Basin Environmental Consulting, LLC

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Effective Solutions

REMEDIATION SUMMARY

AND PROPOSED SITE

CLOSURE STRATEGY

CrownQuest Operating, LLC
New Mexico State 20 #5
Lea County, New Mexico
UNIT LTR "H" (SE ¼ /NE ¼), Section 6, Township 14 South, Range 33 East
Latitude 33° 08' 07" North, Longitude 103° 38' 45" West
NMOCD Reference # 1RP-2252

Prepared For:

CrownQuest Operating, LLC
P.O. Box 53310
Midland, Texas 79710

Prepared By:
Basin Environmental Consulting, LLC
2800 Plains Highway
Lovington, New Mexico 88260

October 2009

Approved by
Geoffrey Leking
Environmental Engineer
NMOCD - Hobbs
11/03/09

Camille J. Bryant
Camille J. Bryant
Project Manager

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INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Consulting, LLC (Basin), on behalf of CrownQuest Operating, LLC (CrownQuest), has prepared this Remediation Summary and Proposed Site Closure Strategy for the release site known as New Mexico State 20 #5. The legal description of the release site is Unit Letter "H" (SE ¼ NE ¼), Section 6, Township 14 South, Range 33 East, in Lea County, New Mexico. The property affected by the release is owned by Mr. Norman Hahn. The release site GPS coordinates are 33° 08' 07" North and 103° 38' 45" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Monitor Well Location Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On July 21, 2009, CrownQuest discovered a release from a two-inch poly flow line. The flow line failed at the seam, resulting in a release of crude oil/produced water. The release was reported to the New Mexico Oil Conservation Division (NMOCD) on July 21, 2009. CrownQuest conducted a line repair at the time of the release. Approximately fifty (50) barrels of crude oil and produced water was released from the flow line, with approximately twenty-five (25) barrels recovered. General photographs of the site are provided as Appendix C.

NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), groundwater should be encountered at approximately one hundred thirty-three (133) feet below ground surface (bgs). The depth to groundwater in this area results in a score of zero (0) being assigned to the site based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There are no surface water bodies located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the New Mexico State 20 #5 release site has a ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

The NMOCD chlorides clean up level concentrations are site specific.

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On July 28, 2009, following initial response activities, excavation of the impacted soil began at the site. Excavated soil was stockpiled on-site on a plastic liner to mitigate the leaching of contaminants into the vadose zone.

On October 24, 2009, one (1) soil boring (SB-1) was advanced at the release site to vertically investigate the extent of soil impact. Soil boring logs are provided as Appendix A. Soil samples were collected at five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID). Selected soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX), total petroleum hydrocarbon (TPH) and chlorides using EPA SW-846 8021b, SW-846 8015M and E 300.0, respectively.

Soil boring SB-1 was located in the northeast portion of the excavation and was advanced to a total depth of approximately forty (40) feet bgs. Soil samples were collected at five (5) foot drilling intervals. Soil samples collected at five (5) and fifteen (15) feet bgs were submitted to the laboratory for BTEX and TPH analysis. The laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) in the soil sample collected at five (5) and fifteen (15) feet bgs. BTEX concentrations ranged from 0.075 mg/Kg in the soil sample collected at fifteen (15) feet bgs to 0.2765 mg Kg in the soil sample collected at five (5) feet bgs. TPH concentrations ranged from 6.23 mg/Kg in the soil sample collected at fifteen (15) feet bgs to 12.6 mg/Kg in the soil sample collected at five (5) feet bgs. Soil samples collected at five (5), fifteen (15), twenty-five (25) and thirty (30) feet bgs were submitted to the laboratory for chloride analysis. Chloride concentrations ranged from 79.0 mg/Kg in the soil sample collected at twenty-five (25) feet bgs to 11,000 mg/Kg in the soil sample collected at five (5) feet bgs. Table 1 summarizes the Concentrations of BTEX, TPH and Chlorides in Soil. Analytical reports are provided as Appendix B.

On October 29, 2009, one (1) soil boring (SB-2) was advanced at the site and was subsequently converted to a groundwater monitor well (MW-1). The monitor well (MW-1) was installed in the center of the excavated area to evaluate the status of the groundwater at the site. The monitor well was installed to a total depth of approximately one hundred forty-seven (147) feet bgs. Soil samples were collected at five (5) foot drilling intervals. Soil samples collected at five (5) and fifteen (15) foot drilling intervals were analyzed for benzene, BTEX and TPH concentrations. The laboratory analytical results indicated benzene concentrations were less than the laboratory MDL in the soil samples collected at five (5) and fifteen (15) feet bgs. BTEX concentrations ranged from less than the laboratory MDL in the soil sample collected at fifteen (15) feet bgs to 0.0374 mg/Kg in the soil sample collected at five (5) feet bgs. TPH concentrations ranged from 1.60 mg/Kg in the soil sample collected at fifteen (15) feet bgs to 4.05 mg/Kg in the soil sample collected at five (5) feet bgs. The soil samples collected at five (5), fifteen (15), twenty-five (25), thirty-five (35), forty-five (45), fifty-five (55), sixty-five (65), seventy-five (75), eighty-five (85), ninety-five (95), one hundred five (105), one hundred fifteen (115), one hundred twenty (120) and one hundred twenty-five (125) foot drilling intervals were submitted to the laboratory for chloride analysis. Chloride concentrations ranged from 46.6 mg/Kg in the soil sample collected at one hundred fifteen (115) feet bgs to 5,320 mg/Kg in the soil sample collected at thirty-five (35) feet bgs.

SUMMARY OF GROUNDWATER INVESTIGATION ACTIVITIES

On October 5, 2009, the monitor well (MW-1) was gauged and purged of a minimum of three (3) well volumes of water or until the well was dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon

bailers. Water samples were stored in clean, containers provided by the laboratory and placed on ice in the field. Purge water was collected in a trailer mounted polystyrene tank and disposed of at an NMOCD approved disposal in Monument, New Mexico.

Groundwater samples collected from monitor well (MW-1) were delivered to TraceAnalysis, Inc, Midland, Texas for determination of chloride concentrations by EPA Method SM 4500-CL B or E 300 and Total Dissolved Solids (TDS) concentrations by EPA Method SM 2540. A summary of the analytical results are included in Table 2, Concentrations of Chlorides and TDS in Groundwater.

The laboratory analytical results of the October 5, 2009 groundwater sampling event indicated a TDS concentration of 756 mg/L and a chloride concentration of 109 mg/L. The laboratory analytical results indicated the chloride concentration was less than NMOCD regulatory standard for monitor well MW-1. Location of the groundwater monitor well is depicted on Figure 2 Site and Monitor Well Location Map.

PROPOSED SITE CLOSURE STRATEGY

CrownQuest proposes the following remediation activities designed to progress the New Mexico State 20 #5 release site toward an NMOCD approved closure:

- CrownQuest requests NMOCD approval to plug and abandon monitor well MW-1. The monitor well will be plugged using the New Mexico Office of the State Engineer (NMOSE) guidelines. The plugging and abandonment activities will be conducted by a State of New Mexico certified water well drilling company and CrownQuest will provide the NMOCD with plugging reports documenting the plugging procedure.

- CrownQuest proposes to excavate the impacted soil to a depth of approximately five (5) feet bgs and stockpile the impacted soil on-site, pending transportation to an NMOCD permitted disposal facility. The sidewalls of the excavation will be sampled at seventy-five (75) feet linear intervals and submitted to the laboratory and analyzed for concentrations of benzene, BTEX, TPH and chlorides. When confirmation analytical results indicate the excavation sidewalls exhibit concentrations less than the NMOCD regulatory standards the excavation activities will cease.

- CrownQuest proposes to install a twenty (20) mil polyurethane liner in the floor of the excavation. The liner will be cushioned by a six (6) inch layer of sand above and below the liner to protect the liner from damage during excavation backfilling activities. The excavation will be backfilled with non-impacted soil purchased from an off-site source. Following backfill activities, the surface will be contoured to fit the surrounding topography. Reseeding of the site with vegetation acceptable to the landowner, will take place at the conclusion of the proposed remediation activities.

REPORTING

On completion of the proposed closure strategy activities, CrownQuest will submit a Remediation Summary and Site Closure Request for NMOCD approval.

LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Site Closure Strategy to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of CrownQuest Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or CrownQuest Operating, LLC

DISTRIBUTION:

Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
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Hobbs, New Mexico 88240

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Midland, Texas 79710

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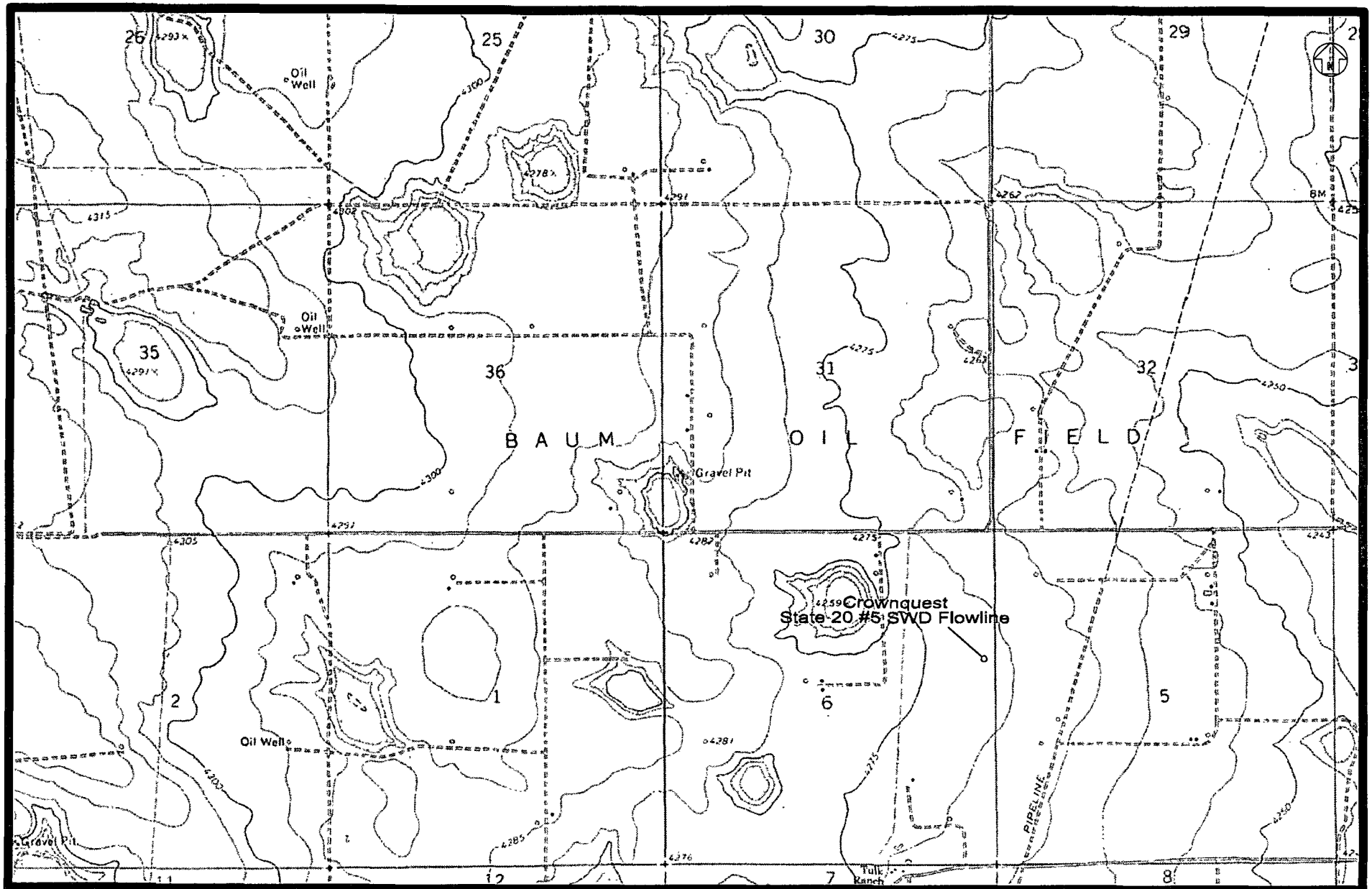
Figures



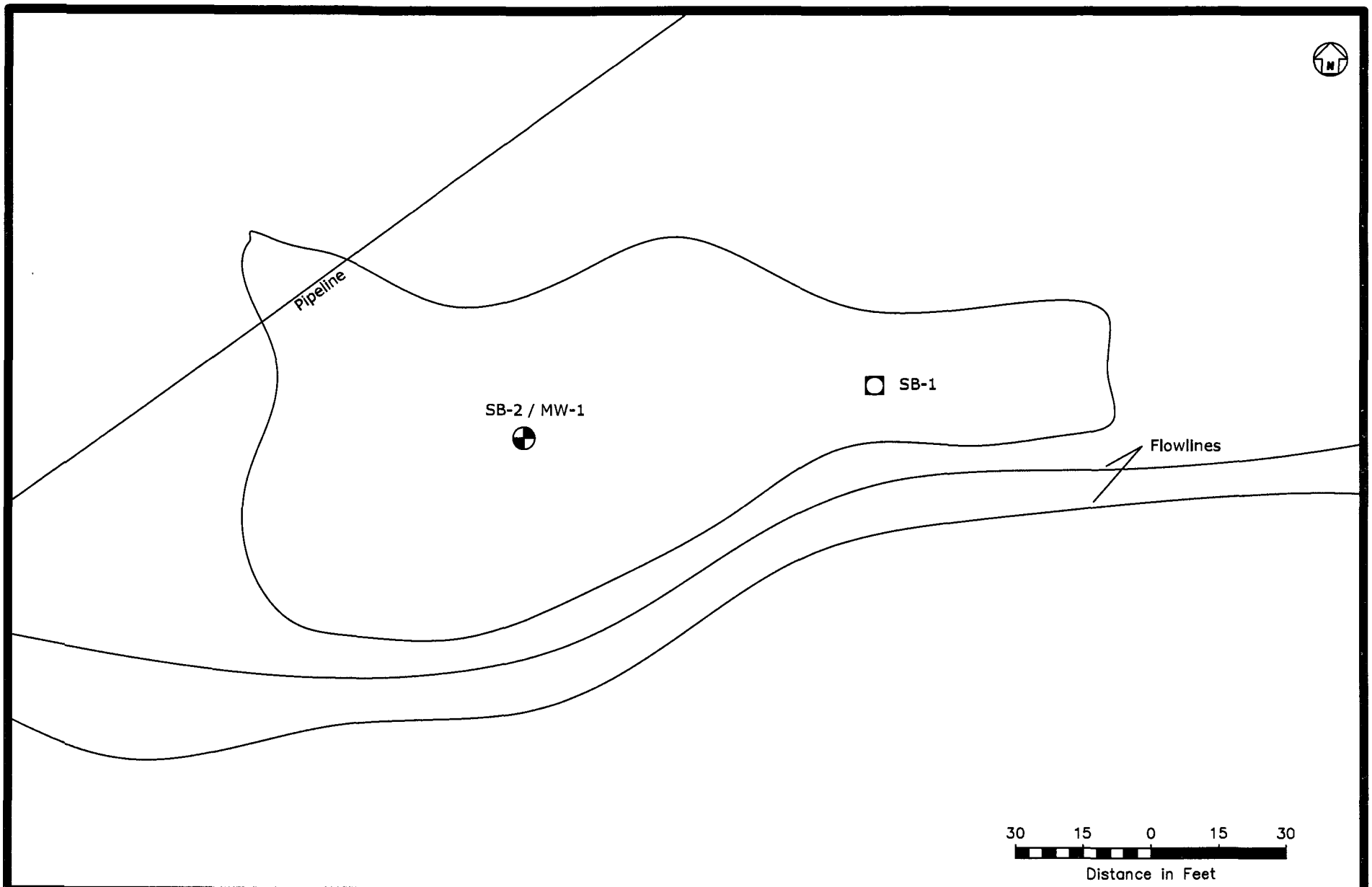
3000 1500 0 1500 3000

Distance in Feet

Figure 1
Site Location Map
New Mexico State 20 #5
CrownQuest Operating
Lea County, New Mexico

Basin Environmental Consulting

Prep By: CDS	Checked By: CJB
October 16, 2009	Scale 1"=3000'



Legend:

- Excavation Extents
- Flowline / Pipeline
- MW-1 Monitor Well Location
- SB-1 Soil Boring Location

Figure 2

Site and Sample Location Map
New Mexico State 20 #5

CrownQuest Operating, LLC
Lea County, New Mexico

Basin Environmental Consulting

Prep By: CDS	Checked By: CJB
October 16, 2009	Scale 1"= approximately 30'

Tables

Table 1

CONCENTRATIONS OF BTEX,TPH AND CHLORIDE IN SOIL
CROWNQUEST OPERATING, LLC
NEW MEXICO STATE 20 #5
LEA COUNTY, NEW MEXICO
NMOCD REF #1RP- 2252

SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					EPA SW 846-8015			EPA 4500 / E 300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	XYLENE (mg/Kg)	BTEX (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	TOTAL TPH (mg/Kg)	Chloride (mg/Kg)
09/24/09	SB-1 @ 5'	5 Feet	In-Situ	<0.0100	0.0199	0.0556	0.201	0.2765	12.6	<50.0	12.6	**11,000**
09/24/09	SB-1 @ 15'	15 Feet	In-Situ	<0.0100	<0.0100	<0.0100	0.075	0.075	6 23	<50.0	6.23	**2,760**
09/24/09	SB-1 @ 25'	25 Feet	In-Situ	-	-	-	-	-	-	-	-	79
09/24/09	SB-1 @ 30'	30 Feet	In-Situ	-	-	-	-	-	-	-	-	87.9
09/29/09	MW-1 @ 5'	5 Feet	In-Situ	<0.0100	<0 0100	<0.0100	0.0374	0.0374	4.05	<50.0	4.05	**4,660**
09/29/09	MW-1 @ 15'	15 Feet	In-Situ	<0 0100	<0.0100	<0.0100	<0.0100	<0 0100	1.6	<50 0	1.6	**3,600**
09/29/09	MW-1 @ 25'	25 Feet	In-Situ	-	-	-	-	-	-	-	-	**4,740**
09/29/09	MW-1 @ 35'	35 Feet	In-Situ	-	-	-	-	-	-	-	-	**5,320**
09/29/09	MW-1 @ 45'	45 Feet	In-Situ	-	-	-	-	-	-	-	-	**4,610**
09/29/09	MW-1 @ 55'	55 Feet	In-Situ	-	-	-	-	-	-	-	-	**4,250**
09/29/09	MW-1 @ 65'	65 Feet	In-Situ	-	-	-	-	-	-	-	-	**4,670**
09/29/09	MW-1 @ 75'	75 Feet	In-Situ	-	-	-	-	-	-	-	-	**5,100**
09/29/09	MW-1 @ 85'	85 Feet	In-Situ	-	-	-	-	-	-	-	-	**667**
09/29/09	MW-1 @ 95'	95 Feet	In-Situ	-	-	-	-	-	-	-	-	**422**
09/29/09	MW-1 @ 105'	105 Feet	In-Situ	-	-	-	-	-	-	-	-	200
09/29/09	MW-1 @ 115'	115 Feet	In-Situ	-	-	-	-	-	-	-	-	46.6
09/29/09	MW-1 @ 120'	120 Feet	In-Situ	-	-	-	-	-	-	-	-	255
09/29/09	MW-1 @ 125'	125 Feet	In-Situ	-	-	-	-	-	-	-	-	**287**
NMOCD CLEAN-UP LEVEL				**10**				**50**			**5,000**	**250**

BOLD indicates concentration exceeding NMOCD regulatory standards

TABLE 2

CONCENTRATIONS OF CHLORIDES AND TDS IN GROUNDWATER
CROWNQUEST OPERATING, LLC
NEW MEXICO STATE 20 #5
LEA COUNTY, NEW MEXICO
NMOCD REF # 1PR-2252

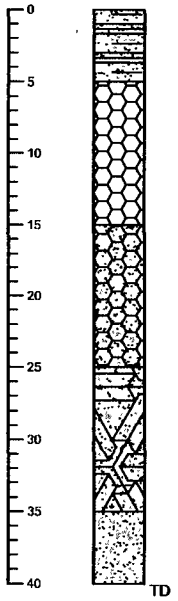
All concentrations recorded in mg/L

SAMPLE LOCATION	SAMPLE DATE	METHOD: 4500 CHLORIDE	SM 2540C TOTAL DISSOLVED SOILDS
MW-1	10/05/09	109	756
NMOCD CRITERIA		**250**	**10,000**

Appendices

Appendix A
Soil Boring and Monitor Well Logs

Soil Boring SB-1



Drilling Depth	PID Field Screen	Chloride Field Screen	Petroleum Odor	Petroleum Stain	Soil Description
			None	None	0 - 5' - Clay, red, sandy, dry
	3.5	6,272			
			None	None	
	3.2	1,276			5 - 15' - Caliche, tan, dry
			None	None	
	3.5	2,400			
			None	None	15 - 20' - Sand, tan to brown, very fine grained with caliche nodules, dry
	3.1	2,552			
			None	None	
	3.0	120			
			None	None	25 - 35' - Sand, tan to brown, very fine grained with sandstone nodules, dry
	2.9	124			
			None	None	
	3.1	<120			
			None	None	35 - 40' - Sand, brown, very fine grained
TD	3.2	<120			

Soil Boring Details

Date Drilled: September 24, 2009
Thickness of Bentonite Seal: 50 Ft
Depth of Exploratory Boring: 50 Ft bgs
Depth to Groundwater: NA
Ground Water Elevation: _____

▼ Indicates the PSH level measured on _____
▼ Indicates the groundwater level measured on _____
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

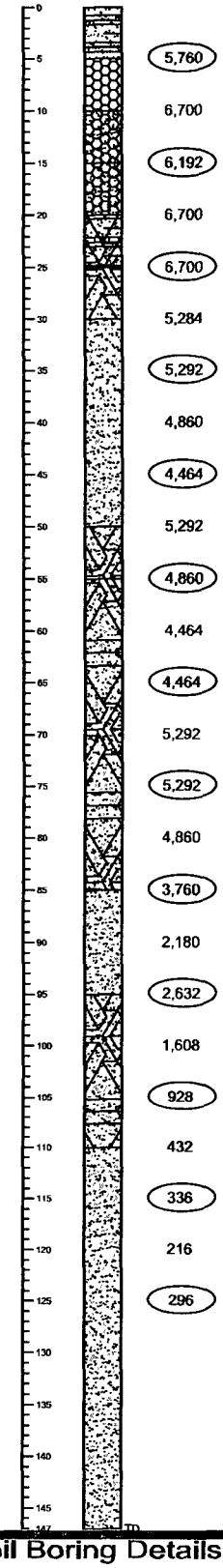
2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Boring Log Details
Soil Boring SB-1
New Mexico State 20 #5
Lea County, New Mexico
CrownQuest Operating, LLC

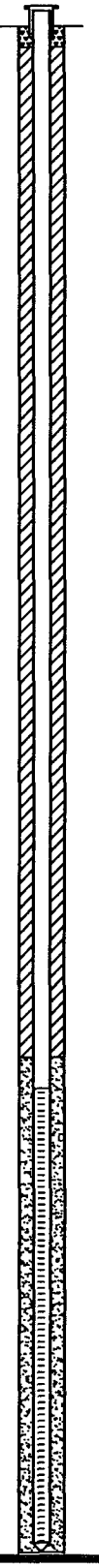
Basin Environmental Services

Prep By: CDS	Checked By: CJB
October 16, 2009	

Soil Boring SB-2 / Monitor Well MW-1



Chloride Field Screen	Petroleum Odor	Petroleum Stain	Soil Description
5,760	None	None	0 - 5' bgs - Clay, red, sandy
6,700	None	None	5 - 10' bgs - Caliche, white to tan, dry
6,192	None	None	10 - 15' bgs - Sand, tan, dry with caliche nodules
6,700	None	None	15 - 20' bgs - Sand, tan to brown, with caliche nodules and clay stringers
6,700	None	None	20 - 25' bgs - Sand, light brown, dry with sandstone nodules and some clay
5,284	None	None	25 - 30' bgs - Sand, light brown, slightly damp with sandstone nodule
5,292	None	None	
4,860	None	None	30 - 50' bgs - Sand, brown, very fine grained, slightly damp
4,464	None	None	
5,292	None	None	50 - 55' bgs - Sand, brown, very fine grained, slightly damp with sandstone nodule
4,860	None	None	
4,464	None	None	
4,464	None	None	
5,292	None	None	55 - 85' bgs - Sand, brown, very fine grained, damp with sandstone nodule
5,292	None	None	
4,860	None	None	
3,760	None	None	
2,180	None	None	85 - 95 bgs- Sand, brown, very fine grained, moist
2,632	None	None	
1,608	None	None	95 - 110' bgs - Sand, brown, very fine grained, moist with sandstone nodule
928	None	None	
432	None	None	
336	None	None	
216	None	None	
296	None	None	110 - 147 bgs- Sand, brown, very fine grained, moist



Soil Boring SB-2 / Monitor Well MW-1

Date Drilled: September 29, 2009
Thickness of Bentonite Seal: 99 Feet
Depth of Exploratory Boring: 147 Feet Bgs
Depth to Groundwater: 78 Ft (Approx. 95 ft bgs)
Ground Water Elevation:

▼ Indicates the PSH level measured on ____
▼ Indicates the groundwater level measured on ____
⬭ Indicates samples selected for Laboratory Analysis.

Grout Surface Seal
Bentonite Pellet Seal
Sand Pack
Screen

Completion Notes

1.) The monitor well was advanced on date using air / water rotary drilling techniques.
2.) The well was constructed with 2" ID, 0.010 inch factory slotted, threaded joint, schedule 40 PVC pipe.
3.) The well is protected with a locked stick up steel cover and compression cap.
4.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring Details
SB-2
Monitor Well Details
MW-1

New Mexico State 20 #5
Lea County, New Mexico
CrownQuest Operating, LLC

Basin Environmental Consulting

Prep By: CDS	Checked By: CDS
October 16, 2009	

Appendix B
Analytical Reports

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Camille Bryant
Basin Environmental Consulting
2800 Plains Hwy.
P. O. Box 381
Lovington, NM, 88260

Report Date: October 9, 2009

Work Order: 9100503

Project Location: Lea County, NM
Project Name: Crownquest/New Mexico State 20 #5
Project Number: Crownquest/New Mexico State 20 #5

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
211512	SB-1 @ 5'	soil	2009-09-24	08:30	2009-10-03
211513	SB-1 @ 15'	soil	2009-09-24	10:00	2009-10-03
211514	SB-1 @ 25'	soil	2009-09-24	11:10	2009-10-03
211515	SB-1 @ 30'	soil	2009-09-24	12:05	2009-10-03
211516	MW-1 @ 5'	soil	2009-09-29	09:00	2009-10-03
211517	MW-1 @ 15'	soil	2009-09-29	09:20	2009-10-03
211518	MW-1 @ 25'	soil	2009-09-29	09:45	2009-10-03
211519	MW-1 @ 35'	soil	2009-09-29	10:05	2009-10-03
211520	MW-1 @ 45'	soil	2009-09-29	10:30	2009-10-03

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
211521	MW-1 @ 55'	soil	2009-09-29	11:00	2009-10-03
211522	MW-1 @ 65'	soil	2009-09-29	11:20	2009-10-03
211523	MW-1 @ 75'	soil	2009-09-29	11:40	2009-10-03
211524	MW-1 @ 85'	soil	2009-09-29	12:00	2009-10-03
211525	MW-1 @ 95'	soil	2009-09-29	12:30	2009-10-03
211526	MW-1 @ 105'	soil	2009-09-29	12:50	2009-10-03
211527	MW-1 @ 115'	soil	2009-09-29	13:30	2009-10-03
211528	MW-1 @ 120'	soil	2009-09-29	13:55	2009-10-03
211529	MW-1 @ 125'	soil	2009-09-29	14:20	2009-10-03

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Crownquest/New Mexico State 20 #5 were received by TraceAnalysis, Inc. on 2009-10-03 and assigned to work order 9100503. Samples for work order 9100503 were received intact at a temperature of 2.1 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	54819	2009-10-05 at 16:00	64189	2009-10-05 at 17:01
Chloride (IC)	E 300.0	54809	2009-10-06 at 09:02	64216	2009-10-06 at 17:40
Chloride (IC)	E 300.0	54810	2009-10-06 at 09:02	64218	2009-10-06 at 22:41
Chloride (IC)	E 300.0	54811	2009-10-06 at 09:03	64219	2009-10-07 at 01:43
TPH DRO	Mod. 8015B	54798	2009-10-05 at 09:48	64164	2009-10-05 at 09:48
TPH GRO	S 8015B	54819	2009-10-05 at 16:00	64190	2009-10-05 at 17:29

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9100503 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 211512 - SB-1 @ 5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	64189	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		**0.0199**	mg/Kg	1	0.0100
Ethylbenzene		**0.0556**	mg/Kg	1	0.0100
Xylene		**0.201**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	43.1 - 128.4

Sample: 211512 - SB-1 @ 5'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**11000**	mg/Kg	500	1.00

Sample: 211512 - SB-1 @ 5'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	64164	Date Analyzed:	2009-10-05	Analyzed By:	kg
Prep Batch:	54798	Sample Preparation:	2009-10-05	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		98.4	mg/Kg	1	100	98	13.2 - 219.3

Sample: 211512 - SB-1 @ 5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	64190	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**12.6**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	65.3 - 109.9
4-Bromofluorobenzene (4-BFB)	[1]	2.67	mg/Kg	1	2.00	134	61.7 - 119.9

Sample: 211513 - SB-1 @ 15'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	64189	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		**0.0750**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	43.1 - 128.4

Sample: 211513 - SB-1 @ 15'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

[1] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2760**	mg/Kg	100	1.00

Sample: 211513 - SB-1 @ 15'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	64164	Date Analyzed:	2009-10-05	Analyzed By:	kg
Prep Batch:	54798	Sample Preparation:	2009-10-05	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		95.9	mg/Kg	1	100	96	13.2 - 219.3

Sample: 211513 - SB-1 @ 15'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	64190	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**6.23**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.02	mg/Kg	1	2.00	101	65.3 - 109.9
4-Bromofluorobenzene (4-BFB)		2.36	mg/Kg	1	2.00	118	61.7 - 119.9

Sample: 211514 - SB-1 @ 25'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**79.0**	mg/Kg	5	1.00

Sample: 211515 - SB-1 @ 30'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**87.9**	mg/Kg	5	1.00

Sample: 211516 - MW-1 @ 5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	64189	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		**0.0374**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		1.99	mg/Kg	1	2.00	100	43.1 - 128.4

Sample: 211516 - MW-1 @ 5'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4660**	mg/Kg	100	1.00

Sample: 211516 - MW-1 @ 5'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	64164	Date Analyzed:	2009-10-05	Analyzed By:	kg
Prep Batch:	54798	Sample Preparation:	2009-10-05	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		94.5	mg/Kg	1	100	94	13.2 - 219.3

Sample: 211516 - MW-1 @ 5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	64190	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.05**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.05	mg/Kg	1	2.00	102	65.3 - 109.9
4-Bromofluorobenzene (4-BFB)	[2]	2.42	mg/Kg	1	2.00	121	61.7 - 119.9

Sample: 211517 - MW-1 @ 15'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	64189	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

[2]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	43.1 - 128.4

Sample: 211517 - MW-1 @ 15'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3600**	mg/Kg	500	1.00

Sample: 211517 - MW-1 @ 15'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	64164	Date Analyzed:	2009-10-05	Analyzed By:	kg
Prep Batch:	54798	Sample Preparation:	2009-10-05	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		85.8	mg/Kg	1	100	86	13.2 - 219.3

Sample: 211517 - MW-1 @ 15'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	64190	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	Sample Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1.60**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	65.3 - 109.9
4-Bromofluorobenzene (4-BFB)		2.17	mg/Kg	1	2.00	108	61.7 - 119.9

Sample: 211518 - MW-1 @ 25'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4740**	mg/Kg	500	1.00

Sample: 211519 - MW-1 @ 35'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5320**	mg/Kg	100	1.00

Sample: 211520 - MW-1 @ 45'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4610**	mg/Kg	100	1.00

Sample: 211521 - MW-1 @ 55'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64216	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54809	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4250**	mg/Kg	500	1.00

Sample: 211522 - MW-1 @ 65'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4670**	mg/Kg	500	1.00

Sample: 211523 - MW-1 @ 75'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**5100**	mg/Kg	100	1.00

Sample: 211524 - MW-1 @ 85'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**667**	mg/Kg	10	1.00

Sample: 211525 - MW-1 @ 95'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**422**	mg/Kg	10	1.00

Sample: 211526 - MW-1 @ 105'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**200**	mg/Kg	5	1.00

Sample: 211527 - MW-1 @ 115'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**46.6**	mg/Kg	5	1.00

Sample: 211528 - MW-1 @ 120'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64218	Date Analyzed:	2009-10-06	Analyzed By:	AR
Prep Batch:	54810	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**255**	mg/Kg	5	1.00

Sample: 211529 - MW-1 @ 125'

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64219	Date Analyzed:	2009-10-07	Analyzed By:	AR
Prep Batch:	54811	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**287**	mg/Kg	5	1.00

Method Blank (1) QC Batch: 64164

QC Batch:	64164	Date Analyzed:	2009-10-05	Analyzed By:	kg
Prep Batch:	54798	QC Preparation:	2009-10-05	Prepared By:	kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		64.1	mg/Kg	1	100	64	13 - 178.5

Method Blank (1) QC Batch: 64189

QC Batch:	64189	Date Analyzed:	2009-10-05	Analyzed By:	AG
Prep Batch:	54819	QC Preparation:	2009-10-05	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.80	mg/Kg	1	2.00	90	64.9 - 122.7
4-Bromofluorobenzene (4-BFB)		1.57	mg/Kg	1	2.00	78	43.9 - 121.9

Method Blank (1) QC Batch: 64190

QC Batch: 64190 | Date Analyzed: 2009-10-05 | Analyzed By: AG
Prep Batch: 54819 | QC Preparation: 2009-10-05 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	66.2 - 125
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	62 - 120.5

Method Blank (1) QC Batch: 64216

QC Batch: 64216 | Date Analyzed: 2009-10-06 | Analyzed By: AR
Prep Batch: 54809 | QC Preparation: 2009-10-06 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		0.905	mg/Kg	1

Method Blank (1) QC Batch: 64218

QC Batch: 64218 | Date Analyzed: 2009-10-06 | Analyzed By: AR
Prep Batch: 54810 | QC Preparation: 2009-10-06 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0430	mg/Kg	1

Method Blank (1) QC Batch: 64219

QC Batch: 64219 | Date Analyzed: 2009-10-07 | Analyzed By: AR
Prep Batch: 54811 | QC Preparation: 2009-10-06 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		0.890	mg/Kg	1

Laboratory Control Spike (LCS-1)

QC Batch: 64164 | Date Analyzed: 2009-10-05 | Analyzed By: kg
Prep Batch: 54798 | QC Preparation: 2009-10-05 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	172	mg/Kg	1	250	<5.86	69	57.4 - 133.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	180	mg/Kg	1	250	<5.86	72	57.4 - 133.4	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	63.6	85.9	mg/Kg	1	100	64	86	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 64189 | Date Analyzed: 2009-10-05 | Analyzed By: AG
Prep Batch: 54819 | QC Preparation: 2009-10-05 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.85	mg/Kg	1	2.00	<0.00410	92	75.4 - 115.7
Toluene	1.82	mg/Kg	1	2.00	<0.00310	91	78.4 - 113.6
Ethylbenzene	1.74	mg/Kg	1	2.00	<0.00240	87	76 - 114.2
Xylene	5.24	mg/Kg	1	6.00	<0.00650	87	76.9 - 113.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.87	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7	1	20
Toluene	1.83	mg/Kg	1	2.00	<0.00310	92	78.4 - 113.6	0	20
Ethylbenzene	1.75	mg/Kg	1	2.00	<0.00240	88	76 - 114.2	1	20
Xylene	5.33	mg/Kg	1	6.00	<0.00650	89	76.9 - 113.6	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.78	1.80	mg/Kg	1	2.00	89	90	65 - 122.9
4-Bromofluorobenzene (4-BFB)	1.80	1.80	mg/Kg	1	2.00	90	90	43.8 - 124.9

Laboratory Control Spike (LCS-1)

QC Batch: 64190 | Date Analyzed: 2009-10-05 | Analyzed By: AG
Prep Batch: 54819 | QC Preparation: 2009-10-05 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.1	mg/Kg	1	20.0	<0.396	86	52.5 - 114.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.6	mg/Kg	1	20.0	<0.396	88	52.5 - 114.3	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.02	2.03	mg/Kg	1	2.00	101	102	66.2 - 128.7
4-Bromofluorobenzene (4-BFB)	1.83	1.81	mg/Kg	1	2.00	92	90	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 64216 | Date Analyzed: 2009-10-06 | Analyzed By: AR
Prep Batch: 54809 | QC Preparation: 2009-10-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	25.3	mg/Kg	1	25.0	<0.0430	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	25.4	mg/Kg	1	25.0	<0.0430	102	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 64218 | Date Analyzed: 2009-10-06 | Analyzed By: AR
Prep Batch: 54810 | QC Preparation: 2009-10-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	25.5	mg/Kg	1	25.0	<0.0430	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	25.4	mg/Kg	1	25.0	<0.0430	102	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 64219 | Date Analyzed: 2009-10-07 | Analyzed By: AR
Prep Batch: 54811 | QC Preparation: 2009-10-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	23.2	mg/Kg	1	25.0	<0.0430	93	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.2	mg/Kg	1	25.0	<0.0430	93	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 211516

QC Batch: 64164 | Date Analyzed: 2009-10-05 | Analyzed By: kg
Prep Batch: 54798 | QC Preparation: 2009-10-05 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	195	mg/Kg	1	250	<5.86	78	35.2 - 167.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	201	mg/Kg	1	250	<5.86	80	35.2 - 167.1	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	89.2	89.8	mg/Kg	1	100	89	90	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 211517

QC Batch: 64189 | Date Analyzed: 2009-10-05 | Analyzed By: AG
Prep Batch: 54819 | QC Preparation: 2009-10-05 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.90	mg/Kg	1	2.00	<0.00410	95	57.7 - 140.7
Toluene	1.87	mg/Kg	1	2.00	<0.00310	94	53.4 - 146.6
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00240	92	62.1 - 141.6
Xylene	5.64	mg/Kg	1	6.00	<0.00650	94	61.2 - 142.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.01	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7	6	20
Toluene	1.99	mg/Kg	1	2.00	<0.00310	100	53.4 - 146.6	6	20
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6	7	20
Xylene	5.99	mg/Kg	1	6.00	<0.00650	100	61.2 - 142.7	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.80	1.83	mg/Kg	1	2	90	92	62.7 - 119.6
4-Bromofluorobenzene (4-BFB)	1.96	1.96	mg/Kg	1	2	98	98	49.6 - 136.7

Matrix Spike (MS-1) Spiked Sample: 211517

QC Batch: 64190 | Date Analyzed: 2009-10-05 | Analyzed By: AG
Prep Batch: 54819 | QC Preparation: 2009-10-05 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.6	mg/Kg	1	20.0	1.6	80	10 - 198.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	18.2	mg/Kg	1	20.0	1.6	83	10 - 198.3	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	2.05	mg/Kg	1	2	100	102	65.5 - 123
4-Bromofluorobenzene (4-BFB)	2.17	2.22	mg/Kg	1	2	108	111	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 211521

QC Batch: 64216 | Date Analyzed: 2009-10-06 | Analyzed By: AR
Prep Batch: 54809 | QC Preparation: 2009-10-06 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[3]	6650	mg/Kg	50	1380	4250	174	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[4]	6650	mg/Kg	50	1380	4250	174	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 211528

QC Batch: 64218 | Date Analyzed: 2009-10-06 | Analyzed By: AR
Prep Batch: 54810 | QC Preparation: 2009-10-06 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[5]	424	mg/Kg	5	27.5	255	614	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[6]	425	mg/Kg	5	27.5	255	618	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 211529

QC Batch: 64219 | Date Analyzed: 2009-10-07 | Analyzed By: AR
Prep Batch: 54811 | QC Preparation: 2009-10-06 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[7]	398	mg/Kg	5	138	287	81	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[8]	398	mg/Kg	5	138	287	81	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

[3]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[4]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[5]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[6]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[7]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[8]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

Standard (CCV-2)

QC Batch: 64164 Date Analyzed: 2009-10-05 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	214	86	80 - 120	2009-10-05

Standard (CCV-3)

QC Batch: 64164 Date Analyzed: 2009-10-05 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	80 - 120	2009-10-05

Standard (CCV-1)

QC Batch: 64189 Date Analyzed: 2009-10-05 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0938	94	80 - 120	2009-10-05
Toluene		mg/Kg	0.100	0.0926	93	80 - 120	2009-10-05
Ethylbenzene		mg/Kg	0.100	0.0896	90	80 - 120	2009-10-05
Xylene		mg/Kg	0.300	0.273	91	80 - 120	2009-10-05

Standard (CCV-2)

QC Batch: 64189 Date Analyzed: 2009-10-05 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0892	89	80 - 120	2009-10-05
Toluene		mg/Kg	0.100	0.0863	86	80 - 120	2009-10-05
Ethylbenzene		mg/Kg	0.100	0.0820	82	80 - 120	2009-10-05
Xylene		mg/Kg	0.300	0.248	83	80 - 120	2009-10-05

Standard (CCV-1)

QC Batch: 64190 Date Analyzed: 2009-10-05 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.10	110	80 - 120	2009-10-05

Standard (CCV-2)

QC Batch: 64190 Date Analyzed: 2009-10-05 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2009-10-05

Standard (ICV-1)

QC Batch: 64216 Date Analyzed: 2009-10-06 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	25.0	24.0	96	90 - 110	2009-10-06

Standard (CCV-1)

QC Batch: 64216 Date Analyzed: 2009-10-06 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	25.0	24.7	99	90 - 110	2009-10-06

Standard (ICV-1)

QC Batch: 64218 Date Analyzed: 2009-10-06 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	25.0	24.7	99	90 - 110	2009-10-06

Standard (CCV-1)

QC Batch: 64218 Date Analyzed: 2009-10-06 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	25.0	23.4	94	90 - 110	2009-10-06

Standard (ICV-1)

QC Batch: 64219 Date Analyzed: 2009-10-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	25.0	23.4	94	90 - 110	2009-10-07

Standard (CCV-1)

QC Batch: 64219 Date Analyzed: 2009-10-07 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	25.0	23.3	93	90 - 110	2009-10-07

LAB Order ID # 9100503

Page 1 of 2

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9, Lubbock, Texas 79424, Tel (806) 794-1296, Fax (806) 794-1298, 1 (800) 378-1296

5002 Basin Street, Suite A1, Midland, Texas 79703, Tel (432) 689-6301, Fax (432) 689-6313

200 East Sunset Rd., Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: Basin Environmental Consulting — Phone #: (575) 396-2378

Address: (Street, City, Zip) 2800 Plains Hwy, Lovington, NM 88260 — Fax #: (575) 396-1429

Contact Person: Camille Bryant — E-mail: cjbryant@basin-consulting.com

Invoice to: (If different from above) Crown Quest Operating — New Mexico State 20 #5

Project #: — Project Name:

Project Location (including state): Lea Co, NM — Sampler Signature: Camille Bryant

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Chloride 300.1	Turn Around Time if different from standard	Hold
21512	SB-1 @ 5'	1	4oz		X							X		9/24/09	0830	X		X														X		
513	SB-1 @ 15'														1000	X		X																
514	SB-1 @ 25'														1110																			
515	SB-1 @ 30														1205																			
516	MW-1 @ 5'													9/29/09	0900	X		X																
517	MW-1 @ 15'														0920	X		X																
518	MW-1 @ 25'														0945																			
519	MW-1 @ 35'														1005																			
520	MW-1 @ 45'														1030																			
521	MW-1 @ 55'														1100																			
522	MW-1 @ 65'														1120																			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Camille Bryant	Basin	10/2/09	4:00			10/2/09	4:10	INST ___ °C, OBS ___ °C, COR ___ °C
		10/3/09	11:25		TRACE	10/3/09	11:25	INST ___ °C, OBS 2.1 °C, COR 2.1 °C
								INST ___ °C, OBS ___ °C, COR ___ °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-In-Review ___

REMARKS: All tests - Midland

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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Carrier # Courier

LAB Order ID # 9100503 Page 2 of 2

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9, Lubbock, Texas 79424, Tel (806) 794-1296, Fax (806) 794-1298, 1 (800) 378-1296
5002 Basin Street, Suite A1, Midland, Texas 79703, Tel (432) 689-6301, Fax (432) 689-6313
200 East Sunset Rd., Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443
8808 Camp Bowie Blvd West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: Basin Environmental Consulting Phone #: (575) 396-2378
Address: (Street, City, Zip) 2800 Plains Hwy, Lovington, NM 88260 Fax #: (575) 396-1429
Contact Person: Camille Bryant E-mail: cybryant@basin-consulting.com
Invoice to: (If different from above) Crown Quest Operating
Project #: Project Name: New Mexico State 2045
Project Location (including state): Sampler Signature: Camille Bryant

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
521523	MW-1 @ 75'	1	4oz		X							X		9/29/09	1140
524	MW-1 @ 85'														1200
525	MW-1 @ 95'														1230
526	MW-1 @ 105'														1250
527	MW-1 @ 115'														1330
528	MW-1 @ 120'														1355
529	MW-1 @ 125'														1420

ANALYSIS REQUEST	
MTBE 8021B / 602 / 8260B / 624	
BTEX 8021B / 602 / 8260B / 624	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270C / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C / 625	
PCB's 8082 / 608	
Pesticides 8081A / 608	
BOD, TSS, pH	
Moisture Content	X
Chloride 300.1	X
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
Camille Bryant	Basin	10/2/09	4:00	DR.		10/2/09	4:00	
		10/3/09	11:25		TRACE	10/3/09	11:25	2.1

LAB USE ONLY: Int: (C) N; Headspace Y / N / NA; 2.1; Log-in Review

REMARKS: All tests - Midland

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # carry in

ORIGINAL COPY

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 | Lubbock, Texas 79424 | 800•378•1296 | 806•794•1296 | FAX 806•794•1298
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6015 Harris Parkway, Suite 110 | Ft. Worth, Texas 76132 | | 817•201•5260 |
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Curt Stanley
Basin Environmental Consulting
2800 Plains Hwy.
P. O. Box 381
Lovington, NM, 88260

Report Date: October 12, 2009

Work Order: 9100610

Project Location: Lea County, NM
Project Name: Crownquest/New Mexico State 20 #5
Project Number: Crownquest/New Mexico State 20 #5

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
211645	MW-1	water	2009-10-05	09:00	2009-10-06

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Crownquest/New Mexico State 20 #5 were received by TraceAnalysis, Inc. on 2009-10-06 and assigned to work order 9100610. Samples for work order 9100610 were received intact at a temperature of 5.6 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	54904	2009-10-08 at 12:42	64320	2009-10-09 at 13:54
TDS	SM 2540C	54822	2009-10-06 at 12:03	64293	2009-10-08 at 14:33

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9100610 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 211645 - MW-1

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	64320	Date Analyzed:	2009-10-09	Analyzed By:	AR
Prep Batch:	54904	Sample Preparation:	2009-10-08	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**109**	mg/L	5	0.500

Sample: 211645 - MW-1

Laboratory:	Midland				
Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	64293	Date Analyzed:	2009-10-08	Analyzed By:	AR
Prep Batch:	54822	Sample Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Total Dissolved Solids		**756**	mg/L	2	10.0

Method Blank (1) QC Batch: 64293

QC Batch:	64293	Date Analyzed:	2009-10-08	Analyzed By:	AR
Prep Batch:	54822	QC Preparation:	2009-10-06	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<9.75	mg/L	10

Method Blank (1) QC Batch: 64320

QC Batch:	64320	Date Analyzed:	2009-10-09	Analyzed By:	AR
Prep Batch:	54904	QC Preparation:	2009-10-08	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.475	mg/L	0.5

Duplicates (1) Duplicated Sample: 211592

QC Batch: 64293 | Date Analyzed: 2009-10-08 | Analyzed By: AR
Prep Batch: 54822 | QC Preparation: 2009-10-06 | Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	2280	2140	mg/L	5	6	10

Laboratory Control Spike (LCS-1)

QC Batch: 64293 | Date Analyzed: 2009-10-08 | Analyzed By: AR
Prep Batch: 54822 | QC Preparation: 2009-10-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Dissolved Solids	986	mg/L	1	1000	<9.75	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Dissolved Solids	1000	mg/L	1	1000	<9.75	100	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 64320 | Date Analyzed: 2009-10-09 | Analyzed By: AR
Prep Batch: 54904 | QC Preparation: 2009-10-08 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	24.7	mg/L	1	25.0	<0.475	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	24.8	mg/L	1	25.0	<0.475	99	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 211911

QC Batch: 64320 | Date Analyzed: 2009-10-09 | Analyzed By: AR
Prep Batch: 54904 | QC Preparation: 2009-10-08 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[1]	857	mg/L	5	138	653	148	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[2]	860	mg/L	5	138	653	150	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 64320 Date Analyzed: 2009-10-09 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	22.7	91	90 - 110	2009-10-09

Standard (CCV-1)

QC Batch: 64320 Date Analyzed: 2009-10-09 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	22.5	90	90 - 110	2009-10-09

[1] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[2] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

LAB Order ID # 9100610

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite 180
Ft. Worth, Texas 76116
Tel (817) 201-5260
Fax (817) 560-4336

Company Name: BASIN ENVIRONMENTAL CONSULTING **Phone #:** 575-441-2244

Address: (Street, City, Zip) 2800 PLAINS HWY LOVINGTON, NM **Fax #:**

Contact Person: CURT STANLEY **E-mail:**

Invoice to: (If different from above) CROWNQUEST OPERATING

Project #: CROWNQUEST **Project Name:** NEW MEXICO STATE 20 #5

Project Location (including state): LEA COUNTY, NM **Sampler Signature:** for C.L. REED

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
211645	MW-1	1	250 mL	X								X		10/5/2009	0900

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Chlorides (E 300.1)	TDS						Turn Around Time if different from standard	Hold
																	X	X							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
	BASIN	10/5/09	0900		Trace	10/6/09	9:00

INST / OBS 5.6 °C / COR °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-In-Review

REMARKS: All tests - Midland

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

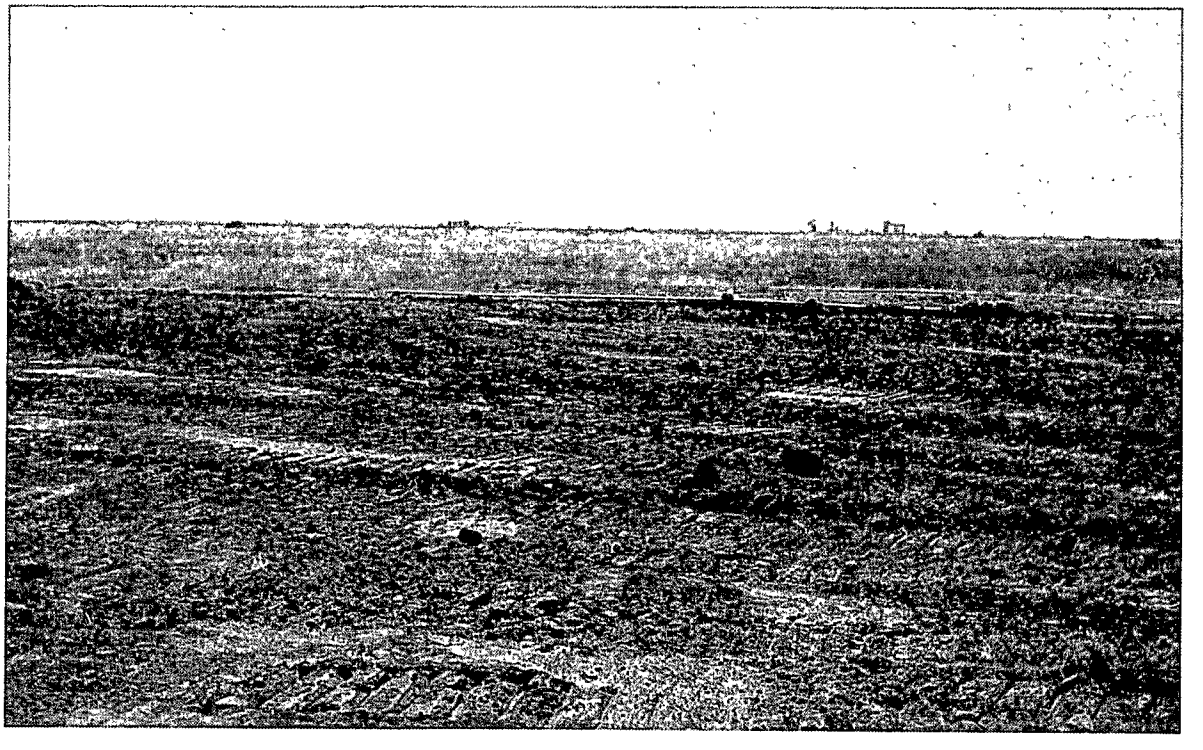
Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

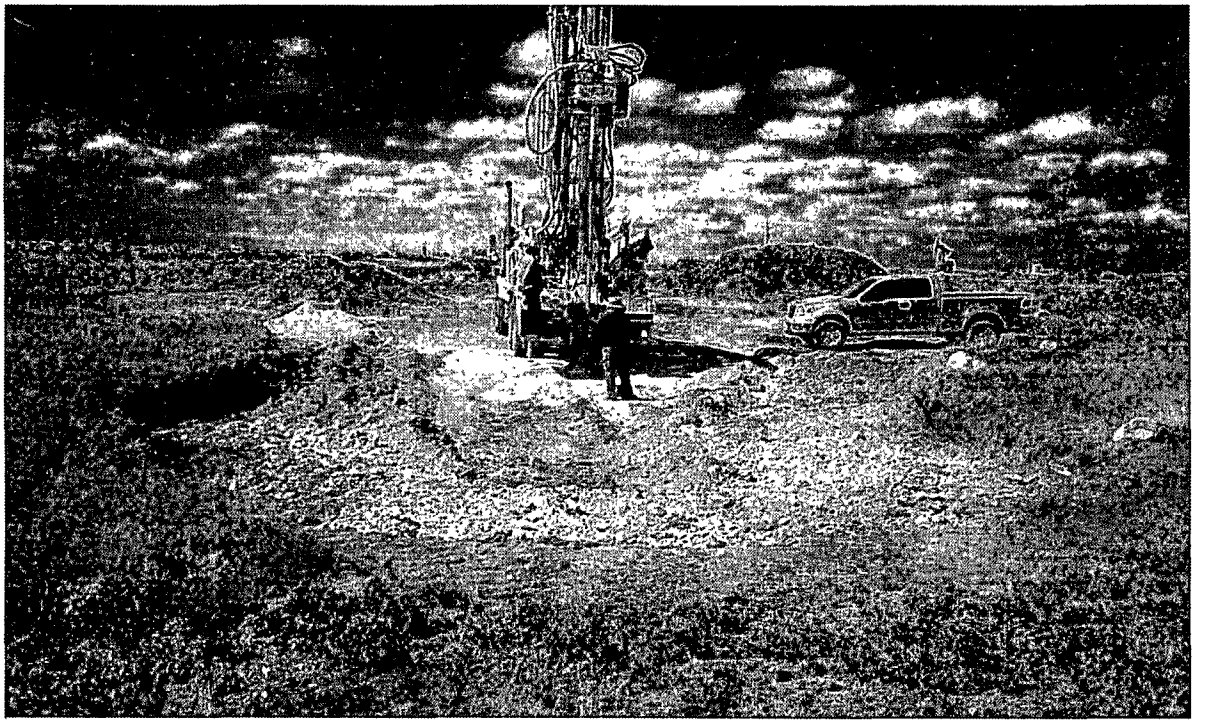
Carrier # Corry-in

Appendix C
Photographs

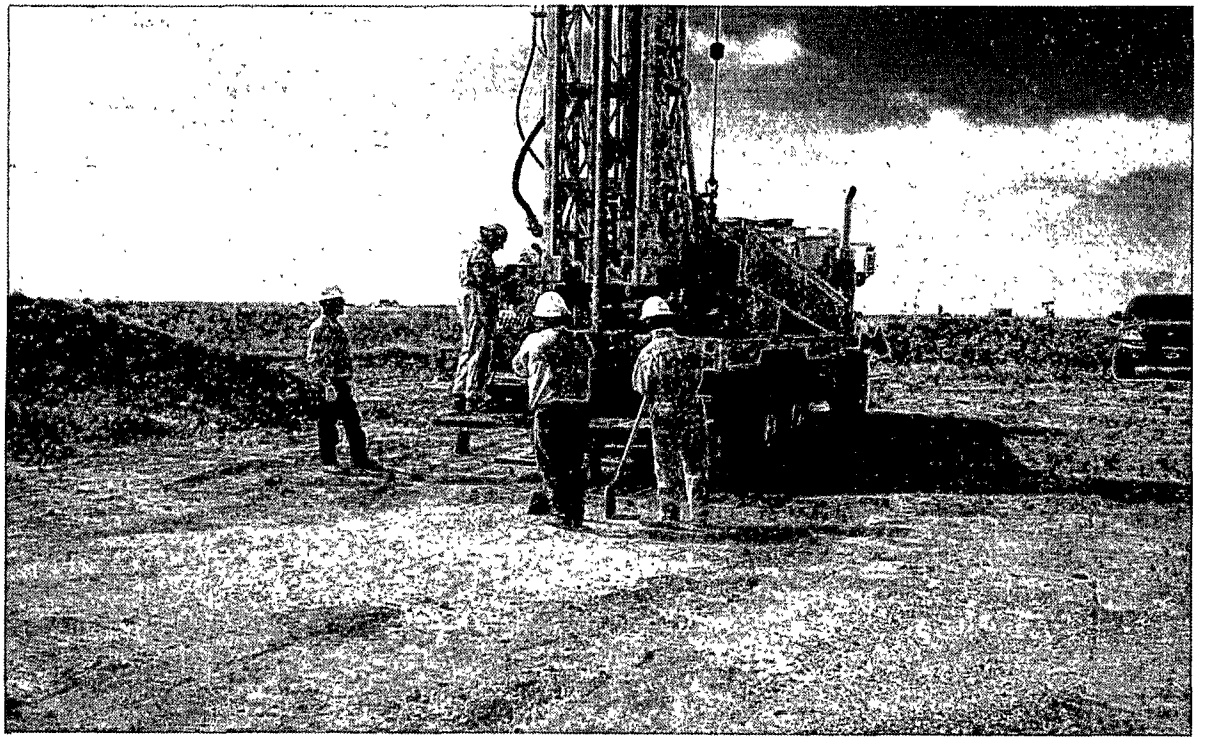
New Mexico State 20 #5 release site during initial activities



New Mexico State 20 #5 release site initial excavation



New Mexico State 20 #5 release site drilling soil boring SB-1



New Mexico State 20 #5 release site drilling monitor well MW-1

Appendix D
Release Notification and Corrective Action
(Form C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report Final Report

Name of Company CrownQuest Operating, LLC	Contact Kent Crabtree
Address PO Box 53310 Midland, Texas 79710	Telephone No. 432-556-0770
Facility Name **New Mexico State 20 #5**	Facility Type Poly Flow line

Surface Owner Norman Hahn	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	6	14S	33E					Lea

Latitude 33 08' 07" North **Longitude** 103 38' 45" West

NATURE OF RELEASE

Type of Release Produced Water/Crude Oil	Volume of Release 50 Barrels	Volume Recovered 25 Barrels
Source of Release Poly Flow line	Date and Hour of Occurrence 7/21/09 @0900	Date and Hour of Discovery 7/21/09 @ 0915
Was Immediate Notice Given? ☒ Yes ☐ No Not Required	If YES, To Whom? Maxie Brown	
By Whom? Eb Taylor	Date and Hour 7/21/09 @ 1126	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken: Poly flow line separated at the seam, resulting in a release of crude oil. Flow line was repaired.

Describe Area Affected and Cleanup Action Taken. Release impacted an area measuring approximately 100 feet by 60 feet. Impacted soil will be remediated as per NMOCD guidelines.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Ronald G Snow JR.

Printed Name: Kent Crabtree Ronald G Snow JR.

Title: Foreman

E-mail Address: kcrabtree@crownquest.com

Date: 7/30/09 Phone: 432-556-0770

OIL CONSERVATION DIVISION

Approved by ~~District Supervisor~~: ENV ENGINEER

Approval Date: 08/05/09 Expiration Date: 10/05/09

Conditions of Approval: DELINEATE TO CLEAN
+1. SUBMIT FINAL C-141 BY

IRP-08-8-2252

RECEIVED
AUG 05
HOBBSOCD