

ATTACHMENT B

Documents pertaining to Hawkins Ranch
10-4 & 10-2C (Document No. 1984975)

FORM
27
Rev 6/99

State of Colorado
Oil and Gas Conservation Commission



1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109

FOR OGCC USE ONLY
#6177
OGCC Employee:
<input type="checkbox"/> Spill <input type="checkbox"/> Complaint
<input type="checkbox"/> Inspection <input type="checkbox"/> NOAV
Tracking No: 1984975

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

OGCC Operator Number: 66561	Contact Name and Telephone:
Name of Operator: OXY USA Inc.	Daniel I. Padilla
Address: 760 Horizon Drive, Suite 101	No: 970.263.3637
City: Grand Junction State: CO Zip: 81506	Fax: 970.263.3694
API Number: 077-09622-00	County: Mesa
Facility Name: Hawkins Ranch 10-4 Pad	Facility Number: 334520
Well Name: Hawkins Ranch	Well Number: 10-2C
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWNW, Sec. 10, T10S, R94W, 6th P.M.	Latitude: 39.210861 Longitude: -107.874109

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): drilling mud

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): improved pasture/rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Hesperus Pagoda complex

Potential receptors (water wells within 1/4 mi, surface waters, etc.): wetlands: ~ 200 feet, surface water: ~525 feet (Salt Creek), ~260 feet dry irrigation ditch.

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	<u>minor impacts to p/l ROW and oak brush lands</u>	<u>visual, see report.</u>
<input checked="" type="checkbox"/> Vegetation	<u>minor impacts to oak brush</u>	<u>visual, see report.</u>
<input type="checkbox"/> Groundwater	_____	_____
<input type="checkbox"/> Surface Water	_____	_____

REMEDIAL WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Reference Doc #: 1948975, Operator #: 10223). Immediately after the release was reported, a vacuum truck was brought in to recover released muds. Also, roustabout crews were able to use booms and create diversion dams to contain the mud in a small ditch that ran cross gradient to the hill. Roustabout crews manually recovered the remaining muds. All muds were returned to the reserve pit.

Describe how source is to be removed:

Approximately 70 bbls were retrieved using the vac truck and returned to the reserve pit. The remaining 10 bbls of muds were retrieved using shovels and buckets, packing it up to a little path which was created to bring in a skid loader. The loader returned the muds to the reserve pit. All returned muds were reused.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

All released muds were retrieved and returned to the reserve pit. Sampling was conducted by a 3rd party contactor and the results indicate that there were no COGCC Table 910-1 exceedances., see attached Cordilleran report dated December 1, 2008. All retrieved muds were reused in the drilling process. Impacts to the pipeline ROW were minimal and seeding efforts were not affected.

Submit Page 2 with Page 1

FORM 27 Rev 6/99

State of Colorado
Oil and Gas Conservation Commission
1128 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax (303)894-2109



Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

Page 2
REMEDIAL WORKPLAN (Cont.)

OGCC Employee _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

No ground water was impacted. Approximately 1/2 bbl of mud reached a dry irrigation ditch, but all muds were manually removed from the ditch and returned to the reserve pit.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

All released muds were retrieved and returned to the reserve pit located at the Hawkins Ranch 10-4 pad. Containment booms and diversion dams were removed after cleanup and dressed up. Disturbed areas (minimal) were allowed to return to predisturbance state. The path where the pipeline ROW was impacted was seeded and has since established vegetation, see attached photos. After drilling and completions activities the pad, including the reserve pit was reclaimed. Drilling muds left in the pit were stabilized and left in place. The pit was capped and leveled with pad grade. The location will undergo final reclamation at the end of the life of the pad.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? Y N If yes, describe:

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Muds returned to the reserve pit were reused during the drilling process. Any mud returns from drilling activities were left in the pit for disposal, which was stabilized, closed, and capped. See attached Hawkins Ranch 10-4 reserve pit closure documentation.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 11/07/2008 Date Site Investigation Completed: 12/1/2008 Date Remediation Plan Submitted: 9/23/2011
Remediation Start Date: 11/07/2008 Anticipated Completion Date: 11/18/2008 Actual Completion Date: Pending

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Daniel I. Padilla Signed:
Title: Regulatory Advisor Date: 9/21/11

OGCC Approved:
Title: FOR Linda Spry O'Rourke
Date: 10/04/2011
EPS NW Region



826 21 ½ Road
Grand Junction, CO 81505
T: 970.263.7800
F: 970.263.7456

December 1, 2008

Mr. Chris Clark
HES Coordinator
Plains Exploration & Production Company
760 Horizon Drive
Grand Junction, CO 81506

**Re: Hawkins 10-4 Remediation Work Plan
Mesa County, Colorado**

Dear Mr. Clark:

Cordilleran Compliance Services, Inc. (Cordilleran) was contacted by Plains Exploration & Production Company (PXP) to provide environmental services in response to a November 6, 2008 drilling mud release of approximately 50 barrels (bbls) on the Hawkins 10-4 well location. Cordilleran conducted a site visit on November 7, 2008 to assess the extent of potential contamination. The mud released flowed off location along and across portions of the access road and across a recently graded pipeline Right-Of-Way (ROW) and into a thick area of oak brush. A small portion of the release reached a dry irrigation ditch located on the down-gradient side of the oak brush. A photographic record was taken of the location during assessment activities and is included as [Appendix A](#) and a site location map as [Figure 1](#).

A total of three soil samples and one drilling mud sample were collected pre and post cleanup. The drilling mud sample collected on November 7, 2008 contained a moderately elevated pH and very low level total petroleum hydrocarbon (TPH) levels. The analytical results for the two composite soil samples collected on November 11, 2008 (post cleanup) **do not exceed** the Colorado Oil & Gas Conservation Commission (COGCC) allowable levels for non-sensitive areas. A summary of the sample analytical results is included as [Table 1](#) and actual analytical data as [Appendix B](#).

Due to the limited on-site impact discussed above, Cordilleran recommends no further assessment/remediation action in association with the Hawkins 10-4 drilling mud release.

Please do not hesitate to contact me at (970) 263-7800 or timdobransky@cordcomp.com should you have any questions or concerns regarding this information.

Sincerely,

Cordilleran Compliance Services, Inc.

A handwritten signature in black ink, appearing to read 'Tim Dobransky', enclosed within a large, hand-drawn oval.

Tim Dobransky, CHMM
Environmental Project Manager

Attachments:

[Figure 1 – Site Location Map](#)
[Table 1 – Analytical Summary](#)
[Appendix A – Photographic Log](#)
[Appendix B – Analytical Data](#)

cc: file – EG08380

**HAWKINS 10-4
LOCATION**

**SPILL ORIGIN
(500 bbl Tank)**

**HAWKINS 10-4 S1
COMPOSITE 0-6"**

**HAWKINS 10-4 S2
COMPOSITE 0-6"**

PIPELINE ROW

ACCESS ROAD

DRY IRRIGATION
DITCH

**HAWKINS 10-4 BG
6-12"**

LEGEND



OAK BRUSH

● SOIL SAMPLE LOCATION

▲ DRILLING MUD SAMPLE LOCATION



**FIGURE 1
SAMPLE LOCATION MAP
PLAINS EXPLORATION & PRODUCTION COMPANY
HAWKINS 10-4
MESA COUNTY, COLORADO**

REVISION DATE: 11/26/2008

REVISION NUMBER: 001

DRAWN BY: TPD

APPROVED BY: TPD

PROJECT # EG08380

SCALE: NO SCALE



CORDILLERAN

SITE LEGAL LOCATION: NW NW SECTION 10, TOWNSHIP 10S, RANGE 94W

**Table 1
Hawkins 10-4 Spill Response
Analytical Summary**

Summary of Soil Samples					
Location Description		Background	Drilling Mud Sample	Composite From Pipeline ROW	Composite Near Irrigation Ditch
Northing		See Site Map	See Site Map	See Site Map	See Site Map
Westing					
Sample ID		HAWKINS 10-4 BG	HAWKINS 10-4 MUD**	HAWKINS 10-4 S1	HAWKINS 10-4 S2
	COGCC Allowable Table 910-1	6-12"		0-6"	0-6"
Parameter		11/11/2008	11/7/2008	11/11/2008	11/11/2008
TPH Non-Sensitive Area	10,000 mg/kg	NT	19	16	17
TPH Low Fraction	N/A add w/High	NT	<0.1	<0.5	<0.5
TPH High Fraction	N/A add w/Low	NT	19	16	17
EC	<4mmhos/cm or 2xBKGD	0.41	2.8	1.6	2.3
SAR	<12	0.35	NT	4.6	9
pH	6-9	6.8	11	7.3	7.4
Arsenic	41 mg/kg	1.8	0.12	1.4	1.1
Barium	180,000 mg/kg	150	280	910	2500
Boron	2 mg/l	10	0.73	<10	<10
Cadmium	26 mg/kg	<0.25	0.027	<0.25	<0.25
Chromium	1,500 mg/kg	15	0.82	9.6	7.8
Copper	750 mg/kg	14	0.74	10	9.5
Lead	300 mg/kg	9.8	0.6	8.2	8.7
Mercury	17 mg/kg	<0.02	0.0014	<0.02	<0.02
Molybdenum	site-specific	<0.25	0.11	<0.25	<0.25
Nickel	210 mg/kg	13	0.48	9.7	7.8
Selenium	site-specific	<1.0	0.074	<1.0	<1.0
Silver	100 mg/kg	<0.50	<0.010	<0.50	<0.50
Zinc	1,400 mg/kg	44	2.3	33	31

bgs - below ground surface

TPH - total petroleum hydrocarbons

EC - electrical conductivity

mmhos/cm - millimhos per centimeter

SAR - sodium adsorption ratio

mg/l - milligrams per liter

mg/kg - milligrams per kilogram

NT - not tested

** Analyzed as liquid - reported as mg/l

Appendix A – Photographic Log

**Photographic Log
Hawkins 10-4 Response
Plains Exploration & Production Company**



PHOTO 1

Date: 11/7/2008

Description: Overview of site.



PHOTO 2

Date: 11/7/2008

Description: View of hillside looking towards the pad.



PHOTO 3

Date: 11/7/2008

Description: View of hillside looking down the hillside towards the edge of the spill.

**Photographic Log
Hawkins 10-4 Response
Plains Exploration & Production Company**



PHOTO 4

Date: 11/7/2008

Description: View of access road looking NE.



PHOTO 5

Date: 11/11/2008

Description: Overview of the site.



PHOTO 6

Date: 11/11/2008

Description: View of hillside looking towards the pad.

**Photographic Log
Hawkins 10-4 Response
Plains Exploration & Production Company**



PHOTO 7

Date: 11/11/2008

Description: View of hillside looking down towards the edge of the spill.



PHOTO 8

Date: 11/11/2008

Description: View of access road looking NE.

Appendix B – Analytical Data



ENVIRONMENTAL
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Est. 1970

Tim Dobransky
Cordilleran Compliance - GJ, CO
826 21 1/2 Road

Grand Junction, CO 81505

Report Summary

Sunday November 16, 2008

Report Number: L374079

Samples Received: 11/11/08

Client Project: 8380

Description: Hawkins 10-4 Response

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

John D. Blackman, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures: 060302, 060303, and 060304.

1 Samples Reported: 11/16/08 07:34 Printed: 11/16/08 07:34

Page 1 of 8



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REPORT OF ANALYSIS

Tim Dobransky
Cordilleran Compliance - GJ, CO
826 21 1/2 Road
Grand Junction, CO 81505

November 16, 2008

Date Received : November 11, 2008
Description : Hawkins 10-4 Response
Sample ID : HAWKINS 10-4 MOD
Collected By : Tim Dobransky
Collection Date : 11/07/08 16:10

ESC Sample # : L374079-01

Site ID :

Project # : 8380

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	11.		su	9040C	11/12/08	1
Specific Conductance	2800		umhos/cm	9050A	11/14/08	1
Mercury	0.0014	0.00020	mg/l	7470A	11/12/08	1
Arsenic	0.12	0.020	mg/l	6010B	11/14/08	1
Barium	280	0.050	mg/l	6010B	11/14/08	10
Boron	0.73	0.20	mg/l	6010B	11/14/08	1
Cadmium	0.027	0.0050	mg/l	6010B	11/14/08	1
Chromium	0.82	0.010	mg/l	6010B	11/14/08	1
Copper	0.74	0.020	mg/l	6010B	11/14/08	1
Lead	0.60	0.0050	mg/l	6010B	11/14/08	1
Molybdenum	0.11	0.0050	mg/l	6010B	11/14/08	1
Nickel	0.48	0.020	mg/l	6010B	11/14/08	1
Selenium	0.074	0.020	mg/l	6010B	11/14/08	1
Silver	BDL	0.010	mg/l	6010B	11/14/08	1
Zinc	2.3	0.030	mg/l	6010B	11/14/08	1
TPH (GC/FID) Low Fraction	BDL	0.10	mg/l	8015D/GRO	11/12/08	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.1		% Rec.	8015D/GRO	11/12/08	1
TPH (GC/FID) High Fraction	19.	0.50	mg/l	3510/DRO	11/13/08	5
Surrogate recovery(%) o-Terphenyl	53.0		% Rec.	3510/DRO	11/13/08	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/16/08 07:34 Printed: 11/16/08 07:34
L374079-01 (PH) - 10.7@14.7c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L374079-01	WG393408	SAMP	pH	R532806	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
11/16/08 at 07:34:59

TSR Signing Reports: 151
R4 - Rush: Three Day

cb-1/05;Run ALKs on separate dash, 1 day TAT, R3 priority; Client sends unpreserved vials for
all projects; Run BTEXM on separate dash

Sample: L374079-01 Account: CORCOMGCO Received: 11/11/08 09:00 Due Date: 11/14/08 00:00 RPT Date: 11/16/08 07:34



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Cordilleran Compliance - GJ, CO
Tim Dobransky
826 21 1/2 Road
Grand Junction, CO 81505

Quality Assurance Report
Level II
L374079

November 16, 2008

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
TPH (GC/FID) Low Fraction	< .1	mg/l			WG393314	11/11/08 23:16
a,a,a-Trifluorotoluene(FID)		% Rec.	95.73	62-128	WG393314	11/11/08 23:16
a,a,a-Trifluorotoluene(PID)		% Rec.	102.9	54.8-121	WG393314	11/11/08 23:16
TPH (GC/FID) High Fraction	< .1	ppm			WG393255	11/12/08 08:54
o-Terphenyl		% Rec.	80.60	50-150	WG393255	11/12/08 08:54
pH	5.00	su			WG393408	11/12/08 13:38
Mercury	< .0002	mg/l			WG393390	11/12/08 20:16
Specific Conductance	0.510	umhos/cm			WG393586	11/14/08 11:00
Arsenic	< .02	mg/l			WG393623	11/14/08 10:32
Barium	< .005	mg/l			WG393623	11/14/08 10:32
Boron	< .2	mg/l			WG393623	11/14/08 10:32
Cadmium	< .005	mg/l			WG393623	11/14/08 10:32
Chromium	< .01	mg/l			WG393623	11/14/08 10:32
Copper	< .02	mg/l			WG393623	11/14/08 10:32
Lead	< .005	mg/l			WG393623	11/14/08 10:32
Molybdenum	< .005	mg/l			WG393623	11/14/08 10:32
Nickel	< .02	mg/l			WG393623	11/14/08 10:32
Selenium	< .02	mg/l			WG393623	11/14/08 10:32
Silver	< .01	mg/l			WG393623	11/14/08 10:32
Zinc	< .03	mg/l			WG393623	11/14/08 10:32

Analyte	Units	Duplicate			Limit	Ref Samp	Batch
		Result	Duplicate	RPD			
pH	su	7.80	6.90	12.2	20	L374245-01	WG393408
pH	su	6.90	7.70	11.0	20	L374214-01	WG393408
Mercury	mg/l	0.00	0.00	0.00	20	L374116-01	WG393390
Specific Conductance	umhos	840.	840.	0.00	20	L373612-01	WG393586
Arsenic	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Barium	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Boron	mg/l	0.00	0.0126	NA*	20	L373960-11	WG393623
Cadmium	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Chromium	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Copper	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Lead	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Molybdenum	mg/l	0.00	0.00329	NA*	20	L373960-11	WG393623
Nickel	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Selenium	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Silver	mg/l	0.00	0.00	0.00	20	L373960-11	WG393623
Zinc	mg/l	0.00	0.00330	NA*	20	L373960-11	WG393623

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Quality Assurance Report
Level II
L374079

November 16, 2008

Analyte	Laboratory Control Sample			% Rec	Limit	Batch
	Units	Known Val	Result			
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/l	5.5	5.24	95.3 113.5	70-124 62-128	WG393314 WG393314
TPH (GC/FID) High Fraction o-Terphenyl	ppm	1.5	1.33	88.9 90.05	50-150 50-150	WG393255 WG393255
pH	su	7.42	7.50	101.	97.19-102	WG393408
Mercury	mg/l	.003	0.00300	100.	85-115	WG393390
Specific Conductance	umhos/cm	519	540.	104.	85-115	WG393586
Arsenic	mg/l	1.13	1.08	95.6	85-115	WG393623
Barium	mg/l	1.13	1.12	99.1	85-115	WG393623
Boron	mg/l	1.13	1.05	92.9	85-115	WG393623
Cadmium	mg/l	1.13	1.14	101.	85-115	WG393623
Chromium	mg/l	1.13	1.12	99.1	85-115	WG393623
Copper	mg/l	1.13	1.09	96.5	85-115	WG393623
Lead	mg/l	1.13	1.13	100.	85-115	WG393623
Molybdenum	mg/l	1.13	1.16	103.	85-115	WG393623
Nickel	mg/l	1.13	1.09	96.5	85-115	WG393623
Selenium	mg/l	1.13	1.05	92.9	85-115	WG393623
Silver	mg/l	1.13	1.08	95.6	85-115	WG393623
Zinc	mg/l	1.13	1.09	96.5	85-115	WG393623

Analyte	Laboratory Control Sample Duplicate						RPD	Limit	Batch
	Units	Result	Ref	%Rec	Limit	RPD			
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/l	5.81	5.24	106. 116.1	70-124 62-128	10.2	20	WG393314 WG393314	
TPH (GC/FID) High Fraction o-Terphenyl	ppm	1.35	1.33	90.0 91.60	50-150 50-150	1.32	25	WG393255 WG393255	
pH	su	7.50	7.50	101.	97.19-1	0.00	20	WG393408	
Specific Conductance	umhos	540.	540.	104.	85-115	0.00	20	WG393586	

Analyte	Units	Matrix Spike				% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	TV				
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/l	5.54	0.00	5.5	101. 110.5	58-122 62-128	L373806-02	WG393314 WG393314	
Mercury	mg/l	0.003	0.00	.000	106.	70-130	L374116-01	WG393390	
Arsenic	mg/l	1.07	0.00	1.13	94.7	75-125	L373960-11	WG393623	
Barium	mg/l	1.11	0.00	1.13	98.2	75-125	L373960-11	WG393623	
Boron	mg/l	1.04	0.012	1.13	90.9	75-125	L373960-11	WG393623	

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Grand Junction, CO 81505

Quality Assurance Report
Level II

November 16, 2008

L374079

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Cadmium	mg/l	1.13	0.00	1.13	100.	75-125	L373960-11	WG393623
Chromium	mg/l	1.10	0.00	1.13	97.3	75-125	L373960-11	WG393623
Copper	mg/l	1.09	0.00	1.13	96.5	75-125	L373960-11	WG393623
Lead	mg/l	1.12	0.00	1.13	99.1	75-125	L373960-11	WG393623
Molybdenum	mg/l	1.14	0.003	1.13	101.	75-125	L373960-11	WG393623
Nickel	mg/l	1.08	0.00	1.13	95.6	75-125	L373960-11	WG393623
Selenium	mg/l	1.05	0.00	1.13	92.9	75-125	L373960-11	WG393623
Silver	mg/l	1.07	0.00	1.13	94.7	75-125	L373960-11	WG393623
Zinc	mg/l	1.09	0.003	1.13	96.2	75-125	L373960-11	WG393623

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/l	5.46	5.54	99.3	58-122	1.48	20	L373806-02	WG393314 WG393314
Mercury	mg/l	0.00	0.00	103.	70-130	2.86	20	L374116-01	WG393390
Arsenic	mg/l	1.10	1.07	97.3	75-125	2.76	20	L373960-11	WG393623
Barium	mg/l	1.14	1.11	101.	75-125	2.67	20	L373960-11	WG393623
Boron	mg/l	1.07	1.04	93.6	75-125	2.84	20	L373960-11	WG393623
Cadmium	mg/l	1.15	1.13	102.	75-125	1.75	20	L373960-11	WG393623
Chromium	mg/l	1.13	1.10	100.	75-125	2.69	20	L373960-11	WG393623
Copper	mg/l	1.11	1.09	98.2	75-125	1.82	20	L373960-11	WG393623
Lead	mg/l	1.15	1.12	102.	75-125	2.64	20	L373960-11	WG393623
Molybdenum	mg/l	1.17	1.14	103.	75-125	2.60	20	L373960-11	WG393623
Nickel	mg/l	1.11	1.08	98.2	75-125	2.74	20	L373960-11	WG393623
Selenium	mg/l	1.07	1.05	94.7	75-125	1.89	20	L373960-11	WG393623
Silver	mg/l	1.10	1.07	97.3	75-125	2.76	20	L373960-11	WG393623
Zinc	mg/l	1.10	1.09	97.1	75-125	0.91	20	L373960-11	WG393623

Batch number /Run number / Sample number cross reference

WG393314: R532532: L374079-01
 WG393255: R532784: L374079-01
 WG393408: R532806: L374079-01
 WG393390: R533456: L374079-01
 WG393586: R534470: L374079-01
 WG393623: R534646: L374079-01

* * Calculations are performed prior to rounding of reported values .
 * Performance of this Analyte is outside of established criteria.
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Level II

Grand Junction, CO 81505

L374079

November 16, 2008

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



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Tim Dobransky
Cordilleran Compliance - GJ, CO
826 21 1/2 Road

Grand Junction, CO 81505

Report Summary

Monday November 17, 2008

Report Number: L374285

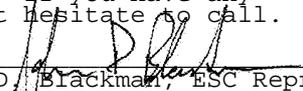
Samples Received: 11/12/08

Client Project: 8380

Description: Hawkins 10-4 Response

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:


John D. Blackman, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures: 060302, 060303, and 060304.

3 Samples Reported: 11/17/08 13:14 Printed: 11/17/08 13:14

Page 1 of 8



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REPORT OF ANALYSIS

Tim Dobransky
Cordilleran Compliance - GJ, CO
826 21 1/2 Road
Grand Junction, CO 81505

November 17, 2008

Date Received : November 12, 2008
Description : Hawkins 10-4 Response
Sample ID : HAWKINS 10-4 BG 6-12IF
Collected By : Stuart Hill
Collection Date : 11/11/08 13:30

ESC Sample # : L374285-01

Site ID :

Project # : 8380

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	6.8		su	9045D	11/13/08	1
Sodium Adsorption Ratio	0.35			Calc.	11/17/08	1
Specific Conductance	410		umhos/cm	9050AMod	11/14/08	1
Mercury	BDL	0.020	mg/kg	7471	11/13/08	1
Arsenic	1.8	1.0	mg/kg	6010B	11/13/08	1
Barium	150	0.25	mg/kg	6010B	11/13/08	1
Boron	10.	10.	mg/kg	6010B	11/13/08	1
Cadmium	BDL	0.25	mg/kg	6010B	11/13/08	1
Chromium	15.	0.50	mg/kg	6010B	11/13/08	1
Copper	14.	1.0	mg/kg	6010B	11/13/08	1
Lead	9.8	0.25	mg/kg	6010B	11/13/08	1
Molybdenum	BDL	0.25	mg/kg	6010B	11/13/08	1
Nickel	13.	1.0	mg/kg	6010B	11/13/08	1
Selenium	BDL	1.0	mg/kg	6010B	11/13/08	1
Silver	BDL	0.50	mg/kg	6010B	11/13/08	1
Zinc	44.	1.5	mg/kg	6010B	11/13/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L374285-01 (PH) - 6.8@20.8c



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REPORT OF ANALYSIS

Tim Dobransky
Cordilleran Compliance - GJ, CO
826 21 1/2 Road
Grand Junction, CO 81505

November 17, 2008

Date Received : November 12, 2008
Description : Hawkins 10-4 Response
Sample ID : HAWKINS 10-4 S1 0-6IN
Collected By : Stuart Hill
Collection Date : 11/11/08 13:00

ESC Sample # : L374285-02
Site ID :
Project # : 8380

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	7.3		su	9045D	11/13/08	1
Sodium Adsorption Ratio	4.6			Calc.	11/17/08	1
Specific Conductance	1600		umhos/cm	9050AMod	11/14/08	1
Mercury	BDL	0.020	mg/kg	7471	11/13/08	1
Arsenic	1.4	1.0	mg/kg	6010B	11/13/08	1
Barium	910	0.25	mg/kg	6010B	11/13/08	1
Boron	BDL	10.	mg/kg	6010B	11/13/08	1
Cadmium	BDL	0.25	mg/kg	6010B	11/13/08	1
Chromium	9.6	0.50	mg/kg	6010B	11/13/08	1
Copper	10.	1.0	mg/kg	6010B	11/13/08	1
Lead	8.2	0.25	mg/kg	6010B	11/13/08	1
Molybdenum	BDL	0.25	mg/kg	6010B	11/13/08	1
Nickel	9.7	1.0	mg/kg	6010B	11/13/08	1
Selenium	BDL	1.0	mg/kg	6010B	11/13/08	1
Silver	BDL	0.50	mg/kg	6010B	11/13/08	1
Zinc	33.	1.5	mg/kg	6010B	11/13/08	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	11/12/08	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	83.9		% Rec.	8015D/GRO	11/12/08	5
TPH (GC/FID) High Fraction	16.	4.0	mg/kg	3546/DRO	11/14/08	1
Surrogate recovery(%) o-Terphenyl	90.0		% Rec.	3546/DRO	11/14/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L374285-02 (PH) - 7.3@20.8c



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REPORT OF ANALYSIS

Tim Dobransky
Cordilleran Compliance - GJ, CO
826 21 1/2 Road
Grand Junction, CO 81505

November 17, 2008

Date Received : November 12, 2008
Description : Hawkins 10-4 Response
Sample ID : HAWKINS 10-4 S2 0-6IN
Collected By : Stuart Hill
Collection Date : 11/11/08 13:10

ESC Sample # : L374285-03
Site ID :
Project # : 8380

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	7.4		su	9045D	11/13/08	1
Sodium Adsorption Ratio	9.0			Calc.	11/17/08	1
Specific Conductance	2300		umhos/cm	9050AMod	11/14/08	1
Mercury	BDL	0.020	mg/kg	7471	11/13/08	1
Arsenic	1.1	1.0	mg/kg	6010B	11/13/08	1
Barium	2500	0.25	mg/kg	6010B	11/13/08	1
Boron	BDL	10.	mg/kg	6010B	11/13/08	1
Cadmium	BDL	0.25	mg/kg	6010B	11/13/08	1
Chromium	7.8	0.50	mg/kg	6010B	11/13/08	1
Copper	9.5	1.0	mg/kg	6010B	11/13/08	1
Lead	8.7	0.25	mg/kg	6010B	11/13/08	1
Molybdenum	BDL	0.25	mg/kg	6010B	11/13/08	1
Nickel	7.8	1.0	mg/kg	6010B	11/13/08	1
Selenium	BDL	1.0	mg/kg	6010B	11/13/08	1
Silver	BDL	0.50	mg/kg	6010B	11/13/08	1
Zinc	31.	1.5	mg/kg	6010B	11/13/08	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	11/12/08	5
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	83.6		% Rec.	8015D/GRO	11/12/08	5
TPH (GC/FID) High Fraction	17.	4.0	mg/kg	3546/DRO	11/14/08	1
Surrogate recovery(%) o-Terphenyl	111.		% Rec.	3546/DRO	11/14/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 11/17/08 13:14 Printed: 11/17/08 13:14
L374285-03 (PH) - 7.4@20.7c

Summary of Remarks For Samples Printed
11/17/08 at 13:14:38

TSR Signing Reports: 151
R3 - Rush: Two Day

cb-1/05;Run ALKs on separate dash, 1 day TAT, R3 priority; Client sends unpreserved vials for all projects; Run BTEXM on separate dash

Sample: L374285-01 Account: CORCOMGCO Received: 11/12/08 09:00 Due Date: 11/17/08 00:00 RPT Date: 11/17/08 13:14

Sample: L374285-02 Account: CORCOMGCO Received: 11/12/08 09:00 Due Date: 11/17/08 00:00 RPT Date: 11/17/08 13:14

Sample: L374285-03 Account: CORCOMGCO Received: 11/12/08 09:00 Due Date: 11/17/08 00:00 RPT Date: 11/17/08 13:14



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Tim Dobransky
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Grand Junction, CO 81505

Quality Assurance Report
Level II

L374285

November 17, 2008

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG393417	11/12/08 12:30
a,a,a-Trifluorotoluene(FID)		% Rec.	85.46	59-128	WG393417	11/12/08 12:30
pH	5.10	su			WG393591	11/13/08 14:29
TPH (GC/FID) High Fraction	< 4	ppm			WG393451	11/13/08 13:40
o-Terphenyl		% Rec.	83.97	50-150	WG393451	11/13/08 13:40
Mercury	< .02	mg/kg			WG393527	11/13/08 16:00
Arsenic	< 1	mg/kg			WG393574	11/13/08 19:52
Barium	< .25	mg/kg			WG393574	11/13/08 19:52
Boron	< 10	mg/kg			WG393574	11/13/08 19:52
Cadmium	< .25	mg/kg			WG393574	11/13/08 19:52
Chromium	< .5	mg/kg			WG393574	11/13/08 19:52
Copper	< 1	mg/kg			WG393574	11/13/08 19:52
Lead	< .25	mg/kg			WG393574	11/13/08 19:52
Molybdenum	< .25	mg/kg			WG393574	11/13/08 19:52
Nickel	< 1	mg/kg			WG393574	11/13/08 19:52
Selenium	< 1	mg/kg			WG393574	11/13/08 19:52
Silver	< .5	mg/kg			WG393574	11/13/08 19:52
Zinc	< 1.5	mg/kg			WG393574	11/13/08 19:52
Specific Conductance	0.510	umhos/cm			WG393587	11/14/08 11:30

Analyte	Units	Duplicate			Limit	Ref Samp	Batch
		Result	Duplicate	RPD			
pH	su	9.80	9.30	5.24	20	L374292-01	WG393591
Mercury	mg/kg	0.00	0.00	0.00	20	L374285-01	WG393527
Arsenic	mg/kg	9.01	7.70	15.7	20	L374133-58	WG393574
Barium	mg/kg	75.8	74.5	1.73	20	L374133-58	WG393574
Boron	mg/kg	0.00	9.09	NA*	20	L374133-58	WG393574
Cadmium	mg/kg	0.409	0.368	10.6	20	L374133-58	WG393574
Chromium	mg/kg	10.9	10.8	0.922	20	L374133-58	WG393574
Copper	mg/kg	26.8	18.0	39.3*	20	L374133-58	WG393574
Lead	mg/kg	70.1	49.0	35.4*	20	L374133-58	WG393574
Molybdenum	mg/kg	9.11	7.52	19.1	20	L374133-58	WG393574
Nickel	mg/kg	21.2	18.7	12.5	20	L374133-58	WG393574
Selenium	mg/kg	0.00	0.00	0.00	20	L374133-58	WG393574
Silver	mg/kg	0.00	0.00	0.00	20	L374133-58	WG393574
Zinc	mg/kg	73.3	68.6	6.62	20	L374133-58	WG393574
Specific Conductance	umhos	28000	28000	0.0714	20	L373840-01	WG393587
Specific Conductance	umhos	6680	6800	1.78	20	L374238-01	WG393587

* Performance of this Analyte is outside of established criteria.
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Tim Dobransky
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Grand Junction, CO 81505

Quality Assurance Report
Level II

L374285

November 17, 2008

Analyte	Laboratory Control Sample		% Rec	Limit	Batch	
	Units	Known Val				Result
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	5.5	4.65	84.5 95.99	67-135 59-128	WG393417 WG393417
pH	su	7.42	7.50	101.	97.19-102	WG393591
TPH (GC/FID) High Fraction o-Terphenyl	ppm	60	56.4	93.9 95.30	50-150 50-150	WG393451 WG393451
Mercury	mg/kg	8.77	8.22	93.7	71.6-127.	WG393527
Arsenic	mg/kg	192	184.	95.8	78.6-120.	WG393574
Barium	mg/kg	420	406.	96.7	78.8-121.	WG393574
Boron	mg/kg	140	0.00	0.00*	74.3-125.	WG393574
Cadmium	mg/kg	70.1	66.1	94.3	78.5-121.	WG393574
Chromium	mg/kg	168	165.	98.2	80.4-120.	WG393574
Copper	mg/kg	122	121.	99.2	81.6-119.	WG393574
Lead	mg/kg	113	110.	97.3	77.3-122.	WG393574
Molybdenum	mg/kg	129	119.	92.2	78.3-120.	WG393574
Nickel	mg/kg	74.1	76.1	103.	78.8-121.	WG393574
Selenium	mg/kg	176	173.	98.3	75.6-125.	WG393574
Silver	mg/kg	115	78.1	67.9	66-133.9	WG393574
Zinc	mg/kg	437	417.	95.4	78.5-121.	WG393574
Specific Conductance	umhos/cm	519	540.	104.	85-115	WG393587

Analyte	Laboratory Control Sample Duplicate				Limit	RPD	Limit	Batch
	Units	Result	Ref	%Rec				
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	4.87	4.65	89.0 97.22	67-135 59-128	4.69	20	WG393417 WG393417
pH	su	7.40	7.50	100.	97.19-1	1.34	20	WG393591
TPH (GC/FID) High Fraction o-Terphenyl	ppm	57.8	56.4	96.0 97.60	50-150 50-150	2.45	25	WG393451 WG393451
Specific Conductance	umhos	540.	540.	104.	85-115	0.00	20	WG393587

Analyte	Units	Matrix Spike			% Rec	Limit	Ref	Samp	Batch
		MS Res	Ref Res	TV					
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	16.9	0.00	5.5	61.6 91.83	55-109 59-128	L374238-01	WG393417 WG393417	
Mercury	mg/kg	0.224	0.00	.25	89.6	70-130	L374285-01	WG393527	
Arsenic	mg/kg	60.6	7.70	50	106.	75-125	L374133-58	WG393574	
Barium	mg/kg	125.	74.5	50	101.	75-125	L374133-58	WG393574	
Boron	mg/kg	54.5	9.09	50	90.8	75-125	L374133-58	WG393574	

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**ENVIRONMENTAL
SCIENCE CORP.**

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Tax I.D. 62-0814289

Est. 1970

Cordilleran Compliance - GJ, CO
Tim Dobransky
826 21 1/2 Road

**Quality Assurance Report
Level II**

Grand Junction, CO 81505

November 17, 2008

L374285

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Cadmium	mg/kg	52.1	0.368	50	103.	75-125	L374133-58	WG393574
Chromium	mg/kg	59.0	10.8	50	96.4	75-125	L374133-58	WG393574
Copper	mg/kg	72.9	18.0	50	110.	75-125	L374133-58	WG393574
Lead	mg/kg	102.	49.0	50	106.	75-125	L374133-58	WG393574
Molybdenum	mg/kg	60.8	7.52	50	107.	75-125	L374133-58	WG393574
Nickel	mg/kg	70.8	18.7	50	104.	75-125	L374133-58	WG393574
Selenium	mg/kg	48.6	0.00	50	97.2	75-125	L374133-58	WG393574
Silver	mg/kg	50.4	0.00	50	101.	75-125	L374133-58	WG393574
Zinc	mg/kg	124.	68.6	50	111.	75-125	L374133-58	WG393574
TPH (GC/FID) High Fraction o-Terphenyl	ppm	53.5	0.00	60	89.2 109.4	50-150 50-150	L374043-09	WG393451 WG393451

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
TPH (GC/FID) Low Fraction a,a,a-Trifluorotoluene(FID)	mg/kg	18.3	16.9	66.6 94.0	55-109 59-128	7.72	20	L374238-01	WG393417 WG393417
Mercury	mg/kg	0.25	0.22	20.24	70-130	12.2	20	L374285-01	WG393527
Arsenic	mg/kg	56.8	60.6	98.2	75-125	6.47	20	L374133-58	WG393574
Barium	mg/kg	121.	125.	93.0	75-125	3.25	20	L374133-58	WG393574
Boron	mg/kg	51.0	54.5	83.8	75-125	6.64	20	L374133-58	WG393574
Cadmium	mg/kg	49.5	52.1	98.3	75-125	5.12	20	L374133-58	WG393574
Chromium	mg/kg	56.4	59.0	91.2	75-125	4.51	20	L374133-58	WG393574
Copper	mg/kg	68.2	72.9	100.	75-125	6.66	20	L374133-58	WG393574
Lead	mg/kg	138.	102.	178*	75-125	30.0*	20	L374133-58	WG393574
Molybdenum	mg/kg	56.6	60.8	98.2	75-125	7.16	20	L374133-58	WG393574
Nickel	mg/kg	67.6	70.8	97.8	75-125	4.62	20	L374133-58	WG393574
Selenium	mg/kg	45.8	48.6	91.6	75-125	5.93	20	L374133-58	WG393574
Silver	mg/kg	47.8	50.4	95.6	75-125	5.30	20	L374133-58	WG393574
Zinc	mg/kg	118.	124.	98.8	75-125	4.96	20	L374133-58	WG393574
TPH (GC/FID) High Fraction o-Terphenyl	ppm	54.3	53.5	90.4 116.0	50-150 50-150	1.34	25	L374043-09	WG393451 WG393451

Batch number /Run number / Sample number cross reference

WG393417: R533044: L374285-02 03
WG393591: R533609: L374285-01 02 03
WG393451: R533905: L374285-02 03
WG393527: R533946: L374285-01 02 03
WG393574: R534244: L374285-01 02 03
WG393587: R534484: L374285-01 02 03
WG393606: R535665: L374285-01 02 03

* * Calculations are performed prior to rounding of reported values .
* Performance of this Analyte is outside of established criteria.
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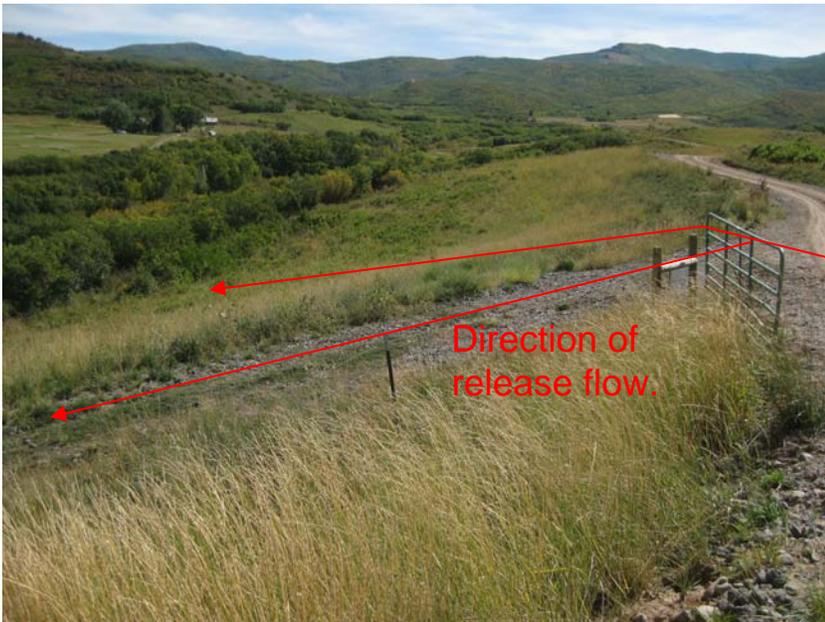
The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

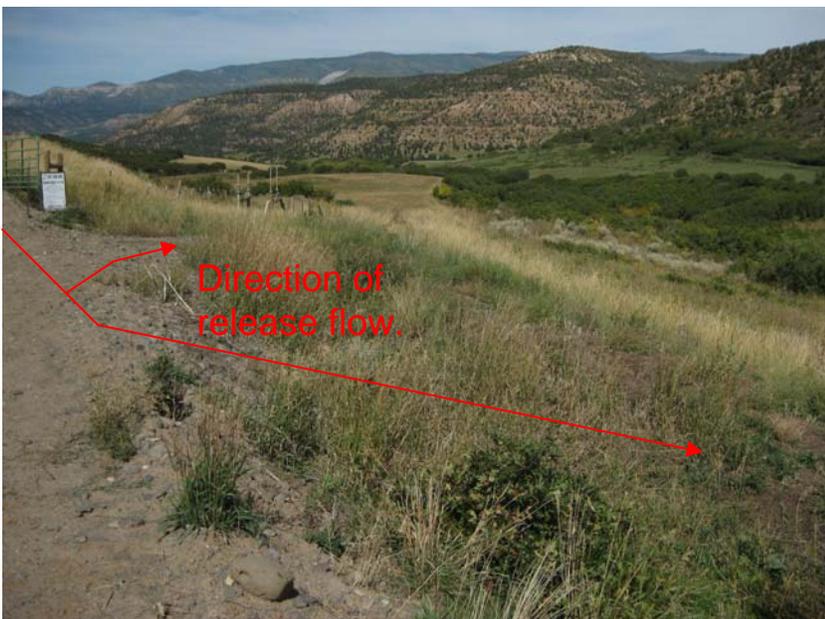
Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

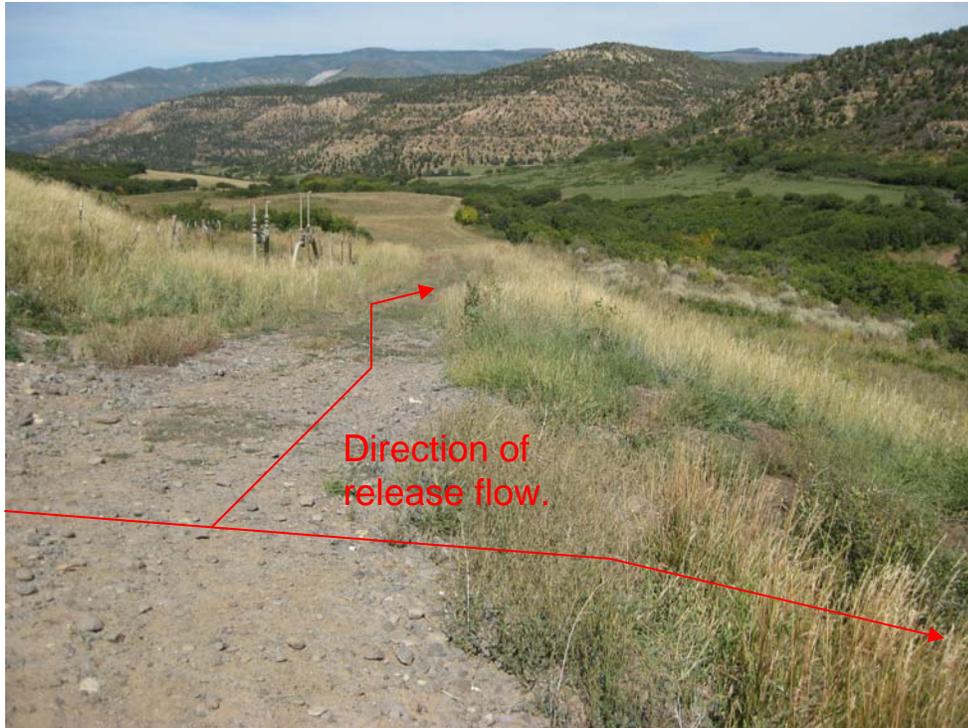
Hawkins Ranch 10-4 off pad photos taken September 22, 2011. Note that no evidence of impacts to vegetation. (Reference Document Number: 1984975)



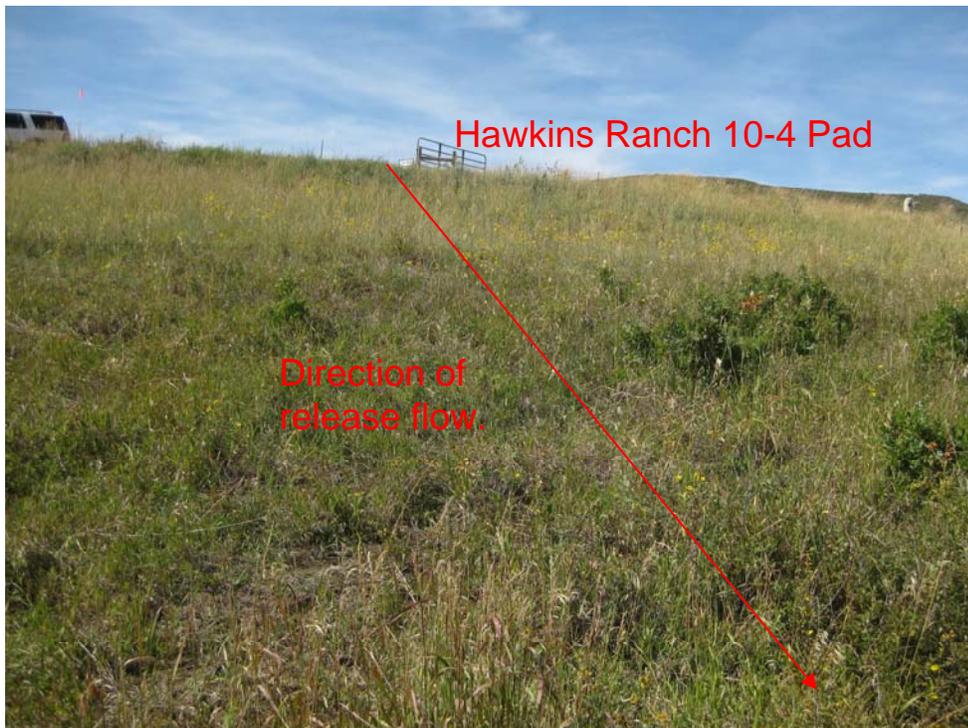
Edge of Hawkins Ranch 10-4 pad, looking south. Pipeline ROW has vegetated.



Edge of access road to Hawkins Ranch 10-4 pad, looking northwest. Pipeline ROW has vegetated.



Edge of Access Road to Hawkins Ranch 10-4 pad, looking northwest. Two-track and pipeline ROW has vegetation.



Looking towards Hawkins Ranch 10-4 pad entrance, looking west. Pipeline ROW has vegetation.