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# REMEDIATION SUMMARY & SITE CLOSURE REQUEST

#### BOPCO, LP BASS 3 FEDERAL BATTERY #1

Eddy County, New Mexico Unit Letter "P" (NE/SE), Section 3, Township 22 South, Range 28 East Latitude 32.415370° North, Longitude 104.06990° West

2RP- 996

2RP-997

2 RP- 1102

BOPCO, LP

Prepared For:

2RP-1103

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

Prepared By:

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

August 2013

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JAN 2 3 2014

NMOCD ARTESIA

Ben J. Arguijo Project Manager

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#### 1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as Bass 3 Federal Battery #1. The legal description of the release site is Unit Letter "P" (SE/SE), Section 3, Township 22 South, Range 28 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.415370° North latitude and 104.06990° West longitude. The property affected by the release is owned by the United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On January 3, 2012, BOPCO discovered a release (Release #1) had occurred at Bass 3 Federal Battery #1. A hole in the bottom of an on-site production tank resulted in a release of crude oil. The release was confined to the earthen containment area surrounding the tank battery.

The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office on January 4, 2012. The "Release Notification and Corrective Action" (Form C-141) indicated approximately twenty barrels (20 bbls) of crude oil were release. During initial response activities, a vacuum truck was utilized to recover approximately five barrels (5 bbls) of crude oil. The release affected an area inside the earthen containment berm measuring approximately two thousand, four hundred and thirty square feet (2,430 ft²) and commingled with an area impacted by a series of historical releases of crude oil and produced water.

On January 11, 2012, BOPCO discovered a second release (Release #2) had occurred at Bass 3 Federal Battery #1. A two-inch (2") pipeline from the heater treater to the on-site storage tanks developed a leak, resulting in a release of crude oil and produced water. The leak was attributed to external corrosion. The release was confined to the earthen containment area surrounding the tank battery.

The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately sixty-five barrels (65 bbls) of produced water and less than five barrels (<5 bbls) of crude oil were released. During initial response activities, a vacuum truck was utilized to recover approximately sixty barrels (60 bbls) of produced water and approximately two barrels (2 bbls) of crude oil. The release affected an area inside the earthen containment berm measuring approximately two thousand square feet (2,000 ft<sup>2</sup>) and commingled with the area impacted by Release #1.

On March 27, 2012, BOPCO discovered a third release (Release #3) had occurred at Bass 3 Federal Battery #1. Two (2) loads of produced water were unloaded into the on-site produced water tank without prior approval from BOPCO. The water transfer pump malfunctioned and failed to discharge the excess water into a nearby salt water disposal system. The excess water, combined with the nightly crude oil and water production to the facility, caused an on-site storage tank to overflow, resulting in a release of crude oil.

The release was reported to the NMOCD Artesia District Office on April 9, 2012. The Form C-141 indicated approximately fifteen barrels (15 bbls) of crude oil were released. The release impacted the area affected by Release #1 and Release #2, for which remediation activities had been completed on March 7, 2012.

On April 3, 2012, BOPCO discovered a fourth release (Release #4) had occurred at Bass 3 Federal Battery #1. A three-quarter-inch (3/4") air eliminator on the water transfer pump broke in half due to a manufacturing defect, resulting in a release of produced water. The majority of the release was confined to the impermeable polyurethane containment area surrounding the tank battery, which had been installed at the site just prior to the release.

The release was reported to the NMOCD Artesia District Office on April 9, 2012. The Form C-141 indicated approximately two hundred and eighty-five barrels (285 bbls) of produced water were released. During initial response activities, the faulty air eliminator was replaced, and a vacuum truck was utilized to recover approximately two hundred and eighty barrels (280 bbls) of produced water.

The four (4) releases were remediated concurrently. The Forms C-141 are provided as Appendix A. General photographs of the release site(s) are provided as 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 3, Township 22 South, Range 28 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred and fifteen feet (115') to one hundred and twenty feet (120') below ground surface (bgs). Gauging data collected from a nearby monitor well indicates the depth to groundwater is approximately one hundred and nine feet (109') 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') 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 Bass 3 Federal Battery #1 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, ethylbenzene, toluene, 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

Following initial response activities, from January 16 through January 17, 2012, three (3) soil borings (SB-1, SB-2, and SB-3) were advanced inside the earthen containment area surrounding the Bass 3 Federal Battery #1 in order to investigate the vertical extent of soil impacted by Release #1 and Release #2. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a Photo-Ionization Detector (PID) and/or chloride test kit. Selected soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of BTEX, TPH, and/or chloride concentrations in accordance with Environmental Protection Agency (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. Soil boring logs are provided as Appendix C. Laboratory analytical reports are provided as Appendix D.

Soil boring SB-1 was located to the east of the two (2) on-site crude oil storage tanks. The soil boring was advanced to a total depth of approximately sixty feet (60') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), thirty feet (30'), forty feet (40'), fifty-five feet (55'), and sixty feet (60') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory method detection limit (MDL) in all submitted soil samples. TPH concentrations ranged from 35.4 mg/kg in soil sample SB-1 @ 60' to 3,008 mg/kg in soil sample SB-1 @ 5'. Chloride concentrations ranged from 16.0 mg/kg in soil sample SB-1 @ 60' to 1,540 mg/kg in soil sample SB-1 @ 20'.

Soil boring SB-2 was located near the on-site water transfer pump. The soil boring was advanced to a total depth of approximately one hundred feet (100') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), fifty feet (50'), seventy-five feet (75'), ninety-five feet (95'), and one hundred feet (100') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations were less than the laboratory MDL in all submitted soil samples, with the exception of soil sample SB-2 @ 100', which exhibited a TPH concentration of 11.9 mg/kg. Chloride concentrations ranged from 48.0 mg/kg in soil sample SB-2 @ 95' to 2,360 mg/kg in soil sample SB-2 @ 50'.

Soil boring SB-3 was located midway between the heater treater and the westernmost produced water tank. The soil boring was advanced to a total depth of approximately forty-five feet (45') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), 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 indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations were less than the laboratory MDL in all submitted soil samples, with the exception of soil sample SB-3 @ 5', which exhibited a TPH concentration of 40.9 mg/kg. Chloride concentrations ranged from 64.0 mg/kg in soil sample SB-3 @ 45' to 1,840 mg/kg in soil sample SB-3 @ 10'.

On February 21, 2012, excavation of soil impacted by Release #1 and Release #2 commenced at the site. A chloride field test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From February 21 through March 2, 2012, excavated soil was stockpiled on-site, pending final disposition. To preserve the structural integrity of the on-site storage tanks, the excavation was limited to a depth of six inches (6") to one foot (1') bgs. The boundaries of the excavation are depicted in Figure 2 as "Excavation 1".

From March 1 through March 2, 2012, approximately two hundred and sixty cubic yards (260 yd<sup>3</sup>) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On March 5, 2012, six (6) soil samples (Sample #1 through Sample #6) were collected from the floor of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 158 mg/kg in Sample #4 to 26,130 mg/kg in Sample #3. Chloride concentrations ranged from 2,440 mg/kg in Sample #1 to 11,100 mg/kg in Sample #6. Soil sample locations are depicted in Figure 2.

Based on laboratory analytical results and field-screens, from March 5 through March 7, 2012, Excavation #1 was backfilled with non-impacted material, water-packed, and contoured to fit the surrounding grade.

On March 27, 2012, immediately following discovery of Release #3, Basin Environmental was dispatched to the location to begin excavation of the impacted soil. From March 27 through March 30, 2012, approximately two hundred and ten cubic yards (210 yd<sup>3</sup>) of visibly stained, heavily impacted soil was excavated and transported to Lea Land, Inc., for disposal. The boundaries of the excavation are depicted in Figure 2 as "Excavation 2".

On March 29, 2012, four (4) soil samples (Sample #1 through Sample #4) were collected from the floor of the excavation and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations ranged from 74.6 mg/kg in Sample #2 to 621 mg/kg in Sample #1.

From March 29 through March 30, 2012, Excavation #2 was backfilled with non-impacted material, water-packed, and contoured to fit the surrounding grade.

Immediately following remediation activities, a new, steel-walled containment area was constructed around Bass 3 Federal Battery #1 to mitigate future releases. 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. The steel perimeter walls extend approximately two feet (2') above ground surface.

On April 16, 2012, excavation of Release #4 commenced. A chloride field test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From April 16 through April 17, 2012, approximately one hundred and eight cubic yards (108 yd³) of impacted soil was excavated and transported to Lea Land, Inc., for disposal. The boundaries of the excavation are depicted in Figure 2 as "Excavation 3".

On April 17, 2012, five (5) soil samples (Sample #1 through Sample #5) were collected from the floor of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 288 mg/kg in Sample #5 to 656 mg/kg in Sample #1. Soil sample locations are depicted in Figure 2.

Based on field-screens, from April 17 through April 18, 2012, Excavation #3 was backfilled with non-impacted material, water-packed, and contoured to fit the surrounding grade.

#### 4.0 QA/QC PROCEDURES

#### 4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories, Inc., in Hobbs, New Mexico, for 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 EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 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

The Bass 3 Federal Battery #1 releases were excavated to the extent practicable. During the course of remediation activities, a steel-walled containment area was constructed around the tank battery, and the floor and perimeter walls were coated with a spray-on polyurethane liner. This engineered control will help mitigate future releases and effectively inhibit vertical migration of contaminants to groundwater. In-situ soil exhibiting chloride and/or TPH contamination above the regulatory remediation action levels established for the site will be remediated upon decommission and/or abandonment of the currently active tank battery.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office and BLM a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure to the Bass 3 Federal Battery #1 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 Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental 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, NM 88210

Copy 2: James Amos

Bureau of Land Management

602 E. Greene Street Carlsbad, NM 88220

Copy 3: Tony Savoie

BOPCO, LP

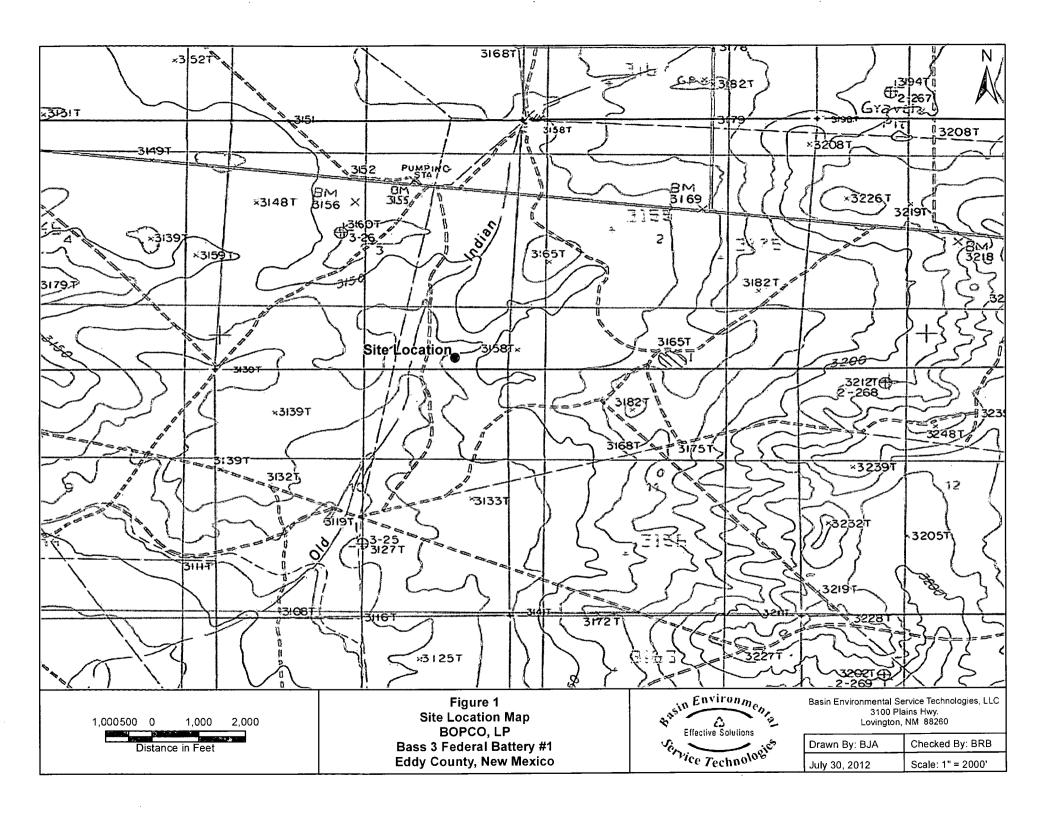
522 W. Mermod, Suite 704 Carlsbad, NM 88220

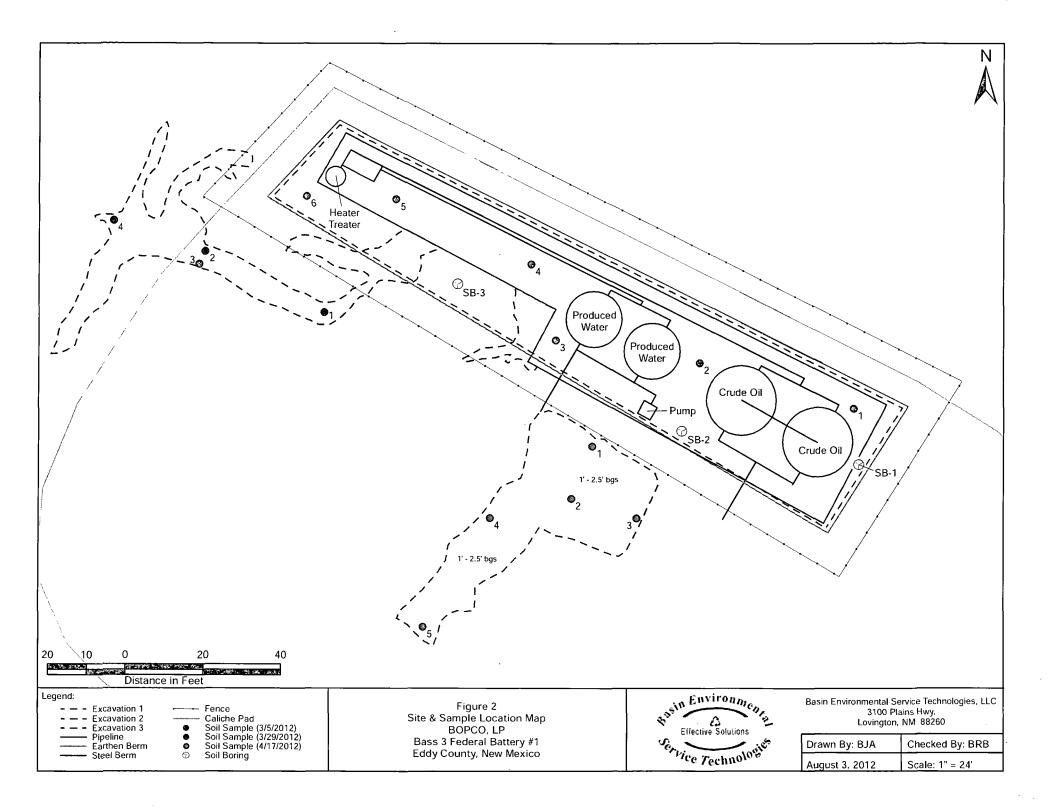
Copy 4: Basin Environmental Service Technologies, LLC

P.O. Box 301

Lovington, NM 88260

**Figures** 





**Tables** 

#### TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### BOPCO, LP BASS 3 FEDERAL BATTERY #1 EDDY COUNTY, NEW MEXICO

	CAMBLE				METHOD: ER	PA SW 846-80	21B. 5030	ME.	THOD: 801	5M	TOTAL	E 300	
SAMPLE	SAMPLE	SAMPLE	SOIL			ETHYL-	TOTAL	TOTAL	GRO	DRO	ORO	TPH	
LOCATION	DEPTH	DATE	STATUS	BENZENE	TOLUENE	BENZENE	XYLENES	BTEX	C <sub>6</sub> -C <sub>12</sub>	C <sub>12</sub> -C <sub>28</sub>	C <sub>28</sub> -C <sub>35</sub>	C <sub>6</sub> -C <sub>35</sub>	CHLORIDE
LOOKHON	(BGS)	DAIL	317103	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
SB-1 @ 5'	5'	1/16/2012	In-Situ		-	(mg/ng/	(9/1.9/	(9,1.9)	394	2,300	314	3,008	
SB-1 @ 10'	10'	1/16/2012	In-Situ	. <u> </u>	<u> </u>		<del>-</del>	-	<10.0	79.5	33.8	113	
SB-1 @ 10	20'	1/16/2012		<del></del> -	-	-	•	<u> </u>	207	1,660	275	2,142	1,540
	30'		In-Situ				<0.150	<0.150	<10.0	105	24.1	129	1,540
SB-1 @ 30'		1/16/2012	In-Situ	<0.050	<0.050	<0.050		<del> </del>		721			- 100
SB-1 @ 40'	40'	1/16/2012	In-Situ	-	-	-	-	-	55.5		109	886	400
SB-1 @ 55'	55'	1/16/2012	In-Situ		-	-	-	-		-	-		32.0
SB-1 @ 60'	60'	1/16/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	16.2	19.2	35.4	16.0
00.0051		4/47/0040	1 0'						400	40.0	40.0	40.0	
SB-2 @ 5'	5'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<del></del>
SB-2 @ 10'	10'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	
SB-2 @ 20'	20'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	718
SB-2 @ 50'	50'	1/17/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,360
SB-2 @ 75'	75'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,390
SB-2 @ 95'	95'	1/17/2012	In-Situ		-		-		<u> </u>	-	-	-	48.0
SB-2 @ 100'	100'	1/17/2012	In-Situ	<0.050	<0.050	< 0.050	<0.150	<0.150	<10.0	11.9	<10.0	11.9	112
								<u> </u>					
SB-3 @ 5'	5'	1/17/2012	In-Situ	•	-	-	-	-	<10.0	40.9	<10.0	40.9	-
SB-3 @ 10'	10'	1/17/2012	In-Situ	-	•	•	-	-	<10.0	<10.0	<10.0	<10.0	1,840
SB-3 @ 25'	25'	1/17/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	192
SB-3 @ 40'	40'	1/17/2012	In-Situ	-	-	-	-	-	-	-	-	-	224
SB-3 @ 45'	45'	1/17/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	64.0
Sample #1	0.5'	3/5/2012	In-Situ	-	-	-	-	-	1,100	7,180	1,140	9,420	2,440
Sample #2	0.5'	3/5/2012	In-Situ	•	-	-	-	-	3,920	11,000	1,820	16,740	2,680
Sample #3	0.5'	3/5/2012	In-Situ	-	-	-	-	-	5,360	18,300	2,470	26,130	4,240
Sample #4	0.5'	3/5/2012	In-Situ	-	-	-	-	-	<10.0	116	41.5	158	4,160
Sample #5	0.5'	3/5/2012	In-Situ	-	-	-	-	-	2,530	17,700	1,910	22,140	5,440
Sample #6	0.5'	3/5/2012	In-Situ	-	-	-	_	<u> </u>	644	12,500	1,900	15,044	11,100
22								<u> </u>		, , , , , , , ,	<u> </u>	, , , , , , , , , , , , , , , , , , , ,	,
Sample #1	1.5'	3/29/2012	In-Situ	-	_	-	-	-	106	470	44.8	621	-
Sample #2	1.5'	3/29/2012	In-Situ	_		-	-		<10.0	58.9	15.7	74.6	-
Sample #3	1.5'	3/29/2012	In-Situ						<10.0	201	64.3	265	-
Sample #4	1.5'	3/29/2012	In-Situ	_	-			_	61.8	460	37.5	559	
Campic #T	1.5	5,25,2012	in-Onu			-		<u> </u>	01.0	100	<del>                                     </del>	- 000	
Sample #1	2.5'	4/17/2012	In-Situ				_	_	_	-	-	-	656
Sample #2	2.5'	4/17/2012	In-Situ		_			_			<del></del>		464
Sample #3	2.5'	4/17/2012	In-Situ					_		-	<del></del>	_	576
Sample #4	2.5'	4/17/2012	In-Situ In-Situ	-		-		-	_	<u>-</u>	<del>                                     </del>	-	480
Sample #5	2.5'	4/17/2012	In-Situ	<u> </u>			<u> </u>	<del></del>	-	-	-	-	288
Sample #3	2.0	4/11/2012	สา-อแน			-	-	-	<u> </u>	-	<del></del>		200
NMOCD Criteria				10				50				5,000	1,000

- = Not analyzed.

**Appendices** 

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

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

#### State of New Mexico **Energy Minerals and Natural Resources**

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

Form C-141 Revised October 10, 2003

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

30-015	- 253	30	Rele	ase Notific	ation	and Co	rrective A	ctio	1						
nMLB/2	033375	597				OPERA?	ror			al Report		Final Report			
Name of Co			BEP			Contact Tor									
		<del></del>		ad, N.M. 88220		Telephone No. 432-556-8730 Facility Type: E&P									
Facility Nar			tiery #1				e: E&P								
Surface Ow	ner Federa	ı <u>l</u>		Mineral O	wner F	r Federal Lease No. LC-060853A									
				LOCA	TION	OF RE	LEASE								
Unit Letter P	Section 3	Township 22S	Range 28E	Feet from the 230	North/S South	South Line	Feet from the 1090	East/ East	West Line	County Eddy					
	<u> </u>		L	atitude_N 32.4	15370_	Longitu	de W 104.0699	0_							
,	Type of Release: Crude oil Volume of Release: 20 Bbls of Volume Recovered: 5 bbls														
Type of Rele	ase: Crude	oil				Volume of Crude oil	Release: 20 Bbls	s of	Volume I	Recovered: 5	bbls				
Source of Re	lease: Oil p	· <del></del>	<del></del>	lour of Occurrence	e	Date and	Hour of Dis	covery							
	<u> </u>	2: 0		<del></del>			e unknown		1/3/12 2:0	00 p.m.					
Was Immedi	ate Notice (		Yes [	No Not Re	equired	If YES, To NMOC en	Whom? nergency #104								
By Whom? 7							lour 1/4/12 2:37 p								
Was a Water	course Kead	cnea?	Yes 🗵	] No		If YES, Volume Impacting the Watercourse.  RECEIVED									
If a Watercourse was Impacted, Describe Fully.*  JAN 17 2012															
										JAN	- (	.012			
										NMOC	D AR	TESIA			
Describe Cau	ise of Probl	em and Reme	dial Actio	n Taken.* A hole	was disc	covered in th	e bottom of the so	uth oil	production	tank. The ta	nk was t	aken out of			
				ed, repaired and c								,			
Describe Are	a Affected	and Cleanup A	Action Tal	cen.*The crude oil	l was cor	ntained insid	e the earthen cont	ainmer	nt. A vacuur	n truck reco	vered ap	proximately			
5 bbls of crue	de oil, the re	emainder of th	e spill soa	iked into the grour	nd. The t	total area aff	ected by this relea	ise mea	sured appro	ximately 24	30 sq. ft	. During the			
An air rotary	rig is scheo	duled that were	2 to try ar	de the containmen and define the horiz	it that we zontal an	ere obviously id vertical ex	mpacted from parties that the parties of the release	revious	releases of	crude oil an	d produ	ced water.			
The Site rem	ediation for	the produced	water and	crude oil spill wi	II follow	the NMOC	D guidelines for le	eaks an	d spills.		- <u></u>				
regulations a	ify that the i	information gi are required t	ven above o report ai	is true and comp nd/or file certain re	lete to th elease no	ne best of my	knowledge and u	indersta	and that pur:	suant to NM eases which	OCD ru may en	lles and danger			
public health	or the envi	ronment. The	acceptane	ce of a C-141 repo	ort by the	NMOCD m	arked as "Final R	eport"	does not rel	ieve the ope	rator of	liability			
should their of	operations h	nave failed to a	adequately OCD accer	investigate and reptance of a C-141	emediate	e contaminat	ion that pose a thr	eat to	ground wate	r, surface w	ater, hur	nan health			
		ws and/or regu						гезроп		omphanee v	vitti atiy	Offici			
			$\sim$		ĺ		OIL CON	SER	VATION	DIVISIO	<u> NC</u>				
Signature:	10	ne S.	auw			Annroved by	District & upgrvis	al t	a Kana	P. J. 1150					
Printed Name	e: Tony Sav	/ole				прриочес ву	Signed usy 1 1 2	<b>(7)</b>	r KINGE	MICEL	-				
Title: Waste	Mgmt.& Ro	emediation Sp	ecialist			Approval Date: B 0 2 2012 Expiration Date:									
E-mail Addre	ess: TASave	oie@BassPet.	com			Conditions of Approval:									
Date: 1/9/12			n	hone:432-556-873	30 Remediation per OCD Rules & Attached					· L.					
Attach Addi	tional She	ets If Necess		10HC.432-330-8/2	G	uidelines.	SUBMIT REMI	FDIA	ION		<u> </u>				
			J		P	PROPOSAL NOT LATER THAN:					16				
					•	3/	2/2012		-		ť				

<u>District I</u> 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

Revised October 10, 2003

Form C-141

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

30-015	Release Notification and Corrective Action											
nMLB/20				7_1		<b>OPERA</b>				al Report		
Name of Co				801 BEPCO		Contact Ton	<del>*</del>	0	_			
		Federal Bat		ad, N.M. 88220		elephone racility Typ	No. 432-556-873	0				
							C. Leci					
Surface Ow	ner Federa	1		Mineral C	wner Fe	ederal			Lease N	No. LC-060853A		
				LOCA		OF REI	LEASE					
Unit Letter P	Section 3	Township 22S	Range 28E	Feet from the 230	North/S South	I			West Line	County Eddy		
	Latitude_N 32.415370 Longitude W 104.06990_											
CD CD I	NATURE OF RELEASE  Type of Release: Crude oil and produced water  Volume of Release: 65 bbls of Volume Recovered: 60 bbls of produced											
					l	vater and less than			Recovered: 60 bbls of produced 12 bbls crude oil			
			ater to the	production tanks			lour of Occurrence ne unknown	е	Date and 1/11/12 9	Hour of Discovery 0:00 a.m.		
Was Immedi	Was Immediate Notice Given?  ☐ Yes ☐ No ☐ Not Required  If YES, To Whom?  NMOC emergency #104											
By Whom? Tony Savoie Date and Hour 1/11/12 11:13 a.m.												
Was a Water	course Read		5	7		If YES, Vo	olume Impacting the	he Wa	tercourse.			
	☐ Yes ☒ No  If a Watercourse was Impacted, Describe Fully.*											
		pacted, Descri	·							JAN 17 2012 NMOCD ARTESIA		
				n Taken.* A 2" listed piece of pipe.	ne going	from the hea	ater treater to the t	anks le	aked due to	external corrosion. A		
tank battery	location. A	vacuum truck	picked up	all of the free sta	inding flu	id. Vertical	kimately 2000 sq. and horizontal ext D guidelines for le	ent wi	ll be determ	earthen containment around the ined on 1/13/11.		
I hereby cert regulations a public health should their o or the enviro	ify that the i if operators or the environments operations homent. In a	information gi are required to ronment. The ave failed to a	ven above o report an acceptant adequately OCD accep	e is true and comp nd/or file certain r ce of a C-141 report investigate and r	olete to the elease no ort by the emediate	e best of my otifications a NMOCD m contamination	knowledge and used the perform correct that has "Final Reform that pose a three thre	ndersta tive ac eport" eat to a	and that purtions for rel does not relectound wate	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health compliance with any other		
							OIL CONS	SER	VATION	DIVISION		
Signature: Printed Name	Printed Name: Tony Savoie  Approved by Distrigue Supproved By Distri											
Title: Waste	Mgmt.& Re	emediation Sp	ecialist		1	Approval Da	ÉEB 08 26	112	Expiration	Date:		
Date: 1/13/12	2	oic@BassPet.c		Phone:432-556-8		Pamediation per OCD Rules &				Attached		
* Attach Addi	ttach Additional Sheets If Necessary  Guidelines. SUBMIT REMEDIATION  PROPOSAL NOT LATER THAN:  3/8/12  2/67-997											

District 1
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 RECEIVED
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Form C-141 Revised October 10, 2003

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NMOCD ARTESIA with Rule 116 on back
side of form

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

nMLB/2/	15387	12				<b>OPERA</b>	ГOR			l Report		Final Report	
Name of Co	mpany BC	PCO, L.P.		26073		Contact Tor							
				ad, N.M. 88220			No. 432-556-873	30					
Facility Nan	ne: Bass 3	Federal Ba	ttery #1	-		Facility Typ	e: E&P						
Surface Own	ner Federa	ıl		Mineral O	wner F	ederal			Lease No. LC-060853A				
				LOCA	TIOI	N OF RE	LEASE		30-015-25330				
Unit Letter P	Section 3	Township 22S	Range 28E	Feet from the 230	North/ South	South Line	Feet from the 1090	East/V East	Vest Line	County Eddy			
			1	otitudo N 33 4	15270	Longitu	J- W 104 0600						
			ı	Latitude_N 32.4 NAT	_	OF REL		<b>u</b> _					
Type of Relea	se: Crude (	oil		NAI	UKE		Release: 15 bbls	crude	Volume R	Recovered: 5	hhlee	rude oil	
						oil	Reicase. 15 0013	ciude	Volume 1		0013 0	iude on	
Source of Rel	ease: Produ	action Tank				1	lour of Occurrence ne unknown	c	Date and 3/27/12 8	Hour of Dis	covery		
Was Immedia	te Notice C					If YES, To			3/2//120	.50 u.m.			
			Yes [	No ⊠ Not Re	quired								
By Whom?						Date and F							
Was a Watero	course Reac		Yes 🗵	] No		If YES, Vo	olume Impacting t	he Wate	ercourse.				
If a Watercourse was Impacted, Describe Fully.*													
If a materiodise was impacted, Describe I diff.													
				n Taken.* Two lo									
through the n			ip would ii	ave normally pum	ipea the	water to a 5	WD failed to pum	р ргоре	riy and the	daliy oli/wai	er prod	luction	
Decaribe Ara	o Affected	and Cleanup	Action Tal	ken.*The area arou	und the	toples and nee	ann una had na	tl., b.,		d and hard	11	th alon soil	
in response to	2 previous	s spills at the	facility. Th	ne impacted soil w	as remo	ved, the area	s re-sampled and	backfill	en excavate ed with clea	an soil. A cle	mea wi osure re	port will be	
submitted wit	th the data t	from the previ	ious remed	diation.			-					1	
I hereby certi	fy that the i	information g are required t	iven above o renort a	e is true and compl nd/or file certain re	lete to ti elease n	he best of my	knowledge and u	ndersta	nd that purs	suant to NM	OCD ru	iles and	
public health	or the envi	ronment. The	acceptan	ce of a C-141 repo	rt by the	e NMOCD m	arked as "Final R	eport" c	loes not reli	ieve the oper	rator of	liability	
should their o	perations h	ave failed to	adequately	y investigate and re	emediat	e contaminat	ion that pose a thr	eat to g	round water	r, surface wa	iter, hui	man health	
federal, state,	nment. In a or local lav	iddition, NMC ws and/or regi	ocio accepulations.	ptance of a C-141	report d	oes not reliev	e the operator of	respons	ibility for c	ompliance v	≀ith any	other	
, , , , , , , , , , , , , , , , , , , ,							OIL CON	SERV	ATION	DIVISIO	N		
Signature:	1 00	90	_						/ ,				
Dignature.	- 7	Zau		<del></del>		Approved by	District duby vis	11/4	Beson	all De_	_		
Printed Name	: Tony Sav	oie									<u> </u>		
Title: Waste I	Mgmt.& Re	emediation Sp	ecialist	<del></del>		Approval Da	APR 2 4 20°	12	Expiration	Date:			
E-mail Addre	ess: TASavo	oie@BassPet.	com			Conditions o	f Approval:				_		
						namodi	ation per OCD	Rules	&	Attached			
Date: 4/9/12	lianal Ch-	oto If Massa		none:432-556-873	Guidelines, SUBMIT REMEDIATION								
Attach Addit	nonai She	cts II inecess	sai y							1103			
					5/24/2012 211 11-1					,,			

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

RECEIVED	Form C-141
ADR 11 2012	evised October 10, 2003
Submit 2	Copics to appropriate Office in accordance
NMOCD ARTESTA	ith Rule 116 on back side of form

**Release Notification and Corrective Action** 260237 OPERATOR ☐ Final Report ☐ Initial Report

AMLB (211	5.3573	0		2607	37	OPERA?	ГOR		🛛 Initia	al Report		Final Report		
Name of Co	mpany BO	PCO, L.P.			(	Contact Tony Savoie								
				ad, N.M. 88220	-	Telephone 1		5-8730						
Facility Nar	ne: Bass 3	Federal Ba	ttery #1		]_]	Facility Typ	e: E&P							
Surface Ow	ner Federa	ıl ·	·;	Mineral O	wner F	ederal			Lease N	Lease No. LC-060853A				
				LOCA	TION	OF REI	LEASE		30-	015-	25	330		
Unit Letter P	Section 3	Township 22S	Range 28E	Feet from the 230		South Line	Feet from 1090	the Ea	st/West Line	County Eddy				
			L	_atitude_N 32.4	15370_	Longitu	de W 104.	06990_		•				
	NATURE OF RELEASE													
Type of Relea	ase: Produc	ed water				produced v			Volume F water	Recovered: 2	80 bbl	s produced		
Source of Rel	lease: Air el	iminator on th	ne water tr	ansfer pump.		Date and H 4/3/12 time	lour of Occu	rrence	Date and 4/3/12 9:0	Hour of Dis 00 a.m.	covery			
Was Immedia	nte Notice C		Yes [	No Not Re	quired	If YES, To	Whom?	Noti	14/3/129:0 1ficotion / Jume exi 19.15.29	REQUI cædins	RED 25	66/5		
By Whom?					-					NMAC	/ccs	2665		
Was a Watero	course Reac		Yes ⊠	No		If YES, Volume Impacting the Watercourse.								
If a Watercourse was Impacted, Describe Fully.*														
			•											
										1 % 4				
Describe Cau part was repla		em and Remed	lial Action	Taken.* A ¾" ai	ir elimin	nator on the v	vater transfer	bamb pu	oke in half due	to a manuf	acture	defect. The		
Describe Area	Affected a	ınd Cleanup A	ction Tak	en.*The tank batte	ry locat	ion had just	recently beer	retro-fit	ted with a 0-pe	rm polyurea	contai	inment, most		
of the released was released or remediated in	outside of th	ne containmen	t area on t	ent area and was re the caliche pad are	covered a aroun	l with a vacui d the tank ba	um truck and ttery. The im	pumped pacted ca	back into the taliche will be re	ank. A smal emoved and	l amou the are	nt of water ea will be		
I hereby certif	fy that the in	formation give	en above	is true and comple	ete to the	e best of my	knowledge a	nd under	stand that purs	uant to NMO	CD n	iles and		
regulations all	operators a	ire required to	report an	d/or file certain re	lease no	tifications an	d perform co	orrective	actions for rele	ases which	may en	ndanger		
should their or	or the envir- nerations ha	onment. I ne :	acceptance dequately	e of a C-141 repor investigate and re	t by the mediate	NMOCD ma	arked as "Fin	al Report	t" does not reli	eve the oper	ator of	liability man health		
or the environ	ment. In ac	ldition, NMO	CD accept	tance of a C-141 re	eport do	es not relieve	the operato	r of respo	onsibility for co	mpliance wa	ith any	other		
federal, state,	or local law	s and/or regu	lations.	· · · ·	<del></del>		·	-						
		`					OIL CO	<u> DNSEF</u>	RVATION	<u>DIVISIO</u>	N			
Signature: _	100	4 200	<i>∽</i>		A	approved by l	District Subs	en istri	, :/					
Printed Name:	Tony Savo	) nie				Approved by District Supervisor? Signed By Milly Brances								
		<u> </u>	•		ADD 2 4 2012									
Title: Waste M	1gmt.& Rer	nediation Spe	cialist		Approval Date APR 2 4 2012 Expiration Date:									
E-mail Addres	s: TASavoi	ie@BassPet.co	om		c	onditions of								
D						Remediat	ion per OC	D Rule	s &	Attached				
Date: 4/9/12 Attach Additi	onal Shee	ts If Necessa		one:432-556-8730	) Gui	idelines. <b>Sl</b>	JBMIT RE	MEDIAT	ION _					

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 ECEIVED

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

JAN 23 2014

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 BOPCO, LP 260737	Contact To	ony Savoie									
Address 522 W. Mermod, Suite 704, Carlsbad, NM 88220		No. (432)556-8	730								
Facility Name Bass 3 Federal Battery #1				<u>.</u>							
			API		015-20330						
Surface Owner Federal Mineral Own	ner Federal	r Federal Lease No. <del>LC 060853A</del>									
LOCAT	ION OF RE										
Unit Letter Section Township Range Feet from the N 22S 28E 230	orth/South Line South	Feet from the 1090	East/West Line East	County Eddy							
<u>Latitude 32.415370° N</u>	lorth	Longitude 10	04.06990° West								
	RE OF REL										
Type of Release Crude oil	Volume of crude oil	Release 20 bbls	of Volume	Recovered	5 bbls						
Source of Release Oil production tank #113678		lour of Occurrence ne unknown	Date and 1/3/12 2:	Hour of Dis 00 p.m.	covery						
Was Immediate Notice Given?  X Yes No Not Required	If YES, To NMOCD I	Whom? Emergency #104		•							
By Whom? Tony Savoie	Date and I	Hour 1/4/12 2:37	n m								
Was a Watercourse Reached?		olume Impacting t									
☐ Yes X No											
If a Watercourse was Impacted, Describe Fully.*											
D	. 4 4	1.4. 64	4 1		1						
Describe Cause of Problem and Remedial Action Taken:* A hole was		e bottom or the s	outh oil production	i tank. The ta	ank was taken out of						
service the day of discovery. The tank was cleaned, repaired, and coa Describe Area Affected and Cleanup Action Taken.* The crud		ned incide the	arthan containma	nt A vacuu	um truck recovered						
approximately 5 bbls of crude oil. The release affected an area measurements											
areas inside the containment that were obviously impacted from prev											
releases were remediated as per NMOCD recommended guideline											
Request for remediation details.				•							
I hereby certify that the information given above is true and compl	ete to the best of	my knowledge a	nd understand that	pursuant to	NMOCD rules and						
regulations all operators are required to report and/or file certain re											
public health or the environment. The acceptance of a C-141 report											
should their operations have failed to adequately investigate and ren											
or the environment. In addition, NMOCD acceptance of a C-141	report does not r	elieve the operato	or of responsibility	for compli	ance with any other						
federal, state, or local laws and/or regulations.		OH COM	OEDI/A TION	DIVIGIO	)						
		OIL CON	<u>SERVATION</u>	DIVISIO	<u>JN</u>						
Signature: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \											
	Annroyed by	District Supervis	0**								
Printed Name: Tony Savoie	Approved by	District Supervis	<u> </u>								
Title: Waste Mgmt. & Remediation Specialist	Approval Date: Expiration Date:										
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:										
ate: 1/22/14 Phone: 432-556-8730											

# 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

Revised October 10, 2003

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Form C-141

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

## JAN 2 3 2014

# Release Notification and Corrective Action ARTESIA

					OPER	ERATOR Initial Report X Final Report							
Name of Co	mpany	BOPCO, LP		260737	(	Contact To	ny Savoie						
Address 52	22 W. Me	rmod, Suite		sbad, NM 88220	0 7	Telephone N	No. (432)556-8	730					
Facility Nan	ne Bass 3	Federal Batt	ery #1			acility Typ	e E&P	F	1PI-3	0-015-	25330		
Surface Own	ner Feder	al		Mineral O	wner	Federal Lease No. LC-060853A							
				LOCA	TION	OF REI	LEASE						
Unit Letter	Section	Township	Range	Feet from the	North/	North/South Line Feet from the East/West Line County							
Р	3	22S	28E	230	S	outh	1090	E	ast	Eddy			
			<u>Latit</u>	<u>ude 32.415370°</u>	North		Longitude 10	)4.0699	0° West				
				NAT	URE	OF RELI	EASE						
Type of Relea	se Crude	oil and produc	ed water				Release 65 bbls	of	Volume F	Recovered	60 bbls of produced		
						produced v	vater and less that de oil	n 5	water and	l 2 bbls crud	e oil		
Source of Rel	ease 2" li	ne from the he	ater treate	r to the production	tanks	Date and H	lour of Occurrence me unknown	е	Date and 1/11/12 9	Hour of Dis	covery		
Was Immedia	te Notice (	Given?				If YES, To			1/11/12 9	.00 a.iii.			
			es No	Not Required		NMOCD Emergency #104							
By Whom?						Date and Hour 1/11/12 11:13 a.m.							
Was a Watero	ourse Read					If YES, Vo	lume Impacting t	the Wate	rcourse.				
		L	Yes X	No									
If a Watercou	rse was Im	pacted, Descri	be Fully.*			· · · · · · · · · · · · · · · · · · ·							
		<del> </del>											
				ion Taken:* A 2' ed piece of pipe.	" line g	oing from the	ne heater treater	to the ta	anks leake	ed due to ex	xternal corrosion. A		
					fluid at	ffected an an	proximately 2 00	0 ft <sup>2</sup> area	inside the	earthen cor	ntainment around the		
											her spill reported on		
1/3/12. Follo	wing initia	al response ac	tivities, tl	ne releases were	remedia	ated as per					ference the attached		
				e Request for rem			<del></del>						
											NMOCD rules and		
											which may endanger operator of liability		
											water, human health		
				eptance of a C-14	l repor	t does not re	elieve the operate	or of res	ponsibility	for compli	ance with any other		
federal, state,	or local la	ws and/or regu	lations.										
							<u>OIL CON</u>	<u>SERV.</u>	<u>ATION</u>	DIVISIO	<u>)N</u>		
Signature:	1 au	. Davie											
Printed Name		}			1	Approved by	District Supervis	or:					
Title: Waste	Mgmt & F	Remediation S <sub>1</sub>	pecialist			Approval Dat	e:	F	Expiration	Date:			
E-mail Addre	ss: TASav	oie@BassPet.	com		Conditions of Approval:								
Date: 1/6	22/14	Ph	one: 42	<i>32-55</i> 6-87	30								

<u>District 1</u> 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 ECEIVED 1220 South St. Francis Dr. JAN **2 3** 2014 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 Cortective Action ESIA

					OPER	RATOR		Initial I	Report	X Final Report			
Name of Co	mpany	BOPCO, LF	)	260737		Contact To	ony Savoie						
Address 5	22 W. Me	rmod, Suite	704, Carl	sbad, NM 8822		Telephone No. (432)556-8730							
Facility Nan	ne Bass 3	Federal Batt	ery #1		F	Facility Typ	e E&P			•			
Surface Own	ner Feder	a1	· , · .	Mineral C	wner	Federal			Lease No. LC-060853A				
Surface OW	iici i caci	aı		Willician	WIICI	Cuciai			Lease		30-015-25330		
			<del> </del>								0.0 2000		
						OF REI							
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	1	West Line	County			
Р	3	22S	28E	230	Sou	ıth	1090	<u> </u>	East	Eddy			
			<u>Latit</u>	ude 32.415370	North		Longitude 10	)4.069 <u>9</u>	00° We <u>st</u>				
				NT A TE	TIDE	OF DEL	EACE						
T	NATURE OF RELEASE  Type of Release Produced water Volume of Release 285 bbls of Volume Recovered 280 bbls of produced												
Type of Refea	ase Produc	ea water				produced v		s or	water	Kecoverea	280 obis of produced		
Source of Rel	lease Prod	uction Tank					lour of Occurrence			Hour of D	iscovery		
				- Auto-			ne unknown		4/3/12 9:				
Was Immedia	ite Notice (					If YES, To	Whom?						
		Yes	No X	Not Required									
By Whom?						Date and Hour							
Was a Watero	course Read		l Vog V	/ No		If YES, Volume Impacting the Watercourse.							
	☐ Yes X No												
If a Watercou	ırse was Im	pacted, Descri	be Fully.*										
Describe Cau	se of Prob	lem and Reme	dial Actic	n Taken:* A 3/4	"airelin	ninator on th	ne water transfer	nump b	roke in hal	f due to a	manufacturing defect.		
The part was								pamp o					
											oolyurea containment.		
											nk. A small amount of		
				nce the attached I							vities, the release was		
											to NMOCD rules and		
regulations al	ll operators	are required	to report	and/or file certain	release	notification	s and perform co	rrective	actions fo	r releases,	which may endanger		
											e operator of liability		
											e water, human health liance with any other		
		ws and/or regu		eptance of a C-1	+1 Tepor	t does not n	eneve the operati	or or rea	sponsionity	ioi comp	mance with any other		
							OIL CON	SERV	ATION	DIVIS	ON		
ے		2	<b>.</b>										
Signature:	1000	2 mi	<u> </u>	<del></del>							,		
Printed Name	: Tony Sa	voie			<i>F</i>	Approved by	District Supervis	or:					
Title: Waste	Mgmt. & R	Remediation S	pecialist		A	Approval Dat	te:		Expiration	Date:			
E-mail Addre	ss: TASav	oie@BassPet.	com		Conditions of Approval:								
Date: (/2	2/14	Ph	one:432	2-556-873	30								

<u>District I</u> 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 ResourcesECEIVED

Form C-141 Revised October 10, 2003

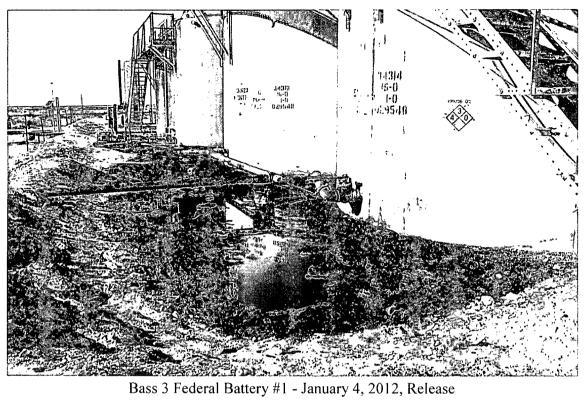
Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

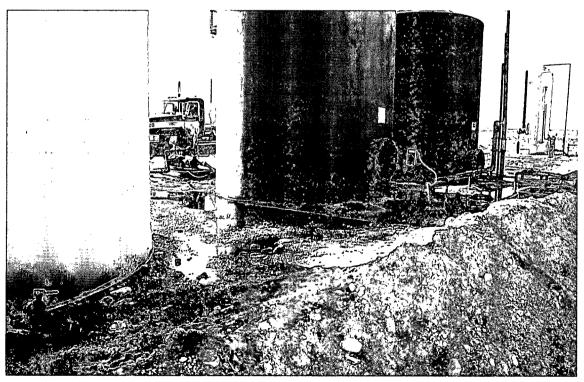
JAN 23 2014 NMOCD ARTESIA

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

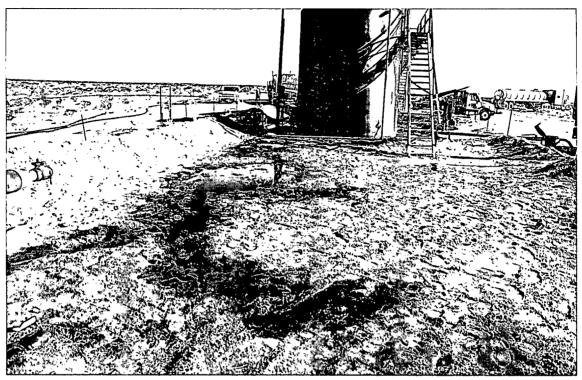
#### Release Notification and Corrective Action

					OPER	ERATOR				Report	X Final Report	
Name of Co	mpany	BOPCO, LF	) 4	260737	(	Contact To	ony Savoie					
				sbad, NM 8822	.0	Telephone N	No. (432)556-8	730				
Facility Nan	ne Bass 3	Federal Bat	tery #1		]	Facility Typ	e E&P					
Surface Own	ner Feder	<u></u>		Mineral C	lwner	Federal			Lease N	lo. LC-0	60853A	
Surface Owl	iici i cuci	aı		Willicial	WIICI	i caciai			Lease IV		0-015-25330	
											0 010 20000	
						OF REI						
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/We		County		
<u> </u>	3	22S	28E	230	Soi	uth	1090	Eas	st	<u>E</u> ddy		
			<u>Latit</u>	ude 32.415370	° North		Longitude 10	04.06990°	West			
				NAT	TIDE	OF DEI 1	FASIF					
Type of Release Crude oil  Volume of Release 15 bbls of Volume Recovered 5 bbls of crude oil												
Type of Refer	ase Crade					crude oil	Release 15 0013	°'   '	orunic is	ccovered	5 6613 Of Crude off	
Source of Rel	ease Prod	luction Tank			<del>_</del>	Date and H	lour of Occurrence	e E	Date and	Hour of Di	scovery	
							me unknown	3	3/27/12 8:	:30 a.m.		
Was Immedia	ite Notice (		NI- 3	/ Nisa Danishad		If YES, To	Whom?					
Yes No X Not Required												
By Whom? Was a Watero	D.	1 10				Date and Hour If YES, Volume Impacting the Watercourse.						
was a Watero	course Read		Yes X	( No		If YES, Vo	olume Impacting t	the Waterc	ourse.			
		_										
If a Watercou	rse was Im	pacted, Descri	be Fully.*	ī								
Describe Cau	se of Prob	lem and Reme	dial Actio	n Taken:* Two lo	oads of r	roduced wat	er were unloaded	l into the f	acility wa	ater tank w	ithout prior approval	
											oil/water production	
through the n										<del></del>		
											led with clean in soil filled with clean soil.	
				ary & Risk-Based					e-sample	u anu back	illied willi clean son.	
									and that	pursuant t	NMOCD rules and	
regulations a	ll operators	are required	to report	and/or file certain	release	notification	s and perform co	rrective ac	ctions for	releases,	which may endanger	
											e operator of liability	
											water, human health iance with any other	
		ws and/or regu		eptance of a C-1	чт терог	t does not re	eneve the operato	or respe	nisionity	ioi compi	iance with any other	
							OIL CON	SERVA	TION	DIVISION	ON	
										<del></del>		
Signature:		ge xu	uo_									
Printed Name	: Tony Sa	voie				Approved by	District Supervis	or:				
Title: Waste	Mgmt. & F	Remediation S	pecialist			Approval Dat	e:	Expiration Date:				
E-mail Addre	ss: TASav	oje@BassPet.	com		Conditions of Approval:							
Date: \/Z	Vac (v.)											

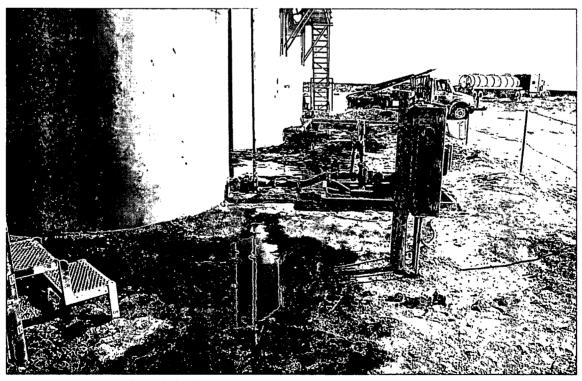




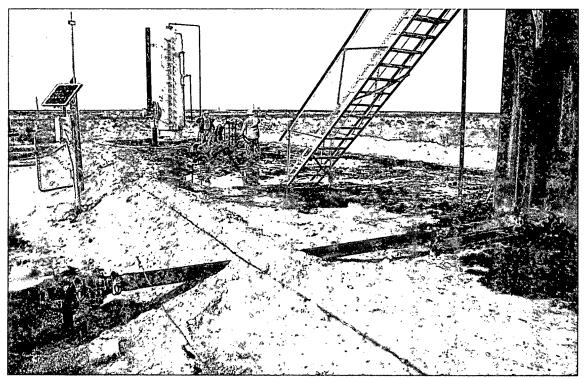
Bass 3 Federal Battery #1 - January 4, 2012, Release



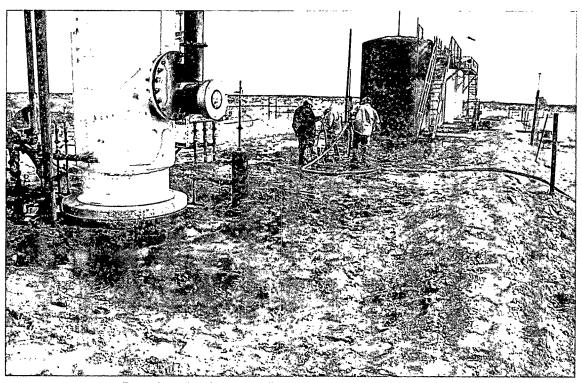
Bass 3 Federal Battery #1 - January 4, 2012, Release



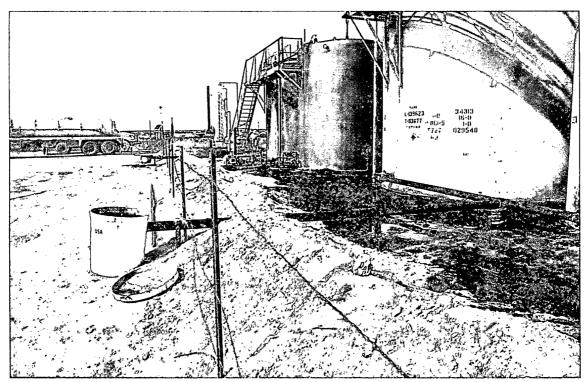
Bass 3 Federal Battery #1 - January 4, 2012, Release



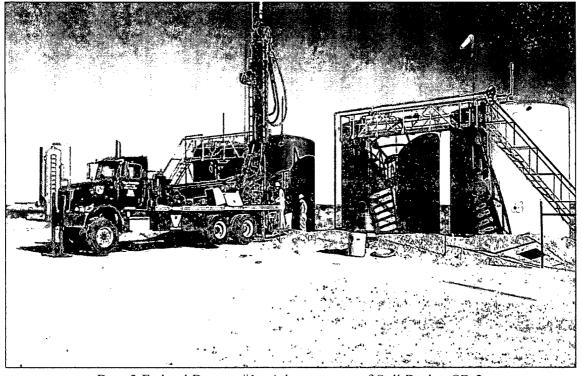
Bass 3 Federal Battery #1 - January 11, 2012, Release



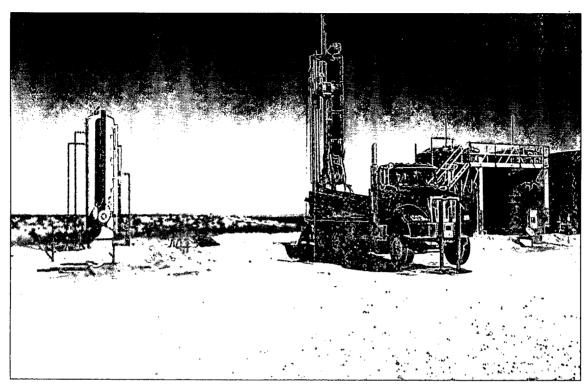
Bass 3 Federal Battery #1 - January 11, 2012, Release



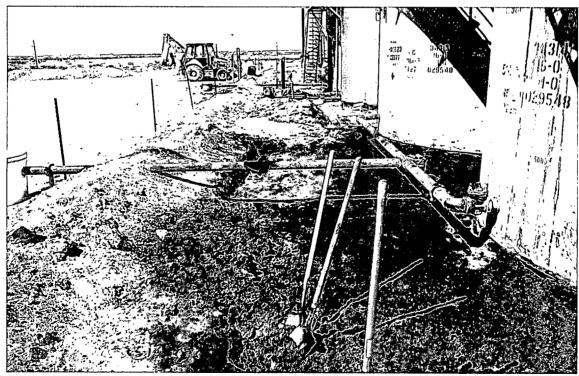
Bass 3 Federal Battery #1 - January 11, 2012, Release



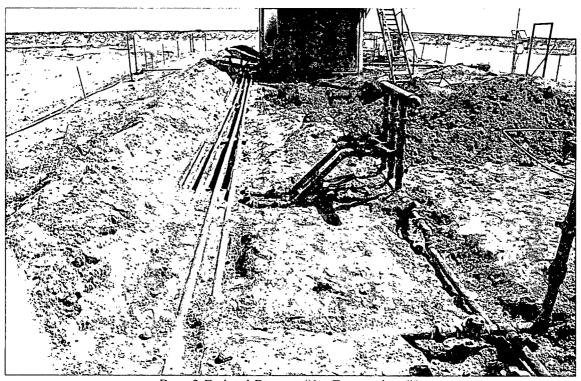
Bass 3 Federal Battery #1 - Advancement of Soil Boring SB-2



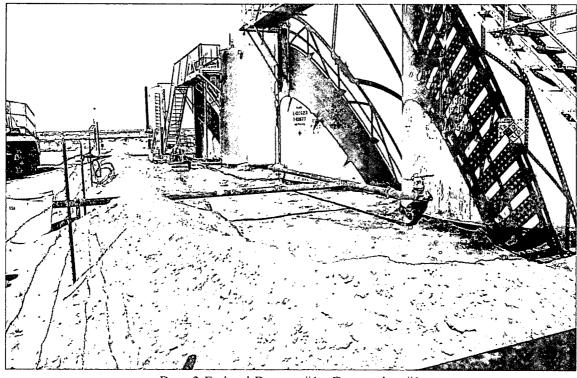
Bass 3 Federal Battery #1 - Advancement of Soil Boring SB-3



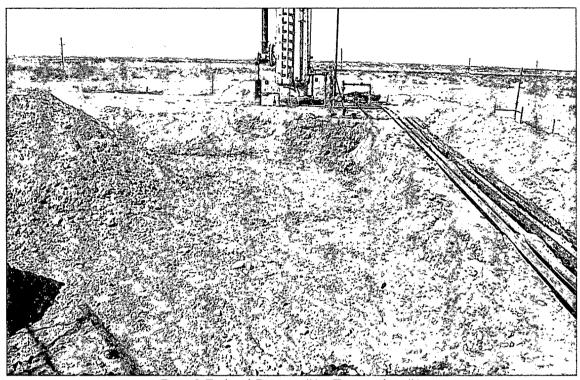
Bass 3 Federal Battery #1 - Excavation #1



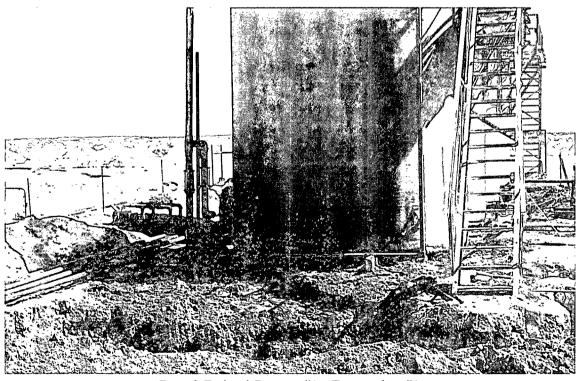
Bass 3 Federal Battery #1 - Excavation #1



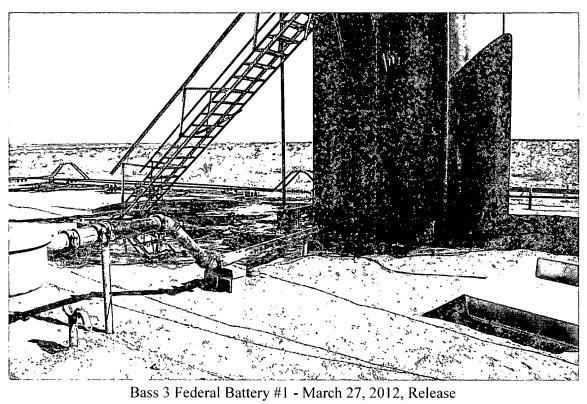
Bass 3 Federal Battery #1 - Excavation #1

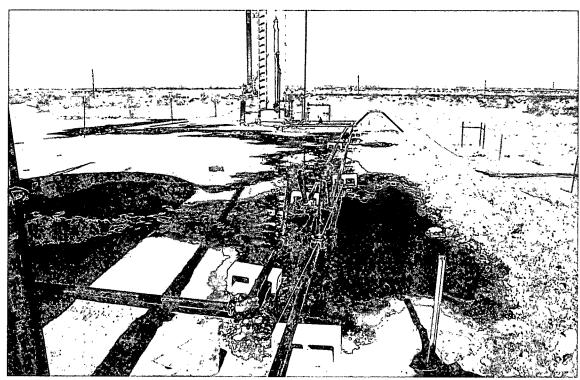


Bass 3 Federal Battery #1 - Excavation #1

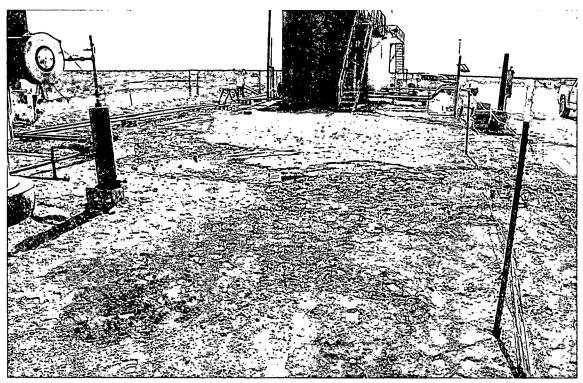


Bass 3 Federal Battery #1 - Excavation #1

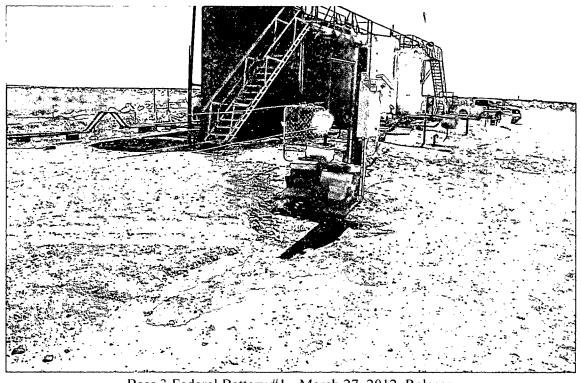




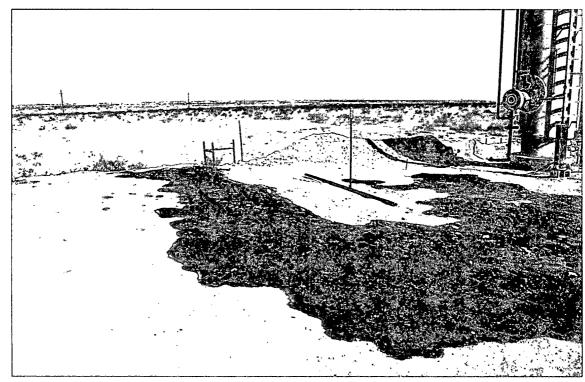
Bass 3 Federal Battery #1 - March 27, 2012, Release



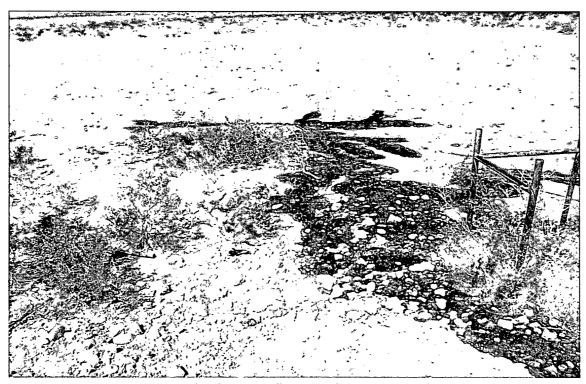
Bass 3 Federal Battery #1 - March 27, 2012, Release



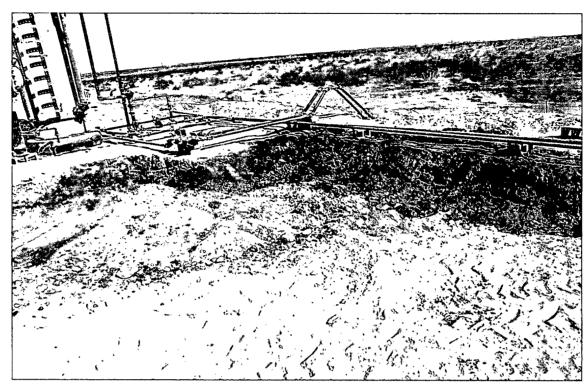
Bass 3 Federal Battery #1 - March 27, 2012, Release



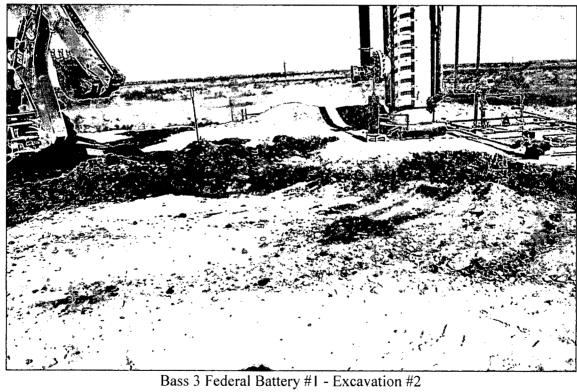
Bass 3 Federal Battery #1 - March 27, 2012, Release

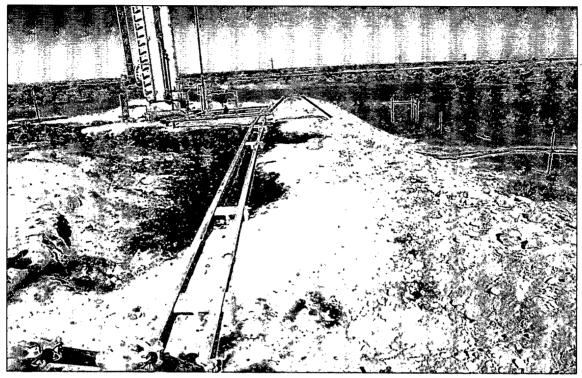


Bass 3 Federal Battery #1 - March 27, 2012, Release

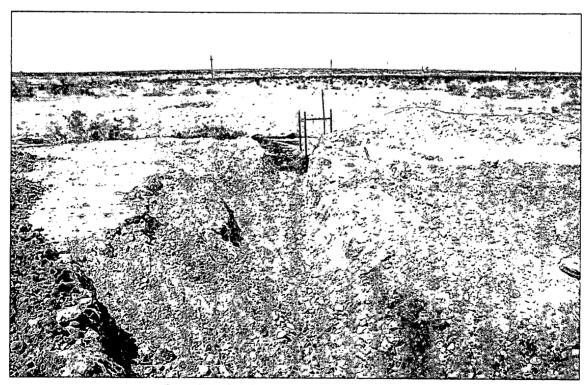


Bass 3 Federal Battery #1 - Excavation #2

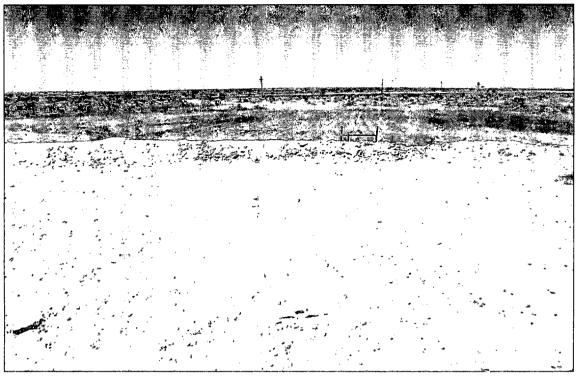




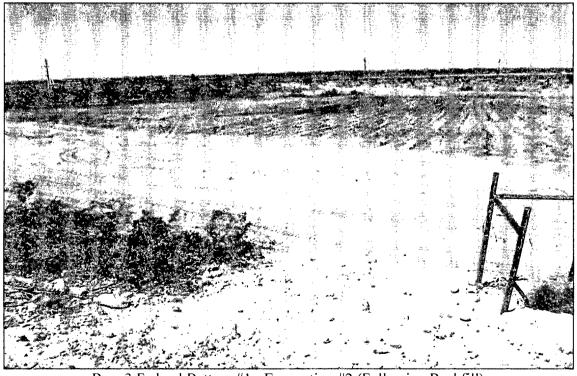
Bass 3 Federal Battery #1 - Excavation #2



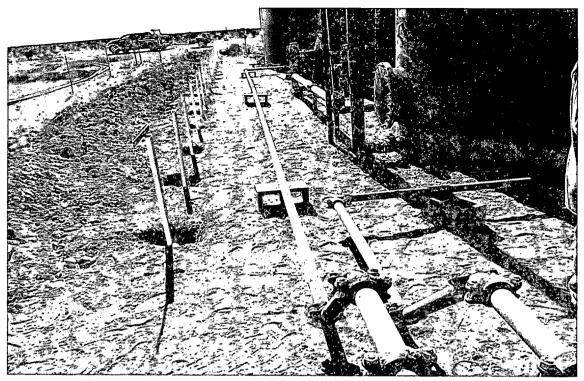
Bass 3 Federal Battery #1 - Excavation #2



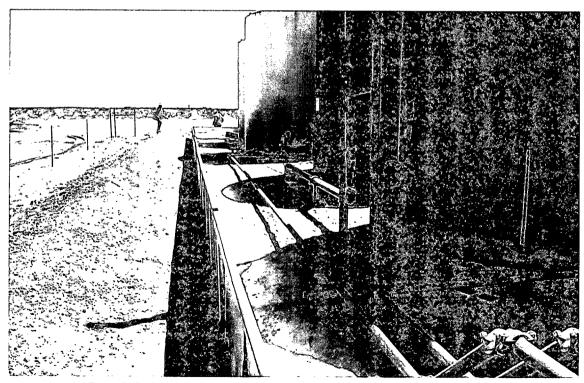
Bass 3 Federal Battery #1 - Excavation #2 (Following Backfill)



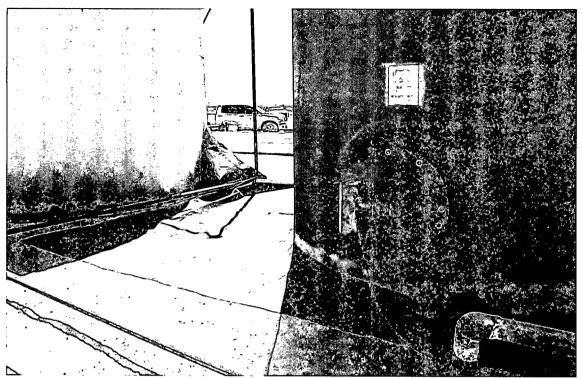
Bass 3 Federal Battery #1 - Excavation #2 (Following Backfill)



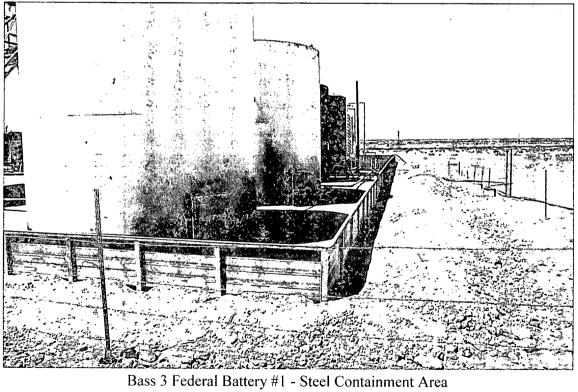
Bass 3 Federal Battery #1 - Installation of Steel Containment Area

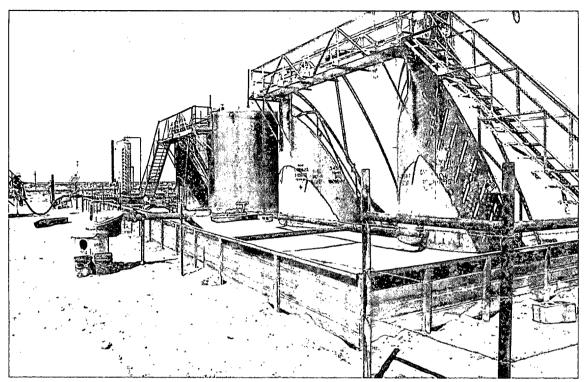


Bass 3 Federal Battery #1 - Installation of Steel Containment Area

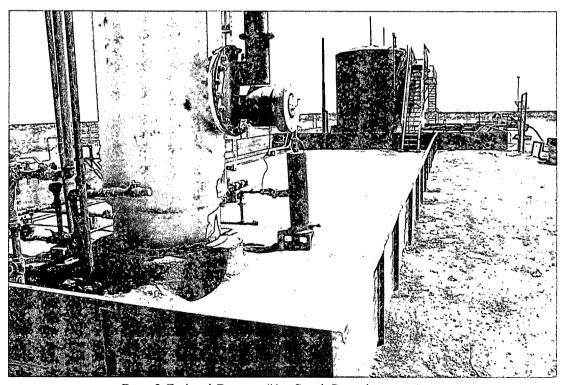


Bass 3 Federal Battery #1 - Installation of Liner & Steel Containment Area

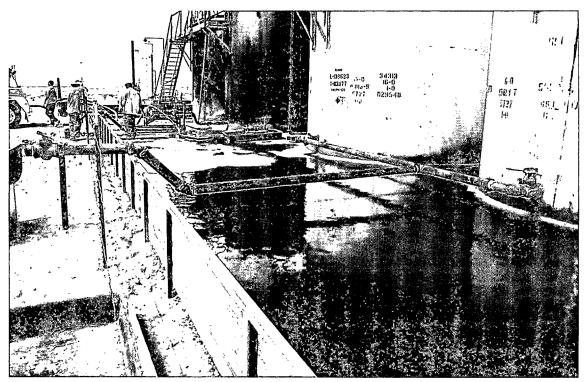




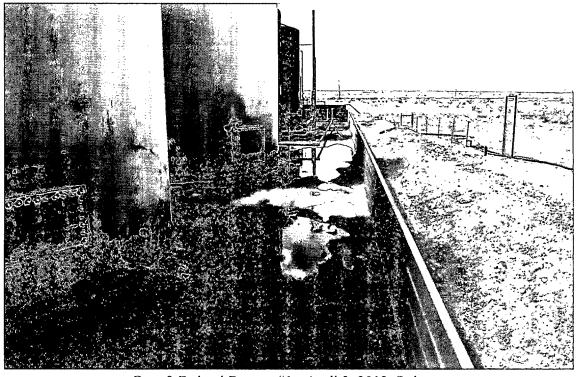
Bass 3 Federal Battery #1 - Steel Containment Area



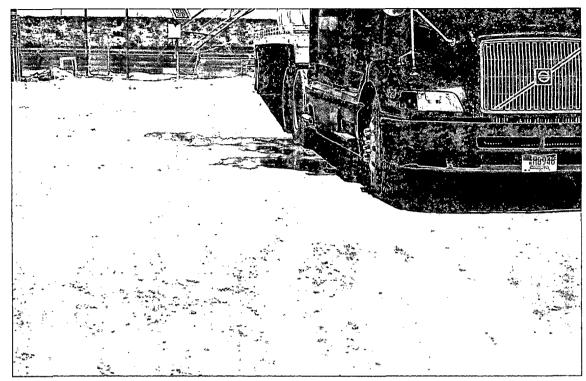
Bass 3 Federal Battery #1 - Steel Containment Area



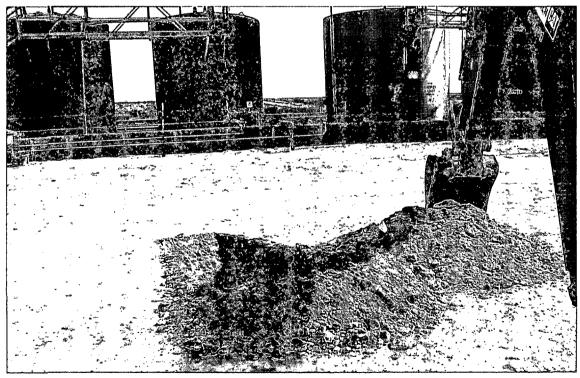
Bass 3 Federal Battery #1 - April 3, 2012, Release



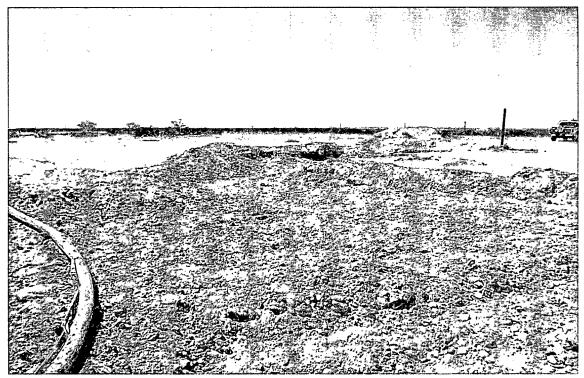
Bass 3 Federal Battery #1 - April 3, 2012, Release



Bass 3 Federal Battery #1 - April 3, 2012, Release



Bass 3 Federal Battery #1 - Excavation #3



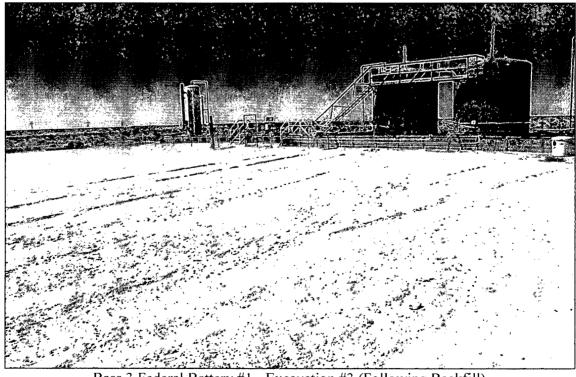
Bass 3 Federal Battery #1 - Excavation #3



Bass 3 Federal Battery #1 - Excavation #3



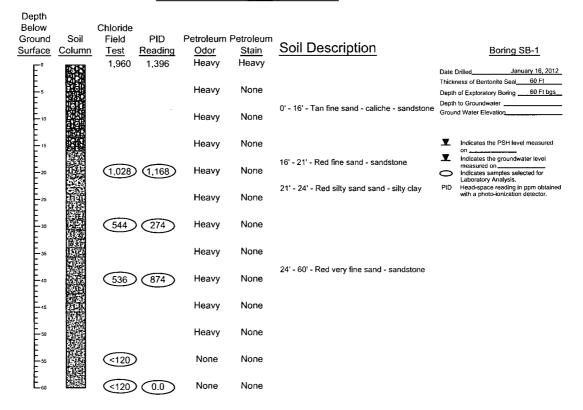
Bass 3 Federal Battery #1 - Excavation #3 (Following Backfill)



Bass 3 Federal Battery #1 - Excavation #3 (Following Backfill)

# Appendix C Soil Boring Logs

## Soil Boring SB-1



#### 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.

Basin Environmental Service Technologies, LLC 3100 Plains Hwy. Lovington, NM 88260

Prep By: BJA Checked By: BRB May 11, 2012

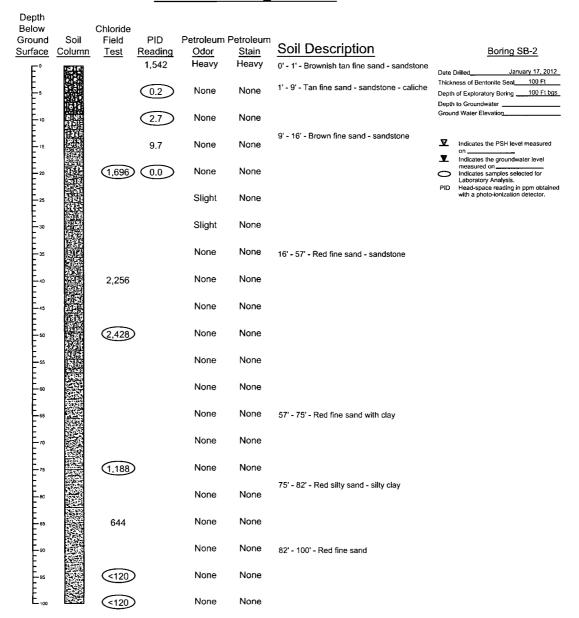
Salin Environmente

Effective Sciutions

Price Technologie

BOPCO, LP Bass 3 Federal Battery #1 Remediation & Retro-Fit **Eddy County, New Mexico** 

## Soil Boring SB-2



- The lines between material types show on the profile log represent approximate boundaries. Actual transitions may be gradual.

Basin Environmental Service Technologies, LLC 3100 Plains Hwy. Lovington, NM 88260

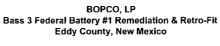
Sala Environment

Effective Sciutions

Technologie

Prep By: BJA Checked By: BRB May 11, 2012

#### Completion Notes



## Soil Boring SB-3

Depth Below Ground Surface	Soil Column	Chloride Field Test	PID Reading	Petroleum F Odor	Petroleum Stain	Soil Description	Boring SB-3
	85758		681	Heavy	Heavy		Date Drilled January 17, 2012
5 5			0.7	None	None	1' - 11' - Tan fine sand - sandstone - caliche	Thickness of Bentonite Seal 45 Ft  Depth of Exploratory Boring 45 Ft bgs  Depth to Groundwater
E-10			0.1	None	None		Ground Water Elevation
15			0.0	None	None		Indicates the PSH level measured on Indicates the groundwater level
E_20			0.0	None	None		measured on Indicates samples selected for
25			0.0	Slight	None	11' - 40' - Red very fine sand - sandstone	Laboratory Analysis. PID Head-space reading in ppm obtained with a photo-ionization detector.
30				Slight	None		
35				None	None		
<u>-</u> 40		232	)	None	None	40' - 45' - Red fine sand - sandy clay	
E <sub>45</sub>		<120	)	None	None	, ,	

#### Completion Notes

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

Basin Environmental Service Technologies, LLC 3100 Plains Hwy. Lovington, NM 88260

Checked By: BRB Prep By: BJA May 11, 2012

Effective Solutions

Conice Vechnologies

# Appendix D Laboratory Analytical Reports



January 24, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keine

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. Keene

Lab Director/Quality Manager



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

Received:

01/19/2012

Sampling Date:

01/16/2012

Reported:

01/24/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

Sample ID: SB - 1 @ 5' (H200132-01)

TPH 8015M	mg/l	kg	Analyze	d By: MS			· · · · · · · · · · · · · · · · · · ·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	394	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	2300	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	314	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	99.5 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	91.7 %	57.6-15	8						

#### Sample ID: SB - 1 @ 10' (H200132-02)

TPH 8015M	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	79.5	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DR0 >C28-C35	33.8	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	93.9 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	101 %	57.6-15	8						

#### 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 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, any Direct clause with a second to the second to the second to the samples in the second to the seco

Celeg E. Keine



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

Fax To:

(575) 396-1429

Received:

01/19/2012

Sampling Date:

01/16/2012

Reported:

01/24/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

Sample Received By:

Jodi Henson

EDDY CO., NM

Sample ID: SB - 1 @ 20' (H200132-03)

Chloride, SM4500Cl-B	mg/kg	Analyzed By:

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1540	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	207	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	1660	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	275	10.0	01/24/2012	ND					

Surrogate: 1-Chlorooctane

104 %

55.5-154

Surrogate: 1-Chlorooctadecane

87.5 %

57.6-158

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 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 fimiliation, business interruptions, loss of use, or 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

Celey D. Keene



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

Received:

01/19/2012

Sampling Date:

01/16/2012

Reported:

Sampling Type:

Soil

01/24/2012

Sampling Condition:

Cool & Intact

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Project Number:

NONE GIVEN

Project Location:

EDDY CO., NM

Sample Received By:

Jodi Henson

#### Sample ID: SB - 1 @ 30' (H200132-04)

BTEX 8021B	mg/l	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	. 107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 %	64.4-13	4						
TPH 8015M	mg/k	(g	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	105	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	24.1	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	93.8 %	55.5-154	1						
Surrogate: 1-Chlorooctadecane	116%	57.6-158	3						

Cardinal Laboratories

\*=Accredited Analyte

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Celey E. Keine



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

Fax To:

BASS 3 FEDERAL BATTERY #1 REMEDIA

(575) 396-1429

Received:

01/19/2012

Sampling Date:

01/16/2012

Reported:

Sampling Type:

Soil

Project Name:

01/24/2012

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

EDDY CO., NM

Sample Received By:

Jodi Henson

#### Sample ID: SB - 1 @ 40' (H200132-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	55.5	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	721	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	109	10.0	01/24/2012	ND					
Surrogate: I-Chlorooctane	87.3	% 55.5-15	4	,					
Surrogate: 1-Chlorooctadecane	73.7	% 57.6-15	8						

#### Sample ID: SB - 1 @ 55' (H200132-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP											
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier						
Chloride	32.0	16.0	01/20/2012	ND	448	112	400	7.41							

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\*=Accredited Analyte

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Celeg D. Keine



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

Received:

01/19/2012

Sampling Date:

01/16/2012

Reported:

01/24/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

Sample ID: SB - 1 @ 60' (H200132-07)

BTEX 8021B	mg,	/kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 5	% 64.4-13	4		<u>,</u>				
Chloride, SM4500CI-8	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	16.2	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	19.2	10.0	01/24/2012	ND					•
Surrogate: 1-Chlorooctane	93.7 9	% 55.5-15	4						·
Surrogate: 1-Chlorooctadecane	110%	6 57.6-15	q						

Surrogate: 1-Chlorooctadecane

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\*=Accredited Analyte

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Celeg E. Keine



#### **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  $6^{\circ}\text{C}$ 

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Kune



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:		al Service T	lech	nolr	ogie	s, L	LC	T			BIL	LL 70°						ANA	LYSI	SRE	EQUE	ST			
Project Manager	r: Ben J. Arguijo							P	².O.#							Γ	T			Ţ	T				
Address: P.O.								C	omp	any	/: E	OPCO, LP			1								, 1		
City: Lovingto	on	State: NM	Zip:	: 652	260				ittn:	T	ony	Savoie					-							,	
Phone #: (575)	396-2378	Fax #:(575) 39	)6-1	429				م	lddre	es:	52:	2 W. Meri	ಾಲd		ĺ		-							,	
Project #:		Project Owner:	: 30	PCO.	LP			c	City:	Cai	rlst	ad							ļ				i	, ,	
Project Name: B	Bass 3 Federal Batte	ary #1 Remed	iat:	ion	& Re	etro	-Fit	: s	State:	: NM	1	<b>Zip:</b> 8822	o											, 1	
Project Location	n: Eddy Co., NM							P	?hon	e #:	(43	2) 556-87	30		1	1			1					, 1	
Sampler Name:	Ben J. Arguijo							F	Fax #:	:				]	13		l			1				. !	
FOR LAB USE ONLY				П		MAT	TRIX	_	PR	RESE	RV.	SAMPLI	NG	Į.,	\ <u>`</u> \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<u>'</u> [	1			1				l = l	
Lab I.D.	Sample I.[	D.	SOR (C)OMP	# CONTAINERS	GROUNDWATER	WATER		uu l	ASE	100				1/1/15	A) #0	1161	2717					   			
H200152			(G)RAB	# CON	GROUP	SOIL		SLUDG	OTHER: ACID/BASE:				TIME	Ĺ	, ,				<u> </u>						
	53-185	<i>,</i>	6	Ш		X	4		Т.	K		1/16/12	1400		· K	L	$\perp$		L	1	1_	1		<u> </u>	
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embyses. All claims. Include service. In his every shall C officials of europeasons and	and Damages. Cardinal's fishing that dies ang those for regitigence and any other or Cardinal se listing for incodersal or consess fing out of or histing the performance of	cause whatsoever shar be questal damages, moluding of services hereunder by C	e deeme ng within Caldina	en waive sut lutura al :egali	ed unwes Sico Disk Olosy of t	sa made il Jainess in Livoctiler	in wit <b>r</b> ç Merrupud	ng and i uons, los	received oss of use	e, or lo	ardmai v losa of pr	de eyeb CC nutuw ys pentroni entox	iar completion til Great, its sollis it elisoris of ollienv	Use abox kanes, Asc		<u> </u>				<u> </u>		<u> </u>	<u> </u>	<u></u>	
Relinquished B	¥:	Date: //9/12	Re	3Celv	ved B	y:					-		Phone Re Fax Resu		- D Y		□ No		'l Phon 'l Fax#						
1/1/11		Time: 0645		)gti	iral	ر مارد	1016	1					REMARK				<u> </u>	1. 1	1122						
Relinquished B		Pate C 17	R	ceiv	ved B	y:		.41	1	1	10	here's	1												
Delivered By	y: (Circle One)	1 11-4	<u>ال</u> اد ()	14		Sample Cool			on	<u>し</u>		KED BY:	1					ults to	-	basi	nenv.c	zom			
Sampler - UPS	S - Bus - Other:	•	4	0	} }	Ye	is []	Yes				(tials)													



January 24, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keine

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. Keene

Lab Director/Quality Manager



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

Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

01/24/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Project Location:

EDDY CO., NM

Jodi Henson

#### Sample ID: SB - 2 @ 5' (H200131-01)

TPH 8015M	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND			,		
Surrogate: 1-Chlorooctane	85.0 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	101 %	57.6-15	8						

#### Sample ID: SB - 2 @ 10' (H200131-02)

TPH 8015M	mg/	/kg	Analyze	d By: MS			<del></del>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	90.5	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	98.9	% 57.6-15	8						

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Fax To:

(575) 396-1429

Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

01/24/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

#### Sample ID: SB - 2 @ 20' (H200131-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	718	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	90.7	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	114	% 57.6-15	8						

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Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

Sampling Type:

Soil

01/24/2012

Sampling Condition:

Cool & Intact

Project Name: Project Number:

NONE GIVEN

BASS 3 FEDERAL BATTERY #1 REMEDIA

Project Location:

EDDY CO., NM

Sample Received By:

Jodi Henson

#### Sample ID: SB - 2 @ 50' (H200131-04)

BTEX 8021B	mg/	kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogute: 4-Bromofluorobenzene (PIL	109 9	6 64.4-13	4						<del>-</del>
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2360	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	86.7 %	6 55.5-15-	4				• • • • • • • • • • • • • • • • • • • •		
Surrogate: 1-Chlorooctadecane	110%	57.6-15	ş						

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\*=Accredited Analyte

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Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

Sampling Type:

Soil

Project Name:

01/24/2012

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

Sample ID: SB - 2 @ 75' (H200131-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS	<u> </u>				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
. Surrogate: 1-Chlorooctane	85.3	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	95.7	% 57.6-15	8						

#### Sample ID: SB - 2 @ 95' (H200131-06)

Chloride, SM4500Cl-B mg/kg			Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/20/2012	ND	448	112	400	7.41	

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Celey D. Keene



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Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

Sampling Type:

Soil

01/24/2012

Cool & Intact

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

Sample ID: SB - 2 @ 100' (H200131-07)

BTEX 8021B	mg/	kg	Analyze	ed By: AP				·	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 %	6 64.4-13	4						
Chloride, SM4500CI-B	mg/l	(g	Analyze	d By: AP				·	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/k	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	11.9	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	NĐ					
Surrogate: 1-Chlorooctane	87.8 %	55.5-154	1						
Surrogate: 1-Chlorooctadecane	102 %	57.6-158	3						

#### Cardinal Laboratories

\*=Accredited Analyte

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Celeg Li Keina



#### **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

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Celey D. Keine



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

## 101 East Mariand, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name:	Basin Environmental Service	Tech	nol	ogies, LLC		BIL	470					AN	LYS	S RE	QUE	ST			
Project Manager	Ben J. Arguijo				P.C	). #:												-	
Address: P.O.					Co	mpany: 5	OPCO, LE	,		ļ	- 1			1	l		Į	ļ	- [
City: Lavanare	n State: KH	Zip	: 88	250	Att	n: Tony	Savoie		į		ĺ							-	l
Phone #: (575)	396-2378 <b>Fax#</b> :(575)3	95-1	429		Ad	dress: 522	W. Mez	mod			ł		ļ					1	- 1
Project#:	Project Owne	r: 20	PCO	, LP	Cit	y: Carlsb	áĠ				]					] ]		Ì	Ì
Project Name: <sup>B</sup>	ass 3 Federal Battery #1 Reme	iiat.	ion	& Retro-Fit	Sta	ite: NM	<b>Z</b> ip: 3522	0	i		1	1		1	1	1	ì		
	: Eddy Co., NM				$\Box$	one #: (43			1		1	1		1	1		Ì		
Sampler Name:	Ben J. Arguijo				Fa	x #:			l '	8		Ì			l			1	
FOR LAB USE ONLY				MATRIX		PRESERV	SAMPL	ING	1	15.		. }	1	1	1				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMF	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL	OTHER	ACID/BASE ICE / COOL OTHER	DATE	TIME	Chlor.de	#	RIEK								
1	5B-2 B 5'	6	$I_{\perp}$	X	L	X	1/17/12	0800		χ									
2	SB-2 @ 10'	11	17					0805		K					<u> </u>				
3	513-2 B 20'	$\bot\!\!\!\!\bot$	Ш		<u> </u>			0890	X	K					<u> </u>	<u> </u>			
<u> </u>	<u>58-2850'</u>	41			_	<b> -</b>		0900	<u>x</u>	K	X				<b>_</b>				ļ
<u> </u>	SB-2 8 75'	- - -	H	<b></b>	-	<b> </b>		0930	X	X		ļ			┼	ļ			ļ <u>.</u>
	58-28 95'	-11:	H.	<b></b>	-		<del></del>	0955	X	<u> </u>	<u> </u>				┼	ļ			
	5B-2@ 100'	1	V	<b> </b>	+	W-	<u> </u>	1005	X	K	٨	<del></del>			┼	<del> </del>			}
<u> </u>		╁	$\vdash$		+-			1	╂	}				-}	┼	╁			
		╁	╁		-			<del> </del>	<del> </del>	<del> </del>	-	<del> </del>		+	<del> </del>	+	<del>                                     </del>		

undyste. A) claims including trave for regrigence and any other cause Anaboever is of the desented which are missing an expension received by Caronal Anterior 30 days after completion in the applicate water. If no event mish Caronal Set regrigence and an other caronal completion in the applicate water. If no event mish Caronal Set regrigence or completion is the applicate and in the event mish Caronal Set regrigence or completion in the application of the regrigence of the regrigence of the event mish caronal set regrigence or completion of the regrigence or completion of the regrigence or completion of the regrigence of the regrigenc

Relinquished By:	Date:	Received By:	Phone Result:    Yes    No   Add'l Phone #:
4//-	1/17/12		Fax Result: 🛘 Yes 🗔 No   Add'l Fax #:
	Time: 06 45	Dykutuh wak	REMARKS:
Relinquished By:	03019118	Received By:	
DUESTAN VOV	Tione 1:45	Lilled Sterlady	Please email results to pm@basinenv.com
Delivered By: (Circle One)		Sample Condition CHECKED BY:	5 TAsavoiedBassFet.com
Sampler - UPS - Bus - Other:		Cool Intact (Initials)  Yes Yes No No	



January 23, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keine

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. Keene

Lab Director/Quality Manager



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

Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

01/23/2012

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Project Number: Project Location: NONE GIVEN EDDY CO., NM Sample Received By:

Jodi Henson

#### Sample ID: SB - 3 @ 5' (H200129-01)

TPH 8015M	mg/i	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	40.9	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	85.0 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	101 %	57.6-15	8						

#### Sample ID: SB - 3 @ 10' (H200129-02)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	01/20/2012	ND	448	112	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					<u> </u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	<10.0	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND			•		
Surrogate: 1-Chlorooctane	82.7 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	93.6 %	6 57.6-15	8						

#### Cardinal Laboratories

\*=Accredited Analyte

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Celeg E Keena



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

Fax To: (575) 396-1429

Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

01/23/2012

Sampling Type:

Soil

Cool & Intact

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

#### Sample ID: SB - 3 @ 25' (H200129-03)

BTEX 8021B	mg/	kg	Analyze	d By: AP			<u></u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	107	% 64.4-13	4						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	01/20/2012	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	<10.0	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	94.7	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	107	% 57.6-15	8						

#### Sample ID: SB - 3 @ 40' (H200129-04)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	01/20/2012	ND	448	112	400	7.41	

#### Cardinal Laboratories

\*=Accredited Analyte

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Celeg D. Keene



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

Fax To:

(575) 396-1429

Received:

01/19/2012

Sampling Date:

01/17/2012

Reported:

01/23/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

EDDY CO., NM

Sample Received By:

Jodi Henson

Sample ID: SB - 3 @ 45' (H200129-05)

BTEX 8021B	mg,	/kg	Analyze	ed By: AP					·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	110 9	% 64.4-13	4						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	<10.0	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	89.6 %	6 55.5-154	#				**************************************		
Surrogate: 1-Chlorooctadecane	102 %	6 57.6-158	3						

#### Cardinal Laboratories

\*=Accredited Analyte

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Celeg Esterna



#### **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

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Celey & Keine



### 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						ANALYSIS REQUEST											
Project Manager: Ben J. Arguijo								P.O. #:																	
Address: P.O. Eox 301								Company: BOPCO, LP										}			1				. }
City: Lovington State: NM Zip: 88260								Attn: Pony Savoie										1	]		1			i	
Phone #: (575) 396-2378 Fax #: (575) 396-1429								Address: 522 W. Mermod										1	İ	1				. 1	. 1
Project #: Project Owner: BOPCO, NP								City: Carlsbad											l					. 1	l
Project Name: Bass 3 Federal Battery #1 Remediation & Retro-Fit								State: NM Zip: 88220						ļ				Į.	ļ	ŀ			ļ		
Project Location: Eddy Co., SM								Phone #: (432) 556-8730										{	ļ				, [	į Į	
Sampler Name: Ben J. Arguijo								Fax#:							6		ļ		1	ĺ	<b>,</b>			, 1	
Lab I.D. H200124	Sample I.I 4B-3 @ 5 5B-3 @ 70 5B-3 @ 40 5B-3 @ 45	D.	(G)RAB OR (C)OMP.	C # CONTAINERS	GROUNDWATER	MATH HOSS X	SLUDGE		ACID/BASE:	SERV COOL		lis	TIME /030 /035 /055 1110 1120	12.50.12 X X X X	CHOCAL TOP (BOSH)	X 875/									
			-	T	+	$\dot{+}$	+		$\dashv$	- <u> </u> -	<del>                                     </del>			$\vdash$	<del>                                     </del>	<del> </del>	+-	+	+	┪┈╌	+	<del>                                     </del>	<del>                                     </del>	<del> </del>	+
analyses. All disims enduce service: In the event studii (	nd Comegns. Cardiness liabity and die ng traces for regalgence and any other o Cardinal de liable for nacembul of cersee and trut of or related to the certemance.	liuse wheledever shall be overtal damages, mellebn	deems Justina	d wav d limd	ed unitsa Jahon, Dua	indoe is a	MARING BU	tecery loss of	ed by ( use, or	Cardinul Floss of	waten 30 s. protes incur	ays a'le red Dy	u kumpletion af i chent, da subsid	i'n adisho anes,	acsie	1	<u></u>	<del></del>	·- L					<del></del>	
Relinquished By:  Date: 1/15/12 Received By:  Time: 0595 Ph Kutch Wuld												Phone Re Fax Resu REMARK	e Result:												
					Sample Condition CHECKED BY: Cool Intact Of Pee Tyes No No								Please amail results to pm@basinenv.com & TAsavoie@BassPer.com												



March 12, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 03/06/12 9:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keine

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. Keene

Lab Director/Quality Manager



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

.

Received: 03/06/2012 Reported: 03/12/2012

Project Name: BASS 3 FEDERAL BATTERY #1 REMEDIA

Project Number: NONE GIVEN

Project Location: EDDY CO., NM

Sampling Date:

Sample Received By:

Date: 03/05/2012 Type: Soil

Sampling Type: Sampling Condition: Sampling Condition:

Cool & Intact

Jodi Henson

Sample ID: SAMPLE #1 (H200576-01)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1100	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	7180	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	1140	100	03/09/2012	ND					
Surrogate: 1-Chlorooctane	172	% 55.5-15	4						

Surrogate: 1-Chlorooctane 172 % 55.5-154
Surrogate: 1-Chlorooctadecane 140 % 57.6-158

#### Sample ID: SAMPLE #2 (H200576-02)

Chloride, SM4500CI-B	mg/	mg/kg		Analyzed By: AP			· .		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2680	16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3920	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	11000	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	1820	100	03/09/2012	ND					
Surrogate: 1-Chlorooctane	237 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	222 %	57.6-15	8						

#### Cardinal Laboratories

\*=Accredited Analyte

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Celegti Kune



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

Fax To:

BASS 3 FEDERAL BATTERY #1 REMEDIA

(575) 396-1429

Received:

03/06/2012

Sampling Date:

03/05/2012

Reported:

Sampling Type:

Soil

03/12/2012

Project Name:

NONE GIVEN

Sampling Condition:

Cool & Intact

Project Number:

Sample Received By:

Jodi Henson

Project Location:

EDDY CO., NM

#### Sample ID: SAMPLE #3 (H200576-03)

Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4240	16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	5360	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	18300	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	2470	100	03/09/2012	ND					

Surrogate: 1-Chlorooctane

435 %

55.5-154

Surrogate: 1-Chlorooctadecane

333 %

57.6-158

# Sample ID: SAMPLE #4 (H200576-04)

Chloride, SM4500Cl-B	mg	mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/10/2012	ND	250	125	200	2.40	
DRO >C10-C28	116	10.0	03/10/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	41.5	10.0	03/10/2012	ND					
Surrogate: 1-Chlorooctane	89.9	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	80.6	% 57.6-15	8						

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's hability 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 including, without limitation, business interruptions, loss of use, or 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 Laboratones.

Celeg & Keine



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

Fax To:

(575) 396-1429

Received:

03/06/2012

Sampling Date:

03/05/2012

Reported:

Sampling Type:

Soil

03/12/2012

Sampling Condition:

Cool & Intact

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Project Number: Project Location: NONE GIVEN

Sample Received By:

EDDY CO., NM

Jodi Henson

# Sample ID: SAMPLE #5 (H200576-05)

Chloride, SM4500Cl-B	mg.	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5440	16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS		,	···		S-06
Analyte	Result	Reporting Limit	Anafyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2530	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	17700	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	1910	100	03/09/2012	ND					

Surrogate: 1-Chlorooctane

304 %

55.5-154

Surrogate: 1-Chlorooctadecane

277%

57.6-158

#### Sample ID: SAMPLE #6 (H200576-06)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11100	16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg/l	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	644	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	12500	100	03/09/2012	ND .	199	99.7	200	0.875	
EXT DRO >C28-C35	1900	100	03/09/2012	ND					
Surrogate: 1-Chlorooctane	193 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	273 %	57.6-158	8						

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 waved 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.

Celey & Keine



#### **Notes and Definitions**

S-06
The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

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 clients exclusive remedy for any dalm 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 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. Keene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	Basin Environmental Service T	ech	nol	ogies, LLC		BIL	L TO					<i>/</i> 2	NAL	YSIS	RE	QUE	ST			
Project Manager	Ben J. Arquijo				P.C	O. #:														
Address: p.o.					Co	mpany: ≝	PCO, LP		ł	- 1	ļ			l						ļ
City: Lovingto	on State: NM	Zip	3.5	1260	Att	tn: Tony	Savoie				- 1	ſ								
Phone #: (575)		6-1	429		Ad	idress; 522	w. Mern	ωd.			ł	1							. [	
Project#:	Project Owner	: BO	PCC	, LP	Cit	ty: Carlsb	 adi		}	}	- 1	- 1	ŀ							1
Project Name: 2	Project Owner BASS 3 FEDERAL REINEDIATION + R	ETR	0 F	Iτ	Sta	ate: NM	Zip: 88226	)		1	1	١		1					1	
Project Location	1: EDDY, N.M.				Ph	one #: (43:	1556-87	3.3			1	1								
	Jody Walters				Fa	x #:			li		l	į					]			
FOR LAB USE ENLY				MATRIX	_	PRESERV	SAMPLI	NG								ĺ				
Lab I.D. お2のうづう	Sample I.D.	(G)RAD OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWALER SOIL OIL	OTHER	ACID/BASE ICE / COOL OTHER	DATE	TIME	Chlorides	8015M										
	SAMPLE HI	G	1	X   1		X	3-5-12	9:00	×	7										
2.	SAMPLE #Z	G	上	X	-	X.	3-5-12		$\times$	X							<u> </u>	<u> </u>		
3	SAMPLE #3	G	L	<u> </u>	_	<u> </u>	3-5-12		$\times$	X					<u> </u>	<u> </u>		ļ		
4	SAMPLE #4	G	1	Y .	1_	Υ	3-5-12		$\sim$	7							<b> </b>	<u> </u>		<u></u>
5	SAMPLE #5	<u> </u>	1	X	-	χ	3-5-12		×	$\times$						ļ	<b>}</b>	<del> </del>	<u> </u>	<u> </u>
2	Sample HG	G	11	X	-	1 X:	35-12	9:25	<u>~</u>	×						<u> </u>		<u> </u>	ļ	
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PLEASE NOTE: Utably and Damages Cardinal's labely and deem's excusse timedy for any draw arising whether based in contract action, shall be finited to the amount paid by the diversities making and common and recent ed by Cardinal within 10 days after competion for the applicable sense. At lower of shall be found the labels for modificall or consequence damages including without coverant shall be cardinal be labels for modificall or consequence damages including without coverant or his proposal, show it lists, or resist of profess including system. As subsequence, and the proposal of 
Relinguished By:	Date: / Rece	eived By:		Phone Result:	□ Yes	□ No	Add'I Phone #:
1//1	1/5/12	The same of the sa		Fax Result:	☐ Yes	Ū No	Add'l Fax #:
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Relinquished By	Date:3/// Rece	eived By:					
15 14	Time	-1					
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Delivered By: (Circle One)		Sample Condition	CHECKED BY:	à "As	avoiess	assPot	, con
Sampler - UPS - Bus - Other:	20	Cool intact  Tyes U Yes  No No	(tautjalk)				,

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

Page 6 of 6



April 02, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 03/29/12 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keine

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. Keene

Lab Director/Quality Manager



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

Fax To:

(575) 396-1429

Received:

03/29/2012

Sampling Date:

03/29/2012

Reported:

04/02/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1 REMEDIA

Project Number:

NONE GIVEN

Sampling Condition:

Cool & Intact

Project Location:

EDDY CO., NM

Sample Received By:

Jodi Henson

# Sample ID: SAMPLE #1 (H200753-01)

TPH 8015M	mg/l	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	106	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	470	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	44.8	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	135 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	116 %	57.6-15	8						

# Sample ID: SAMPLE #2 (H200753-02)

TPH 8015M	mg/	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	58.9	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	15.7	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	126 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	120 %	57.6-15	8						

#### · Cardinal Laboratories

\*=Accredited Analyte

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Celegit , Keene



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

Fax To:

(575) 396-1429

Received: Reported: 03/29/2012

04/02/2012

Project Number: Project Location:

Project Name:

NONE GIVEN EDDY CO., NM

BASS 3 FEDERAL BATTERY #1 REMEDIA

Sampling Condition: Sample Received By: 03/29/2012 Soil

Cool & Intact

Sampling Date:

Sampling Type:

Jodi Henson

# Sample ID: SAMPLE #3 (H200753-03)

TPH 8015M	mg/	kg	Analyze	d By: MS/				<del></del>	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	201	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	64.3	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	114%	6 55.5-15	4					,	_
Surrogate: 1-Chlorooctadocano	06.4.9	2/ 57/6/15	Q						

## Sample ID: SAMPLE #4 (H200753-04)

TPH 8015M	mg/	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	61.8	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	460	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	37.5	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	118%	6 55.5-15	:4						
Surrogate: 1-Chlorooctadecane	110 %	6 57.6-15	i8						

#### 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. 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 use, or loss of profits incurred by client, as 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. Keine



#### **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 ansing, 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 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 E Keine



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	Easin Environmental Service	Tec	hnol	ogies, LL	c		131	LL TO					-	ANAL	YSIS	RE	QUE	ST	 	
Project Manage	<sup>Mi</sup> Ben G. Arguijo				F	P.O. #:							APPROXIMENT					E COMMON	****	*************
Address: P.O. Box 301					C	Company; BOPCO, EP								1						
City: Lovingt	on: State: MM	Żip	o: 85	1260	Δ	tin:	Tony	Savoie						1						
Phone #: (575	) 396-2278 Fax #: (575) 3	96-	1429		Δ	ddre	ess: 52:	w. Mer	ಸಂದ					1						
Project#:	Project Owne	r: Bo	OPCO	, LP	c	ity:	Carlsb	ad												
Project Name:	BASS 3 FEDERAL HI Buttery Remedia	tion	ر زور	Zetrof.+	s	tate:	NM	Zip: 3532	3											
t .	n: EDDY NM				è	hon	e #: (43	2)556-87	30											
Sampler Name:	Jody Walters				F	ax#	:													
FOR LAB USE CHLY		T		MATR	1X	PR	ESERV.	SAMPL	NG	1										
Lab 1.D. H220153	Sample I.D.	(G)RAB OR (C)OM	# CONTAINERS	GROUNDWATER WASTEWATER SOIL	SLUDGE	ACID/BASE:	ICE / COOL OTHER	DATE	TIME	BOISIN							_			
	sample #1	G		۲			X	329.12	9:00	K	,									
2	Sample HZ	(6		1			X	3.29.12		7		·								
3	Sample#3	G		) X			χi	3-29:12	9:20	74.										
<u> </u>	Sample #4	6	1	X			> ,	3.29.12	9:30	7									 	
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505,393-2476



April 20, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1

Enclosed are the results of analyses for samples received by the laboratory on 04/18/12 8:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

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 (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg & Keine

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. Keene

Lab Director/Quality Manager



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

Fax To:

(575) 396-1429

Received:

04/18/2012

Sampling Date:

04/17/2012

Reported:

04/20/2012

Sampling Type:

Soil

Project Name:

BASS 3 FEDERAL BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

EDDY CO. NM

Sample Received By:

Jodi Henson

#### Sample ID: SAMPLE #1 (H200891-01)

Chloride, SM4500CI-B	mg	/kg	Analyzo	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	04/19/2012	ND	432	108	400	0.00	
Sample ID: SAMPLE #2 (	(H200891-02)								
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	04/19/2012	ND	432	108	400	0.00	
Sample ID: SAMPLE #3 (	H200891-03)								
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	04/19/2012	ND	432	108	400	0.00	
Sample ID: SAMPLE #4 (	H200891-04)								
Chloride, SM4500Cl-B	kg	Analyze	d By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	04/19/2012	ND	432	108	400	0.00	

# Cardinal Laboratories

\*=Accredited Analyte

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Celeg Li Keene



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

Fax To:

(575) 396-1429

Received:

04/18/2012

Sampling Date:

04/17/2012

Reported:

Sampling Type:

Soil

04/20/2012

Sampling Condition:

Cool & Intact

Project Name: Project Number: BASS 3 FEDERAL BATTERY #1 NONE GIVEN

Project Location:

EDDY CO. NM

Sample Received By:

Jodi Henson

# Sample ID: SAMPLE #5 (H200891-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	04/19/2012	ND	432	108	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celeg D. Keine



#### **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

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Celeg to Keens



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

(575) 393-2326 FAX (575) 393-2476  Company Name: Pasin Environmental Service Technologies, LLC								11 20	ANALYSIS REQUEST										-		
Project Manage	* Basin Environmental Service *	Techn	ວ່ວວ່	gies, L	.LC	<b>BILL TO</b> P.O. #:					7	_	_	HIVA	_1010	) KE	MUE.	<b>31</b>	1		-
	<sup>II</sup> Ben J. Arguijo										1										İ
Address: P.O. Box 301						Co	mpany: I	SOPCO, LP		4	1			j							İ
City: Lovingcon State: NM Zip: 38260					····	Att	n: Tony	Savoie					}	}							
Phone #: (575	) 396-2378 Fax #: (575) 3	96-14:	23		********	Αd	dress: 52	2 w. Mer	med		l										İ
Project #: Project Owner: BOPCO, LP						Cit	y: Carls	əad		_											l
Project Name:	BASS 3 FEDERAL Battery #1					Sta	ate: NN	Zip: 3322	0	1				•							İ
	1: EDDY,NM.					Ph	one #: (43	21556-87	30	1	1										
3	Jody Walters					Fa:	x.#;			1											
FOR LAB USE ONLY		П		MAT	RIX	•	PRESERV	SAMPL	NG	1							1				
Lab I.D. H20089;1	Sample I.D.	(G)RAB OR (C)OMP	GROUNDWATER		on. Sudde	OTHER	ACID/BASE: ICE / COOL OTHER:	DATE	TIME	Chloride											
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PLEASE (TOTE: Liability and Damages, Certinal's kinking and phen's ecolosise remedy for any own internal whether bused in contract or that is distincted to the amount pass by the ment for the studyers. At claims including those for negligence and any other cause what are deemed waved unless matter in varing and received by. Cardinal hybrid 30 days after completion of the applicable service in no event state Cardinal be finished to consequental demages, attaining our objects in our event state Cardinal be finished to consequental demages, attaining our objects in our event state.

alliates or successors and no out of or related to line performance of	r services tigreunder by Cardinal, regardless, of whether such claim is has	sen upon any of the above stated in	usono of otherwise.			
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