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 X 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 **SWD-215, State 27 No.2 SWD**	Facility Type SWD

Surface Owner State of New Mexico	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
P	27	14S	32E					Lea

Latitude 33 04' 12.12" North **Longitude** 103 41' 57.76"West

NATURE OF RELEASE

Type of Release Produced Water/Crude Oil	Volume of Release Unknown	Volume Recovered Unknown
Source of Release Daily Operations at Facility	Date and Hour of Occurrence Unknown	Date and Hour of Discovery Unknown
Was Immediate Notice Given? Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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: Circulating pump has been repaired and location is being delineated.

Describe Area Affected and Cleanup Action Taken. Release impacted an area measuring approximately 135 feet by 45 feet. Site was remediated as per NMOCD approved Plan. Please see attached **Basin Environmental Consulting** ***Remediation Summary and Risk-Based Site Closure Request.***

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: Kent Crabtree	OIL CONSERVATION DIVISION Approved by ~~District Supervisor~~ ENV ENGINEER: Geoffrey Leking	
Printed Name: Kent Crabtree		
Title: Foreman	Approval Date: 09/04/09	Expiration Date: —
E-mail Address. kcrabtree@crownquest.com	Conditions of Approval.	1RP-2188
Date: 9-3-09 Phone: 432-556-0770		

RECEIVED
SEP 03 2009
HOBBSOCD

Basin Environmental Consulting, LLC

2800 Plains Highway
P. O. Box 381
Lovington, New Mexico 88260
cstanley@basin-consulting.com
Office: (575) 396-2378 Fax: (575) 396-1429

Effective Solutions

REMEDIATION SUMMARY AND RISK-BASED SITE CLOSURE REQUEST

CROWNQUEST OPERATING, LLC
SWD-215, State 27 No. 2 SWD
Lea County, New Mexico
UNIT "P" (SE/SE), Section 27, Township 14 South, Range 32 East
Latitude 32° 04' 12.12" North, Longitude 103° 41' 57.76" West
NMOCD Reference # 1RP-2188

Prepared For:

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

Approved 10/01/09
Geoffrey Leking
Environmental Engineer
NMOCD-Hobbs

Prepared By:
Basin Environmental Consulting, LLC

August 2009

Camille J. Bryant
Project Manager

Curt D. Stanley
Project Manager

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FIGURES

TABLES

APPENDICES

INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Consulting, LLC (Basin), on behalf of CrownQuest Operating, LLC. (CrownQuest), has prepared this Remediation Summary and Risk-Based Site Closure Request for the release site known as SWD-215, State 27 No. 2 SWD. The legal description of the release site is Unit Letter "P" (SE ¼ SE ¼), Section 27, Township 14 South, Range 32 East, in Lea County, New Mexico. The property affected by the release is owned by The State of New Mexico and is administered by the New Mexico State Land Office (NMSLO). The release site is utilized as an active salt water disposal facility (SWD). The release site GPS coordinates are 32.° 04' 12.12" North and 103° 41' 57.76" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. General site photographs are provided as Appendix C and the Release Notification and Corrective Action is included as Appendix D.

On December 31, 2008, EnerQuest Oil & Gas Ltd. (EnerQuest), the previous operator of the SWD-215, State 27 No. 2 SWD facility, received correspondence from the NMSLO indicating a NMSLO field inspector observed evidence of a "Spill or stained soils on or adjacent to the pad". A copy of the NMSLO correspondence is provided as Appendix A.

On March 20, 2009, CrownQuest, the current operator of the facility, received the NMSLO correspondence.

On May 19, 2009, CrownQuest submitted a Release Notification and Corrective Action (Form C-141) to the NMOCD Hobbs District Office. The release was of an unknown volume of crude oil and produced water and is likely the result of daily operations within the facility. A leaking circulating pump was identified and repaired. The release(s) was/were contained within the secondary containment berms of the facility. The resulting surface stain attributed to the release(s) measured approximately 45 feet in width and 135 feet in length.

NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), three (3) water wells are recorded in Section 27 of the above referenced township. According to the NMOSE database, groundwater should be encountered at approximately 175 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 is no surface water body 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 SWD-215, State 27 No. 2 SWD 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)

SUMMARY OF FIELD ACTIVITIES

On April, 8, 2009, four (4) soil investigation trenches were excavated at the release site to provide vertical and horizontal delineation of the impacted soil. The soil investigation trenches were positioned to the south of the 500 barrel tank (Trench 1), at the south end of the battery (Trench 2), north of the 270 barrel tank (Trench 3) and at the northwest end of the battery (Trench 4). The soil investigation trenches were terminated at approximately one and a half (1.5) feet bgs and backfilled. A hard calcified sandstone underlies the facility at approximately one (1) to one and a half (1.5) feet bgs. Analytical results are summarized in Table 1, Concentrations of TPH, BEX and Chloride in Soil. Analytical reports are provided as Appendix B.

Soil investigation Trench 1 was excavated to a depth of approximately one (1) foot bgs. Laboratory analytical results of the collected soil samples from Trench 1 (Trench 1 @ Surface and Trench 1 @ 1') indicated total petroleum hydrocarbon (TPH) concentrations ranged from 3,316 mg/Kg in soil sample Trench 1 @ 1' to 3,749 mg/Kg in soil sample Trench 1 @ Surface. The analytical results indicated TPH concentrations were less than the NMOCD regulatory standard. Chloride concentrations ranged from 1,210 mg/Kg in soil sample Trench 1 @ 1' to 11,900 mg/Kg in soil sample Trench 1 @ Surface.

Soil investigation Trench 2 was excavated to a depth of approximately one and one half (1.5) feet bgs. Laboratory analytical results of the collected soil samples from Trench 2 (Trench 2 @ Surface and Trench 2 @ 1.5') indicated TPH concentrations ranged from 3,099 mg/Kg in soil sample Trench 2 @ 1.5' to 3,541.9 mg/Kg in soil sample Trench 2 @ Surface. Chloride concentrations ranged from 27.3 mg/Kg in soil sample Trench 2 @ Surface to 32.6 mg/Kg in soil sample Trench 1 @ 1.5'. The analytical results indicated TPH and chloride concentrations were less than the NMOCD regulatory standard.

Soil investigation Trench 3 was excavated to a depth of approximately fourteen (14) inches bgs. Laboratory analytical results of the collected soil sample from Trench 3 (Trench 3 @ 14") indicated the TPH concentration was 621.6 mg/Kg and the chloride concentration was 127 mg/Kg. The analytical results indicated TPH and chloride concentrations were less than the NMOCD regulatory standard.

Soil investigation Trench 4 was excavated to a depth of approximately one (1) foot bgs. Laboratory analytical results of the collected soil samples from Trench 4 (Trench 4 @ Surface and Trench 4 @ 1') indicated TPH concentrations ranged from 62.7 mg/Kg in soil sample Trench 4 @ 1' to 834.9 mg/Kg in soil sample Trench 4 @ Surface. Chloride concentrations ranged from 652 mg/Kg in soil sample Trench 4 @ Surface to 1,450 mg/Kg in soil sample Trench 4 @ 1'. The analytical results indicated TPH concentrations were less than the NMOCD regulatory standard.

On April 29, 2009, the NMOCD Hobbs District Office approved limited excavation of the release site to approximately one (1) foot bgs. Following the excavation activities, soil samples were to be collected and submitted to the laboratory for analysis.

In June 26, 2009, excavation activities began at the release site. Excavated soil was stockpiled pending transportation to an NMOCD approved landfill.

On June 30, 2009, three (3) confirmation soil samples (North Area, Center Area, and South Area) were collected from the floor of the excavation and submitted to the laboratory for analysis. The analytical results indicated benzene concentrations were less than the laboratory method detection limit (MDL) of 0.01 mg/Kg. The results further indicated benzene, toluene, ethylbenzene and xylene (BTEX) concentrations ranged from less than the laboratory MDL of 0.01 mg/Kg in soil samples "Center Area" and "South Area" to 0.486 mg/Kg in soil sample "North Area". TPH concentrations ranged from 8.95 mg/Kg in soil sample "South Area" to 480.24 mg/Kg in soil sample "North Area". Chloride concentrations ranged from 14.2 mg/Kg in soil sample "South Area" to 3,570 mg/Kg in soil sample "North Area".

Following excavation and sampling activities, approximately 208 cubic yards (cy) of excavated soil was transported to the Gandy Marley Landfill (Permit #NM-01-0019). The site was backfilled with non-impacted caliche purchased from a NMSLO caliche pit. Remediation activities were completed on July 1, 2009.

RISK-BASED SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, Basin recommends CrownQuest provide the NMOCD Hobbs District Office and the NMSLO, a copy of this Remediation Summary and Risk-Based Site Closure Request and request the NMOCD and NMSLO grant site closure to the SWD-215, State 27 No. 2 SWD release site. Additional soil remediation activities, if warranted will be completed at time of abandonment of the facility.

LIMITATIONS

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Risk-Based Site Closure Request 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:

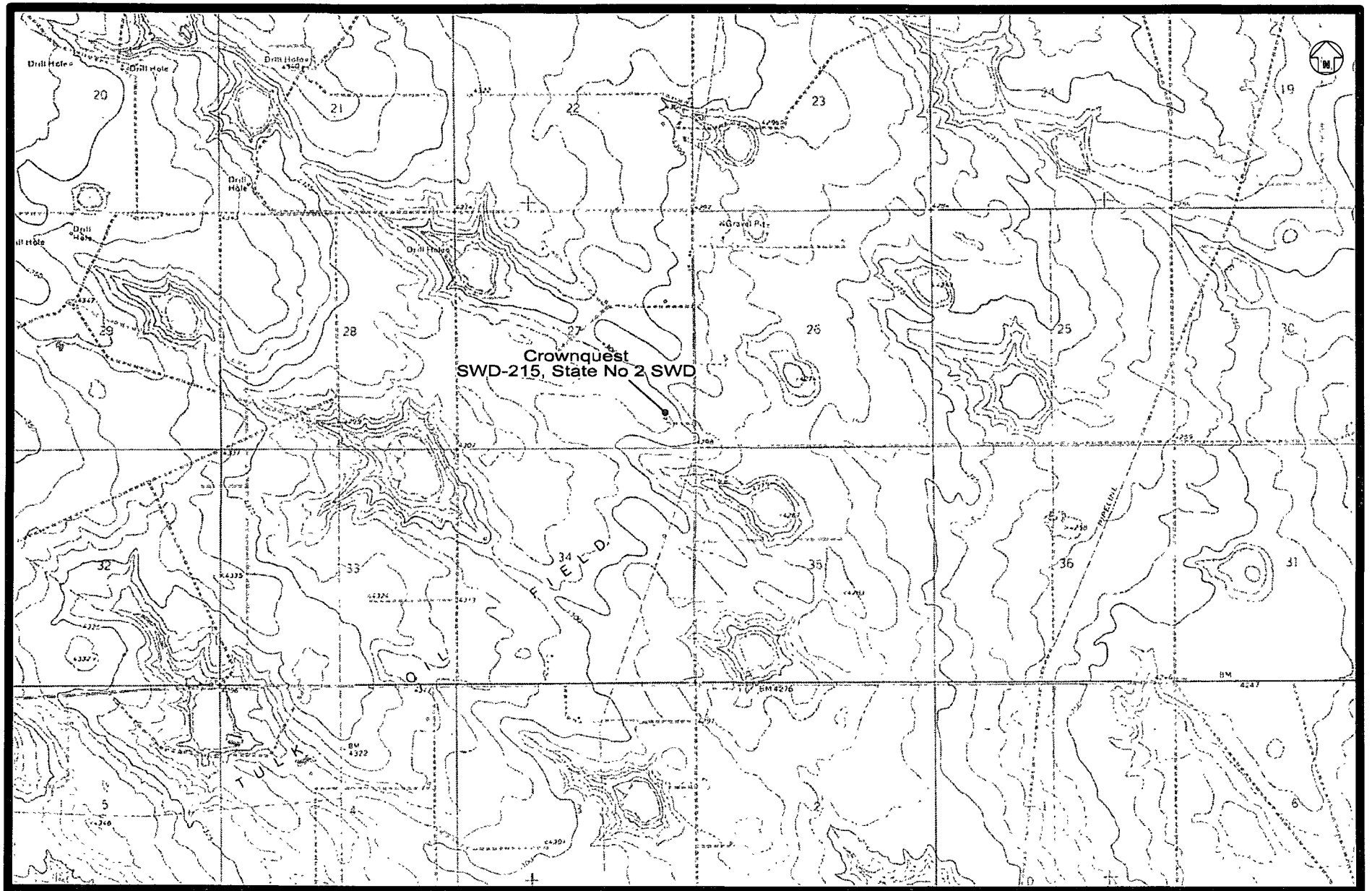
Copy 1: Larry Johnson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240

Copy 2: Thaddeus Kostrubala
New Mexico State Land Office
310 Old Santa Fe Trail
P.O. Box 1148
Santa Fe, New Mexico 87504

Copy 3: Don Rogers
CrownQuest Operating, LLC
P.O. Box 53310
Midland, Texas 79710

Copy 4: Curt D. Stanley
Basin Environmental Consulting, LLC
P.O. Box 381
Lovington, New Mexico 88260
cdstanley@basin-consulting.com

Figures



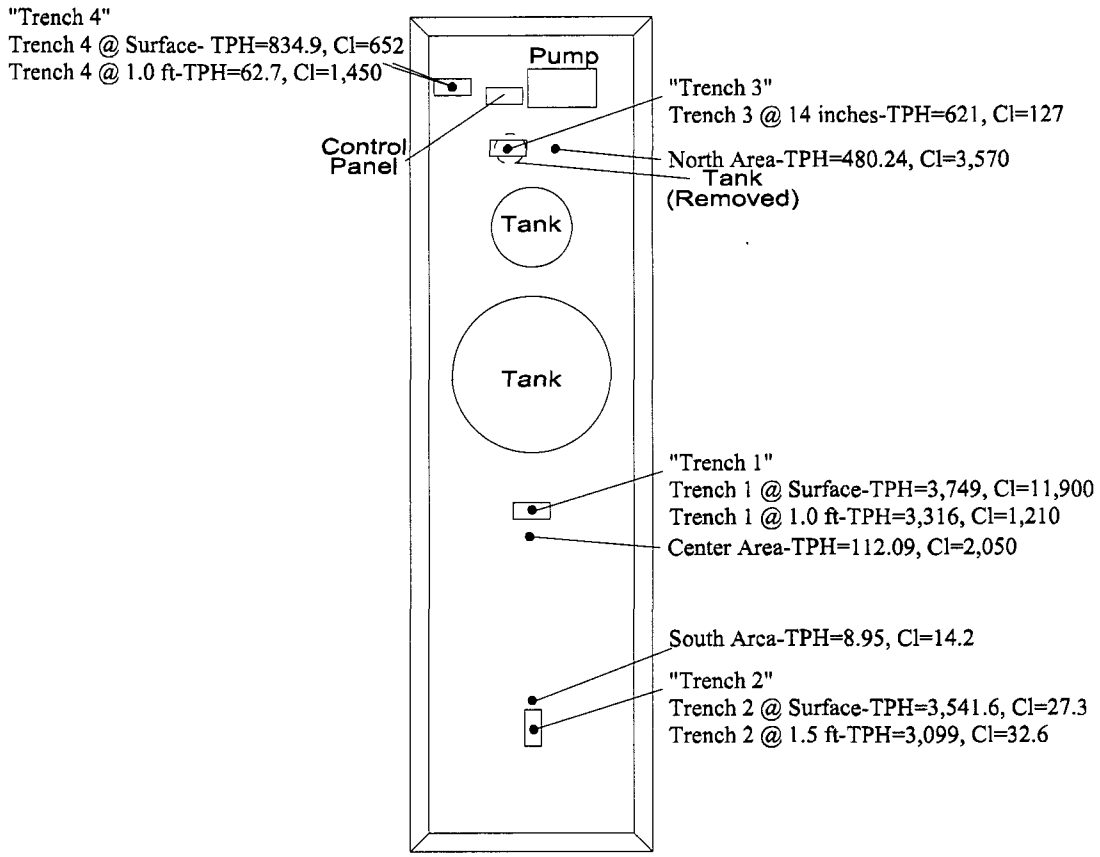
3000 1500 0 1500 3000

Distance in Feet

Figure 1
Site Location Map
SWD-215, State 27 No 2 SWD
CrownQuest Operating
Lea County, New Mexico
1RP-2188

Basin Environmental Services

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



Legend:

- Soil Sample Location

Figure 2
Site and
Sample Location Map
CrownQuest Operating
SWD-215, State 27 #2 SWD
Lea County, New Mexico
1RP-2188

Basin Environmental Services

Prep By: CDS	Checked By: CDS
July 23, 2009	Scale: 1" = 30'

Tables

Table 1

CONCENTRATIONS OF TPH, BTEX AND CHLORIDE IN SOIL
CROWNQUEST OPERATING, LLC
SWD-215, STATE 27 No. 2 SWD
LEA COUNTY, NEW MEXICO
NMOCD REF # 1RP-2188

SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	EPA SW 846-8021B					EPA SW 846-8015			EPA 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)
04/08/09	Trench 1 @ Surface	Surface	Excavated	-	-	-	-	-	139	3,610	3,749	**11,900**
04/08/09	Trench 1 @ 1'	1 Foot	Excavated	-	-	-	-	-	446	2,870	3,316	**1,210**
04/08/09	Trench 2 @ Surface	Surface	Excavated	-	-	-	-	-	61.9	3,480	3,541.9	27.3
04/08/09	Trench 2 @ 1.5'	1.5 Feet	Excavated	-	-	-	-	-	329	2,770	3,099 0	32.6
04/08/09	Trench 3 @ 14"	14 Inches	Excavated	-	-	-	-	-	21 6	600	621.6	127
04/08/09	Trench 4 @ Surface	Surface	Excavated	-	-	-	-	-	2.9	832	834.9	**652**
04/08/09	Trench 4 @ 1'	1 Foot	Excavated	-	-	-	-	-	<1.00	62.7	62.7	**1,450**
06/30/09	North Area	1.5 Feet	In-Situ	<0.0100	0.115	<0.0100	0.371	0.486	6.24	474	480 24	**3,570**
06/30/09	Center Area	1.5 Feet	In-Situ	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	2.09	110	112.09	**2,050**
06/30/09	South Area	1.5 Feet	In-Situ	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	8.95	<50.0	8.95	14 2
NMOCD CLEAN-UP LEVEL				**10**				**50**			**5,000**	**250**

BOLD indicates concentration exceeding NMOCD regulatory standards

Appendices

Appendix A
New Mexico State Land Office
Correspondence

PATRICK H. LYONS
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

December 31, 2008

XC: Don Rogers - For your handling

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Jean Hayslip
EnerQuest Oil and Gas Ltd
303 W. Wall Avenue, Suite 1800
Midland, TX 79702
(432) 818-0319

Re: **Renewal of SWD & Environmental Requirements**
SWD-215, STATE 27 No. 2 SWD
SE¼ SE¼ Section 27, T-14-S, R-32-E
Lea County, New Mexico

Dear Jean Hayslip

It has come to our attention that EnerQuest Oil and Gas Ltd. seeks renewal of the above described salt water disposal easement. Please be aware that a field inspection produced the following documented evidence

- ☒ Spill or stained soils on or adjacent to the pad
- ☐ Obsolete equipment on the site

These problems do not comply with operational requirements set forth in the signed easement and the State Land Office Rules 19.2.19.28 and 19.2.100.66. These rules outline requirements for surface operations and reclamation on a State lease or easement.

As the easement holder of record, you have incurred certain obligations which include using "all reasonably necessary safeguards to prevent contamination or pollution of soil, surface waters, and groundwater." To achieve this requirement the easement surface shall be maintained in a "clean" condition, free of stained soils and spills.

The Land Office recommends EnerQuest Oil and Gas Ltd. contact the New Mexico Oil Conservation Division to obtain requirements for the investigation, mitigation, and remediation of stained soils on the easement.

Rec'd 1-30-09

You are requested to inspect your easement and report (in writing) within sixty (60) days from the date of this letter of corrective actions taken or planned. If corrective action is planned, indicate the date the action(s) will be taken. Please coordinate your plans and an inspection date with our District Resource Manger, Leon Anderson, whose phone number is (505) 392-8736. If you have any questions, please feel free to contact me at (505) 827-5723

Sincerely

Thaddeus Kostrubala, Assistant Director
Field Operations Division
(505) 827-5723

Cc: Anna Villa, Director Rights-of-Way Division, NMSLO
Larry Johnson, District Supervisor NMOCD
Leon Anderson, District Resource Manager, NMSLO

3-20-09
Left msg for Mr. Kostrubala asking what our revised deadline is since this was received after the 60 days given.

Appendix B
Laboratory 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: April 17, 2009

Work Order: 9040901

Project Location: West of Lovington, NM
Project Name: NM-27 #2
Project Number: Crownquest

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
192545	Trench 1 @ Surface	soil	2009-04-08	10:30	2009-04-09
192546	Trench 1 @ 1 ft.	soil	2009-04-08	10:50	2009-04-09
192547	Trench 2 @ Surface	soil	2009-04-08	11:10	2009-04-09
192548	Trench 2 @ 1.5 ft.	soil	2009-04-08	11:30	2009-04-09
192549	Trench 3 @ 14 in.	soil	2009-04-08	11:50	2009-04-09
192550	Trench 4 @ Surface	soil	2009-04-08	12:30	2009-04-09
192551	Trench 4 @ 1 ft.	soil	2009-04-08	12:50	2009-04-09

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.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project NM-27 #2 were received by TraceAnalysis, Inc. on 2009-04-09 and assigned to work order 9040901. Samples for work order 9040901 were received intact at a temperature of 3.1 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	49972	2009-04-14 at 09:37	58636	2009-04-16 at 15:33
TPH DRO	Mod. 8015B	49892	2009-04-10 at 08:04	58418	2009-04-09 at 15:15
TPH DRO	Mod. 8015B	49907	2009-04-10 at 13:00	58460	2009-04-10 at 14:30
TPH GRO	S 8015B	49921	2009-04-10 at 09:37	58458	2009-04-10 at 09:37

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 9040901 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: 192545 - Trench 1 @ Surface

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**11900**		mg/Kg	1000	1.00

Sample: 192545 - Trench 1 @ Surface

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58418	Date Analyzed:	2009-04-09	Analyzed By:	LD
Prep Batch:	49892	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**3610**		mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[1]	774	mg/Kg	5	100	774	13.2 - 219.3

Sample: 192545 - Trench 1 @ Surface

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**139**		mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		18.9	mg/Kg	10	20.0	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		20.3	mg/Kg	10	20.0	102	52 - 117

[1] High surrogate recovery due to peak interference.

Sample: 192546 - Trench 1 @ 1 ft.

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1210**	mg/Kg	100	1.00

Sample: 192546 - Trench 1 @ 1 ft.

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58418	Date Analyzed:	2009-04-09	Analyzed By:	LD
Prep Batch:	49892	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**2870**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[2]	387	mg/Kg	5	100	387	13.2 - 219.3

Sample: 192546 - Trench 1 @ 1 ft.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**446**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		18.9	mg/Kg	10	20.0	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	[3]	27.7	mg/Kg	10	20.0	138	52 - 117

[2]High surrogate recovery due to peak interference.
[3]High surrogate recovery due to peak interference.

Sample: 192547 - Trench 2 @ Surface

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**27.3**		mg/Kg	5	1.00

Sample: 192547 - Trench 2 @ Surface

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58418	Date Analyzed:	2009-04-09	Analyzed By:	LD
Prep Batch:	49892	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**3480**		mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[4]	441	mg/Kg	5	100	441	13.2 - 219.3

Sample: 192547 - Trench 2 @ Surface

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**61.6**		mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.47	mg/Kg	5	10.0	95	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		9.03	mg/Kg	5	10.0	90	52 - 117

[4]High surrogate recovery due to peak interference.

Sample: 192548 - Trench 2 @ 1.5 ft.

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**32.6**	mg/Kg	5	1.00

Sample: 192548 - Trench 2 @ 1.5 ft.

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58418	Date Analyzed:	2009-04-09	Analyzed By:	LD
Prep Batch:	49892	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**2770**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[5]	348	mg/Kg	5	100	348	13.2 - 219.3

Sample: 192548 - Trench 2 @ 1.5 ft.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**329**	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.53	mg/Kg	5	10.0	95	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	[6]	18.3	mg/Kg	5	10.0	183	52 - 117

[5]High surrogate recovery due to peak interference.
[6]High surrogate recovery due to peak interference.

Sample: 192549 - Trench 3 @ 14 in.

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**127**	mg/Kg	5	1.00

Sample: 192549 - Trench 3 @ 14 in.

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58418	Date Analyzed:	2009-04-09	Analyzed By:	LD
Prep Batch:	49892	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**600**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[7]	556	mg/Kg	5	100	556	13.2 - 219.3

Sample: 192549 - Trench 3 @ 14 in.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**21.6**	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3.73	mg/Kg	2	4.00	93	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		3.47	mg/Kg	2	4.00	87	52 - 117

[7]High surrogate recovery due to peak interference.

Sample: 192550 - Trench 4 @ Surface

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**652**		mg/Kg	5	1.00

Sample: 192550 - Trench 4 @ Surface

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58418	Date Analyzed:	2009-04-09	Analyzed By:	LD
Prep Batch:	49892	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**832**		mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[8]	711	mg/Kg	5	100	711	13.2 - 219.3

Sample: 192550 - Trench 4 @ Surface

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**2.90**		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.47	mg/Kg	1	2.00	74	52 - 117

[8]High surrogate recovery due to peak interference.

Sample: 192551 - Trench 4 @ 1 ft.

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	58636	Date Analyzed:	2009-04-16	Analyzed By:	AR
Prep Batch:	49972	Sample Preparation:	2009-04-14	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1450**	mg/Kg	100	1.00

Sample: 192551 - Trench 4 @ 1 ft.

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	58460	Date Analyzed:	2009-04-10	Analyzed By:	LD
Prep Batch:	49907	Sample Preparation:	2009-04-10	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**62.7**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		157	mg/Kg	1	100	157	13.2 - 219.3

Sample: 192551 - Trench 4 @ 1 ft.

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	58458	Date Analyzed:	2009-04-10	Analyzed By:	ME
Prep Batch:	49921	Sample Preparation:	2009-04-10	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	52 - 117

Method Blank (1) QC Batch: 58418

QC Batch: 58418 | Date Analyzed: 2009-04-09 | Analyzed By: LD
Prep Batch: 49892 | QC Preparation: 2009-04-10 | Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		7.12	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		110	mg/Kg	1	100	110	13 - 178.5

Method Blank (1) QC Batch: 58458

QC Batch: 58458 | Date Analyzed: 2009-04-10 | Analyzed By: ME
Prep Batch: 49921 | QC Preparation: 2009-04-10 | Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.89	mg/Kg	1	2.00	94	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	45.7 - 118.9

Method Blank (1) QC Batch: 58460

QC Batch: 58460 | Date Analyzed: 2009-04-10 | Analyzed By: LD
Prep Batch: 49907 | QC Preparation: 2009-04-10 | Prepared By: LD

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		90.4	mg/Kg	1	100	90	13 - 178.5

Matrix Blank (1) QC Batch: 58636

QC Batch: 58636 | Date Analyzed: 2009-04-16 | Analyzed By: AR
Prep Batch: 49972 | QC Preparation: 2009-04-14 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		1.20	mg/kg	1

Laboratory Control Spike (LCS-1)

QC Batch: 58418 | Date Analyzed: 2009-04-09 | Analyzed By: LD
Prep Batch: 49892 | QC Preparation: 2009-04-10 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	263	mg/Kg	1	250	7.12	102	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	275	mg/Kg	1	250	7.12	107	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	96.8	97.2	mg/Kg	1	100	97	97	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 58458 | Date Analyzed: 2009-04-10 | Analyzed By: ME
Prep Batch: 49921 | QC Preparation: 2009-04-10 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.2	mg/Kg	1	20.0	<0.482	91	60.5 - 100.1

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	17.7	mg/Kg	1	20.0	<0.482	88	60.5 - 100.1	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)	2.03	1.95	mg/Kg	1	2.00	102	98	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.78	1.77	mg/Kg	1	2.00	89	88	66.1 - 107.3

Laboratory Control Spike (LCS-1)

QC Batch: 58460 | Date Analyzed: 2009-04-10 | Analyzed By: LD
Prep Batch: 49907 | QC Preparation: 2009-04-10 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	192	mg/Kg	1	250	<5.86	77	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	207	mg/Kg	1	250	<5.86	83	57.4 - 133.4	8	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	81.0	81.2	mg/Kg	1	100	81	81	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 58636 | Date Analyzed: 2009-04-16 | Analyzed By: AR
Prep Batch: 49972 | QC Preparation: 2009-04-14 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11.7	mg/Kg	1	12.5	<0.0430	94	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	12.0	mg/Kg	1	12.5	<0.0430	96	90 - 110	2	

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

Matrix Spike (MS-1) Spiked Sample: 192545

QC Batch: 58418 | Date Analyzed: 2009-04-09 | Analyzed By: LD
Prep Batch: 49892 | QC Preparation: 2009-04-10 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	3910	mg/Kg	5	250	3610	120	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	[9]	3000	mg/Kg	5	250	3610	0	35.2 - 167.1	26	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	[10] [11]	627	346	mg/Kg	5	100	627	346	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 192551

QC Batch: 58458 | Date Analyzed: 2009-04-10 | Analyzed By: ME
Prep Batch: 49921 | QC Preparation: 2009-04-10 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	26.6	mg/Kg	1	20.0	<0.482	133	12.8 - 175.2

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	28.3	mg/Kg	1	20.0	<0.482	142	12.8 - 175.2	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)	2.02	2.23	mg/Kg	1	2	101	112	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.61	1.59	mg/Kg	1	2	80	80	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 192551

QC Batch: 58460 | Date Analyzed: 2009-04-10 | Analyzed By: LD
Prep Batch: 49907 | QC Preparation: 2009-04-10 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	226	mg/Kg	1	250	62.69	65	35.2 - 167.1

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

continued ...

[9]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[10]High surrogate recovery due to peak interference.
[11]High surrogate recovery due to peak interference.

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	261	mg/Kg	1	250	62.69	79	35.2 - 167.1	14	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	153	167	mg/Kg	1	100	153	167	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 192551

QC Batch: 58636 | Date Analyzed: 2009-04-16 | Analyzed By: AR
Prep Batch: 49972 | QC Preparation: 2009-04-14 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2570	mg/Kg	100	1250	1450	90	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	2570	mg/Kg	100	1250	1450	90	90 - 110	0	

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

Standard (CCV-1)

QC Batch: 58418 | Date Analyzed: 2009-04-09 | Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2009-04-09

Standard (CCV-2)

QC Batch: 58418 | Date Analyzed: 2009-04-09 | Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2009-04-09

Standard (CCV-3)

QC Batch: 58418 Date Analyzed: 2009-04-09 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	268	107	80 - 120	2009-04-09

Standard (CCV-1)

QC Batch: 58458 Date Analyzed: 2009-04-10 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	80 - 120	2009-04-10

Standard (CCV-2)

QC Batch: 58458 Date Analyzed: 2009-04-10 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.18	118	80 - 120	2009-04-10

Standard (CCV-2)

QC Batch: 58460 Date Analyzed: 2009-04-10 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	227	91	80 - 120	2009-04-10

Standard (CCV-3)

QC Batch: 58460 Date Analyzed: 2009-04-10 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	259	104	80 - 120	2009-04-10

Standard (ICV-1)

QC Batch: 58636 Date Analyzed: 2009-04-16 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.3	90	90 - 110	2009-04-16

Standard (CCV-1)

QC Batch: 58636 Date Analyzed: 2009-04-16 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.6	93	90 - 110	2009-04-16

LAB Order ID # 9040901

TraceAnalysis, Inc.

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Fax #:
Contact Person: CAMILLE BRYANT
E-mail:
Invoice to: (If different from above) CROWNQUEST
Project #: CROWNQUEST
Project Name: NM-27 #2
Project Location (including state): WEST OF LOVINGTON, NM
Sampler Signature: Camille Bryant

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	PRESERVATIVE METHOD: HCl	HNO3	H2SO4	NaOH	ICE	NONE	SAMPLING: DATE (2009)	SAMPLING: TIME
192545	TRENCH 1 @ SURFACE	1	4 oz		X							X		4/8	1030
546	TRENCH 1 @ 1 FOOT														1050
547	TRENCH 2 @ SURFACE														1110
548	TRENCH 2 @ 1.5 FEET														1130
549	TRENCH 3 @ 14 INCHES														1150
550	TRENCH 4 @ SURFACE														1230
551	TRENCH 4 @ 1 FOOT	↓	↓		↓							↓		↓	1250

LAB #	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	CHLORIDES E300					Turn Around Time if different from standard	Hold
192545				X														X						
546																								
547																								
548																								
549																								
550																								
551				↓														↓						

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
Camille Bryant	Basin	4/8/09	1545	[signature]	BASIN	4/8/09	1545	
[signature]	BASIN	4/9/09	0820	RJN [signature]	Trace	4-9-09	08:20	3.1°C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
3.1
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

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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
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P. O. Box 381
Lovington, NM, 88260

Report Date: July 7, 2009

Work Order: 9070205

Project Location: West of Lovington, NM
Project Name: NM-27 #2
Project Number: Crownquest

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
200863	North Area	soil	2009-06-30	11:00	2009-07-02
200864	Center Area	soil	2009-06-30	12:00	2009-07-02
200865	South Area	soil	2009-06-30	13:00	2009-07-02

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 NM-27 #2 were received by TraceAnalysis, Inc. on 2009-07-02 and assigned to work order 9070205. Samples for work order 9070205 were received intact at a temperature of 3.4 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	52140	2009-07-02 at 11:23	61139	2009-07-02 at 11:23
Chloride (IC)	E 300.0	52169	2009-07-02 at 12:00	61193	2009-07-07 at 09:42
TPH DRO	Mod. 8015B	52097	2009-07-02 at 10:30	61090	2009-07-02 at 12:12
TPH GRO	S 8015B	52140	2009-07-02 at 11:23	61140	2009-07-02 at 11:23

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 9070205 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: 200863 - North Area

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	61139	Date Analyzed:	2009-07-02	Analyzed By:	ME
Prep Batch:	52140	Sample Preparation:	2009-07-02	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		**0.115**		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		**0.371**		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	45.2 - 144.3

Sample: 200863 - North Area

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	61193	Date Analyzed:	2009-07-07	Analyzed By:	AR
Prep Batch:	52169	Sample Preparation:	2009-07-06	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**3570**		mg/Kg	100	1.00

Sample: 200863 - North Area

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	61090	Date Analyzed:	2009-07-02	Analyzed By:	AG
Prep Batch:	52097	Sample Preparation:	2009-07-02	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**474**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[1]	420	mg/Kg	1	100	420	13.2 - 219.3

Sample: 200863 - North Area

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	61140	Date Analyzed:	2009-07-02	Analyzed By:	ME
Prep Batch:	52140	Sample Preparation:	2009-07-02	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**6.24**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	52 - 117

Sample: 200864 - Center Area

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	61139	Date Analyzed:	2009-07-02	Analyzed By:	ME
Prep Batch:	52140	Sample Preparation:	2009-07-02	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.39	mg/Kg	1	2.00	70	45.2 - 144.3

Sample: 200864 - Center Area

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	61193	Date Analyzed:	2009-07-07	Analyzed By:	AR
Prep Batch:	52169	Sample Preparation:	2009-07-06	Prepared By:	AR

[1] High surrogate recovery due to peak interference.

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**2050**		mg/Kg	100	1.00

Sample: 200864 - Center Area

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	61090	Date Analyzed:	2009-07-02	Analyzed By:	AG
Prep Batch:	52097	Sample Preparation:	2009-07-02	Prepared By:	AG

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**110**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		99.8	mg/Kg	1	100	100	13.2 - 219.3

Sample: 200864 - Center Area

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	61140	Date Analyzed:	2009-07-02	Analyzed By:	ME
Prep Batch:	52140	Sample Preparation:	2009-07-02	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**2.09**		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	52 - 117

Sample: 200865 - South Area

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	61139	Date Analyzed:	2009-07-02	Analyzed By:	ME
Prep Batch:	52140	Sample Preparation:	2009-07-02	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.37	mg/Kg	1	2.00	68	45.2 - 144.3

Sample: 200865 - South Area

Laboratory:	Midland				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	61193	Date Analyzed:	2009-07-07	Analyzed By:	AR
Prep Batch:	52169	Sample Preparation:	2009-07-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**14.2**	mg/Kg	5	1.00

Sample: 200865 - South Area

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	61090	Date Analyzed:	2009-07-02	Analyzed By:	AG
Prep Batch:	52097	Sample Preparation:	2009-07-02	Prepared By:	AG

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		81.6	mg/Kg	1	100	82	13.2 - 219.3

Sample: 200865 - South Area

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	61140	Date Analyzed:	2009-07-02	Analyzed By:	ME
Prep Batch:	52140	Sample Preparation:	2009-07-02	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**8.95**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	52 - 117

Method Blank (1) QC Batch: 61090

QC Batch: 61090 Date Analyzed: 2009-07-02 Analyzed By: AG
Prep Batch: 52097 QC Preparation: 2009-07-02 Prepared By: AG

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		140	mg/Kg	1	100	140	13 - 178.5

Method Blank (1) QC Batch: 61139

QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME
Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	51.9 - 128.1

Method Blank (1) QC Batch: 61140

QC Batch: 61140 Date Analyzed: 2009-07-02 Analyzed By: ME
Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	45.7 - 118.9

Matrix Blank (1) QC Batch: 61193

QC Batch: 61193 Date Analyzed: 2009-07-07 Analyzed By: AR
Prep Batch: 52169 QC Preparation: 2009-07-02 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		0.605	mg/kg	1

Laboratory Control Spike (LCS-1)

QC Batch: 61090 Date Analyzed: 2009-07-02 Analyzed By: AG
Prep Batch: 52097 QC Preparation: 2009-07-02 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	223	mg/Kg	1	250	<5.86	89	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	239	mg/Kg	1	250	<5.86	96	57.4 - 133.4	7	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	80.0	82.2	mg/Kg	1	100	80	82	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME
Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00100	93	72.7 - 129.8
Toluene	1.84	mg/Kg	1	2.00	<0.00100	92	71.6 - 129.6
Ethylbenzene	1.83	mg/Kg	1	2.00	<0.00110	92	70.8 - 129.7
Xylene	5.44	mg/Kg	1	6.00	<0.00360	91	70.9 - 129.4

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
Benzene	1.88	mg/Kg	1	2.00	<0.00100	94	72.7 - 129.8	1	20
Toluene	1.87	mg/Kg	1	2.00	<0.00100	94	71.6 - 129.6	2	20
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00110	96	70.8 - 129.7	5	20
Xylene	5.73	mg/Kg	1	6.00	<0.00360	96	70.9 - 129.4	5	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)	2.01	1.99	mg/Kg	1	2.00	100	100	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.78	1.78	mg/Kg	1	2.00	89	89	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 61140 | Date Analyzed: 2009-07-02 | Analyzed By: ME
Prep Batch: 52140 | QC Preparation: 2009-07-02 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.0	mg/Kg	1	20.0	<0.482	70	60.5 - 100.1

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	15.9	mg/Kg	1	20.0	<0.482	80	60.5 - 100.1	13	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)	1.96	1.96	mg/Kg	1	2.00	98	98	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.86	1.95	mg/Kg	1	2.00	93	98	66.1 - 108.3

Laboratory Control Spike (LCS-1)

QC Batch: 61193 | Date Analyzed: 2009-07-07 | Analyzed By: AR
Prep Batch: 52169 | QC Preparation: 2009-07-02 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	26.9	mg/Kg	1	25.0	<0.0430	108	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	27.1	mg/Kg	1	25.0	<0.0430	108	90 - 110	1	

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

Matrix Spike (MS-1) Spiked Sample: 200864

QC Batch: 61090 | Date Analyzed: 2009-07-02 | Analyzed By: AG
Prep Batch: 52097 | QC Preparation: 2009-07-02 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	306	mg/Kg	1	250	110	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	298	mg/Kg	1	250	110	75	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	72.9	70.8	mg/Kg	1	100	73	71	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 200840

QC Batch: 61139 | Date Analyzed: 2009-07-02 | Analyzed By: ME
Prep Batch: 52140 | QC Preparation: 2009-07-02 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.76	mg/Kg	1	2.00	<0.00100	88	58.6 - 165.2
Toluene	1.71	mg/Kg	1	2.00	<0.00100	86	64.2 - 153.8
Ethylbenzene	1.71	mg/Kg	1	2.00	<0.00110	86	61.6 - 159.4
Xylene	4.92	mg/Kg	1	6.00	0.283	77	64.4 - 155.3

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

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matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.73	mg/Kg	1	2.00	<0.00100	86	58.6 - 165.2	2	20
Toluene	1.71	mg/Kg	1	2.00	<0.00100	86	64.2 - 153.8	0	20
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00110	89	61.6 - 159.4	4	20
Xylene	5.10	mg/Kg	1	6.00	0.283	80	64.4 - 155.3	4	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)		1.96	1.91	mg/Kg	1	2	98	96	76 - 127.9
4-Bromofluorobenzene (4-BFB)	[2] [3]	1.38	1.40	mg/Kg	1	2	69	70	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 200839

QC Batch: 61140 | Date Analyzed: 2009-07-02 | Analyzed By: ME
Prep Batch: 52140 | QC Preparation: 2009-07-02 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	41.3	mg/Kg	1	20.0	22.3002	95	12.8 - 175.2

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	35.9	mg/Kg	1	20.0	22.3002	68	12.8 - 175.2	14	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)	2.10	2.08	mg/Kg	1	2	105	104	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.54	1.44	mg/Kg	1	2	77	72	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 200865

QC Batch: 61193 | Date Analyzed: 2009-07-07 | Analyzed By: AR
Prep Batch: 52169 | QC Preparation: 2009-07-02 | Prepared By: AR

[2]Surrogate out due to peak interference.
[3]Surrogate out due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	165	mg/Kg	5	138	14.2	110	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	162	mg/Kg	5	138	14.2	107	90 - 110	2	

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

Standard (CCV-1)

QC Batch: 61090 Date Analyzed: 2009-07-02 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	228	91	80 - 120	2009-07-02

Standard (CCV-2)

QC Batch: 61090 Date Analyzed: 2009-07-02 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	237	95	80 - 120	2009-07-02

Standard (CCV-1)

QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	80 - 120	2009-07-02
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2009-07-02
Ethylbenzene		mg/Kg	0.100	0.104	104	80 - 120	2009-07-02
Xylene		mg/Kg	0.300	0.312	104	80 - 120	2009-07-02

Standard (CCV-2)

QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0934	93	80 - 120	2009-07-02
Toluene		mg/Kg	0.100	0.0914	91	80 - 120	2009-07-02
Ethylbenzene		mg/Kg	0.100	0.0897	90	80 - 120	2009-07-02
Xylene		mg/Kg	0.300	0.266	89	80 - 120	2009-07-02

Standard (CCV-1)

QC Batch: 61140 Date Analyzed: 2009-07-02 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.997	100	80 - 120	2009-07-02

Standard (CCV-2)

QC Batch: 61140 Date Analyzed: 2009-07-02 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.09	109	80 - 120	2009-07-02

Standard (ICV-1)

QC Batch: 61193 Date Analyzed: 2009-07-07 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	2009-07-07

Standard (CCV-1)

QC Batch: 61193 Date Analyzed: 2009-07-07 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	23.2	93	90 - 110	2009-07-07

LAB Order ID # 9070205

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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 #:

Contact Person: CAMILLE BRYANT

E-mail: cjbryant@basin-consulting.com

Invoice to: (If different from above) CROWNQUEST

Project #: CROWNQUEST

Project Name: NM-27 #2 SWD

Project Location (including state): W of LOVINGTON, NM

Sampler Signature: C. J. 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 (2009)	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX (8021) / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC (8015M)	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 300	Turn Around Time if different from standard	Hold
200863	NORTH AREA	1	4oz		X							X		6/30	1100		X		X														X		
864	CENTER AREA	↓	↓		↓							↓		↓	1200		↓		↓														↓		
865	SOUTH AREA	↓	↓		↓							↓		↓	1300		↓		↓														↓		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp
C.J. Bryant	BASIN	7/2/09	0904	Lindsey	TRACE	7-2-09	9:04	INST ___ OBS 3.4 °C COR 2.4 °C
								INST ___ OBS ___ °C COR ___ °C
								INST ___ OBS ___ °C COR ___ °C

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

REMARKS: All tests Midland

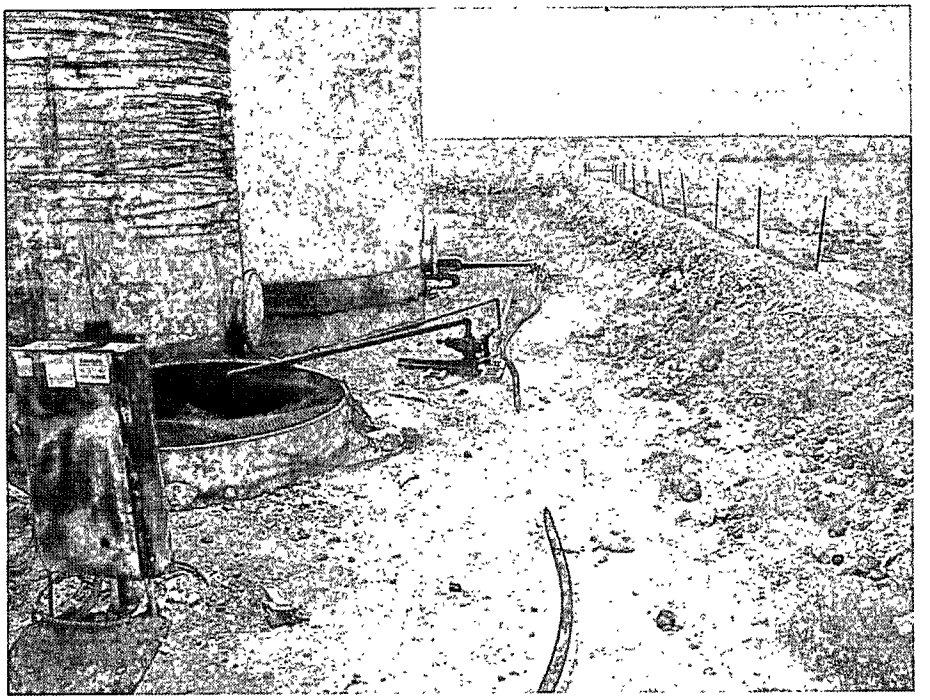
- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Carrier # Carry-in

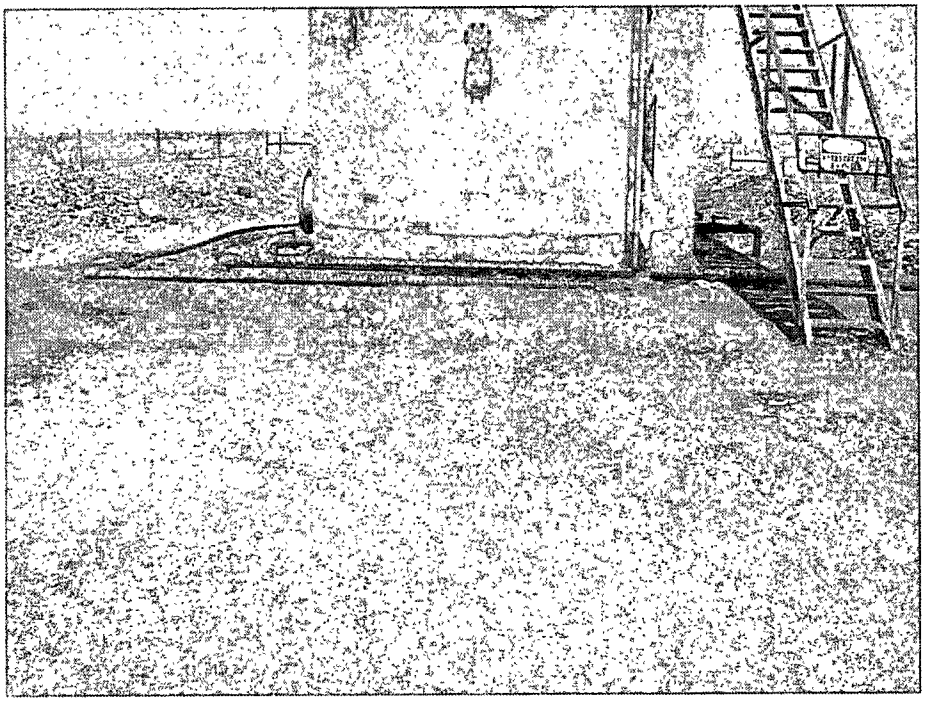
Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Appendix C
Photographs

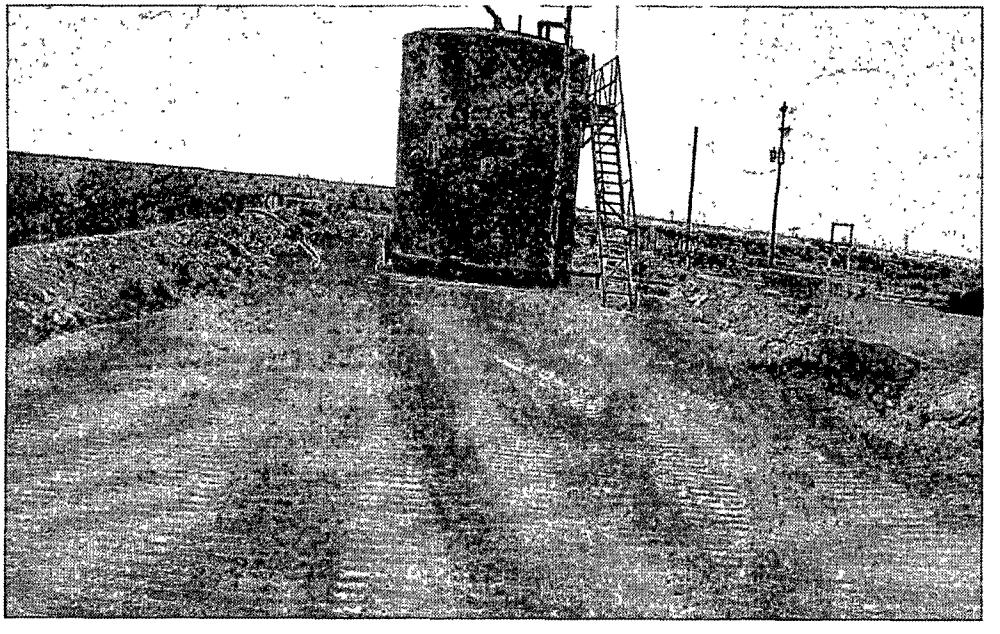


Release Site Prior to Excavation Activities (Looking South along West Side)



Release Site Prior to Excavation Activities (Looking North)

Release Site Excavation Activities (Looking North)



Release Site Following Backfill Activities (Looking North)

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

District I
625 N. French Dr., Hobbs, NM 88240
District II
301 W. Grand Avenue, Artesia, NM 88210
District III
000 Rio Brazos Road, Aztec, NM 87410
District IV
220 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

RECEIVED
MAY 19 2009
HOBBSOCD

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 **SWD-215, State 27 No.2 SWD**	Facility Type SWD

Surface Owner State of New Mexico	Mineral Owner	Lease No.

API # 30-025-22932-00-00

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	27	14S	32E					Lea

Latitude 33 04' 12.12" North **Longitude** 103 41' 57.76"West

NATURE OF RELEASE

Type of Release Produced Water/Crude Oil	Volume of Release Unknown	Volume Recovered Unknown
Source of Release Daily Operations at Facility	Date and Hour of Occurrence Unknown	Date and Hour of Discovery Unknown
Was Immediate Notice Given? Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

WATER @ 175'

Describe Cause of Problem and Remedial Action Taken: Circulating pump has been repaired and location is being delineated.

Describe Area Affected and Cleanup Action Taken. Release impacted an area measuring approximately 135 feet by 45 feet.

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: Kent Crabtree	OIL CONSERVATION DIVISION
Printed Name: Kent Crabtree	Approved by ~~District Supervisor~~ ENV ENGNR Jeff Lekin
Title: Foreman	Approval Date: 05/14/09 Expiration Date: 07/20/09
E-mail Address: kcrabtree@crownquest.com	Conditions of Approval: FINAL C-141 BY
Date: Phone: 432-556-0770	IRP-09-5-~~2187~~ 2188

RECEIVED
MAY 19 2009
HOBBSOCD