug/kg	
120-12-7	Anthracene	ND	8.0	5.1	ug/kg	
56-55-3	Benzo(a)anthracene	ND	8.0	7.8	ug/kg	
50-32-8	Benzo(a)pyrene	ND	8.0	5.0	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	8.0	5.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	8.0	5.0	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	8.0	5.0	ug/kg	
218-01-9	Chrysene	ND	8.0	4.0	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	8.0	5.9	ug/kg	
206-44-0	Fluoranthene	ND	8.0	4.9	ug/kg	
86-73-7	Fluorene	ND	8.0	7.8	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	8.0	5.2	ug/kg	
90-12-0	1-Methylnaphthalene	ND	8.0	7.0	ug/kg	
91-57-6	2-Methylnaphthalene	ND	40	12	ug/kg	
91-20-3	Naphthalene	ND	40	8.8	ug/kg	
85-01-8	Phenanthrene	ND	8.0	6.3	ug/kg	
129-00-0	Pyrene	ND	8.0	5.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	84%		10-193%
321-60-8	2-Fluorobiphenyl	78%		20-138%
1718-51-0	Terphenyl-d14	75%		17-174%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NE CORNER WALL	
Lab Sample ID: D12826-3	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8015B	Percent Solids: 83.6
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB4175.D	1	05/01/10	DG	n/a	n/a	GGB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.2	1.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	92%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NE CORNER WALL	
Lab Sample ID: D12826-3	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8021B	Percent Solids: 83.6
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB4175.D	1	05/01/10	DG	n/a	n/a	GTB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.0	6.0	ug/kg	
108-88-3	Toluene	ND	12	12	ug/kg	
100-41-4	Ethylbenzene	12.9	12	12	ug/kg	
	m,p-Xylene	14.2	12	12	ug/kg	
95-47-6	o-Xylene	ND	12	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	87%		60-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NE CORNER WALL	
Lab Sample ID: D12826-3	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846-8015B SW846 3550B	Percent Solids: 83.6
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC2724.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	105%		63-130%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NE CORNER WALL	Date Sampled: 04/26/10
Lab Sample ID: D12826-3	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 83.6
Project: PDC Parachute Creek #5 Job#10-351	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	6.9	0.37	mg/kg	5	05/04/10	05/05/10 SES	SW846 6020 ⁴	SW846 3050B ⁷
Barium	187	0.92	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Cadmium	< 0.92	0.92	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Chromium	8.1	0.92	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Copper	16.2	0.46	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Lead	9.4	4.6	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Mercury	< 0.12	0.12	mg/kg	1	05/04/10	05/06/10 NC	SW846 7471A ²	SW846 7471A ⁵
Nickel	14.6	2.8	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Selenium	< 4.6	4.6	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Silver	< 2.8	2.8	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Zinc	54.9	2.8	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶

- (1) Instrument QC Batch: MA637
- (2) Instrument QC Batch: MA639
- (3) Instrument QC Batch: MA642
- (4) Instrument QC Batch: MA643
- (5) Prep QC Batch: MP1788
- (6) Prep QC Batch: MP1796
- (7) Prep QC Batch: MP1797

RL = Reporting Limit

Report of Analysis

Client Sample ID: NE CORNER WALL	Date Sampled: 04/26/10
Lab Sample ID: D12826-3	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 83.6
Project: PDC Parachute Creek #5 Job#10-351	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.4	2.4	mg/kg	1	05/04/10 15:01	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	7.6	3.3	mg/kg	1	05/04/10 19:07	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	335		mv	1	04/30/10	AMA	ASTM E1498-76M
Solids, Percent	83.6		%	1	04/28/10	SWT	SM19 2540B M
pH	8.25		su	1	04/28/10 10:50	CJ	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MAIN EXC BTM SOUTH	
Lab Sample ID:	D12826-4	Date Sampled: 04/26/10
Matrix:	SO - Soil	Date Received: 04/28/10
Method:	SW846 8270C BY SIM SW846 3540C	Percent Solids: 82.6
Project:	PDC Parachute Creek #5 Job#10-351	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G00695.D	1	05/04/10	TMB	04/30/10	OP1782	E3G9
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	8.1	7.5	ug/kg	
208-96-8	Acenaphthylene	ND	40	8.3	ug/kg	
120-12-7	Anthracene	ND	8.1	5.2	ug/kg	
56-55-3	Benzo(a)anthracene	ND	8.1	7.9	ug/kg	
50-32-8	Benzo(a)pyrene	ND	8.1	5.1	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	8.1	5.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	8.1	5.0	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	8.1	5.1	ug/kg	
218-01-9	Chrysene	ND	8.1	4.0	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	8.1	6.0	ug/kg	
206-44-0	Fluoranthene	ND	8.1	5.0	ug/kg	
86-73-7	Fluorene	ND	8.1	7.9	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	8.1	5.3	ug/kg	
90-12-0	1-Methylnaphthalene	ND	8.1	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	40	12	ug/kg	
91-20-3	Naphthalene	ND	40	8.9	ug/kg	
85-01-8	Phenanthrene	ND	8.1	6.4	ug/kg	
129-00-0	Pyrene	ND	8.1	5.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%		10-193%
321-60-8	2-Fluorobiphenyl	85%		20-138%
1718-51-0	Terphenyl-d14	89%		17-174%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.4
3

Client Sample ID: MAIN EXC BTM SOUTH	
Lab Sample ID: D12826-4	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8015B	Percent Solids: 82.6
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB4176.D	1	05/01/10	DG	n/a	n/a	GGB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	1.2	1.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	90%		60-140%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

34
3

Client Sample ID: MAIN EXC BTM SOUTH	
Lab Sample ID: D12826-4	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846 8021B	Percent Solids: 82.6
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB4176.D	1	05/01/10	DG	n/a	n/a	GTB227
Run #2							

	Initial Weight
Run #1	1.0 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.1	6.1	ug/kg	
108-88-3	Toluene	ND	12	12	ug/kg	
100-41-4	Ethylbenzene	ND	12	12	ug/kg	
	m,p-Xylene	ND	12	12	ug/kg	
95-47-6	o-Xylene	ND	12	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	85%		60-140%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.4
3

Client Sample ID: MAIN EXC BTM SOUTH	
Lab Sample ID: D12826-4	Date Sampled: 04/26/10
Matrix: SO - Soil	Date Received: 04/28/10
Method: SW846-8015B SW846 3550B	Percent Solids: 82.6
Project: PDC Parachute Creek #5 Job#10-351	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FC2725.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	16	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	105%		63-130%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MAIN EXC BTM SOUTH	Date Sampled: 04/26/10
Lab Sample ID: D12826-4	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 82.6
Project: PDC Parachute Creek #5 Job#10-351	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	7.2	0.38	mg/kg	5	05/04/10	05/05/10 SES	SW846 6020 ⁴	SW846 3050B ⁷
Barium	189	0.96	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Cadmium	< 0.96	0.96	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Chromium	6.0	0.96	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Copper	14.6	0.48	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Lead	9.4	4.8	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Mercury	< 0.12	0.12	mg/kg	1	05/04/10	05/06/10 NC	SW846 7471A ²	SW846 7471A ⁵
Nickel	12.5	2.9	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Selenium	< 4.8	4.8	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶
Silver	< 2.9	2.9	mg/kg	1	05/04/10	05/04/10 JM	SW846 6010B ¹	SW846 3050B ⁶
Zinc	48.8	2.9	mg/kg	1	05/04/10	05/05/10 JM	SW846 6010B ³	SW846 3050B ⁶

- (1) Instrument QC Batch: MA637
- (2) Instrument QC Batch: MA639
- (3) Instrument QC Batch: MA642
- (4) Instrument QC Batch: MA643
- (5) Prep QC Batch: MP1788
- (6) Prep QC Batch: MP1796
- (7) Prep QC Batch: MP1797

RL = Reporting Limit

Report of Analysis

Client Sample ID: MAIN EXC BTM SOUTH	Date Sampled: 04/26/10
Lab Sample ID: D12826-4	Date Received: 04/28/10
Matrix: SO - Soil	Percent Solids: 82.6
Project: PDC Parachute Creek #5 Job#10-351	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent ^a	< 2.4	2.4	mg/kg	1	05/04/10 15:01	AMA	SW846 3060A/7196A
Chromium, Trivalent ^b	6.0	3.4	mg/kg	1	05/04/10 19:16	JM	SW846 3060/7196A M
Redox Potential Vs H2 ^a	310		mv	1	04/30/10	AMA	ASTM E1498-76M
Solids, Percent	82.6		%	1	04/28/10	SWT	SM19 2540B M
pH	8.43		su	1	04/28/10 10:50	CJ	SW846 9045C

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

(b) Calculated as: (Chromium) - (Chromium, Hexavalent)

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1782-MB	3G00625.D	1	05/01/10	TMB	04/30/10	OP1782	E3G8

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	6.7	6.2	ug/kg	
208-96-8	Acenaphthylene	ND	33	6.9	ug/kg	
120-12-7	Anthracene	ND	6.7	4.3	ug/kg	
56-55-3	Benzo(a)anthracene	ND	6.7	6.5	ug/kg	
50-32-8	Benzo(a)pyrene	ND	6.7	4.2	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	6.7	4.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	6.7	4.2	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	6.7	4.2	ug/kg	
218-01-9	Chrysene	ND	6.7	3.3	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	6.7	4.9	ug/kg	
206-44-0	Fluoranthene	ND	6.7	4.1	ug/kg	
86-73-7	Fluorene	ND	6.7	6.5	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	6.7	4.4	ug/kg	
90-12-0	1-Methylnaphthalene	ND	6.7	5.9	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	10	ug/kg	
91-20-3	Naphthalene	ND	33	7.4	ug/kg	
85-01-8	Phenanthrene	ND	6.7	5.3	ug/kg	
129-00-0	Pyrene	ND	6.7	4.5	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
4165-60-0	Nitrobenzene-d5	89%	10-193%
321-60-8	2-Fluorobiphenyl	87%	20-138%
1718-51-0	Terphenyl-d14	99%	17-174%

Blank Spike Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1782-BS	3G00626.D	1	05/01/10	TMB	04/30/10	OP1782	E3G8

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	83.3	65.2	78	40-136
208-96-8	Acenaphthylene	83.3	63.8	77	42-139
120-12-7	Anthracene	83.3	71.4	86	40-141
56-55-3	Benzo(a)anthracene	83.3	69.9	84	38-143
50-32-8	Benzo(a)pyrene	83.3	67.4	81	39-145
205-99-2	Benzo(b)fluoranthene	83.3	72.3	87	38-151
191-24-2	Benzo(g,h,i)perylene	83.3	68.4	82	35-136
207-08-9	Benzo(k)fluoranthene	83.3	70.4	84	38-147
218-01-9	Chrysene	83.3	71.0	85	39-137
53-70-3	Dibenzo(a,h)anthracene	83.3	66.7	80	35-139
206-44-0	Fluoranthene	83.3	71.2	85	34-132
86-73-7	Fluorene	83.3	68.3	82	41-136
193-39-5	Indeno(1,2,3-cd)pyrene	83.3	68.1	82	31-144
90-12-0	1-Methylnaphthalene	83.3	62.1	75	36-130
91-57-6	2-Methylnaphthalene	83.3	59.8	72	40-131
91-20-3	Naphthalene	83.3	65.1	78	36-130
85-01-8	Phenanthrene	83.3	68.4	82	40-135
129-00-0	Pyrene	83.3	72.6	87	29-157

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	88%	10-193%
321-60-8	2-Fluorobiphenyl	81%	20-138%
1718-51-0	Terphenyl-d14	90%	17-174%

5.2.1
5

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1782-MS	3G00671.D	1	05/03/10	TMB	04/30/10	OP1782	E3G9
OP1782-MSD	3G00672.D	1	05/03/10	TMB	04/30/10	OP1782	E3G9
D12826-1	3G00670.D	1	05/03/10	TMB	04/30/10	OP1782	E3G9

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	D12826-1 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	99.7	83.8	84	80.2	80	4	20-151/30	
208-96-8	Acenaphthylene	ND	99.7	83.0	83	79.8	80	4	23-156/30	
120-12-7	Anthracene	ND	99.7	91.7	92	85.5	86	7	25-149/30	
56-55-3	Benzo(a)anthracene	ND	99.7	115	115	106	106	8	22-157/30	
50-32-8	Benzo(a)pyrene	ND	99.7	104	104	100	100	4	23-153/30	
205-99-2	Benzo(b)fluoranthene	ND	99.7	109	109	104	104	5	22-161/30	
191-24-2	Benzo(g,h,i)perylene	ND	99.7	86.5	87	79.0	79	9	20-158/30	
207-08-9	Benzo(k)fluoranthene	ND	99.7	111	111	107	107	4	17-161/30	
218-01-9	Chrysene	ND	99.7	102	102	93.8	94	8	16-159/30	
53-70-3	Dibenzo(a,h)anthracene	ND	99.7	83.0	83	75.7	76	9	21-154/30	
206-44-0	Fluoranthene	ND	99.7	110	110	111	111	1	16-140/30	
86-73-7	Fluorene	ND	99.7	101	101	90.1	90	11	15-153/30	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	99.7	87.0	87	79.5	80	9	21-159/30	
90-12-0	1-Methylnaphthalene	ND	99.7	77.2	77	80.4	80	4	10-148/30	
91-57-6	2-Methylnaphthalene	ND	99.7	75.2	75	80.3	80	7	10-181/30	
91-20-3	Naphthalene	ND	99.7	82.0	82	80.5	81	2	10-176/30	
85-01-8	Phenanthrene	ND	99.7	88.7	89	82.0	82	8	22-152/30	
129-00-0	Pyrene	ND	99.7	119	119	98.1	98	19	10-200/30	

CAS No.	Surrogate Recoveries	MS	MSD	D12826-1	Limits
4165-60-0	Nitrobenzene-d5	91%	93%	94%	10-193%
321-60-8	2-Fluorobiphenyl	80%	84%	85%	20-138%
1718-51-0	Terphenyl-d14	96%	85%	93%	17-174%

5.3.1
5



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB227-MB	GB4168.D	1	04/30/10	DG	n/a	n/a	GGB227

The QC reported here applies to the following samples:

Method: SW846 8015B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.20	0.20	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	91% 60-140%

Method Blank Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB227-MB	TB4168.D	1	04/30/10	DG	n/a	n/a	GTB227

The QC reported here applies to the following samples:

Method: SW846 8021B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/kg	
108-88-3	Toluene	ND	2.0	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	2.0	ug/kg	
	m,p-Xylene	ND	2.0	2.0	ug/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	86% 60-140%

Blank Spike Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB227-BS	GB4169.D	1	04/30/10	DG	n/a	n/a	GGB227

The QC reported here applies to the following samples:

Method: SW846 8015B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	11	8.84	80	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	114%	60-140%

6.2.1
6

Blank Spike Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB227-BS	TB4169.D	1	04/30/10	DG	n/a	n/a	GTB227

The QC reported here applies to the following samples:

Method: SW846 8021B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	27.2	23.1	85	70-130
100-41-4	Ethylbenzene	45.6	39.6	87	70-130
108-88-3	Toluene	212	179	85	70-130
95-47-6	o-Xylene	65.9	61.5	93	70-130
	m,p-Xylene	150	132	88	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D12778-1MS	GB4195.D	1	05/01/10	DG	n/a	n/a	GGB227
D12778-1MSD	GB4172.D	1	05/01/10	DG	n/a	n/a	GGB227
D12778-1	GB4170.D	1	04/30/10	DG	n/a	n/a	GGB227

The QC reported here applies to the following samples:

Method: SW846 8015B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	D12778-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	7.72	16.9	13.6	35* a	14.7	41* a	8	62-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D12778-1	Limits
120-82-1	1,2,4-Trichlorobenzene	123%	201%* a	205%* a	60-140%

(a) Outside control limits due to matrix interference.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D12778-1MS	TB4195.D	1	05/01/10	DG	n/a	n/a	GTB227
D12778-1MSD	TB4172.D	1	05/01/10	DG	n/a	n/a	GTB227
D12778-1	TB4170.D	1	04/30/10	DG	n/a	n/a	GTB227

The QC reported here applies to the following samples:

Method: SW846 8021B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	D12778-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	209	134	64* a	135	65* a	1	70-130/30
100-41-4	Ethylbenzene	15.6	350	251	67	213	56* a	16	62-130/30
108-88-3	Toluene	47.3	1630	1150	68* a	1030	60* a	11	70-130/30
95-47-6	o-Xylene	47.6	506	392	68	343	58* a	13	65-135/30
	m,p-Xylene	217	1150	956	64	836	54* a	13	60-140/30

CAS No.	Surrogate Recoveries	MS	MSD	D12778-1	Limits
120-82-1	1,2,4-Trichlorobenzene	91%	128%	131%	60-140%

(a) Outside control limits due to matrix interference.

6.3.2
6



GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1771-MB	FC2717.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154

The QC reported here applies to the following samples:

Method: SW846-8015B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (C10-C28)	ND	13	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	110% 63-130%

7.1.1
7

Blank Spike Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1771-BS	FC2718.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154

The QC reported here applies to the following samples:

Method: SW846-8015B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	725	109	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	111%	63-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D12826
Account: HRLCCOGJ HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1771-MS	FC2720.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154
OP1771-MSD	FC2721.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154
D12810-1	FC2719.D	1	04/30/10	LAC	04/29/10	OP1771	GFC154

The QC reported here applies to the following samples:

Method: SW846-8015B

D12826-1, D12826-2, D12826-3, D12826-4

CAS No.	Compound	D12810-1 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	817	802	98	853	104	6	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D12810-1	Limits
84-15-1	o-Terphenyl	101%	104%	114%	63-130%

7.3.1

7



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1788
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/04/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.10	.0011	.0012	0.0060	<0.10

Associated samples MP1788: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.1.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1788
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/04/10

Metal	D12826-1 Original MS	Spike HGWSR1	lot % Rec	QC Limits
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Mercury 0.031 0.45 0.462 90.7 85-115

Associated samples MP1788: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

8.1.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1788
 Matrix Type: SOLID

Methods: SW846 7471A
 Units: mg/kg

Prep Date: 05/04/10

Metal	D12826-1 Original MSD	Spike HGWSR1	lot % Rec	MSD RPD	QC Limit	
Mercury	0.031	0.48	0.471	95.4	6.5	20

Associated samples MP1788: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

8.1.2
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1788
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/04/10

Metal	BSP Result	Spikelot HGWSR1	% Rec	QC Limits
Mercury	0.34	0.4	85.0	80-120

Associated samples MP1788: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.1.3
8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/04/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.7	2		
Antimony	3.0	.17	.5		
Arsenic	2.5	.28	.72		
Barium	1.0	.014	.05	0.060	<1.0
Beryllium	1.0	.14	.21		
Boron	5.0	.35	.91		
Cadmium	1.0	.022	.12	0.040	<1.0
Calcium	40	1.7	2.7		
Chromium	1.0	.027	.18	0.060	<1.0
Cobalt	0.50	.048	.058		
Copper	0.50	.16	.38	0.40	<0.50
Iron	7.0	.77	.91		
Lead	5.0	.13	.24	0.15	<5.0
Lithium	0.20	.076	.09		
Magnesium	20	.58	.93		
Manganese	0.50	.021	.028		
Molybdenum	1.0	.041	.16		
Nickel	3.0	.038	.075	0.030	<3.0
Phosphorus	10	1.5	3.5		
Potassium	200	38	130		
Selenium	5.0	.28	.54	-0.080	<5.0
Silicon	5.0	1.2	.68		
Silver	3.0	.098	.068	0.0	<3.0
Sodium	40	23	6.3		
Strontium	5.0	.0091	.02		
Thallium	1.0	.31	.21		
Tin	5.0	1.4	.56		
Titanium	1.0	.0098	.041		
Uranium	5.0	.22	.53		
Vanadium	1.0	.027	.034		
Zinc	3.0	.076	.49	0.10	<3.0

Associated samples MP1796: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

8.2.1

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 05/04/10

Metal	D12826-1 Original MS		SpikeLot MPICPALL % Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	168	299	186	70.4N(a) 75-125
Beryllium				
Boron				
Cadmium	0.59	34.3	46.5	72.4N(a) 75-125
Calcium				
Chromium	6.9	42.9	46.5	77.4 75-125
Cobalt				
Copper	16.5	56.7	46.5	86.4 75-125
Iron				
Lead	10.6	78.9	93.1	73.4N(a) 75-125
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	13.5	44.6	46.5	66.8N(a) 75-125
Phosphorus				
Potassium				
Selenium	2.0	69.8	93.1	72.9N(a) 75-125
Silicon				
Silver	0.0	14.7	18.6	79.0 75-125
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	53.1	85.8	46.5	70.3N(a) 75-125

Associated samples MP1796: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.2.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 05/04/10

Metal	D12826-1 Original MSD		SpikeLot MPICPALL % Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	168	274	186	57.0N(a)	8.7	20
Beryllium						
Boron						
Cadmium	0.59	33.0	46.5	69.7N(a)	3.9	20
Calcium						
Chromium	6.9	40.4	46.5	72.0N(a)	6.0	20
Cobalt						
Copper	16.5	54.1	46.5	80.8	4.7	20
Iron						
Lead	10.6	75.5	93.1	69.7N(a)	4.4	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	13.5	42.2	46.5	61.7N(a)	5.5	20
Phosphorus						
Potassium						
Selenium	2.0	67.4	93.1	70.3N(a)	3.5	20
Silicon						
Silver	0.0	14.2	18.6	76.3	3.5	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	53.1	81.1	46.5	60.2N(a)	5.6	20

Associated samples MP1796: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.2.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: mg/kg

Prep Date: 05/04/10

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	172	200	86.0	80-120
Beryllium				
Boron				
Cadmium	41.1	50	82.2	80-120
Calcium				
Chromium	43.5	50	87.0	80-120
Cobalt				
Copper	47.7	50	95.4	80-120
Iron				
Lead	87.2	100	87.2	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	41.3	50	82.6	80-120
Phosphorus				
Potassium				
Selenium	81.8	100	81.8	80-120
Silicon				
Silver	17.6	20	88.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	41.9	50	83.8	80-120

Associated samples MP1796: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.2.3
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:

Metal

(anr) Analyte not requested

8.2.3
8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
 Matrix Type: SOLID

Methods: SW846 6010B
 Units: ug/l

Prep Date: 05/04/10

Metal	D12826-1 Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	1810	1820	0.4	0-10
Beryllium				
Boron				
Cadmium	6.30	5.50	12.7 (a)	0-10
Calcium				
Chromium	74.1	79.0	6.6	0-10
Cobalt				
Copper	178	173	2.9	0-10
Iron				
Lead	114	117	3.1	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	145	162	11.4*(b)	0-10
Phosphorus				
Potassium				
Selenium	21.5	47.0	118.6(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	571	660	15.6*(b)	0-10

Associated samples MP1796: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits

8.2.4
8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1796
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

- (anr) Analyte not requested
- (a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- (b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1797
Matrix Type: SOLID

Methods: SW846 6020
Units: mg/kg

Prep Date: 05/04/10

Metal	RL	IDL	MDL	MB	
				raw	final
Aluminum	25	.14	.89		
Arsenic	0.40	.049	.26	0.0098	<0.40
Calcium	200	1.8	6.1		
Copper	1.0	.011	.14		
Iron	20	.81	6.1		
Lead	0.25	.0012	.18		
Magnesium	50	.067	1.3		
Potassium	100	2	9.1		
Sodium	250	.8	1.8		
Uranium	0.25	.00038	.12		

Associated samples MP1797: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

8.3.1
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1797
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 05/04/10

Metal	D12826-1 Original MS		Spike/lot MPICPALL % Rec		QC Limits
Aluminum					
Arsenic	9.1	83.6	93.1	80.1	60-119
Calcium					
Copper					
Iron					
Lead					
Magnesium					
Potassium					
Sodium					
Uranium					

Associated samples MP1797: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

8.3.2
 8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1797
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 05/04/10

Metal	D12826-1 Original MSD		Spike/lot MPICPALL % Rec		MSD RPD	QC Limit
Aluminum						
Arsenic	9.1	81.8	93.1	78.1	2.2	20
Calcium						
Copper						
Iron						
Lead						
Magnesium						
Potassium						
Sodium						
Uranium						

Associated samples MP1797: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

8.3.2
 8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1797
 Matrix Type: SOLID

Methods: SW846 6020
 Units: mg/kg

Prep Date: 05/04/10

Metal	BSP Result	SpikeLot MPICPALL	% Rec	QC Limits
Aluminum				
Arsenic	89.9	100	89.9	80-120
Calcium				
Copper				
Iron				
Lead				
Magnesium				
Potassium				
Sodium				
Uranium				

Associated samples MP1797: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

8.3.3
 8

SERIAL DILUTION RESULTS SUMMARY

Login Number: D12826
 Account: HRLCCOGJ - HRL Compliance Solutions
 Project: PDC Parachute Creek #5 Job#10-351

QC Batch ID: MP1797
 Matrix Type: SOLID

Methods: SW846 6020
 Units: ug/l

Prep Date: 05/04/10

Metal	D12826-1		QC	
	Original	SDL 5:25	%DIF	Limits
Aluminum				
Arsenic	97.6	97.7	0.1	0-10
Calcium				
Copper				
Iron				
Lead				
Magnesium				
Potassium				
Sodium				
Uranium				

Associated samples MP1797: D12826-1, D12826-2, D12826-3, D12826-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

8.3.4
 8



General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D12826
Account: HRLCCOGJ - HRL Compliance Solutions
Project: PDC Parachute Creek #5 Job#10-351

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
pH	GN4137			su	8.00	7.97	99.6	99.3-100.7%

Associated Samples:

Batch GN4137: D12826-1, D12826-2, D12826-3, D12826-4

(*) Outside of QC limits



Misc. Forms

Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

CHAIN OF CUSTODY

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

Accutest Job #:	D12826
Accutest Quote #:	
AMS P.O. #:	
Project No.:	

Client Information			Subcontract Laboratory Information						Analytical Information				
Name Accutest Mountain States (AMS)			Name Industrial Lab						X C R A	E H			
Address 4036 Youngfield St.			Address 4046 Youngfield St.										
City Wheat Ridge,	State CO	Zip 80033	City Wheat Ridge		State CO		Zip 80033						
Send Report to: Tiffany Pham Any questions contact: Amanda Kissell			Contact: Sample Management										
Phone/Fax #: (303) 425-6021; (303)425-6854			Phone: (303) 287-9691										

Field ID / Point of Collection	Collection		Matrix	# of bottles	Preservation						X C R A	E H			Comments
	Date	Time			HCL	NaOH	HNO3	H2SO4	None						
D12826 -1	4/26/10	3:05 PM	Soil	1							X	X			
-2	4/26/10	3:25 PM	Soil	1							X	X			
-3	4/26/10	3:30 PM	Soil	1							X	X			
-4	4/26/10	3:40 PM	Soil	1							X	X			
-															
-															
-															
-															

Turnaround Information		Data Deliverable Information				Comments / Remarks
<input checked="" type="checkbox"/> 10 Business Day Standard	5 Day (Days)	Approved By:		<input type="checkbox"/> Commercial "A"	<input type="checkbox"/> PDF	Please use Colorado regulations and RLs. 9F
<input type="checkbox"/> Other		<input type="checkbox"/> Commercial "B"	<input type="checkbox"/> Compact Disk Deliverable	<input checked="" type="checkbox"/> Commercial "BN"	<input type="checkbox"/> Electronic Delivery:	
10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.		<input type="checkbox"/> Reduced Tier 1	<input type="checkbox"/> State Forms	<input type="checkbox"/> Full Tier 1	<input type="checkbox"/> Other (Specify)	

Sample Custody must be documented below each time samples change possession, including courier delivery.				For Subcontract Laboratory Use Only	
Relinquished by: <i>JDL</i>	Date & Time: 4/28/10 15:00	Received By: <i>UPS</i>	Date & Time: 1	Seal #:	Headspace: Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>
Relinquished by: <i>UPS</i>	Date & Time: 4/30/10 10:00	Received By: <i>[Signature]</i>	Date & Time: 2/30/10 10:00	Preserved where applicable: <input type="checkbox"/>	
Relinquished by:	Date & Time:	Received By:	Date & Time: 3	Temperature °C 3.70C	On Ice <input type="checkbox"/>

10.1 10

D12826: Chain of Custody
Page 1 of 2
Accutest Labs of New England, Inc.



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D12826

Client: AMS

Immediate Client Services Action Required: No

Date / Time Received: 4/30/2010 10:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: INDUSTRIAL LAB

Airbill #'s: N/A

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved property:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www.accutest.com

10.1
10



General Chemistry

QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries



METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D12826
Account: ALMS - Accutest Mountain States
Project: HRLCCOGJ: PDC Parachute Creek #5 Job#10-351

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP11568/GN31758	2.0	0.0	mg/kg	40	38.8	97.0	80-120%
Chromium, Hexavalent	GP11568/GN31758			mg/kg	708	714	100.8	80-120%

Associated Samples:

Batch GP11568: D12826-1, D12826-2, D12826-3, D12826-4

(*) Outside of QC limits

11.1
11

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D12826
Account: ALMS - Accutest Mountain States
Project: HRLCCOGJ: PDC Parachute Creek #5 Job#10-351

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP11568/GN31758	D12806-1	mg/kg	0.0	0.0	0.0	0-20%
Redox Potential Vs H2	GN31738	D12826-1	mv	338	333	1.5	0-20%

Associated Samples:

Batch GN31738: D12826-1, D12826-2, D12826-3, D12826-4

Batch GP11568: D12826-1, D12826-2, D12826-3, D12826-4

(*) Outside of QC limits

11.2
11

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D12826
Account: ALMS - Accutest Mountain States
Project: HRLCCOGJ: PDC Parachute Creek #5 Job#10-351

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP11568/GN31758	D12806-1	mg/kg	0.0	42.6	43.7	102.5	75-125%
Chromium, Hexavalent	GP11568/GN31758	D12806-1	mg/kg	0.0	730	773	105.9	75-125%

Associated Samples:

Batch GP11568: D12826-1, D12826-2, D12826-3, D12826-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

11.3
11