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ڈئ **Effective Solutions** 

#### **REMEDIATION SUMMARY &**

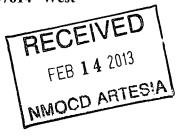
#### **RISK-BASED SITE CLOSURE REQUEST**

**BOPCO, LP** 

POKER LAKE UNIT #78 Delaware B Tank Battery Eddy County, New Mexico Unit Letter "A" (NE/NE), Section 25, Township 24 South, Range 30 East Latitude 32.194069° North, Longitude 103.827614° West

Prepared For:

BOPCO, LP 522 W. Mermod Suite 704 Carlsbad, New Mexico 88220



Prepared By:

Basin Environmental Service Technologies, LLC 3100 Plains Highway Lovington, New Mexico 88260

January 2013

en J. Arguijo Project Manager

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#### **1.0 INTRODUCTION AND BACKGROUND INFORMATION**

Basin Environmental Service Technologies, LLC (Basin), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as Poker Lake Unit #78 Delaware B Tank Battery ("Delaware B"). The legal description of the release site is Unit Letter "A" (NE/NE), Section 25, Township 24 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.194069° North latitude and 103.827614° West longitude. The property affected by the release is owned by The United States Department of the Interior, Bureau of Land Management (BLM). A "Site Location Map" is provided as Figure 1.

On May 13, 2010, BOPCO discovered a release had occurred at the Delaware B tank battery. The pump on the produced water tank malfunctioned, resulting in a release of produced water and crude oil. The release was confined to the earthen containment area, and free-standing fluid was removed with a vacuum truck. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office on May 13, 2010. The Release Notification and Corrective Action (Form C-141) indicated approximately two hundred and eighty barrels (280 bbls) of produced water and approximately five barrels (5 bbls) of crude oil were released, and approximately two hundred and sixty barrels (260 bbls) of produced water and approximately five barrels (5 bbls) of crude oil were recovered.

On July 7, 2010, BOPCO discovered an additional release had occurred at the Delaware B tank battery. A pipe connection on the water tank failed, and the two-inch (2") valve located between the tank and pump was closed, stopping the flow of water and resulting in a release of produced water. The release was confined to the earthen containment area, and free-standing fluid was removed with a vacuum truck. The release was reported to the NMOCD Artesia District Office on July 7, 2010. The Form C-141 indicated approximately ninety barrels (90 bbls) of produced water were released, and approximately eighty barrels (80 bbls) of produced water were recovered.

On August 20, 2011, BOPCO discovered a third release had occurred at the Delaware B tank battery. A storage tank overflow on unknown cause resulted in the release of crude oil. The release was confined to the earthen containment area, and free-standing fluid was removed with a vacuum truck. The release was reported to the NMOCD Artesia District Office on August 20, 2011. The Form C-141 indicated approximately forty barrels (40 bbls) of crude oil were released, and approximately thirty barrels (30 bbls) of crude oil were recovered.

The three (3) releases were remediated concurrently. The Form C-141 for each release is provided in Appendix A. General photographs of the release site are provided in Appendix B.

#### 2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 25, Township 24 South, Range 30 East. A depth-to-groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately three hundred and sixty feet (360') to three hundred and sixty-five feet (365') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

NMOCD guidelines indicate the Delaware B release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene -10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene and xylenes (BTEX) 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) 5,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

#### 3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On May 25, 2010, one (1) soil boring (SB-1) was advanced to evaluate the vertical extent of impacted soil at the site. Soil samples were collected at five foot (5') drilling intervals and field-screened using a Photo-Ionization Detector (PID) and a chloride field test kit. Selected soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of BTEX, TPH, and chloride concentrations using EPA Methods SW-846 8021b, SW-846 8015M, and 4500 Cl-B, respectively. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". A "Site & Sample Location Map" is provided as Figure 2. A soil boring log is provided as Appendix C. Laboratory analytical reports are provided as Appendix D.

Soil boring SB-1 was located inside the containment area on the north side of the battery. The soil boring was advanced to a total depth of approximately forty five feet (45') bgs. Soil samples collected at five feet (5'), ten feet (10'), twenty feet (20'), twenty-five feet (25'), thirty feet (30'), forty feet (40'), and forty-five feet (45') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicted benzene concentrations were less than the appropriate laboratory method detection limit (MDL) in each of the submitted soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL in soil samples SB-1 @ 25', SB-1 @ 40', and SB-1 @ 45' to 2.172 mg/Kg in soil sample SB-1 @ 5'. TPH concentrations ranged from less than the appropriate laboratory MDL in soil samples SB-1 @ 40' and SB-1 @ 45' to 126.4 mg/Kg in soil sample SB-1 @ 5'. Chloride concentrations ranged from 416 mg/Kg in soil samples SB-1 @ 40' and SB-1 @ 40' and SB-1 @ 45' to 3,120 mg/Kg in soil sample SB-1 @ 20'. A review of laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate NMOCD regulatory standard.

A background soil sample (Background) was also collected and analyzed for chloride concentrations. Laboratory analytical results indicated the chloride concentration in soil sample Background was less than the laboratory MDL of 16.0 mg/Kg.

On October 14, 2011, four soil samples (Sample #1, Sample #2, Sample #3, and Sample #4) were collected to further delineate the vertical and horizontal extent of impacted soil at the site. The soil samples were submitted to the lab for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations ranged from 12.2 mg/Kg in soil sample Sample #2 to 11,810 mg/Kg in soil sample Sample #1. Based on laboratory analytical results, further delineation would be required in the area represented by soil samples Sample #3 and Sample #4. Further delineation in the area represented by soil sample Sample #1 was precluded by the presence of an active pipeline running through the site.

On October 18, 2011, excavation of impacted soil commenced at the site. A PID and chloride test kit were used to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. To facilitate remediation activities, the excavation was divided into two (2) sections: East Excavation and West Excavation. The East Excavation was located in the area immediately adjacent to, and between, the five (5) on-site storage tanks. To preserve the structural integrity of the storage tanks, the vertical extent of the East Excavation was limited to one and one-half feet (1.5') bgs. The West Excavation was located in the area defined by soil samples Sample #1 through Sample #4. Excavated soil was stockpiled on-site, pending final disposition.

From October 20 through October 26, 2011, approximately three hundred and sixty cubic yards (360 yd<sup>3</sup>) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On October 20, 2011, four (4) soil samples (Sample 4A, Tank 3 South, Tank 4 South, and Tank 5 South) were collected from the floor and sidewalls of the excavations and submitted to the laboratory for analysis of TPH concentrations. Soil sample Sample 4A was advanced in the West Excavation, in the area represented by soil sample Sample #4. Soil samples Tank 3 South, Tank 4 South, and Tank 5 South were located in the East Excavation, inside the containment area of the battery, to the south of the on-site storage tanks. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory method detection limit (MDL) of 10.0 mg/Kg in soil sample Sample 4A to 28,550 mg/Kg in soil sample Tank 5 South.

A delineation trench was advanced in the West Excavation, in the area represented by soil sample Sample #3. The trench was advanced to a total depth of approximately ten feet (10') bgs. A single soil sample (Sample 3A) was collected from the floor of the trench and submitted to the laboratory for analysis of TPH, BTEX, and chloride concentrations. Laboratory analytical results indicated the TPH concentration in soil sample Sample 3A was 36.6 mg/Kg, the chloride concentration was 4,800 mg/Kg, and BTEX constituent concentrations were less than the appropriate laboratory MDL.

Based on laboratory analytical results and field-screens, from October 21 through October 28, 2011, the West Excavation was backfilled in eighteen-inch (18") lifts, compacted, and contoured to fit the surrounding topography. Prior to backfilling, final dimensions of the excavation were

approximately forty-four feet (44') feet in length, approximately thirty-nine feet (39') feet in width, and approximately six feet (6') in depth.

On October 31, 2011, one (1) hand-augered soil bore was advanced at the western edge of West Excavation. A single confirmation soil sample (Sample #5) was collected from the soil bore and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated the TPH concentration in soil sample Sample #5 was less than the laboratory MDL of 10.0 mg/Kg, and the chloride concentration was 336 mg/Kg.

The East Excavation was backfilled with clean, crushed caliche to a depth approximately six inches (6") below the original ground surface. Prior to backfilling, three (3) soil samples (Tank 2 North, Tank 4 North, and Tank 5 North) were collected from the floor of the excavation and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL of 10.0 mg/Kg in all submitted soil samples.

From October 31 through November 9, 2011, to mitigate future releases, a new, steel-walled containment area was constructed around the Delaware B tank battery. The steel perimeter walls extend approximately two feet (2') above ground surface. A felt liner was installed in the floor of the new containment area, and the floor and perimeter walls were coated with an impermeable, spray-on polyurethane liner.

#### 4.0 QA/QC PROCEDURES

#### 4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories, Inc., of Hobbs, New Mexico, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with modified EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method SM 4500 Cl-B

#### 4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

#### 4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

#### 5.0 SITE CLOSURE REQUEST

Contaminated soil at the Delaware B release site was excavated to the extent practicable. Soil samples collected from the floors and sidewalls of the Delaware B excavations were analyzed by an NMOCD-approved laboratory, and BTEX constituent concentrations were less than the remediation action levels (RRAL's) established for the site by the NMOCD. The floor and perimeter walls of the containment area surrounding the Delaware B were coated with an impermeable, spray-on polyurethane liner. This engineered control will inhibit the downward migration of contaminants in the areas represented by soil samples Sample #1, Sample 3A, Tank 4 South, and Tank 5 South. In-situ soil exhibiting contamination above the RRAL's established for the site will be remediated upon decommission and/or abandonment of the currently active tank battery.

Basin recommends BOPCO provide the NMOCD Artesia District Office and the BLM a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure to the Delaware B release site.

#### 6.0 **LIMITATIONS**

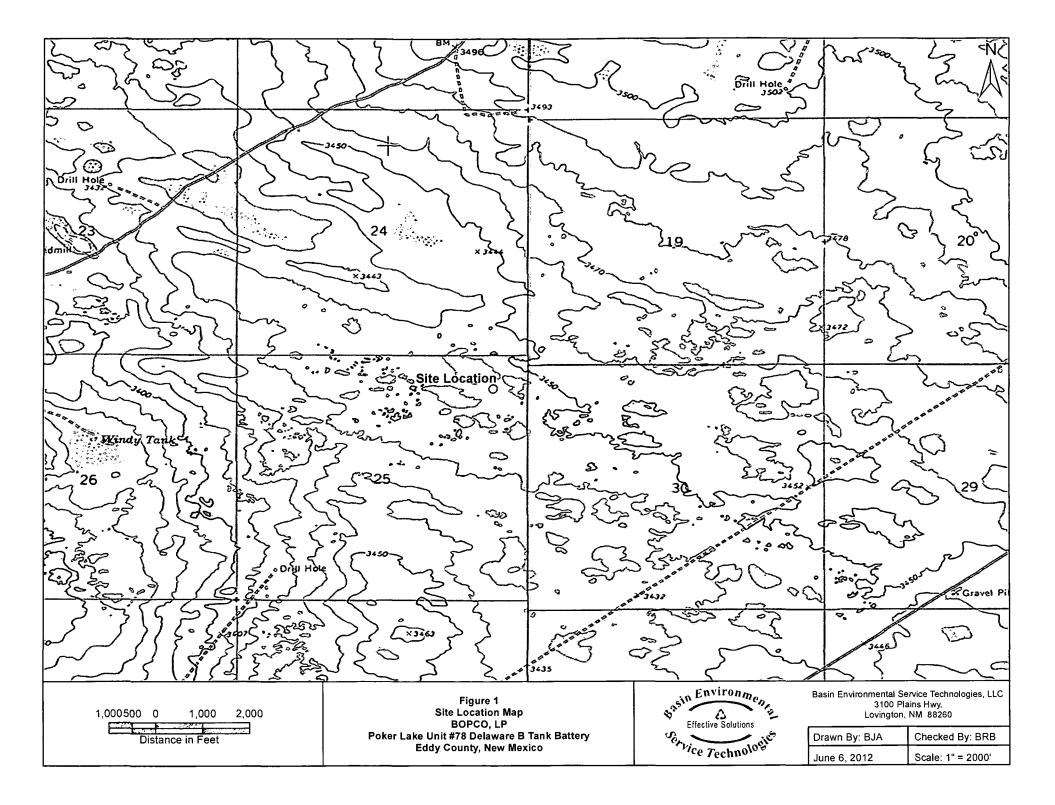
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin 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.

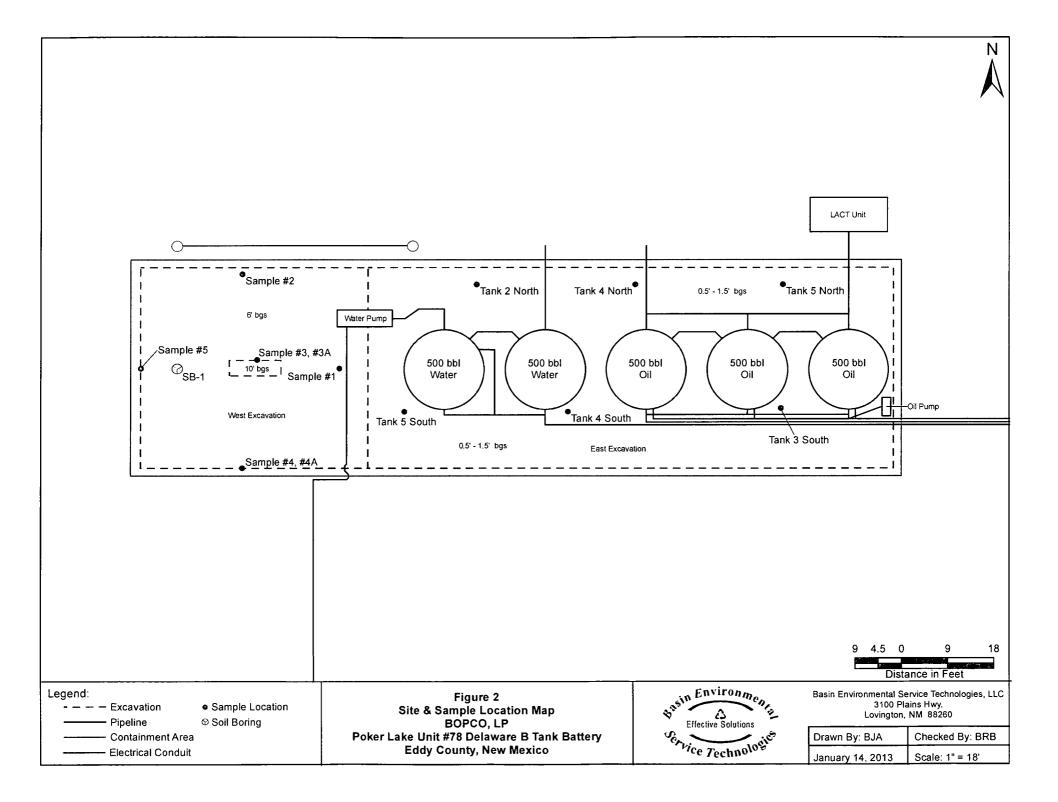
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

#### 7.0 DISTRIBUTION:

Copy 1:	Mike Bratcher New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 2) 1301 E. Grand Avenue Artesia, New Mexico 88210
Copy 2:	James Amos Bureau of Land Management 602 E. Greene Street Carlsbad, New Mexico 88220
Copy 3:	Tony Savoie BOPCO, LP 522 W. Mermod, Ste. 704 Carlsbad, New Mexico 88220
Copy 4:	Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, New Mexico 88260

### Figures





### Tables

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#### TABLE 1

#### CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### BOPCO, LP POKER LAKE UNIT #78 DELAWARE B TANK BATTERY EDDY COUNTY, NEW MEXICO

					METHOD: E	PA SW 846-80	21B, 5030	-	ME	THOD: 801	5M	TOTAL	4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
Background	Surface	05/25/10	In-Situ	-	-	-	-	-	-	-	-	-	<16.0
SB-1 @ 5'	5'	05/25/10	In-Situ	<0.050	0.131	0.321	1.72	2.172	19.4	107	<10.0	126.4	-
SB-1@10'	10'	05/25/10	In-Situ	-	-	-	-	-	-	-	-	-	640
SB-1 @ 20'	20'	05/25/10	In-Situ	-	-	-	-	-	-	-	-	-	3,120
SB-1 @ 25'	25'	05/25/10	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.300	<10.0	32.8	<10.0	32.8	-
SB-1 @ 30'	30'	05/25/10	In-Situ	-	-	-	-	-	-	-	-	-	768
SB-1 @ 40'	40'	05/25/10	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.300	<10.0	<10.0	<10.0	<10.0	416
SB-1 @ 45'	45'	05/25/10	In-Situ	<0.050	<0.050	<0.050	<0.300	<0.300	<10.0	<10.0	<10.0	<10.0	416
Sample #1	1'	10/14/2011	In-situ	-	-	-	-	-	3,200	7,970	640	11,810	-
Sample #2	1'	10/14/2011	In-situ	-	-	-	-	-	<10.0	12.2	<10.0	12.2	-
Sample #3	1'	10/14/2011	Excavated	•	-	-	-	-	690	1,380	90.1	2,160	-
Sample #4	1'	10/14/2011	Excavated	-	-	-	-	-	239	1,600	116	1,955	-
Sample 3A	10'	10/20/2011	In-situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	36.6	<10.0	36.6	4,800
Sample 4A	6'	10/20/2011	In-situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
Tank 3 South	1.5'	10/20/2011	In-situ	-	-	-	-	-	<50.0	643	104	747	-
Tank 4 South	1.5'	10/20/2011	In-situ	-	-	-	-	-	1,440	19,300	1,510	22,250	-
Tank 5 South	1.5'	10/20/2011	In-situ	-	-	-	-	-	1,920	24,600	2,030	28,550	-
Sample #5	4'	10/31/2011	In-situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	336
Tank 2 North	1.5'	10/31/2011	In-situ	-	-	-	•	•	<10.0	<10.0	<10.0	<10.0	-
Tank 4 North	1.5'	10/31/2011	In-situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
Tank 5 North	1.5'	10/31/2011	In-situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
NMOCD Standard				10				50				5,000	1,000

- = Not analyzed.

# Appendices

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# Appendix A Release Notification & Corrective Action (Form C-141)

District I		moco) New Mexico			=0	1
623 N. French Dr., Hobbs, NM 88240 <u>District II</u> Energy Mir	nerals a	and Natural Reso	ources	CEIV	ED	Form C-141 Revised October 10, 2003
$\frac{1}{1}$ OI C	onserv	vation Division	1	AY 272	010	Submit 2 Copies to appropriate
000 Rio Brazos Road, Aztec, NM 8/410		St. Francis Dr.				District Office in accordance with Rule 116 on back
220 S. St. Francis Dr., Santa Fe, NM 87505 Sa.	nta Fe	, NM 87505	ININAC	CD AF	TES	A side of form
PO-015-27536 Release Notific	ation	and Correc				
mw 1035734744		<b>OPERATOR</b>		×	] Initia	al Report 🔲 Final Repo
Name of Company BOPCO, L.P. 260737		Contact Tony Save				
Address 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 Facility Name Poker Lake Unit #78 Delaware B Tank Batte		Telephone No. 432 Facility Type E&P		30		
Surface Owner Federal Mineral O					Lease N	
				L,	Lease	<u> </u>
LOCA Unit Letter   Section   Township   Range   Feet from the		South Line Feet f	SE from the	East/We	et Line	County
A 25 24S 30E	North		iom me	Lasivwe		Eddy
				I		
Latitude_N 32.1	94069_	Longitude W	103.8276	514		
	URE	OF RELEASE				
Type of Release: Produced water and crude oil		Volume of Releas				Recovered: 260 bbls of produced 1 5 bbls crude oil
		Crude oil				
Source of Release: 300 bbl produced water tank overflow		Date and Hour of OccurrenceDate and Hour of DiscoveryUnkown5/13/10 8:00 a.m.				
Was Immediate Notice Given?		If YES, To Whom			115/10/0	
Yes No Not Ro	quired	Randy NMOCD o				
By Whom? Tony Savoie Was a Watercourse Reached?		Date and Hour 5/1 If YES, Volume I			<u></u>	
Yas a watercourse reached:			mpacting	the waterc	ourse.	
If a Watercourse was Impacted, Describe Fully.*		I				
Describe Cause of Problem and Remedial Action Taken.* The pro- failed to come. The pump motor was replaced. Describe Area Affected and Cleanup Action Taken.*The released around the tanks, the facility does not have impervious containmen selected inside the containment for an air rotary rig to advance a se approximately 45 ft. below ground surface and sampled a 5 ft. inte sample results along with a remediation plan and containment upg The Site remediation for the produced water and crude oil spill wi	fluid afl nt. The f oil bore ervals fo grade wil 11 follow	fected an arca of app free standing fluids v to determine vertica or TPH, BTEX and C Il be submitted to the v the NMOCD guide	proximatel were remo l extent. T Chlorides. e NMOCE clines for l	y 3,000 sq. ved with a The soil bor Estimated D. eaks and sj	ft insid vacuum e was ac depth to pills.	e the earthen containment truck. On 5/25/10 An area was ivanced to a depth of water is greater than 400 ft. The
I hereby certify that the information given above is true and compl regulations all operators are required to report and/or file certain re public health or the environment. The acceptance of a C-141 repo should their operations have failed to adequately investigate and re or the environment. In addition, NMOCD acceptance of a C-141 federal, state, or local laws and/or regulations.	lete to th elease no ort by the emediate	te best of my knowle otifications and perfe- c NMOCD marked a e contamination that	edge and u orm corrects is "Final R pose a the	inderstand ctive actior (eport" doe reat to grou	that purs is for rel is not rel ind wate	eases which may endanger ieve the operator of liability r, surface water, human health
		<u>0</u>	L CON	SERVA	TION	DIVISION
Signature: 1 ory Dance		Approved by Distric	t Supervis	sor: 11		
Printed Name: Tony Savoie		Sig	ned By	A.14	Bra	Where
		· · · · · · · · · · · · · · · · · · ·	alali			
Title: Waste Mgmt.& Remediation Specialist E-mail Address: TASavoie@BassPet.com		Approval Date:	<u>/////////////////////////////////////</u>	Ex	<u>piration</u>	
		Conditions of Appro Remediatio		D Ruler	<b>R</b> .	Attached
Date: 5/27/10 Phone:432-556-8 Attach Additional Sheets If Necessary	8730	Guidelines. SUB	MIT REI	MEDIATI	ON	
Auditional Sheets II Necessary		PROPOSAL NOT	LATER -/3/11	THAN:		211-532

State of New Mexico Energy Minerals and Natural Resources

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

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R	E	С	E	ľ	V	E	Ľ

Form C-141 Revised October 10, 2003

JUL 15 2010 Submit 2 Copies to appropriate District Office in accordance NMOCD ARTESIA side of form

1220 S. St. Francis Dr., Santa Fe, NM 87	<sup>7505</sup>	Santa F	e, NM 875	05			side of form			
30-015-27536	Release Notifi	icatio	n and Co	rrective A	ction					
7Kmw 1035628897			<b>OPERA</b>	ſOR		nitial Report	Final Report			
Name of Company BOPCO, L.			Contact Tony Savoie							
Address 522 W. Mermod, Suite			Telephone No. 432-556-8730							
Facility Name Poker Lake Unit	#78 Delaware B Tank Ba	ttery	Facility Typ	e E&P						
Surface Owner Federal	Mineral	Owner	Federal		Lea	se No.				
	LOC	CATIO	N OF REI	LEASE						
Unit Letter Section Townshi A 25 24S					East/West Li	ne County Eddy				
	_			<b>de W</b> 103.8276	14					
Type of Release: Produced water.	NA	TURE	E OF REL	EASE Release: 90 Bbls	of Volu	me Recovered	: 80 bbls of produced			
Type of Release. House water.			Produced v		wate					
Source of Release: 500 bbl produc	ed water tank.			lour of Occurrenc		and Hour of D	iscovery			
Was Immediate Notice Given?			Unkown If YES, To	Whom?	7/7/1	0 10:00 a.m.				
was mineulate Notice Given?		OCD on call oper	rator							
By Whom? Tony Savoie				lour 7/7/10 2:39 p						
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.				
Describe Cause of Problem and Re the tank and the pump was closed Describe Area Affected and Clean	stopping the flow of water. T	he conne	ection was repl	aced later.						
around the tanks, the facility does selected inside the containment for approximately 45 ft. below ground sample results along with a remed same area to determine if the verti The Site remediation for the produ	not have impervious contain r an air rotary rig to advance a l surface and sampled a 5 ft. i iation plan and containment t cal extent has migrated furthe	ment. The a soil boo intervals upgrade v er down s	e free standing re to determine for TPH, BTE will be submitte since the 2 <sup>nd</sup> . S	fluids were remover vertical extent. T X and Chlorides. I ed to the NMOCD pill event.	ved with a vac he soil bore w Estimated dep D. We will sche	uum truck. On as advanced to th to water is g edule another s	5/25/10 An area was a depth of reater than 400 ft. The			
I hereby certify that the informatic regulations all operators are requir public health or the environment, should their operations have failed or the environment. In addition, N federal, state, or local laws and/or	on given above is true and con- red to report and/or file certai The acceptance of a C-141 re- to adequately investigate and MOCD acceptance of a C-14	mplete to in release eport by d remedi	the best of my notifications a the NMOCD n ate contaminat	knowledge and u nd perform correct narked as "Final R ion that pose a thr	inderstand that tive actions for teport" does no reat to ground	t pursuant to N or releases which ot relieve the of water, surface	ch may endanger perator of liability water, human health			
	-			<u>OIL CON</u>	SERVATI	<u>ON DIVIS</u>	ION			
Signature: 1 Su 20	Approved by	District Supervis Signed By	arality,	Bernus						
Printed Name: Tony Savoie Title: Waste Mgmt.& Remediation	n Specialist		Approval Da	ite: 3/3/11		tion Date:				
E-mail Address: TASavoie@Bass	Pet.com		Conditions of			Attach	ed 🗌			
Date: 7/14/10 * Attach Additional Sheets If Ne	Phonc:432-55 cessary	56-8730	<sup>]</sup> Guideline	s. SUBMIT REM L NOT LATER	MEDIATION	ar	P-514			

State of New Mexico Energy Minerals and Natural Resources

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

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

			Rele	ease Notific	atio	n and Co	orrective A	ction	n an		
						OPERA	ГOR	🛛 Initi	al Report Final Report		
Name of Co						Contact Tor	-				
		· · · · · · · · · · · · · · · · · · ·		ad, N.M. 88220		Telephone No. 432-556-8730					
Facility Nar	ne Poker L	Lake Unit #7	8 Delawa	are B Tank Batte	ery	Facility Type E&P					
Surface Ow	ner Federa	I		Mineral C	)wner	Federal		Lease	No.		
				LOCA	TIO	N OF REI	LEASE				
Unit Letter	Section	Township	Range	Feet from the		h/South Line	Feet from the	East/West Line	County		
A	25	248	30Ē						Eddy		
		L,	ـــــــــــــــــــــــــــــــــــــ	atitude N 32.1	94069	) Longitu	i <b>de W</b> 103.8276	1	L		
						E OF REL					
Type of Relea	ase: Crude of	oil			one		Release: 40 Bbls	s of Volume I	Recovered: 30 bbls.		
- , , , , , , , , , , , , , , , , , , ,		•••				crude oil.					
Source of Re	ease: 500 b	bl oil product	tion tank.				lour of Occurrenc		Hour of Discovery		
Was Immedia	te Notice (	liven?				lf YES, To	ne unkown. Whom?	8/20/11 8	::00 a.m.		
			Yes	] No 🔲 Not Re	equired		emergency #104				
By Whom? T	ony Savoie					Date and Hour 8/20/11 11:07 a.m.					
Was a Water		hed?				If YES, Vo	olume Impacting t	he Watercourse.			
			Yes 🛛	No					RECEIVED		
If a Watercou	rse was Imj	pacted, Descr	ibe Fully.*	¢					AUG 22 2011		
									NMOCD ARTESIA		
Describe Cau	se of Proble	em and Reme	dial Action	n Taken.* One of	the oil	production tar	iks overflowed. C	ause unknown.			
			Action Tak	en.*The spill was	s conta	ined within th	e earthen contains	nent around the ta	nk battery, all of the free product		
was removed			water and	omida ail anill uri	11 fails	w the MMOCI	) guidalinga fur la	also and anillo			
							D guidelines for lo knowledge and u		suant to NMOCD rules and		
regulations al	l operators	are required to	o report ar	id/or file certain n	elease	notifications a	nd perform correc	tive actions for rel	cases which may endanger		
									ieve the operator of liability		
									r, surface water, human health ompliance with any other		
federal, state,											
							OIL CON	SERVATION	DIVISION		
Signature:	10	us Sre	a			Approved by	District Supervise				
	<b></b>	9				Approved by	District Supervise	01.			
Printed Name	: Tony Sav	oie									
Title: Waste	vigmt.& Re	mediation Sp	ecialist	<u> </u>		Approval Da	te:	Expiration	Date:		
E-mail Addre	ss: TASavo	ie@BassPet.c	com			Conditions of Approval:			Attached		
Date: 8/22/11				Phone:432-556-8	8730						
Attach Addit	innel Ches	to If Manage	· · · ·								

Attach Additional Sheets If Necessary

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#### **Release Notification and Corrective Action**

	OPE	ERATOR	Initial Report	X Final Report
Name of Company BOPCO, LP		Contact Tony Savoie		
Address 522 W. Mermod, Suite 704, Carlsbad	, NM 88220	Telephone No. (432)556-8730		
Facility Name Poker Lake Unit #78 Delaware F	3 Tank Battery	Facility Type E&P		
Surface Owner Federal	Mineral Owner	Federal	Lease No.	

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County			
A	25	24S	30E					Eddy			

Latitude 32.194069° North Longitude 103.827614° West

#### NATURE OF RELEASE

	OI RELEASE					
Type of Release Produced water and crude oil	Volume of Release: 280 bbls of	Volume Recovered: 260 bbls of				
	produced water and 5 bbls of	produced water and 5 bbls of crude oil				
	crude oil					
Source of Release 300 bbl produced water tank overflow	Date and Hour of Occurrence	Date and Hour of Discovery				
	Unknown	5/13/2010, 8:00 AM				
Was Immediate Notice Given?	If YES, To Whom?					
X Yes No Not Required	Randy, NMOCD on-call operator					
By Whom? Tony Savoie	Date and Hour 5/13/10, 10:21 AM					
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.					
🗌 Yes X No						
If a Watercourse was Impacted, Describe Fully.*						
Describe Cause of Problem and Remedial Action Taken:* The produced	water tank overflowed due to a pump	malfunction. The main water transfer pump				
failed to come on. The pump motor was replaced.						
Describe Area Affected and Cleanup Action Taken.* The released fluid						
around the tanks. The facility did not have impervious containment at the	e time. The free-standing fluids we	re removed with a vacuum truck. Following				
initial response activities, the release was remediated as per NMOCD gu						
Closure Request for details of remediation activities and laboratory analyt						
I hereby certify that the information given above is true and complete to						
regulations all operators are required to report and/or file certain release	e notifications and perform correctiv	ve actions for releases, which may endanger				
public health or the environment. The acceptance of a C-141 report by						
should their operations have failed to adequately investigate and remedia						
or the environment. In addition, NMOCD acceptance of a C-141 repo	rt does not relieve the operator of r	esponsibility for compliance with any other				
federal, state, or local laws and/or regulations.						
	<u>OIL CONSER</u>	VATION DIVISION				
Signature:						
Printed Name: The Ben J. Argn; D ( BOPCO LP)	Approved by District Supervisor:					
	Approval Date:	Expiration Date:				
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:					
Date: 2/14/13 Phone: (432)556-8730 (806) 549-4597		RECEIVED				
(806) 549-9597						
		FEB 1 4 2013				
		NMOCD ARTES!A				
		NMOUD ANIES				

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

NMOCD ARTESIA

#### **Release Notification and Corrective Action**

	OPE	CRATOR	Initial Report	X Final Report
Name of Company BOPC	CO, LP	Contact Tony Savoie		
Address 522 W. Mermod, S	Suite 704, Carlsbad, NM 88220	Telephone No. (432)556-8730		
Facility Name Poker Lake U	Init #78 Delaware B Tank Battery	Facility Type E&P		
Surface Owner Federal	Mineral Owner	Federal	Lease No.	

#### LOCATION OF RELEASE

Unit Letter A	Section 25	Township 24S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy

Latitude 32.194069° North Longitude 103.827614° West

#### NATURE OF RELEASE

	OF RELEASE			
Type of Release Produced water	Volume of Release: 90 bbls of produced water	Volume Re water	ecovered: 80 bbls	of produced
Source of Release 500 bbl produced water tank	Date and Hour of Occurrence		our of Discovery	
	Unknown	7/7/2010, 1	0:00 AM	
Was Immediate Notice Given?	If YES, To Whom?			
X Yes No Not Required	Randy, NMOCD on-call operator			
By Whom? Tony Savoie	Date and Hour 7/7/10, 2:39 PM			
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.		
Yes X No				
If a Watercourse was Impacted, Describe Fully.*	L			
Describe Cause of Problem and Remedial Action Taken:* A pipe conne				
		toroke for re	asons unknown. I	ne z valve
between the tank and the pump was closed, stopping the flow of water. The	e connection was later replaced.			
Describe Area Affected and Cleanup Action Taken.* The released fluid	affected an area of approximately	2,000 sq. ft i	nside the earthen	containment
around the tanks. The facility did not have impervious containment at th	e time. The free-standing fluids wer	re removed w	ith a vacuum truck	c. Following
initial response activities, the release was remediated per NMOCD guideli	ines in conjunction with a release that	it occurred on	5/13/10 and affect	ted the same
area. Please reference the attached Remediation Summary & Risk-Based S	ite Closure Request for details of ren	nediation activ	vities and laborato	ry analytical
results from confirmation soil samples.	1			5 5
I hereby certify that the information given above is true and complete to	the best of my knowledge and und	erstand that r	sursuant to NMOC	D rules and
regulations all operators are required to report and/or file certain release	notifications and perform corrective	e actions for	releases which m	av endanger
public health or the environment. The acceptance of a C-141 report by t				
should their operations have failed to adequately investigate and remediat				
or the environment. In addition, NMOCD acceptance of a C-141 repor	t door not relieve the energy of re		i, suitace water, ii	
	t does not reneve the operator of re	esponsibility i	for compliance wi	in any other
federal, state, or local laws and/or regulations.				
, 11	OIL CONSERV	<u>VATION I</u>	<u>DIVISION</u>	
Signature:				
a sent of )	Approved by District Supervisor:			
Printed Name: The Ben J. Argnip (7607CO, LP)				
6514 Project Manager				
Title: Waster Sent & Remediation Speciality Sun Faulan Montel	Approval Date:	Expiration D	ate:	
E-mail Address: TASavoie@BassPet.com Diarom: D & basineav.com	Conditions of Approval:			
D mail riddress. Thourer of Dates and the first and a first	conditions of Approval.			
Date: 2/14/13 Phone: (432)556-8730				
(806) 549. 9597		DEC	EIVED	
		neu		
		FFR	<b>1 4</b> 2013	
		1 - 0		

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

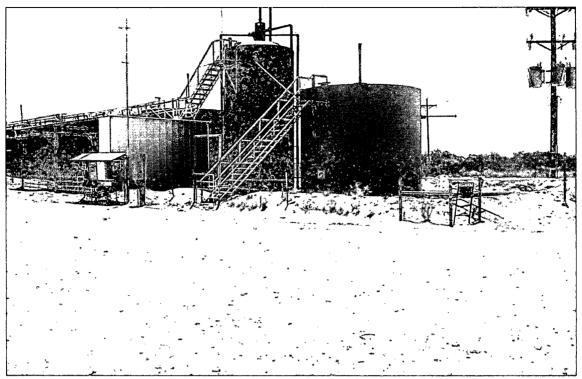
#### **Release Notification and Corrective Action**

					_	RATOR			Initial I	Report	X Final Report
Name of Company BOPCO, LP						Contact To	*				
Address 522 W. Mermod, Suite 704, Carlsbad, NM 88220							No. (432)556-8	730			
Facility Name Poker Lake Unit #78 Delaware B Tank Battery					ery	Facility Typ	e E&P				
Surface Ow	ner Feder	ral		Mineral C	)wner	Federal			Lease N	lo	***
				LOCA	TIO	N OF REI	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	/South Line	Feet from the	East/W	Vest Line	County	
A	25	24S	30E							Eddy	
	•		Latit	ude 32.194069°	<u>North</u>		Longitude 10	3.82761	4° West	ł	
				NAT	URE	OF REL					
Type of Rele	ase: Crude	Oil					Release: 40 bbls	of	Volume I	Recovered:	30 bbls of crude oil
Source of Re	lease: 500	bbl oil produ	ction tank			Crude oil Date and F	Iour of Occurrenc	e:	Date and	Hour of D	iscovery:
		-				8/20/2011,	time unknown			1, 8:00 AM	
Was Immedia	ate Notice (		NI	N-+ D 1		If YES, To					
			es No	Not Required			emergency #104				
By Whom? Was a Water	Tony Savo	ie hod?					Hour 8/20/2011, 1				
was a water	course Read		]Yes >	K No		11 1ES, VO	olume Impacting t	me wate	arcourse.		
If a Watercou	urse was Im	pacted, Descr	ibe Fully.*	k		L					
Describe Cau	ise of Probl	em and Reme	dial Actio	n Taken:* One of	the oil	production tar	nks overflowed. C	ause unl	known.		
Describe Ar	A ffootod	and Cleanum	Action T	alan * The mill		ntainad withi	n the conthen co.			ha taula ha	them. All of the free
											attery. All of the free is in conjunction with
two others re	leases that	occurred on 5	/13/10 &	7/7/10 and affected	ed the s	ame area. Ple	ase reference the	attached	Remediat	ion Summa	ary & Risk-Based Site
Closure Requ	uest for deta	ils of remedia	tion activi	ties and laborator	y analy	tical results fr	om confirmation	soil sam	ples.		
											to NMOCD rules and which may endanger
											e operator of liability
should their of	operations I	nave failed to	adequatel	y investigate and	remedia	ate contamina	tion that pose a th	reat to g	ground wa	ter, surface	e water, human health
				eptance of a C-1	41 repo	ort does not r	elieve the operato	or of res	ponsibility	for comp	liance with any other
icuerai, state,		ws and/or regu	nations.				OIL CON	SERV	ATION	DIVISI	ON
	61	//	<b>_</b>								<u>V11</u>
Signature:	II A	<b>1</b>	·	first al	$r \rightarrow l$		<b>D</b>				
Printed Name: But J. Argnip (Agent of BORCO, 4) Approved by I					District Supervis	or:					
Title:			I AM AGET	BASIN ENVIRON	north	Approval Da	te:		Expiration	Date:	
	•		. <u> </u>								
E-mail Addre	ess: TASav	oie@BassPet.	com b	in min be the si	nenryp	© Conditions o	f Approval:				
Date: 2	114/13		Phone	: (432)556-8730							
,				(826)549-9	597			·			51
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								IN	MOCD	ARTES	SA
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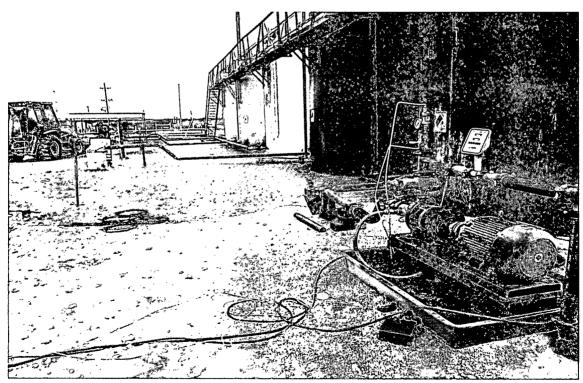
# Appendix B Photographs

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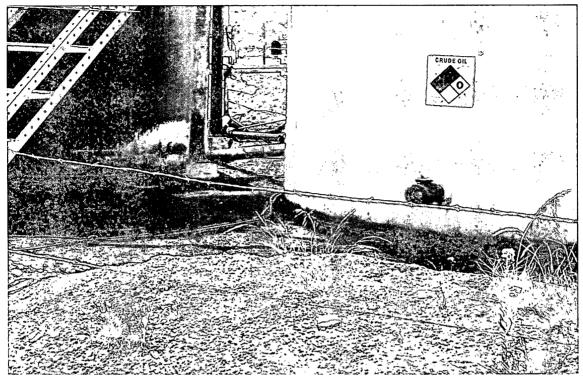
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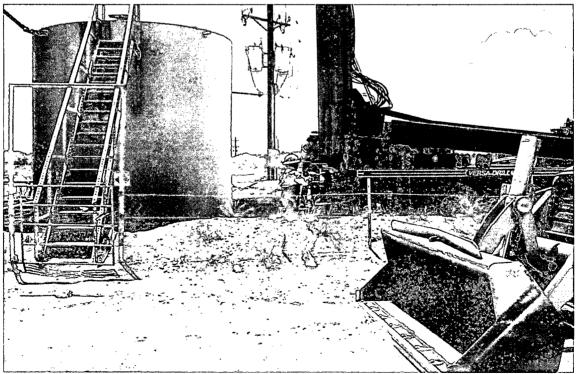
Poker Lake Unit #78 Delaware B Tank Battery



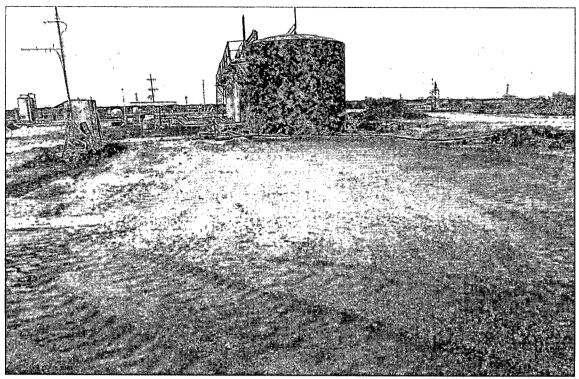
Poker Lake Unit #78 Delaware B Tank Battery - Release Site



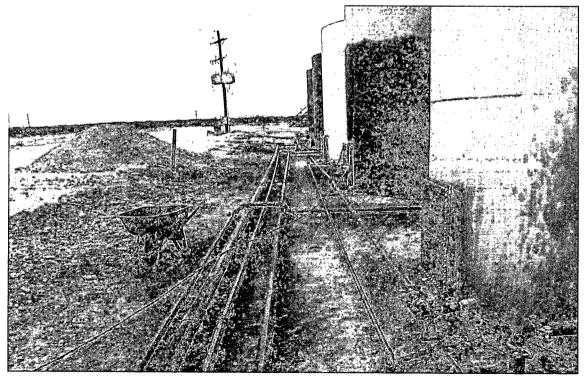
Poker Lake Unit #78 Delaware B Tank Battery - Release Site



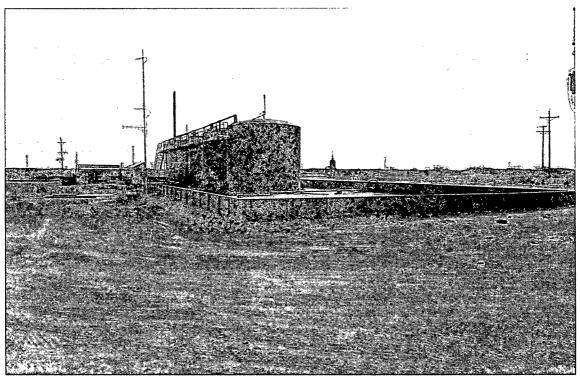
Poker Lake Unit #78 Delaware B Tank Battery - Advancement of Soil Boring SB-1



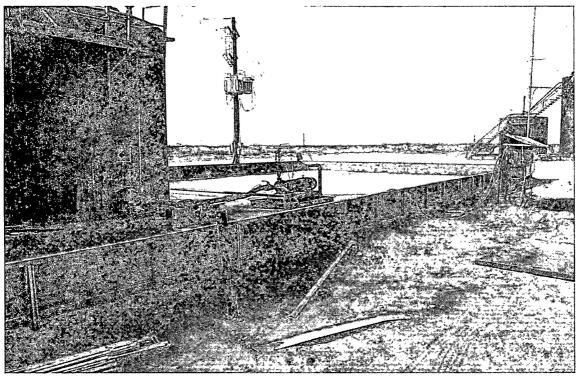
Poker Lake Unit #78 Delaware B Tank Battery - West Excavation (Following Backfill, Looking East)



Poker Lake Unit #78 Delaware B Tank Battery - East Excavation (Following Backfill, Looking West)



Poker Lake Unit #78 Delaware B Tank Battery - New Containment Area



Poker Lake Unit #78 Delaware B Tank Battery -New Containment Area & Polyurethane Liner

# • Appendix C Soil Boring Logs

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	pth	a here da ei e	BRAIL SPACE, H	attant ita A	میں کی آئیں	So	il Boring SB-1	
a be	low							Boring SB-1
<u>sur</u>	und face	Soil Columns		st Reading	Petroleum F Odor	etroleum <u>Stain</u>	Soil Description	Date Drilled May 25, 2010
Ē	•0		>2,500	162	Moderate	Heavy	0-5' - Caliche, Tannish, dry	Thickness of Bentonite Seat <u>45 Ft</u> Depth of Exploratory Boring <u>45 Ft bgs</u> Depth to Groundwater
	- 10		527	(69.4)	None	Slight	5-10' - Sand with caliche, tan, dry	Ground Water Elevation
	. 16		>2500	(44.3)	None	None	10-15' - Sand, reddish brown, fine grained, damp	<ul> <li>Indicates the PSH level measured on</li> <li>Indicates the groundwater level</li> </ul>
F	20		2300	(62.3)	None	None	15-20' - Sand and sandstone, reddish brown, fine grained, damp	measured on
	-25		1,244	45.9	None	None	20-25' - Sand with sandstone, tan, dry	
	- 30		480	55.9	None	None		
Ē	- 35		220	54.6	None	None	25-45' - Sand, reddish brown, fine grained, dry	
	-40		188	52.6	None	None		
	- 45		188	(41.7)	None	None		
et k								
ά.								
、 使きに利用する者 東京 林をかられる								
ц М								
中国家は大学語音								
花山田								

#### Completion Notes

The soil boring was advanced on date using air rotary drilling techniques.
 The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

a the second part of the state	مروحه والمروحة			1. 17.6 - 4140-7-017-04	nan managera a share per tana san ang dita a sa
	BOPCO	Basir	n Enviro		ntal Consulting
Soil Boring SB-1	Delaware "B" Tank Battery		Prep By; JWL		Checked By: CJB
- 10-15 15 15 - 15 - 15 - 15 - 15 - 15 -	Eddy County, New Mexico	· · · · · · · · · · · · · · · · · · ·	June 24, 2010		See The Arian Barbart of Strategy and Antonio and a

### Appendix D Laboratory Analytical Reports





June 3, 2010

Camille Bryant Basin Environmental Consulting, LLC. P.O. Box 381 Lovington, NM 88260

Re: Delaware B (BOPCO)

Enclosed are the results of analyses for sample number H19993, received by the laboratory on 05/28/10 at 8:20 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021 Method SW-846 8260 Method TX 1005 Benzene, Toluene, Ethyl Benzene, and Total Xylenes Benzene, Toluene, Ethyl Benzene, and Total Xylenes Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 4 (includes Chain of Custody)

Sincerely,

Laboratory Director



ANALYTICAL RESULTS FOR BASIN ENVIRONMENTAL CONSULTING, LLC ATTN: CAMILLE BRYANT P.O. BOX 381 LOVINGTON, NM 88260 FAX TO: (575) 396-1429

Receiving Date: 05/28/10 Reporting Date: 06/02/10 Project Owner: BOPCO Project Name: DELAWARE B Project Location: EDDY CO., NM Analysis Date: 06/01/10 Sampling Date: 05/25/10 Sample Type: SOIL Sample Condition: COOL & INTACT @ -4°C Sample Received By: JH Analyzed By: HM

		CI_
LAB NO.	SAMPLE ID	(mg/kg)
H19993-1	BACKGROUND	< 16
H19993-3	SB-1 @ 10'	640
H19993-4	SB-1 @ 20'	3,120
H19993-6	SB-1 @ 30'	768
H19993-7	SB-1 @ 40'	416
H19993-8	SB-1 @ 45'	416
Quality Cor	ntrol	500
True Value	QC	500
% Recover	У	100
Relative Pe	ercent Difference	< 0.1

METHOD: Standard Methods 4500-CI'B Note: Analyses performed on 1:4 w:v aqueous extracts. Not accredited for Chloride.

Chemist

Date

#### H19993 Basin Environmental

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any cleim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



ANALYTICAL RESULTS FOR BASIN ENVIRONMENTAL CONSULTING, LLC ATTN: CAMILLE BRYANT P.O. BOX 381 LOVINGTON, NM 88260 FAX TO: (575) 396-1429

Receiving Date: 05/28/10 Reporting Date: 06/01/10 Project Owner: BOPCO Project Name: DELAWARE B Project Location: EDDY CO., NM Sampling Date: 05/25/10 Sample Type: SOIL Sample Condition: COOL & INTACT @ -4 °C Sample Received By: JH Analyzed By: AB/ZL

		GRO	DRO	DRO ext.			ETHYL	TOTAL
LAB NO.	SAMPLE ID	(C <sub>6</sub> -C <sub>10</sub> )	(>C <sub>10</sub> -C <sub>28</sub> )	(>C <sub>28</sub> -C <sub>35</sub> )	BENZENE	TOLUENE	BENZENE	XYLENES
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)

ANALYSIS DATE:	05/28/10	05/28/10	05/28/10	05/28/10	05/28/10	05/28/10	05/28/10
H19993-2* SB-1 @ 5'	19.4	107	<10.0	<0.050	0.131	0.321	1.72
H19993-5 SB-1 @ 25'	<10.0	32.8	<10.0	<0.050	<0.050	<0.050	<0.300
H19993-7 SB-1 @ 40'	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
H19993-8 SB-1 @ 45'	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
		· · · · · · · · · · · · · · · · · · ·					
Quality Control	469	435	_	0.019	0.020	0.022	0.066
True Value QC	500	500	-	0.020	0.020	0.020	0.060
% Recovery	93.8	87.0	-	95.0	100	110	110
Relative Percent Difference	0.5	7.2	-	4.2	1.7	9.3	11.9

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES. Reported on wet weight. Not accredited for GRO/DRO/DRO ext. \*One or more TPH surrogates outside historical limits due to matrix interference.

ab Directói

#### H19993 TPHextBTEX BASIN

PLEASE NOTE: Llability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the porformance of services hercunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

#### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

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PLEASE NOTE: Lability and Damages. Cardina's lability and client's exclusive remedy for any claim enting whether based in contract or ton, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within 30 days after completion of the applicable completicable completion of the applicable completi

service. In no event shall cardinal be fable for incidental or consequental damages, including without Endation, business interruptions, boss of use, or loss of profits incurred by client, its subsidiaries, affidates or successors action out of or created in the antionance of subjects activities of use for any of the above stated restors or otherwise.

Relinguished By:		Received By:	Phone Resul	t: 🛛 Yes	🗇 No	Add'l Phone #:	
202 10000	5/28/10	-	Fax Result:	🗆 Yes	D No	Add'l Fax #:	
3000 lourne	Time: U.ZO		REMARKS:				
Relinquished By:	Bate 28/10	Received By:					
	19:20	Jode Minson					
Delivered By: (Circle One)	-	Sample Condition CHECKE	DBY:				
Sampler - UPS - Bus - @ther:	-40		华				

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26



October 25, 2011

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

**RE: DELAWARE B** 

Enclosed are the results of analyses for samples received by the laboratory on 10/19/11 15:30.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



#### Analytical Results For:

Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	10/19/2011	Sampling Date:	10/14/2011
Reported:	10/25/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

#### Sample ID: SAMPLE #1 (H102263-01)

TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3200	50.0	10/22/2011	ND	182	91.1	200	3.87	
DRO >C10-C28	7970	50.0	10/22/2011	ND	172	86.1	200	4.36	
EXT DRO >C28-C35	640	50.0	10/22/2011	ND					
Surrogate: 1-Chlorooctane	128 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	106 %	57.6-15	8						

#### Sample ID: SAMPLE #2 (H102263-02)

TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/22/2011	ND	182	91.1	200	3.87	
DRO >C10-C28	12.2	10.0	10/22/2011	ND	172	86.1	200	4.36	
EXT DRO >C28-C35	<10.0	10.0	10/22/2011	ND					
Surrogate: 1-Chlorooctane	94.7 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	101%	57.6-15	8						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



#### Analytical Results For:

Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	10/19/2011	Sampling Date:	10/14/2011
Reported:	10/25/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

#### Sample ID: SAMPLE #3 (H102263-03)

TPH 8015M Analyte	mg/kg		Analyzed By: AB						
	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	690	10.0	10/22/2011	ND	182	91.1	200	3.87	
DRO >C10-C28	1380	10.0	10/22/2011	ND	172	86.1	200	4.36	
EXT DRO >C28-C35	90.1	10.0	10/22/2011	ND					
Surrogate: 1-Chlorooctane	99.9 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	106 %	57.6-15	8						

#### Sample ID: SAMPLE #4 (H102263-04)

TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	BS % Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	239	10.0	10/22/2011	ND	182	91.1	200	3.87	
DRO >C10-C28	1600	10.0	10/22/2011	ND	172	86.1	200	4.36	
EXT DRO >C28-C35	116	10.0	10/22/2011	ND					
Surrogate: 1-Chlorooctane	102 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	93.0 9	% 57.6-15	8						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscover shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidential or consequential damages, including, without limitation, business interruptons, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### 101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476 Company Name: Busin Environmentel Service Technologies ICC BILL TO ANALYSIS REQUEST Project Manager: Ben 3 Arguijo P.O. #: Address: P.O. BOX 301 Company: BOPCO, LP 
 City:
 Louington
 State:
 NM
 Zip:
 88260

 Phone #:
 (575)
 396-2378
 Fax #:
 (575)
 396-1429
 Attn: Tony Saudie Address: 522 W. Mermod City: Carlsbad Project Owner: Bopco, LP Project #: belander. State: Nm Zip: 88220 Project Name: Phone #:(432)556-8730 Project Location: Sampler Name: Fax #: BTEX MATRIX PRESERV. SAMPLING FOR LAB USE ONLY ዮ ዮ ଦ(G)RAB OR (C)OMP 8015M GROUNDWATER WASTEWATER Hald for ACID/BASE: ICE / COOL Sample I.D. Lab I.D. OIL OTHER : OTHER SOIL 1102262 DATE TIME SAmple #1 Y 10/14/11 X 10:30 Y X 2 Sumple H2 3 Sample H3 4 Sample H4 10/14/11 ¥ 10:35 X X х Y Х х ý 10/14/11 10:4D 6 V 10/14/11 10:45 X ¥ X

PLEASE NOTE: Liability and Damages. Cardinata facility and client's exclusive remerty for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable

service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, lose of use, or loss of profits incurred by client, its subsidiaries, atfiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

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Time: TAs	
	email results to presentent the
	Loie @ Bass Pet. com
Delivered By: (Circle One) Sample Condition CHECKED BY:	
Sampler - UPS - Bus - Other: 2.5° Cool Intact (Initials)	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



November 06, 2011

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

**RE: DELAWARE B** 

Enclosed are the results of analyses for samples received by the laboratory on 10/20/11 16:20.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	10/20/2011	Sampling Date:	10/20/2011
Reported:	11/06/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SAMPLE 3A 10' BGS (H102279-01)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/02/2011	ND	2.23	112	2.00	1.14	
Toluene*	<0.050	0.050	11/02/2011	ND	2.17	109	2.00	2.23	
Ethylbenzene*	<0.050	0.050	11/02/2011	ND	2.12	106	2.00	2.41	
Total Xylenes*	<0.150	0.150	11/02/2011	ND	6.37	106	6.00	3.43	
Surrogate: 4-Bromofluorobenzene (PIL	87.7	% 64.4-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	11/06/2011	ND	464	116	400	3.51	
TPH 8015M	mg/	'kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10	<10.0	10.0	10/23/2011	ND	181	90.6	200	3.21	
DRO >C10-C28	36.6	10.0	10/23/2011	ND	167	83.5	200	3.42	
EXT DRO >C28-C35	<10.0	10.0	10/23/2011	ND					
Surrogate: 1-Chlorooctane	100 9	55.5-15	4						
Surrogate: 1-Chlorooctadecane	103 9	% 57.6-15	8						

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	10/20/2011	Sampling Date:	10/20/2011
Reported:	11/06/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SAMPLE 4A 6' BGS (H102279-02)

TPH 8015M	mg/kg		Analyze	Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/23/2011	ND	181	90.6	200	3.21	
DRO >C10-C28	<10.0	10.0	10/23/2011	ND	167	83.5	200	3.42	
EXT DRO >C28-C35	<10.0	10.0	10/23/2011	ND					
Surrogate: 1-Chlorooctane	92.8	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	104 9	% 57.6-15	8						

## Sample ID: TANK 5 SOUTH (H102279-03)

TPH 8015M	mg/	mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	10/23/2011	ND	181	90.6	200	3.21	
DRO >C10-C28	643	50.0	10/23/2011	ND	167	83.5	200	3.42	
EXT DRO >C28-C35	104	50.0	10/23/2011	ND					
Surrogate: 1-Chlorooctane	99.3 9	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	108 %	6 57.6-15	8						

#### **Cardinal Laboratories**

### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits includend by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This reproduced except in full with intern approach of Cardinal Laboratories.

Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	10/20/2011	Sampling Date:	10/20/2011
Reported:	11/06/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: TANK 4 SOUTH (H102279-04)

TPH 8015M	mg/kg		Analyzed By: AB					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1440	100	10/23/2011	ND	181	90.6	200	3.21	
DRO >C10-C28	19300	100	10/23/2011	ND	167	83.5	200	3.42	
EXT DRO >C28-C35	1510	100	10/23/2011	ND					
Surrogate: 1-Chlorooctane	172 9	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	95.3	% 57.6-15	8						

## Sample ID: TANK 3 SOUTH (H102279-05)

TPH 8015M	mg/	kg	Analyzed By: AB					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1920	100	10/23/2011	ND	181	90.6	200	3.21	
DRO >C10-C28	24600	100	10/23/2011	ND	167	83.5	200	3.42	
EXT DRO >C28-C35	2030	100	10/23/2011	ND					
Surrogate: 1-Chlorooctane	204 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	112 %	6 57.6-15	8						

#### Cardinal Laboratories

### \*=Accredited Analyte

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

**Cardinal Laboratories** 

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# 101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476 Company Name: Basin Environmental Service Technologies LLC BILL TO .et 1-. ANALYSIS REQUEST Project Manager: Ben J Arguijo P.O. #: Address: P.D. BOX 301 Company: BOPCO LP Louington State: MM Zip: 88260 Attn: Tony Savoie City: Phone #: (575) 396 - 2378 Fax #:(575) 396 - 1429 Address: 572 W. Mermod Project Owner: BoPCD LP City: Carlsbad Project #: Project Name: Delaware B State: NA1 Zip: 88220 Phone #:( 432) 556-8730 Project Location: FDDY NM. FOR BEEN Sampler Name: Jody Walters Fax #: MATRIX PRESERV. SAMPLING FOR LAB USE ONLY P (G)RAB OR (C)OMP. GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER: eloH BOISM Lab I.D. Sample I.D. ACID/BASE ICE / COOI OTHER 题 HID3219 DATE TIME  $\frac{\times}{\chi}$ ·1 Z Sample 3A 10'B65 x 10.20.11 ~ 10:00 Sample 44 6' BLS Tank 5 South Tunk \$4 South 6 Y X 10.20-11 10:30 ¥ X 10.20-11 Y 1:00 ج) Y 6 V. 1:10 χ K χ 10-20-11 Tank 3 South 6 X X ¥ 10-20-11 1:20

PLEASE NOTE: Lightly and Damages. Cardinal's liability and clienc's exclusive remony for any claim nating whome based in contrast or tort, shall be based to the amount paid by the dient for the analyses. All claim's including those for negligence and any other cause whatsoever shall be to deemed waived unless made in writing and received by Condinal within 30 days after completion of the applicable service. In weight shall Condinate be liable for incidential or consequential damages, including without limitation, business interruptions, licts out use, or loss of profits incurred by client. It is subsidiaries,

servee, in indeventional Contains be habit to indomnal of consequental ganages, including vithing initiation, using starting and the set of the interface of client, its substants and and the substants and and the substants and starting and the started to the performance of services heremule to Carrinal Foundates of whether such claims in a based to have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have a tradet services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to Carrinal Foundates of whether such claims to have the have stated to the performance of services heremule to th

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Delivered By: (Circle One)	A •• •• •.	Sample Condition CHECKED BY:	]				
Sampler - UPS - Bus - Other:		Cool Intact (Initials)					

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2



November 06, 2011

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

**RE: DELAWARE B** 

Enclosed are the results of analyses for samples received by the laboratory on 11/01/11 16:12.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	11/01/2011	Sampling Date:	10/31/2011
Reported:	11/06/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SAMPLE #5 (H102369-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	11/04/2011	ND	448	112	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2011	ND	162 81.1		200	2.02	
DRO >C10-C28	<10.0	10.0	11/05/2011	ND	169	84.6	200	5.33	
EXT DRO >C28-C35	DRO >C28-C35 <10.0 10.0		11/05/2011	ND					
Surrogate: 1-Chlorooctane	103	% 55.5-15	4						
urrogate: 1-Chlorooctadecane 123 %		% 57.6-15	8						

## Sample ID: TANK 2 NORTH (H102369-02)

TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2011	ND	162	81.1	200	2.02	
DRO >C10-C28	<10.0	10.0	11/05/2011	ND	169	84.6	200	5.33	
EXT DRO >C28-C35	<10.0	10.0	11/05/2011	ND					
Surrogate: 1-Chlorooctane	111	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	141	% 57.6-15	8						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service BEN J. ARGUIJO P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	11/01/2011	Sampling Date:	10/31/2011
Reported:	11/06/2011	Sampling Type:	Soil
Project Name:	DELAWARE B	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: TANK 4 NORTH (H102369-03)

TPH 8015M	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2011	ND	162	81.1	200	2.02	
DRO >C10-C28	<10.0	10.0	11/05/2011	ND	169	84.6	200	5.33	
EXT DRO >C28-C35	<10.0	10.0	11/05/2011	ND					
Surrogate: 1-Chlorooctane	111	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	130 % 57.6-		57.6-158						

## Sample ID: TANK 5 NORTH (H102369-04)

TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/05/2011	ND	162	81.1	200	2.02	
DRO >C10-C28	<10.0	10.0	11/05/2011	ND	169	84.6	200	5.33	
EXT DRO >C28-C35	<10.0	10.0	11/05/2011	ND	•				
Surrogate: 1-Chlorooctane		6 55.5-15	4					<u> </u>	
Surrogate: 1-Chlorooctadecane	134 %	6 57.6-15	8						

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below $6^{\circ}$ C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keene

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

#### 101 East Marland, Hobbs, NM 88240 (575) 393-2326 EAX (575) 393-2476

Company Name	ompany Name: Busin Environmental Services Techobsics LCC							100	BILL TO					ANALYSIS REQUEST											
Company Name	Dusin Environmental Service	es T	Tec	hold	5005	110	<b>.</b>				DI	66-1.U		; r	T	<b>—</b> ——	Т					51			
Project Manage	- Ben J. Arguijo								.0.																1
Address: Ť	0.Box 30/							C	Company: Bopco, LP												1			1	
City: Low	sington State: NTh	Zip	: 2	382	60			A	Attn: Tony Savo; e										1						
Phone #: (575) 396-2378 Fax #: 575-396-1429					A	ddr	ess	52	27. W.7	Mermod											1	l			
Project #: Project Owner: Bop <i>co, LP</i>					с	ity:	(	) ar	Isbad							Ì									
Project Name: Delaware 3					s	tate	: T	m	Zip: 882	20				ļ											
Project Location	Project Location: EDDY N.M.					Р	hon	ie #:	43	2.556-2	3730														
	Jody Walters							F	ax #	t:									l I						
FOR LAB USE ONLY			Γ		M	<b>NATE</b>	XIX		PI	RESE	ERV.	SAMPL	ING												
Lab I.D. H102349	Sample I.D.	(G)RAB OR (C)OM	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE OTHER -	ACID/BASE	ICE / COOL	OTHER :	DATE	TIME	BOISTH	Chlocide										
i	SAMPLE #5	G	۱			Υ				Y		1031-11	8:00	Х	X										
2	Tank Z North	G	١			γ				i X		10-31-11		×											
3	Tanky North	6	1			X				'¥		10.31-11	8:10	X											
	Tank 5 North	6	1	<b> </b>		X	_		_	X		10-31-11	8:15	<u> </u>											
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PLEASE NOTE: Liability and Danuiges. Cardina's liability and client's exclusive remedy for any claim arising whether based in contract or torf, shall be limited to the anoximit paid by the client for the analyses. All claims including those for negligence and any other cause whatloever shall be decimed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. An one event shall contain the liability or conservent diamages including whetling the limited or tigs. If and the applicable service are no event shall contain the liability or conservent diamages including whetling the limited or tigs.

service/ In no event shall Certifinal be liable for incidental ar consequential damages, including without limitation, business Interruptions, loss of use, or loss of profits incurred by client, its subclikaties, affiliates of successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the abave stated reasons or otherwise.

Relinquished By: Relinquished By:	Date: I-01-1) Time: Date: Time: Time: Received By: Time:	A Fe	hone Result: ax Result: REMARKS:	□ Yes □ Yes	□ No □ No	Add'l Phone #: Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool_Intact S_4Ves 4NoNo	CHECKED BY:	ويوري ويوري ويوري			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476