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Č.) **Effective Solutions**

REMEDIATION SUMMARY &

SITE CLOSURE REQUEST

BOPCO, LP

JAMES RANCH UNIT #36 TANK BATTERY Eddy County, New Mexico Unit Letter "G" (SW/NE), Section 1, Township 23 South, Range 30 East Latitude 32.335615° North, Longitude 103.832117° West NMOCD Reference #: 2RP-1204

Prepared For:

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

JAN 23 2014 MMOCD ARTESIA

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

December 2013

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 & Site Closure Request* for the release site known as James Ranch Unit #36 Tank Battery. The legal description of the release site is Unit Letter "G" (SW/NE), Section 1, Township 23 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.335615° North latitude and 103.832117° 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 June 24, 2012, BOPCO discovered a release had occurred at the James Ranch Unit #36 Tank Battery. A series of mechanical, electrical, and calibration failures involving the primary and secondary water pumps and the high level alarm resulted in a storage tank overflow. The release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately four hundred and fifty barrels (450 bbls) of produced water and approximately five barrels (5 bbls) of crude oil were released. During initial response activities, the mechanical, electrical, and calibration failures were corrected, and a vacuum truck was utilized to recover approximately one hundred barrels (100 bbls) of produced water. Visibly stained soil along the flow path of the release was scraped up and stockpiled on-site, pending final disposition.

The release affected an area measuring approximately thirty-two thousand, nine hundred square feet (32,900 ft²), which included the caliche pad surrounding the James Ranch Unit #36 Tank Battery, the caliche pad surrounding the nearby Hudson Federal Tank Battery, and the access road connecting the two (2) locations. Approximately eight hundred square feet (800 ft²) of pastureland adjacent to the Hudson Federal Tank Battery was also affected by the release.

The release mingled with an area of historical impact around the James Ranch Unit #36 Tank Battery, which was undergoing remediation at the time. Since the area affected by the June 24, 2012, release is indistinguishable from that affected by the historical release(s), the releases were remediated concurrently.

The Form C-141 is provided as Appendix A. General photographs of the release site 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 1, Township 23 South, Range 30 East. A depth-to-groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred and seventy feet (170') bgs. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the James Ranch Unit #36 Tank Battery 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

On June 13, 2012, delineation of the historical releases commenced. A series of hand-augered soil borings (Sample #1, Sample #2, Sample #3, Sample #4, Sample #6, and Sample #7) and one (1) delineation trench (Sample #5) were advanced inside the earthen containment area surrounding the James Ranch Unit #36 Tank Battery to investigate the horizontal and vertical extent of impacted soil. The soil borings were each advanced to depths of approximately six inches (6") bgs. The delineation trench was located to the west of the on-site storage tanks, near the release point, and was advanced to a total depth of approximately six feet (6') bgs.

A total of ten (10) delineation soil samples (Sample #1, Sample #2, Sample #3, Sample #4, Sample #5, Sample #5 @ 2', Sample #5 @ 4', Sample #5 @ 6', Sample #6, and Sample #7) were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of TPH and chloride concentrations in accordance with Environmental Protection Agency (EPA) Methods SW-846 8015M and 4500 Cl-B, respectively. Sample #5 @ 6' was also analyzed for concentrations of BTEX in accordance with EPA Method SW-846 8021b.

Laboratory analytical results indicated TPH concentrations ranged from 164 mg/kg in Sample #4 to 17,487 mg/kg in Sample #6. Chloride concentrations ranged from 208 mg/kg in Sample #3 to 26,800 mg/kg in Sample #7. The benzene concentration in Sample #5 @ 6' was less than the laboratory method detection limit (MDL), and the BTEX concentration was 3.71 mg/kg. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted in Figure 3, "Site & Sample Location Map - JRU #36 Tank Battery Excavation". Laboratory analytical reports are provided as Appendix E.

From June 18 through June 20, 2012, approximately three hundred and forty cubic yards (340 yd^3) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On June 25, 2012, following initial response activities, remediation of the June 24, 2012, release site commenced. From June 25 through June 27, 2012, approximately two hundred and fifty

cubic yards (250 yd³) of heavily impacted soil was excavated from within the containment area surrounding the James Ranch Unit #36 Tank Battery and stockpiled on-site, pending final disposition. To preserve the structural integrity of the on-site storage tanks, the vertical limits of the excavation were limited to approximately six inches (6") to one foot (1') bgs.

On June 27, 2012, a series of hand-augered soil borings were advanced in the containment area to investigate the vertical extent of impacted soil. The soil borings were each advanced to depths of approximately six inches (6") bgs. A total of six (6) delineation soil samples (Sample #8 through Sample #13) were submitted to the laboratory for analysis of TPH and chloride concentrations. Sample #8 was also analyzed for concentrations of BTEX. Laboratory analytical results indicated TPH concentrations ranged from 587 mg/kg in Sample #12 to 20,509 mg/kg in Sample #8. Chloride concentrations ranged from 6,240 mg/kg in Sample #13 to 17,600 mg/kg in Sample #9. The benzene concentration in Sample #8 was less than the laboratory MDL, and the BTEX concentration was 12.1 mg/kg. Soil sample locations are depicted in Figure 3.

Following sample collection, the James Ranch Unit #36 Tank Battery excavation was backfilled with non-impacted soil.

On July 31, 2012, after having procured both permission from the landowner (BLM) and the proper permit from the NMOSE (File #C-03559), four (4) soil borings (SB-1 through SB-4) were advanced at the site to further delineate the vertical extent of impacted soil. 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 the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. The locations of the soil borings are depicted in Figure 2, "Site & Sample Location Map - Overview (Aerial)". Soil boring logs are provided as Appendix C. BLM and NMOSE permits are provided as Appendix D.

Soil boring SB-1 was located inside the containment area of the James Ranch Unit #36 Tank Battery. The soil boring was advanced to a total depth of approximately fifty feet (50') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), thirty-five feet (35'), forty-five feet (45'), and fifty feet (50') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 128 mg/kg in soil sample SB-1 @ 25'.

Soil boring SB-2 was located in the access road between the James Ranch Unit #36 and Hudson Federal tank batteries, in a pooling area along the flow path of the release, approximately two hundred and forty-five feet (245') to the west-southwest of soil boring SB-1. The soil boring was advanced to a total depth of approximately twenty-five feet (25') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), and twenty-five feet (25') 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 ranged from less than the laboratory MDL in soil samples SB-2 @ 10' and SB-2 @ 25' to 15.4 mg/kg in soil sample SB-2 @ 20' to 1,880 mg/kg in soil sample SB-2 @ 5'.

Soil boring SB-3 was located in the access road between the James Ranch Unit #36 and Hudson Federal tank batteries, in a pooling area along the flow path of the release, approximately three hundred and eighty feet (380') to the west of soil boring SB-2. The soil boring was advanced to a total depth of approximately twenty feet (20') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), fifteen feet (15'), and twenty feet (20') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 208 mg/kg in soil sample SB-3 @ 20' to 1,520 mg/kg in soil sample SB-3 @ 5'.

Soil boring SB-4 was located in a pooling area near the terminus of the flow path of the release, adjacent to, and to the south of, the containment area surrounding the Hudson Federal Tank Battery. The soil boring was advanced to a total depth of approximately twenty-five feet (25') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), fifteen feet (15'), twenty feet (20'), and twenty-five feet (25') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX and TPH constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 256 mg/kg in soil sample SB-4 @ 25' to 992 mg/kg in soil sample SB-4 @ 15'.

On February 4, 2013, excavation of impacted soil commenced at the Hudson Federal Tank Battery. A chloride test kit was used to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. To facilitate remediation activities, the excavation was divided into two (2) sections: Tank Battery Excavation and Pooling Area Excavation. The Tank Battery Excavation was located in the area represented by soil boring SB-4. The Pooling Area Excavation was located in pastureland adjacent to the Hudson Federal Tank Battery, at the terminus of the flow path of the release. From February 4 through March 28, 2013, excavated soil was stockpiled on-site, pending final disposition.

On February 13, 2013, sixteen (16) soil samples (Sample #1 through Sample #16) were collected from the floor and sidewalls of the Tank Battery Excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 160 mg/kg in Sample #7, Sample #8, Sample #9, and Sample #12 to 3,200 mg/kg in Sample #1. Soil sample locations are depicted in Figure 4, "Site & Sample Location Map - Hudson Tank Battery Excavation".

Further excavation in the areas represented by Sample #1, Sample #3, Sample #6, and Sample #10 was deemed impracticable due to the presence of active pipelines and appurtenances adjacent to the Tank Battery Excavation.

On March 11, 2013, thirteen (13) soil samples (Sample #1 through Sample #13) were collected from the floor and sidewalls of the Pooling Area Excavation and submitted to the laboratory for analysis of chloride concentrations. Sample #3 and Sample #11 were also analyzed for concentrations of BTEX. Laboratory analytical results indicated chloride concentrations ranged from 48.0 mg/kg in Sample #8 to 864 mg/kg in Sample #2. TPH and BTEX constituent concentrations in Sample #3 and Sample #11 were less than the appropriate laboratory MDL. Soil sample locations are depicted in Figure 5, "Site & Sample Location Map - Hudson Pooling Area Excavation".

Based on laboratory analytical results, from March 20 through April 1, 2013, the Hudson Federal Tank Battery excavations were backfilled in eighteen-inch (18") lifts, compacted, and contoured to fit the surrounding topography. Prior to backfilling, the final dimensions of the Tank Battery Excavation were approximately one hundred and sixty-six feet (166') in length, varying in width from approximately three feet (3') to approximately seventy-five feet (75'), and varying in depth from approximately one and one-half feet (1.5') to approximately two and one-half feet (2.5') bgs. Final dimensions of the Pooling Area Excavation were approximately eighty-nine feet (89') in length, varying in width from approximately fifty-one feet (51') to approximately fifty-eight feet (58'), and varying in depth from approximately two feet (2') to approximately eight feet (8') bgs.

On March 27, 2013, additional excavation was conducted adjacent to, and to the west of, the James Ranch Unit #36 Tank Battery, along the flow path of the release. Excavated soil was stockpiled on-site, pending final disposition.

On March 28, 2013, the second James Ranch Unit #36 Tank Battery excavation was backfilled with non-impacted soil, compacted, and contoured to fit the surrounding topography. Prior to backfilling, the final dimensions of the excavation were approximately one hundred and fifteen feet (115') in length, approximately twenty feet (20') in width, and approximately six inches (6") in depth. The boundaries of the excavation are depicted in Figure 3.

From February 7 through April 1, 2013, approximately one thousand, four hundred and ninetyfive cubic yards (1,495 yd³) of impacted soil was transported to Lea Land, Inc., for disposal.

To mitigate future releases, a steel-walled containment area has been constructed around the James Ranch Unit #36 Tank Battery. A felt liner has been installed in the floor of the new containment area, and the floor and perimeter walls have been coated with an impermeable, spray-on polyurethane liner. The steel perimeter walls extend approximately two feet (2') above ground surface.

Upon landowner request, the area disturbed by the Hudson Federal Tank Battery Pooling Area Excavation will be seeded with a BLM-approved seed mixture at a time conducive to germination.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Xenco Laboratories in Odessa, Texas, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Methods 4500 CI-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

Soil samples collected from the floor and sidewalls of the Tank Battery and Pooling Area Excavations were analyzed by an NMOCD-approved laboratory, and concentrations of benzene, BTEX, and TPH were below the regulatory remediation action levels established for the site by the NMOCD.

The Tank Battery Excavation was excavated to the extent practicable. Soil exhibiting chloride concentrations above the regulatory remediation action level will be remediated upon decommission or abandonment of the currently active tank battery and/or pipelines.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the James Ranch Unit #36 Tank Battery release site.

6.0 LIMITATIONS

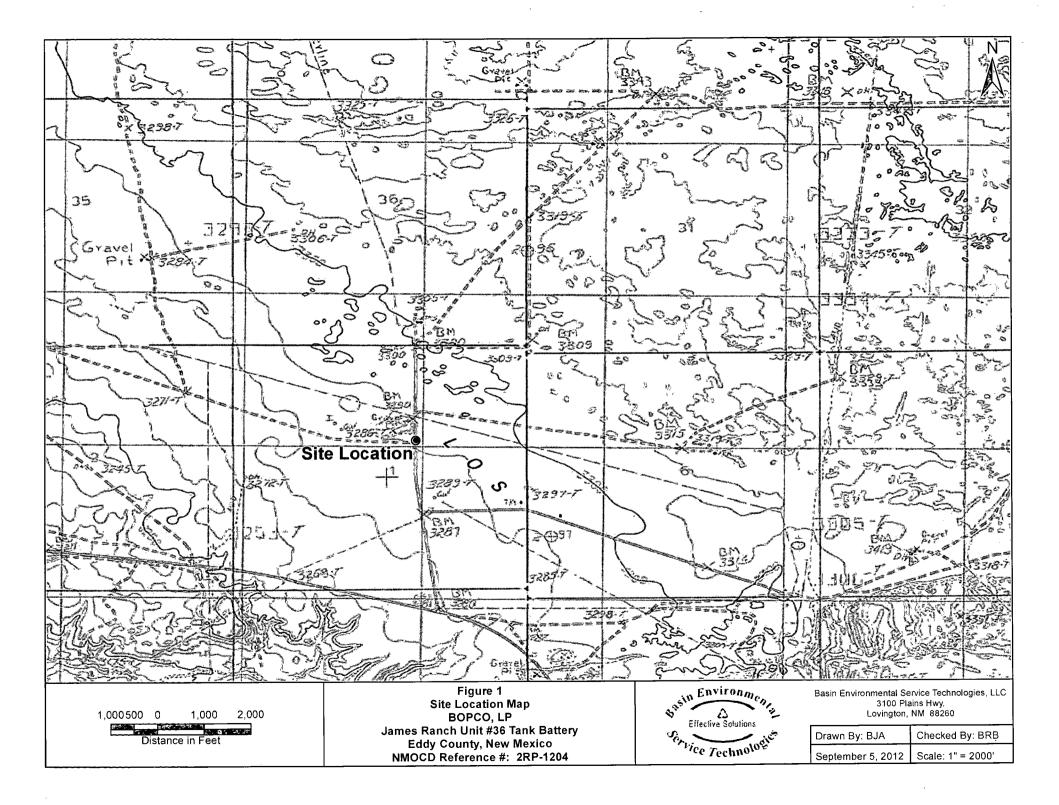
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements 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.

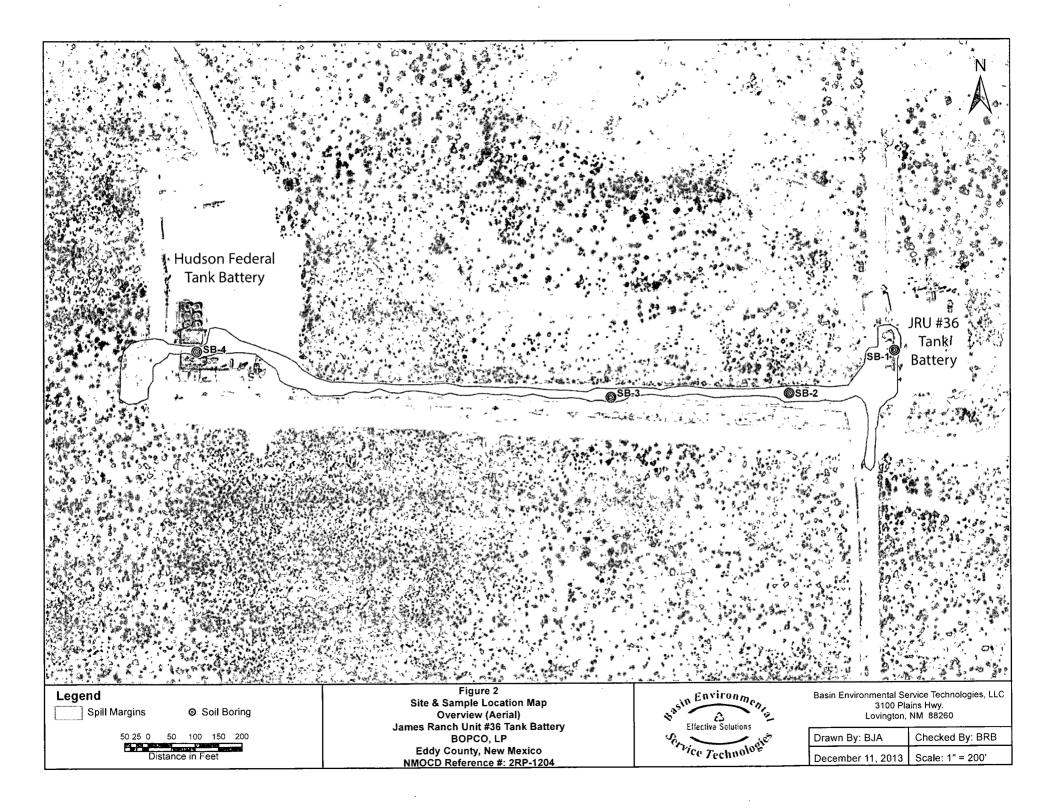
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

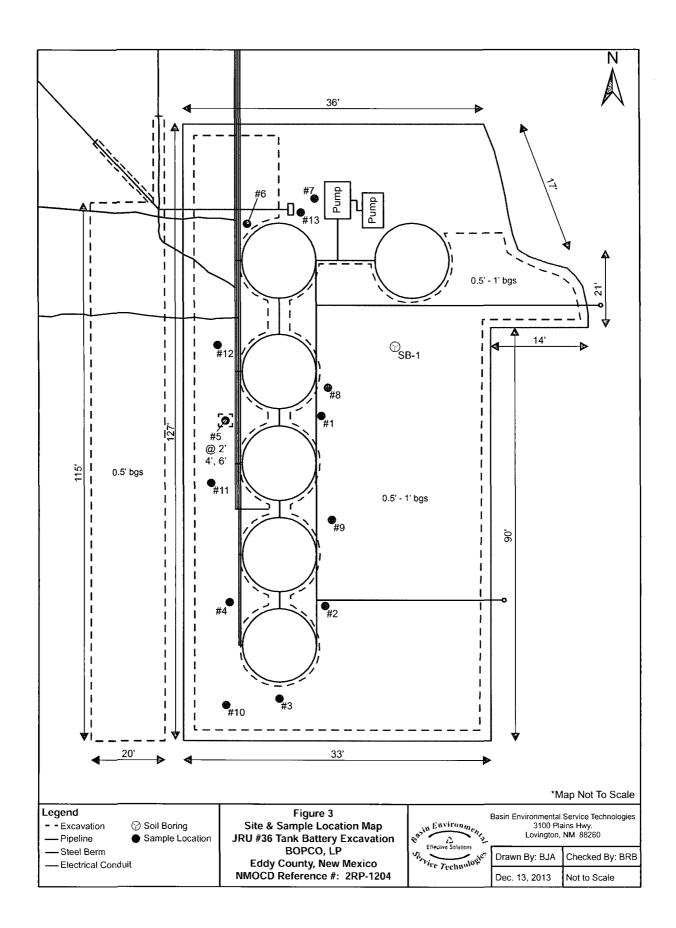
7.0 DISTRIBUTION:

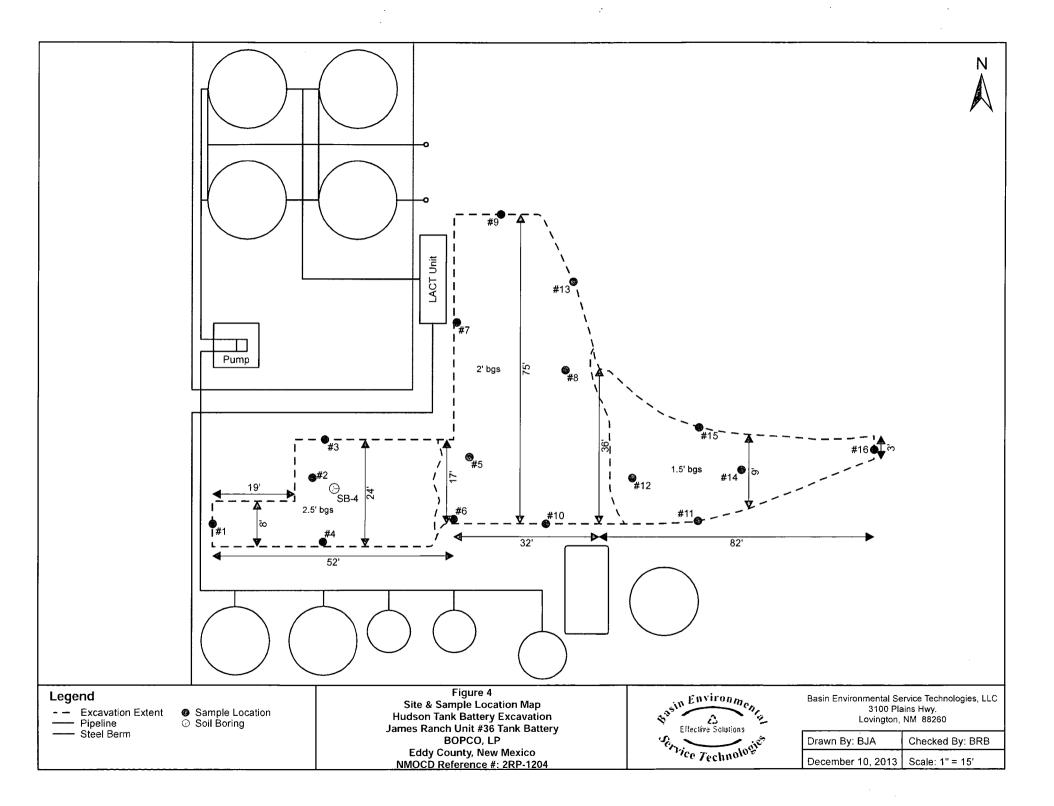
- Copy 1: Mike Bratcher New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 2) 1301 E. Grand Avenue Artesia, NM 88210
- Copy 2: James Amos Bureau of Land Management 602 E. Greene Street Carlsbad, NM 88220
- Copy 3: Tony Savoie BOPCO, LP 522 W. Mermod, Suite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

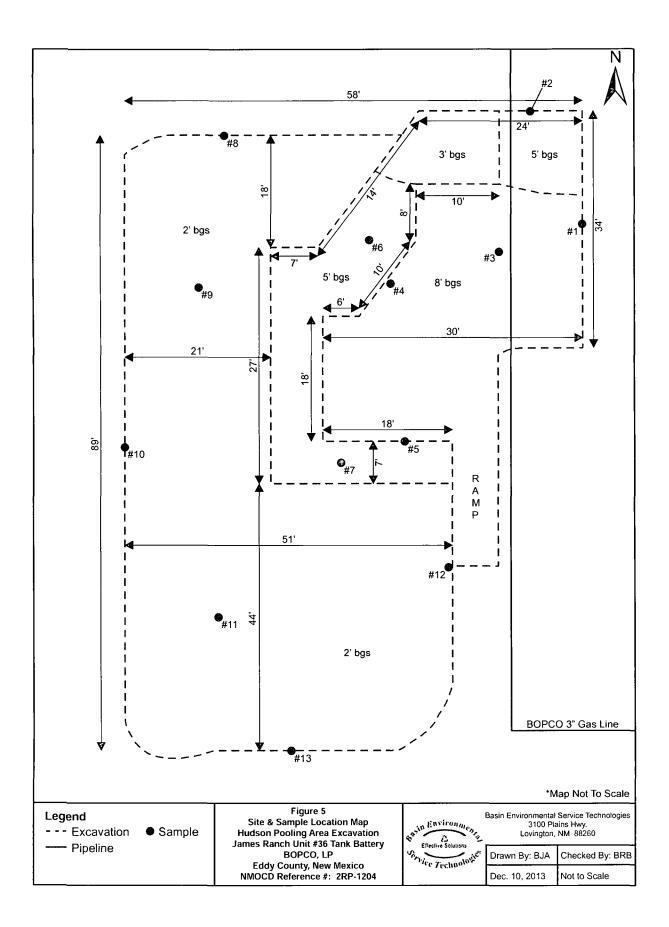
Figures











Tables

TABLE 1

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CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP JAMES RANCH UNIT #36 TANK BATTERY EDDY COUNTY, NEW MEXICO NMOCD REFERENCE #: 2RP-1204

				M	ETHOD: EP	A SW 846-8	021B, 5030)	ME	THOD: 80	15M	TOTAL	4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
Sample #1	0.5'	6/13/2012	Excavated	-	-	-	-	-	1,040	6,970	1,250	9,260	17,400
Sample #2	0.5'	6/13/2012	Excavated	-	-	-	-	-	352	8,550	1,660	10,562	704
Sample #3	0.5'	6/13/2012	Excavated	-	-	-	-	-	<50.0	476	268	744	208
Sample #4	0.5'	6/13/2012	Excavated	-	-	-	-	-	<10.0	111	52.6	164	3,920
Sample #5	0.5'	6/13/2012	Excavated	-	-	-	-	-	611	9,170	1,970	11,751	11,400
Sample #5 @ 2'	2'	6/13/2012	Excavated	-	-	-	-	-	1,130	7,690	1,390	10,210	2,880
Sample #5 @ 4'	4'	6/13/2012	Excavated	-	-	-	-	-	931	6,120	1,080	8,131	7,680
Sample #5 @ 6'	6'	6/13/2012	Excavated	<0.050	0.165	0.740	2.80	3.71	233	5,120	1,010	6,363	16,000
Sample #6	0.5'	6/13/2012	Excavated	_	_	-	-	-	867	13,800	2,820	17,487	14,200
Sample #7	0.5'	6/13/2012	Excavated	_	-	-	-	-	230	9,690	2,060	11,980	26,800
Sample #8	0.5'	6/27/2012	In-Situ	<0.250	0.867	3.29	7.97	12.1	999	15,100	4,410	20,509	13,200
Sample #9	0.5'	6/27/2012	In-Situ	-	-	-	-	-	11.4	662	185	858	17,600
Sample #10	0.5'	6/27/2012	In-Situ	-	-	-	-	-	<50.0	335	308	643	8,400
Sample #11	0.5'	6/27/2012	In-Situ	-	-	-	-	-	<50.0	1,330	478	1,808	6,880
Sample #12	0.5'	6/27/2012	In-Situ	-	-	-	-	-	<10.0	443	144	587	16,400
Sample #13	0.5'	6/27/2012	In-Situ	-	-	-	-	-	80.2	4,200	941	5,221	6,240
SB-1 @ 5'	5'	7/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	272
SB-1 @ 10'	10'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	304
SB-1 @ 25'	25'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	896
SB-1 @ 35'	35'	7/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	384
SB-1 @ 45'	45'	7/31/2012	In-Situ	-	-	-	-	-	-	-	-	-	176
SB-1 @ 50'	50'	7/31/2012	In-Situ	< 0.050	< 0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	128
SB-2 @ 5'	5'	7/31/2012	In-Situ	-	-	-	-	-	<10.0	15.4	<10.0	15.4	1,880
SB-2 @ 10'	10'	7/31/2012	In-Situ	< 0.050	<0.050	< 0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	944
SB-2 @ 20'	20'	7/31/2012	In-Situ	-	-	-	-	-	-	-	-	-	144
SB-2 @ 25'	25'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	192

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP JAMES RANCH UNIT #36 TANK BATTERY EDDY COUNTY, NEW MEXICO NMOCD REFERENCE #: 2RP-1204

				M)	ME	THOD: 80	15M	TOTAL	4500 CI-B			
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
SB-3 @ 5'	5'	7/31/2012	In-Situ	-	-	-	-		<10.0	<10.0	<10.0	<10.0	1,520
SB-3@10'	10'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.0150	< 0.0150	<10.0	<10.0	<10.0	<10.0	736
SB-3@15'	15'	7/31/2012	In-Situ	-	-	-	-	-	-	-	-	-	320
SB-3@20'	20'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	208
SB-4 @ 5'	5'	7/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	480
SB-4 @ 10'	10'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.0150	< 0.0150	<10.0	<10.0	<10.0	<10.0	720
SB-4@15'	15'	7/31/2012	In-Situ	-	-	-	-	-	-	-	-	-	992
SB-4 @ 20'	20'	7/31/2012	In-Situ	-	-	-	-	-	-	-	-	-	352
SB-4 @ 25'	25'	7/31/2012	In-Situ	<0.050	<0.050	<0.050	< 0.0150	< 0.0150	<10.0	<10.0	<10.0	<10.0	256
Sample #1	2'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	3,200
Sample #2	2.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	•	-	208
Sample #3	2'	2/13/2013	In-Situ	-	-	-	-	-	-		-	-	1,230
Sample #4	2'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	272
Sample #5	2'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	592
Sample #6	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	1,840
Sample #7	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	•	-	160
Sample #8	2'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	160
Sample #9	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	160
Sample #10	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	1,540
Sample #11	1'	2/13/2013	In-Situ	-		-	-	-	-	-	-	-	320
Sample #12	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	160
Sample #13	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	320
Sample #14	1.5'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-		320
Sample #15	1'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	368
Sample #16	1'	2/13/2013	In-Situ	-	-	-	-	-	-	-	-	-	640
	, ,								· .				

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TABLE 1

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CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP JAMES RANCH UNIT #36 TANK BATTERY EDDY COUNTY, NEW MEXICO NMOCD REFERENCE #: 2RP-1204

				М	ETHOD: EP	A SW 846-8	3021B, 5030)	ME	THOD: 80	15M	TOTAL	4500 CI-B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
Sample #1	4'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	720
Sample #2	4'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	864
Sample #3	8'	3/11/2013	In-Situ	<0.050	<0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	128
Sample #4	7'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	256
Sample #5	7'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	758
Sample #6	5'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	112
Sample #7	5'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	576
Sample #8	1.5'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	48.0
Sample #9	2'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	96.0
Sample #10	1.5'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	80.0
Sample #11	2'	3/11/2013	In-Situ	<0.050	<0.050	<0.050	<0.0150	<0.0150	<10.0	<10.0	<10.0	<10.0	64.0
Sample #12	1.5'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	304
Sample #13	1.5'	3/11/2013	In-Situ	-	-	-	-	-	-	-	-	-	336
NMOCD Regulator	l ry Standard		· · · · · · · · · · · · · · · · · · ·	10	• • · · · · · · · · · · · · · · · · · ·			50				5,000	1,000

- = Not analyzed.

Appendices

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

District I 1625 N. French District II	Dr., Hobbs,	NM 88240		IVED St	ate of nerals	New Mex and Natura	ico Il Resources			Rev	Form C-141 ised October 10, 2003
1625 N. French Dr., Hobbs, NM 88240. Energy Minerals and Natural Resources District III Oil Conservation Division 1000 Rto Brazos Road, Aztec, NM 87410 Oil Conservation Division District IV NM 0000 ARTESIA0 1220 S St Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505									District C	opies to appropriate office in accordance h Rule 116 on back side of form	
n of the second s			Rel	ease Notifie	catio	n and Co	orrective A	ction		-	
nJML		34308	1			OPERA		Σ	🛛 Initi	al Report	Final Report
Name of Co			1 Conlab	2607		Contact To		20			
		Ranch Unit #		ad, N.M. 88220 Battery		Facility Ty	No. 432-556-873 pe E&P	50			
Surface Ow	ner Federa	al		Mineral (Owner I	Federal		T	Lease	40 NM-028	84B AAZ#
				LOC	ATIO	N OF RE	LEASE	30		-276	
Unit Letter	Section	Township -22S 23s	Range 30E	Feet from the 1980	North	/South Line North	Feet from the 1860	East/We Eas	st Line	County Eddy	·
-	<u> </u>		Lati	itude 🕅 32.3	335615	Longiti	ıde W 103.8321	17			
				-	-	OF REL					
Type of Rele	ease: Produc	ced water and	crude oil			Volume of	f Release: 450 bbl water and 5 bbls o		Volume I water.	Recovered: 1	00 bbls produced
		luced water sto	orage tank			6/24/12, H	Iour of Occurrence Iour unknown	ce Date and Hour of Discovery 6/24/12 7:30 a.m.			covery
Was Immedi	late Notice		Yes [] No 🗌 Not R	equired	If YES, TO NMOCD	o Whom? Emergency #104 a	and Jim Ai	mos witł	the BLM	
By Whom?							Hour 6/24/12, NM			BLM at 9:37	a.m
Was a Water	course Rea		Yes 🛛	No		If YES, V	olume Impacting (the Waterc	course.		
secondary w	ater transfe	r pump failed	to operate	n Taken.* The pr due to Head Swi the same day.	imary w tch malf	vater pump fa function, the h	iled to operate pro high level alarm fa	perly due iled to ope	to motor erate pro	bearing prob perly due to a	lems, the a calibration error
going to the location at th Land. The ar vertical exter rotary rig wa from the reco I hereby cert regulations a public health should their or the enviro	Hudson Fea ne JRU-36 v rea around t nt of the his is being sch ent release. ify that the ill operators or the env operations b mment. In a	deral and adjac was currently b storical release leduled to com A remediation information g s are required t ironment. The have failed to	cent well j being re-b been samp s. A copy plete the i plan will iven abov o report a acceptan adequatel OCD accept	pad. Approximate uilt and remediate led on 6/13/12 to of the sample res delineation. We w be developed in e is true and comp nd/or file certain ce of a C-141 rep y investigate and	ly 800 s ed; appro determine sults is an vill conti accordant olete to t release r ort by the remediant	q.ft. of pastur oximately 340 ne the amoun ttached. Verti- inue to deline nce with the N the best of my notifications a ne NMOCD n te contaminal	e land was impact	ted near the hpacted so in that remains on the obta of the obta d the tank f remediat moderstand ctive action aport" door reat to grou	e Hudso il had be ained aro ined duri battery a tion guid that pur ns for re es not re und wate	n tank battery een excavated und the tank ing the sampl and the newly lelines. suant to NMC leases which lieve the oper er, surface wa	ing event, an air impacted area OCD rules and may endanger ator of liability ter, human health
·				· · · ·			OIL CON	SERVA	TION	I DIVISIC	<u>N</u>
Signature Approved by District Supervisor: Printed Name: Tony Savoie Signed By Mile											
	····· · · ·	emediation Sp	ecialist			Approval Da	nte.		xpiration		
		roie@BassPet.				Conditions of		2012	spnauou	Attached	
Date: 6/24/11		· · · · · · · · · · · · · · · · · · ·		Phone:432-556-	8730	_					
Attach Addi	itional She	ets If Necess	sary			Guidelines PROPOSA	liation per OCE . SUBMIT REM . NOT LATER TI - 2012.	EDIATIC		· 2	RP-1204

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<u>District I</u> 1625 N. French Dr., Hobbš, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico RECEIVED Energy Minerals and Natural Resources. JAN 23 2014 Oil Conservation Division JAN 23 2014 1220 South St. Francis Dr Santa Fe, NM 87505 MOCD ARTESIA Side of form
D	

Release Notification and Corrective Action

	OPI	ERATOR	Initial Report	X Final Report
Name of Company BOPCO, LP 26	07 37	Contact Tony Savoie		
Address 522 W. Mermod, Suite 704, Carlsba	d, NM 88220	Telephone No. (432)556-8730		
Facility Name James Ranch Unit #36		Facility Type E&P		27686
Surface Owner Federal	Mineral Owner	r Federal	Lease No. API	#30-015 -2786 -

LOCATION OF RELEASE

	Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	G	1	23S	30E	1980	North	1860	East	Eddy
Т									

Latitude 32.335615° North Longitude 103.832117° West

NATURE OF RELEASE

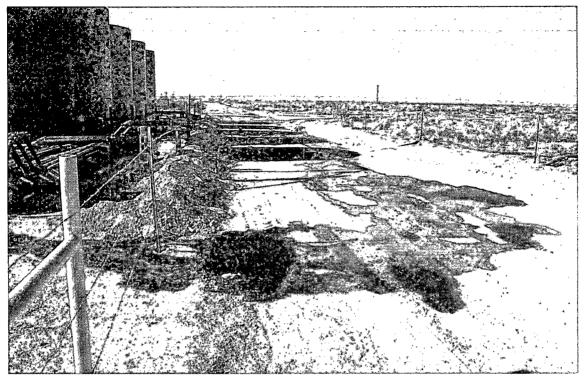
	-	
Type of Release Produced water and crude oil	Volume of Release 450 bbls of produced water and 5 bbls of crude oil	Volume Recovered 100 bbls
Source of Release Produced water storage tank	Date and Hour of Occurrence 6/24/12, Hour unknown	Date and Hour of Discovery 6/24/12 7:30 a.m.
Was Immediate Notice Given? X Yes No Not Required	If YES, To Whom? NMOCD Emergency #104 and Jir	n Amos with the BLM
By Whom? Tony Savoie	Date and Hour 6/24/12, NMOCD	at 9:14 a.m. BLM at 9:37 a.m.
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken:* The prima secondary water transfer pump failed to operate due to Head Switch ma and wiring problem. All failures were corrected the same day.	Ifunction. The high level alarm failed	to operate properly due to a calibration error
Describe Area Affected and Cleanup Action Taken.* Approximately 32 going to the Hudson Federal Battery and adjacent well pad. Approximatinitial response activities, the release was remediated as per NMOCD <i>Risk-Based Site Closure Request</i> for remediation details.	tely 800 ft ² of pasture land was impact recommended guidelines. Please refe	cted near the Hudson tank battery. Following erence the attached <i>Remediation Summary</i> &
I hereby certify that the information given above is true and complete regulations all operators are required to report and/or file certain releat public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remedi or the environment. In addition, NMOCD acceptance of a C-141 rep federal, state, or local laws and/or regulations.	se notifications and perform corrective y the NMOCD marked as "Final Rep iate contamination that pose a threat t	ve actions for releases, which may endanger ort" does not relieve the operator of liability to ground water, surface water, human health
	OIL CONSER	VATION DIVISION
Signature: Drug Bourse Printed Name: Tony Savoie	Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:	
Date: 1/22/14 Phone: 432-556-8730		
	2R P-1204	

Appendix B Photographs

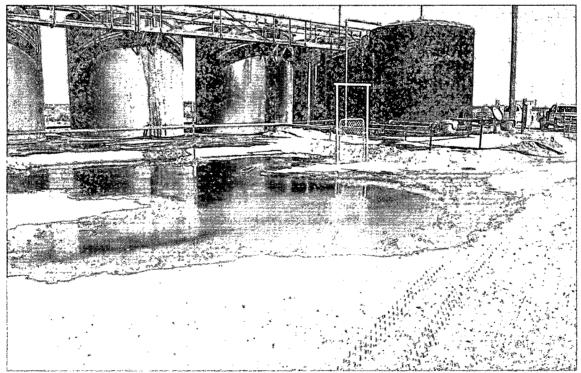
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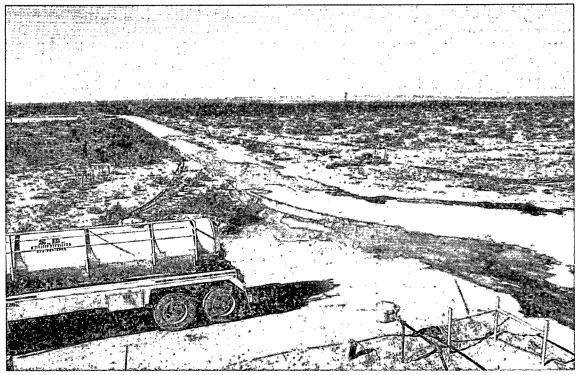
Ğ



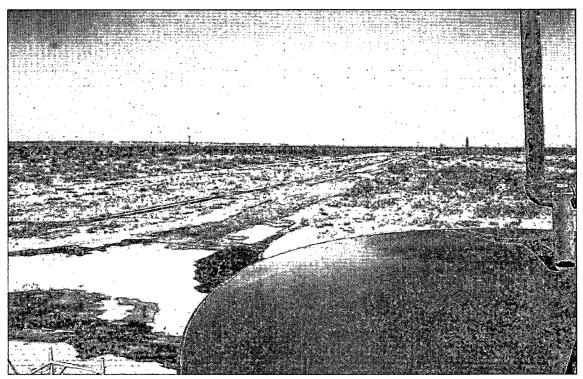
James Ranch Unit #36 Tank Battery - Release Site (Looking South)



James Ranch Unit #36 Tank Battery - Release Site (Looking Northwest)



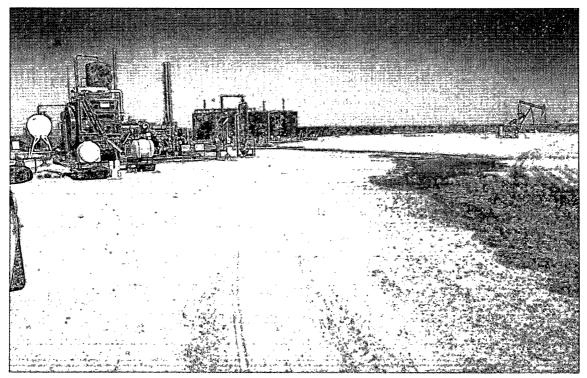
James Ranch Unit #36 Tank Battery - Flow Path (Looking Southwest)



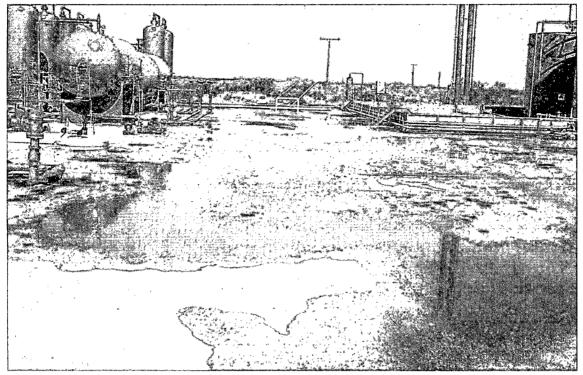
James Ranch Unit #36 Tank Battery - Flow Path (Looking West-southwest)



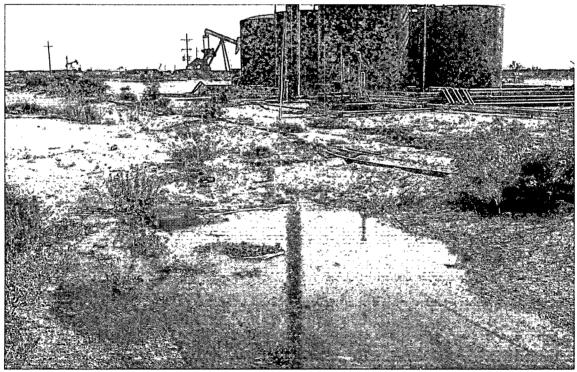
James Ranch Unit #36 Tank Battery - Flow Path (Looking West)



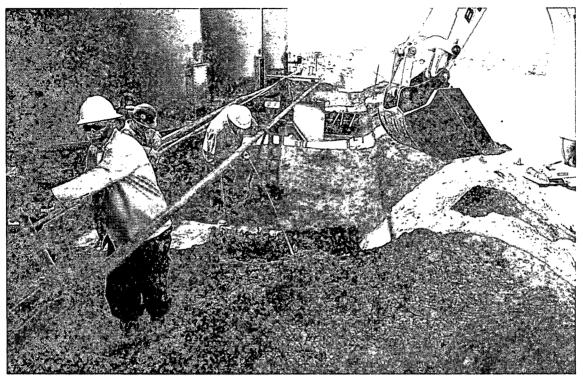
James Ranch Unit #36 Tank Battery - Flow Path at Hudson Federal Battery (Looking Northwest)



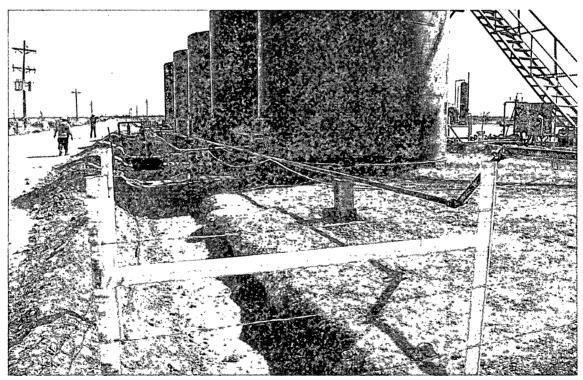
James Ranch Unit #36 Tank Battery - Pooling Area at Hudson Federal Battery (Looking West)



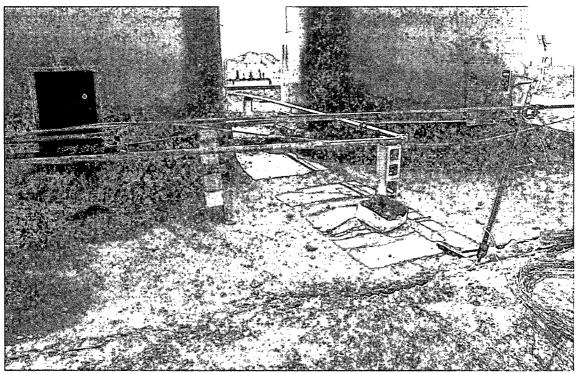
James Ranch Unit #36 Tank Battery - Pooling Area at Hudson Federal Battery (Looking Northeast)



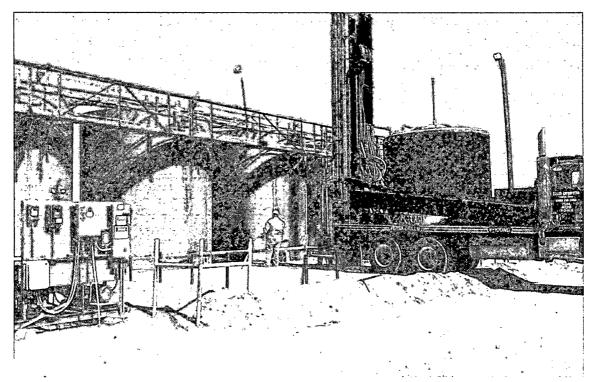
James Ranch Unit #36 Tank Battery - Excavation & Delineation Trenching



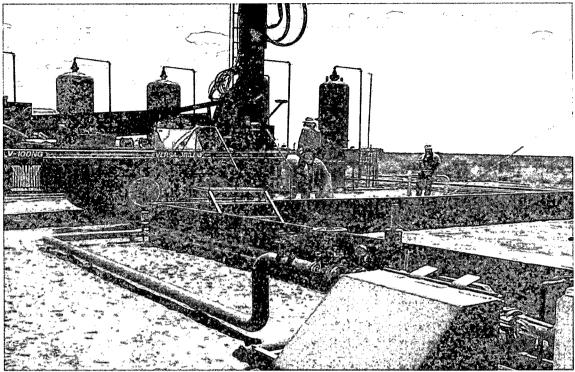
James Ranch Unit #36 Tank Battery - Excavation



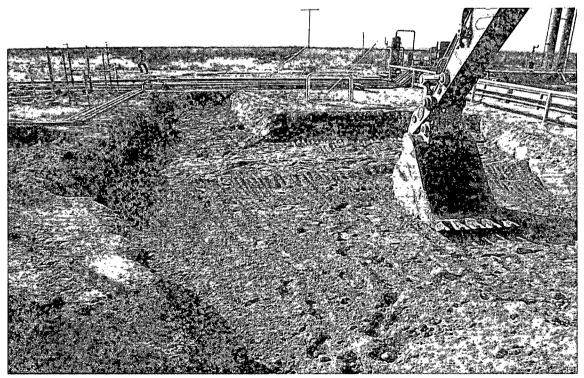
James Ranch Unit #36 Tank Battery - Excavation



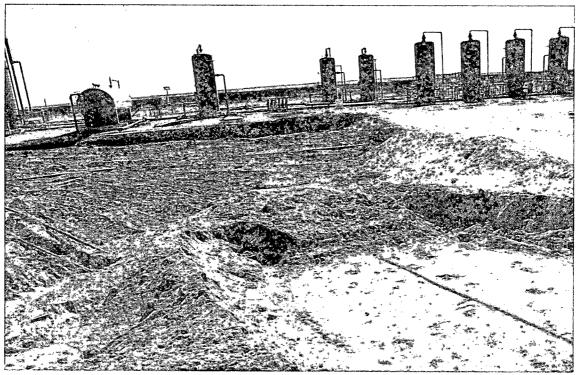
James Ranch Unit #36 Tank Battery - Advancement of Soil Boring SB-1



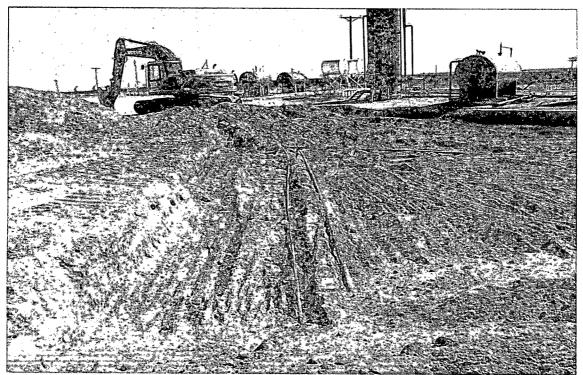
James Ranch Unit #36 Tank Battery - Advancement of Soil Boring SB-4



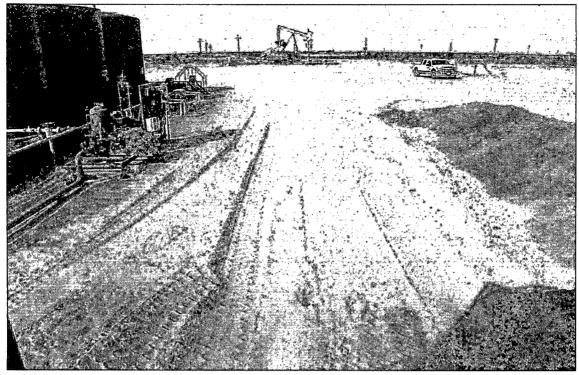
James Ranch Unit #36 Tank Battery - Hudson Federal Battery Excavation



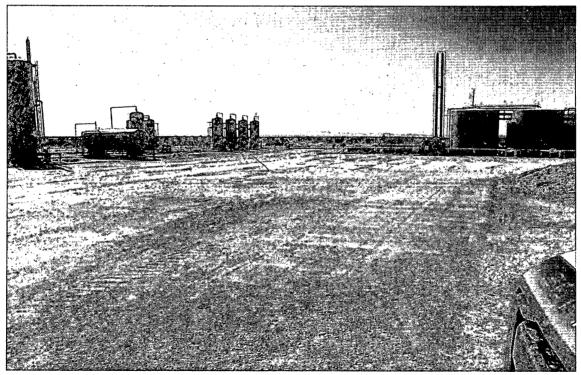
James Ranch Unit #36 Tank Battery - Hudson Federal Battery Excavation



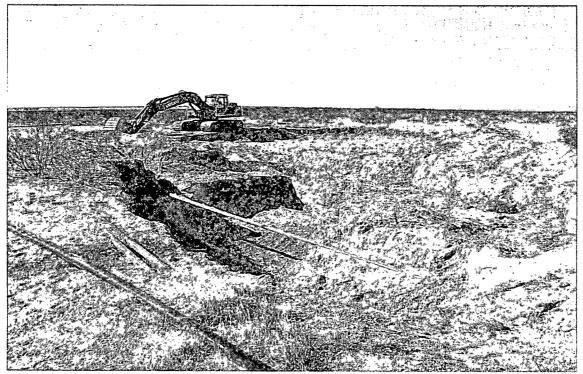
James Ranch Unit #36 Tank Battery - Hudson Federal Battery Excavation



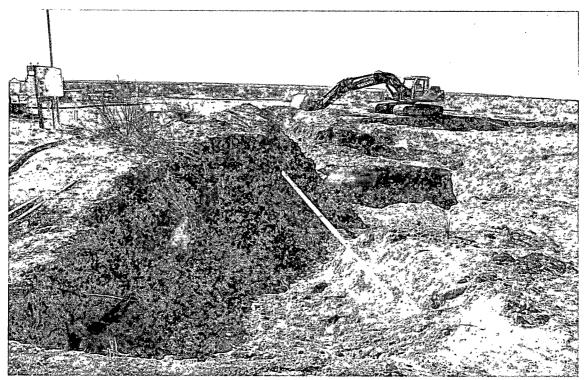
James Ranch Unit #36 Tank Battery - Hudson Federal Battery Excavation (During Backfilling)



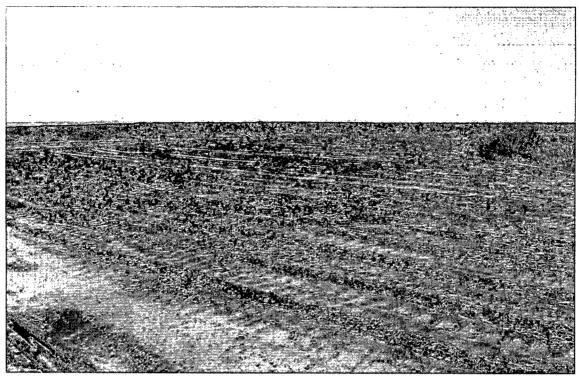
James Ranch Unit #36 Tank Battery - Hudson Federal Battery Excavation (Following Backfilling)



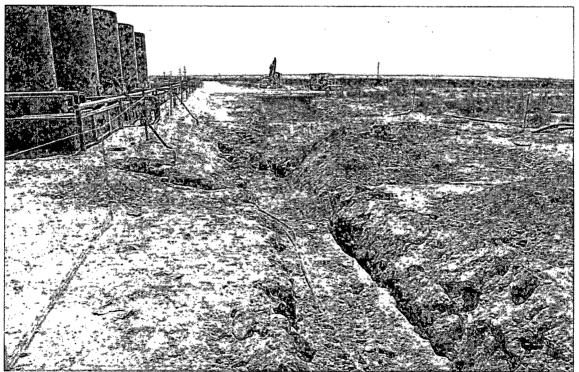
James Ranch Unit #36 Tank Battery - Pooling Area Excavation at Hudson Federal Battery



James Ranch Unit #36 Tank Battery - Pooling Area Excavation at Hudson Federal Battery

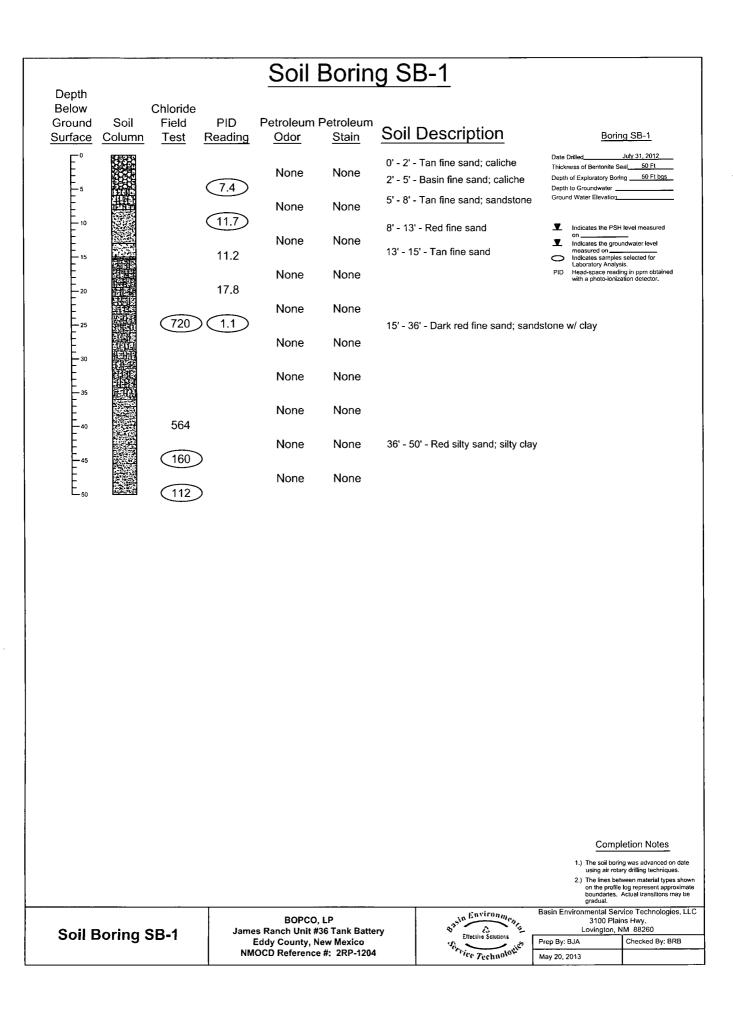


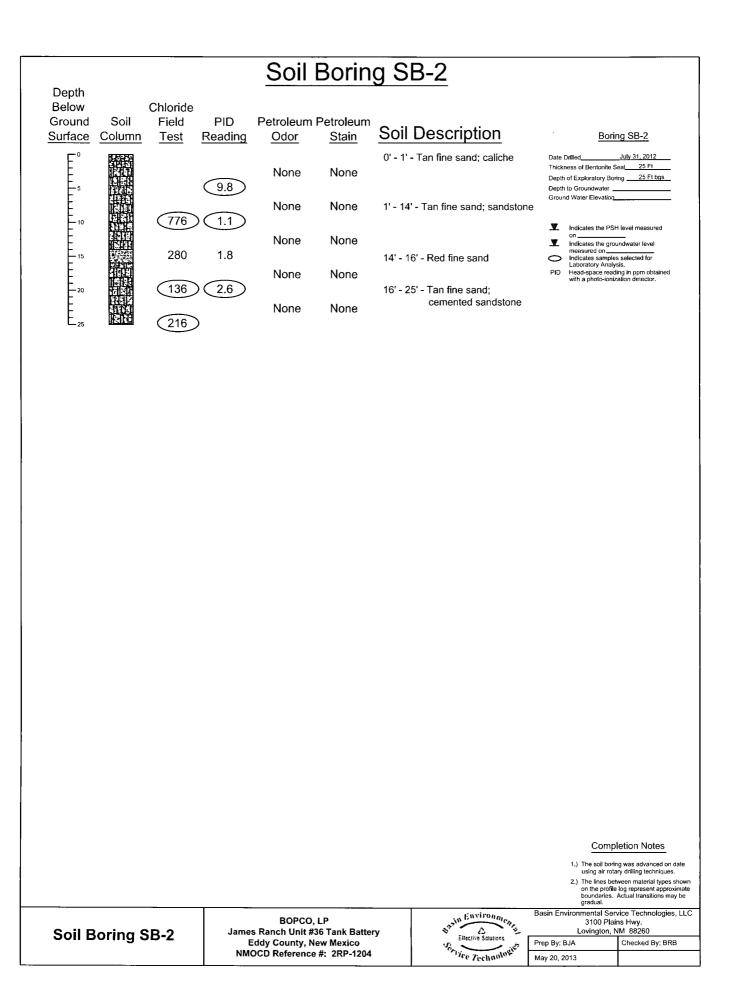
James Ranch Unit #36 Tank Battery - Pooling Area Excavation at Hudson Federal Battery (Following Backfilling)



James Ranch Unit #36 Tank Battery - Excavation (Following Installation of Steel Containment Area)

Appendix C Soil Boring Logs





					Soil	Borin	g Sl	B-3			
	Depth Below Ground Surface	Soil Column	Chloride Field Test	PID <u>Reading</u>	Petroleum Odor	Petroleum Stain	Soil	Description		Borin	g SB-3
<u>-</u>		COlumn	1051	reading	0001			Tan fine sand; caliche	Date I		July 31, 2012
	- - - - - -			0.2	None	None		Tan fine sand; sandstone	Thickr Depth Depth	ness of Bentonite Se of Exploratory Borin to Groundwater d Water Elevation	at20 Ft
			720		None None	None None	9' - 18'	- Bridge fine sand; sandst	⊻ one ⊻	Indicates the PSH on Indicates the grou measured on	_
	15 20		(316) (216)	0.1	None	None)' - Red silty sand; sandsto	O PID	Indicates samples Laboratory Analys Head-space readi with a photo-ioniza	is. Ig in ppm obtained
				\sim							
	·										
											etion Notes
										using air rota 2.) The lines bet on the profile boundaries. gradual.	g was advanced on date y drilling techniques. ween material types shown log represent approximate Actual transitions may be
	Soil F	Soring S	SB-3			#36 Tank Batte	ry	Basin Environmente	Basin En	vironmental Sen 3100 Plain Lovington, N	M 88260
		sing v			Eddy County, I		-	Effective Solutions	Prep By: May 20, 2		Checked By: BRB
				•							

				Soil	Borin		R_4			
Depth				001	Donn	<u>y 0</u>	D-4			
Below Ground <u>Surface</u>	Soil <u>Column</u>	Chloride Field <u>Test</u>	PID <u>Reading</u>	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	<u>Soil</u>	Description		Borir	1 <u>g SB-4</u>
0 			0.1	None	None		- Backfill - Tan fine sand	Thicl Dept Dept	Drilled mess of Bentonite S h of Exploratory Bori h to Groundwater nd Water Elevation_	
10			0.3	None	None	8' - 9' - 9' - 11'	- Tan fine sand; sandstone ' - Pink fine sand; sandstone	e z	Indicates the PSH	l level measured
- 		904	0.9	None	None	11' - 17	7' - Tan fine sand; sandston	e ▼ ○	on Indicates the grou measured on Indicates samples Laboratory Analys	
		(316)		None	None	17' - 20	0' - Rose silty sand; sandsto	one	Head-space readi with a photo-ioniz	ng in ppm obtained
		(216)	0.1	None	None	20' - 2	5' - Tan silty sand; sandstor	ne		
									1.) The soil bori using air rota	letion Notes ing was advanced on date iny drilling techniques.
									on the profile boundaries, gradual.	ween material types show log represent approxima Actual transitions may be
Soil B	oring S	SB-4		Eddy County,	#36 Tank Batte New Mexico	-	Bash Effective Solutions	Basin E Prep By	3100 Plai Lovington, I	
			NM	OCD Reference	ce #: 2RP-1204		Frice Technologie	May 20,	2013	

Appendix D Permits

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 E. Greene St. Carlsbad, NM 88220-6292

In Reply Refer To: 3162.4 (NM-080) NMNM02884B, NMLC061705B

July 5, 2012

NM Office of the State Engineer Attn: Bill Duemling 1900 W. Second St. Roswell, NM 88201

Re: NMNM02884B; James Ranch Unit #36 (3001527686) 1980' FNL & 1860' FEL (SW/NE) Section 1, T22S-R30E Latitude: 32.335615, Longitude: -103.832117 Eddy County, New Mexico

> NMLC061705B; Poker Lake Unit #78 (3001527536) 660' FNL & 660' FEL (NE/NE) Section 25, T24S-R30E Latitude: 32.19467, Longitude: -103.82830 Eddy County, New Mexico

Gentlemen:

The above well locations have had recent spill events related to oil and gas operations on the above referenced well locations. In order to fully delineate the impacted sites, a drilling unit will be needed to complete the delineation. The Bureau of Land Management (land owner) authorizes the use of a drilling unit to accomplish the full delineation of the site.

If you have any questions contact Jim Amos, at 575-234-5909.

Sincerely, amis a. Com James A. Amos Supervisory EPS

Scott A. Verhines, P.E. State Engineer



Roswell Office 1900 WEST SECOND STREET ROSWELL, NM 88201 L

STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

Trn Nbr: 507137 File Nbr: C 03559

Jul. 12, 2012

BEN ARGUIJO (BASIN ENVIRONMENTAL) BOPCO, LP 522 WEST MERMOD CARLSBAD, NM 88220

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 07/31/2013, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 07/31/2013.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Bill Duemling

(575) 622 - 6521

Enclosure

explore

•		. F).	C-3559
	NEW MEXICO OFFICE OF		
isiersteite Sincem Commission	WITH NO CONSUMPTIN		A CONTRACTOR OF THE PARTY OF TH
	(check applica	able box):	مىۋىدى
	For fees, see State Engineer websit	e: http://www.ose.state.nm.us/	2-31725
Purpose:	Pollution Control And / Or Recovery	Geo-Thermal	INIZ J
Exploratory	Construction Site De-Watering	Other (Describe):	UNT I
	Mineral De-Watering		0 /
A separate permit will be	required to apply water to beneficial use.		
Temporary Request -	Requested Start Date: 6/28/2012	Requested Er	nd Date: 6/28/2013
Plugging Plan of Operation	ons Submitted? 📋 Yes 🛛 No		
Plugging Plan of Operations Submitted? 🗍 Yes 🛛 No			

1. APPLICANT(S)

· Stelling

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. . . .

Name: BOPCO, LP		Name:		
Contact or Agent: Ben J. Arguijo (Basin Envi	check here if Agent 🔯	Contact or Agent:	check here if Agent	
Mailing Address: 522 W. Me	rmod	Mailing Address:		
City: Carlsbad	,,,,,,,_,_,_,_,_,_	City:		
State: NM	Zip Code: 88220	State:	Zip Code:	
Phone: (432)556-8730 Phone (Work):	🗌 Home 🛛 Cell	Phone: Phone (Work):	Home Cell	
E-mail (optional): TASavoie bjarguljo@basinenv.co	-	E-mail (optional):		

Application for Permit, Form wr-07, Rev 4/12/12 FOR OSE INTERNAL USE ZOIS THE S HU 8 3T File Number: C-3559 Trn Number: 507137 EXPL Trans Description (optional): Sub-Basin: 07/31/2013 PCW COG Due Date

Page 1 of 3

	pplicable	 Describe the well(s) applicable . 	2.
--	-----------	---	----

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above. NM State Plane (NAD83) (Feet) UTM (NAD83) (Meters) Lat/Long (WGS84) (to the nearest NM West Zone Zone 12N 1/10th of second) Zone 13N NM East Zone NM Central Zone Provide if known: -Public Land Survey System (PLSS) Y or Northing (Quarters or Halves, Section, Township, Range) OR X or Easting or Well Number (if known): Longitude: or Latitude: - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision: OR - Land Grant Name SB-1 32.335615 -103.832117 Unit Letter "G" (SW/NE), Section 1, Township 22 South, B2, 20, B2141.103, 49556 22 Range 30 East SB-2 32.335615 -103.832117 Unit Letter "G" (SW/NE), Section 1, Township 22 South, 23 Range 30 East SB-3 32.335615 -103.832117 Unit Letter "G" (SW/NE), Section 1, Township 22-South, 23 Range 30 East SB-4 Unit Letter "G" (SW/NE), Section 1, Township 22 South, 32.335615 -103.832117 23 Range 30 East Unit Letter "G" (SW/NE), Section 1, Township 22 South, SB-5 32.335615 -103.832117 23 Range 30 East NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 - POD Descriptions) Additional well descriptions are attached: Yes X No If yes, how many Other description relating well to common landmarks, streets, or other: See attached Site Location Map. Well is on land owned by: US Bureau Of Land Management Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? 🗌 Yes 🗌 No If yes, how many Approximate depth of well (feet): 50.00 Outside diameter of well casing (inches): 0.00 **Driller Name: Straub Corporation** Driller License Number: WD1478

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

Up to five (5) soil borings will be drilled on-site to investigate the vertical extent of contamination following a crude oil and produced water release at BOPCO's James Ranch Unit #36 site. The exact number, location(s), and depth(s) of the soil bore(s) will be determined on the drilling date by field-screens using a chloride test kit and/or Photo-Ionization Detector Due to the depth to water at the location (approximately 170 feet below ground surface), it is unlikely that monitor wells will be required.

TE 8 File Number:

Trn Number: 507137

Application for Permit, Form wr-07

2-31725

Page 2 of 3

• 4. SPECIFIC REQUIREMENTS: The applica. Just include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application;

boxes, to indicate	the information has been included and/or a	Ittached to this application;	2-31725
Exploratory:	Pollution Control and/or Recovery:	Construction	Mine De-Watering:
🛛 Include a	Include a plan for pollution	De-Watering:	Include a plan for pollution
description of	control/recovery, that includes the	I Include a description of the	control/recovery, that includes the following:
any proposed	following:	proposed dewatering	A description of the need for mine
pump test, if	A description of the need for the	operation,	dewatering.
applicable.	pollution control or recovery operation.	The estimated duration of	The estimated maximum period of time
4	The estimated maximum period of	the operation,	for completion of the operation.
	time for completion of the operation.	The maximum amount of	The source(s) of the water to be diverted.
	The annual diversion amount,	water to be diverted,	The geohydrologic characteristics of the
	The annual consumptive use	A description of the need	aquifer(s).
	amount.	for the dewatering operation,	The maximum amount of water to be
	The maximum amount of water to be	and,	diverted per annum.
	diverted and injected for the duration of	A description of how the	The maximum amount of water to be
	the operation.	diverted water will be disposed	diverted for the duration of the operation.
	The method and place of discharge.	of.	The quality of the water.
Monitoring:	The method of measurement of	Geo-Thermal:	The method of measurement of water
Include the	water produced and discharged.	Include a description of the	diverted.
reason for the	The source of water to be injected.	geothermal heat exchange	The recharge of water to the aguifer.
monitoring	The method of measurement of	project,	Description of the estimated area of
well, and,	water injected.	The amount of water to be	hydrologic effect of the project.
☐ The	The characteristics of the aquifer.	diverted and re-injected for the	The method and place of discharge.
duration	The method of determining the	project,	An estimation of the effects on surface
of the planned	resulting annual consumptive use of	The time frame for	water rights and underground water rights
monitoring.	water and depletion from any related	constructing the geothermal	from the mine dewatering project.
	stream system.	heat exchange project, and,	A description of the methods employed to
	Proof of any permit required from the	The duration of the project.	estimate effects on surface water rights and
	New Mexico Environment Department.	Preliminary surveys, design	underground water rights.
	An access agreement if the	data, and additional	☐ Information on existing wells, rivers,
	applicant is not the owner of the land on	information shall be included to	springs, and wetlands within the area of
	which the pollution plume control or	provide all essential facts	hydrologic effect.
	recovery well is to be located.	relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Ben J. Arguijo

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

approved 2

gnature

Applicant Signature

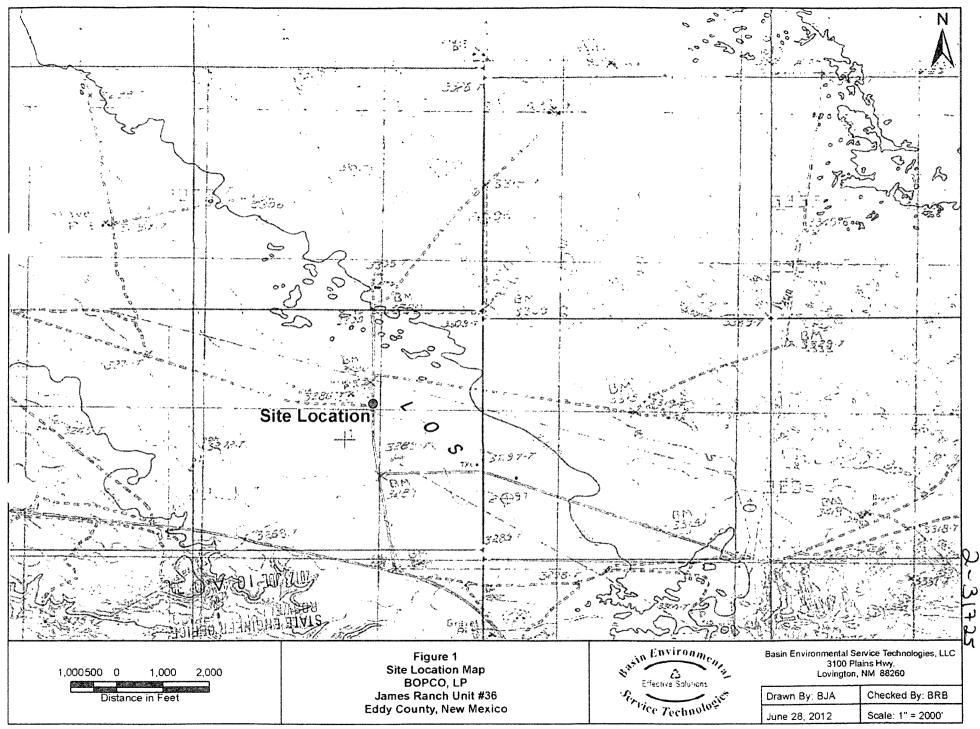
ACTION OF THE STATE ENGINEER

This application is:

i partially approved idenied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the <u>attached</u> conditions of approval.

Witness my hand and seal this <u>12th</u> day of <u>July</u>	20 <u>/2</u> , for the State Engineer,
Scott A. Verhines, P.E.	, State Engineer
By fill Quint	Bill Duemling 5 -
Signature Title: Carlsbad Busin Supervisor	
Print FOR OSE INTERN	NALUSE Application for Permit, Form wr-07
TE 8 WH Z TUL S HUMBER: C-	- 3559 Trn Number: 507137 Page 3 of 3



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NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.
- B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.
- C Driller's well record must be filed with the State Engineer within. 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.
- LOG The Point of Diversion C 03559 POD1 must be completed and the Well Log filed on or before 07/31/2013.
- LOG The Point of Diversion C 03559 POD2 must be completed and the well Log filed on or before 07/31/2013.
- LOG The Point of Diversion C 03559 POD3 must be completed and the Well Log filed on or before 07/31/2013.
- LOG The Point of Diversion C 03559 POD4 must be completed and the Well Log filed on or before 07/31/2013.
- LOG The Point of Diversion C 03559 POD5 must be completed and the Well Log filed on or before 07/31/2013.

NO WATER SHALL BE DIVERTED FROM THESE BOREHOLES EXCEPT FOR TESTING PURPOSES, WHICH SHALL NOT EXCEED TEN (10) CUMULATIVE DAYS, AND BOREHOLES SHALL BE PLUGGED OR CAPPED ON OR BEFORE 07/31/2013.

THE BOREHOLES SHALL BE CONSTRUCTED, MAINTAINED, AND OPERATED THAT EACH WATER SHALL BE CONFINED TO THE AQUIFER IN WHICH IT IS ENCOUNTERED.

Trn Desc: C 03559:EXPLORATORY BORE HOLES

File Number: <u>C 03559</u> Trn Number: <u>507137</u>

£

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:Date Rcvd. Corrected:Formal Application Rcvd:07/12/2012Pub. of Notice Ordered:Date Returned - Correction:Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 12 day of Jul A.D., 2012

Scott A. Verhines, P.E. , State Engineer Ey: ALA Bill Dueming, Basin Supv.

• •

Trn Desc: C 03559: EXPLORATORY BORE HOLES

File	Number:	C 03559
Trn	Number:	507137

Locator Tool Report

General Information:

Application ID: 30

Date: 07-11-2012

Time: 17:19:34

WR File Number: C-03559 Purpose: POINT OF DIVERSION

Applicant First Name: BOPCO LP & BASIN ENVIRONMENTAL (JAMES RANCH AREA) Applicant Last Name: POLLUTION TEST BORE HOLES (5 TOTAL)

> GW Basin: CARLSBAD County: EDDY

Critical Management Area Name(s): NONE Special Condition Area Name(s): NONE Land Grant Name: NON GRANT

PLSS Description (New Mexico Principal Meridian):

NW 1/4 of SE 1/4 of SW 1/4 of NE 1/4 of Section 01, Township 23S, Range 30E.

Coordinate System Details:

Geographic Coordinates:

Latitude:	32 Degrees	20 Minutes	8.2 Seconds	Ν
Longitude:	103 Degrees	49 Minutes	55.6 Seconds	W

Universal Transverse Mercator Zone: 13N

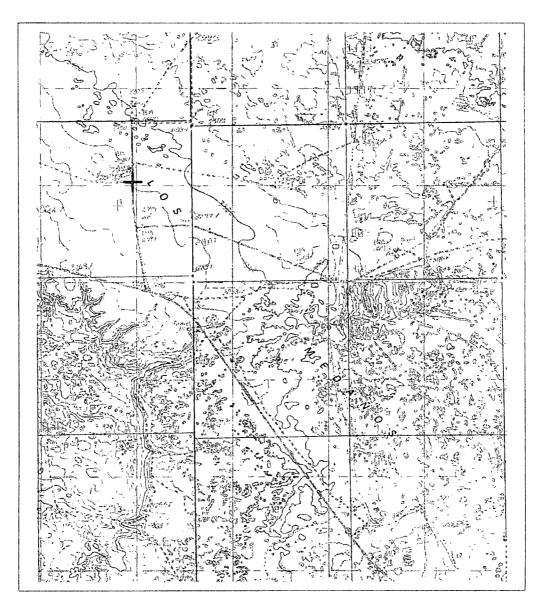
NAD 1983(92) (Meters)	N: 3,578,236	E: 609,912
NAD 1983(92) (Survey Feet)	N: 11,739,596	E: 2,001,021
NAD 1927 (Meters)	N: 3,578,034	E: 609,961
NAD 1927 (Survey Feet)	N: 11,738,934	E: 2,001,180

State Plane Coordinate System Zone: New Mexico East

NAD 1983(92) (Meters)	N: 148,191	E: 212,184
NAD 1983(92) (Survey Feet)	N: 486,191	E: 696,141
NAD 1927 (Meters)	N: 148,173	E: 199,632
NAD 1927 (Survey Feet)	N: 486,131	E: 654,958

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report





 WR File Number: C-03559
 Scale: 1:37,354

 Northing/Easting: UTM83(92) (Meter):
 N: 3,578,236
 E: 609,912

 Northing/Easting: SPCS83(92) (Feet):
 N: 486,191
 E: 696,141

 GW Basin: Carlsbad
 E: 600,012
 E: 600,012

Print Date: 07/11/2012

Appendix E Laboratory Analytical Reports

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June 19, 2012

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

RE: JAMES RANCH UNIT 36 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/14/12 9:00.

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 www.tceq.texas.gov/field/qa/lab_accred_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.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/14/2012	Sampling Date:	06/13/2012
Reported:	06/19/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN	·	

Sample ID: SAMPLE 1 (H201339-01)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17400	16.0	06/18/2012	ND	448	112	400	3.64	
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	1040	50.0	06/15/2012	ND	185	92.4	200	1.98	
DR0 >C10-C28	6970	50.0	06/15/2012	ND	194	97.2	200	3.12	
EXT DRO >C28-C35	1250	50.0	06/15/2012	ND					
Surrogate: 1-Chlorooctane	185 %	6 65.2-14	0						
Surrogate: 1-Chlorooctadecane	250 %	63.6-15	4						

Sample ID: SAMPLE 2 (H201339-02)

Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	06/18/2012	ND	448	112	400	3.64	
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	352	50.0	06/15/2012	ND	185	92.4	200	1.98	
DRO >C10-C28	8550	50.0	06/15/2012	ND	194	97.2	200	3.12	
EXT DRO >C28-C35	1660	50.0	06/15/2012	ND					
Surrogate: 1-Chlorooctane	142 %	65.2-14	0						
Surrogate: 1-Chlorooctadecane	289 %	63.6-15	4						

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*=Accredited Analyte

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Celeg Li Kune-

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/14/2012	Sampling Date:	06/13/2012
Reported:	06/19/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SAMPLE 3 (H201339-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/18/2012	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	<50.0	50.0	06/15/2012	ND	185	92.4	200	1.98	
DRO >C10-C28	476	50.0	06/15/2012	ND	194	97.2	200	3.12	
EXT DRO >C28-C35	268	50.0	06/15/2012	ND					
Surrogate: 1-Chlorooctane	110	% 65.2-14	0	······					
Surrogate: 1-Chlorooctadecane	146	% 63.6-15	4						

Sample ID: SAMPLE 4 (H201339-04)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	06/18/2012	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	06/15/2012	ND	185	92.4	200	1.98	
DRO >C10-C28	111	10.0	06/15/2012	ND	194	97.2	200	3.12	
EXT DRO >C28-C35	52.6	10.0	06/15/2012	ND					
Surrogate: 1-Chlorooctane	105	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	128	% 63.6-15	4						

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*=Accredited Analyte

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Cellecy D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/14/2012	Sampling Date:	06/13/2012
Reported:	06/19/2012	Sampling.Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SAMPLE 5 (H201339-05)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chioride	11400	16.0	06/18/2012	ND	448	112	400	3.64	
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
G RO C6-C10	611	50.0	06/15/2012	ND	185	92.4	200	1.98	
DRO >C10-C28	9170	50.0	06/15/2012	ND	194	97.2	200	3.12	
EXT DRO >C28-C35	1970	50.0	06/15/2012	ND		·			
Surrogate: 1-Chlorooctane	162 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	319 %	63.6-15	4						

Sample ID: SAMPLE 5 2' (H201339-06)

Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	06/18/2012	ND	448	112	400	3.64	
TPH 8015M	mg/l	<g< th=""><th>Analyze</th><th>d By: MS</th><th></th><th></th><th></th><th></th><th>S-06</th></g<>	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1130	50.0	06/15/2012	ND	185	92.4	200	1.98	
DRO >C10-C28	7690	50.0	06/15/2012	ND	1 94	97.2	200	3.12	
EXT DRO >C28-C35	1390	50.0	06/15/2012	ND					
Surrogate: 1-Chlorooctane	197 %	65.2-14	0						
Surrogate: 1-Chlorooctadecane	261 %	63.6-15	4 .						

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 4 of 9



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

Received:	06/14/2012	Sampling Date:	06/13/2012
Reported:	06/19/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SAMPLE 5 4' (H201339-07)

Value QC RPI 400 3.6	64
400 3.6	
	S-06
Value QC RPI	D Qualifier
200 1.9	8
200 3.1	.2
-	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 9



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

Received:	06/14/2012	Sampling Date:	06/13/2012
Reported:	06/19/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SAMPLE 5 6' (H201339-08)

BTEX 8021B	mg/	kg	Analyze	d By: ZZZ					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/18/2012	ND	1.93	96.5	2.00	7.45	
Toluene*	0.165	0.050	06/18/2012	ND	1.94	97.1	2.00	6.42	
Ethylbenzene*	0.740	0.050	06/18/2012	ND	1.96	98.2	2.00	6.95	
Total Xylenes*	2.80	0.150	06/18/2012	ND	5.91	98.6	6.00	6.73	
Surrogate: 4-Bromofluorobenzene (PIL	188 %	6 89.4-120	5			,	<u></u>		
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Anatyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	06/18/2012	ND	448	112	400	3.64	

TPH 8015M	mg	/kg	Anałyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	233	50.0	06/15/2012	ND	185	92.4	200	1.98	
DRO >C10-C28	5120	50.0	06/15/2012	ND	194	97.2	200	3.12	
EXT DRO >C28-C35	1010	50.0	06/15/2012	ND					

Surrogate: 1-Chlorooctadecane 224 % 63.6-154

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*=Accredited Analyte

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/14/2012	Sampling Date:	06/13/2012
Reported:	06/19/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SAMPLE 6 (H201339-09)

Chloride, SM4500Cl-B mg/kg Analyzed By: AP Analyte Result Reporting Limit Analyzed Method Blank % Recovery True Value QC RPD Qualifier BS Chloride 14200 16.0 06/18/2012 ND 448 400 112 3.64 TPH 8015M mg/kg Analyzed By: MS S-06 Analyte Result Reporting Limit Analyzed Method Blank True Value QC RPD Qualifier BS % Recovery GRO C6-C10 867 50.0 06/15/2012 ND 200 1.98 185 92.4 DRO >C10-C28 13800 50.0 06/15/2012 ND 194 97.2 200 3.12 EXT DRO >C28-C35 2820 50.0 06/15/2012 ND Surrogate: 1-Chlorooctane 193 % 65.2-140 Surrogate: 1-Chlorooctadecane 291% 63.6-154

Sample ID: SAMPLE 7 (H201339-10)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	26800	16.0	06/18/2012	ND	448	112	400	3.64		
TPH 8015M	mg/kg		Analyzed By: MS						S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	230	50.0	06/15/2012	ND	185	92.4	200	1.98		
DRO >C10-C28	9690	50.0	06/15/2012	ND	194	97.2	200	3.12		
EXT DRO >C28-C35	2060	50.0	06/15/2012	ND						
Surrogate: 1-Chlorooctane	149	% 65.2-14	0							
Surrogate: 1-Chlorooctadecane	328	% 63.6-15	4							

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*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	Basin Environmental Service				. 1		RI	LL 70				A . 1833. 1 4 1		ANAL	YSIS	S RE	OUF	ST			And the second
Project Manager	"Hen J. Arguijo	180	1101	Ugrea, DD	<u> </u>	P.0	and the second				Ţ							Ī		Accertante de manación de la constante de la co	****
Address: P.O.						Company: BO2CO, LP															
City: Lovingto		Zin): a)	3260			1: Tony			Î											
Phone #: (575)								w. Merr	nođ												1
Project #: Project Owner: BOPCO, LP					: Càrlsb																
	James Ranch Unit 36							Zip: 8622	0												
Project Location			110	·/	1	•	• · · ••	2)556-87										1			
	Jody Walters	• •					#:														
FOR LAB USE GALY	Sory and			MATR	_		PRESERV.	SAMPLI	NG												
Lab I.D. HZÓ1339	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER Soit	SLUDGE	OTHER.	ACID/BASE; ICE-//COOL OTHER :	DATE	TIME	solution day	BOISN	BTEX									
1	Sample 1	G	<u>)</u>	<u> </u>			- <u>X</u>	6-13-12		X	X		• - •								
2	Sample 1 Sample Z Sample 3 Sample 4	G	1	× ×			<u> </u>	6-13-12		X	X						<u> </u>	<u></u>	ļ		
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G	Sample 6	6	$\overline{\iota}$			-	X	6-13-12		1×	1x	¥	·				1	1			
	Sample 7	4	5	X	1			6-13-12	9:30	T X	1×										

PLEASE NOTE: Liabely and Domage). Combails explicitly and elimit's exclusive remedy for any claim arising which et based in contract or tort, shall be limbout point point by the client for illu malyses. All claums' including inose for negligence and any other cause worksever shall be deemed wolved unless made in willing and received by CanSnal within 30 days after completion of the applicable

service. In no event shall Cardenal be licitale for incidental or consequental camages, including without landahin, business intervations, loss of use, or loss of profes incurred by ellent, its subsitianities,

iblaies A spacessors aming out at or related to the performance of services hereunder by Cardinal regardless of unether such claim is based upon any of the above stated reasons or otherworke.

Phone Result: Relinguished By Received By: 200 Fax Result: REMARKS: 19500 i bri Reli shed By Date Tinte: 00 Delivered By: (Circle-One) Sample Condition CHECKED/BY: Cool Infact ไทนี้เอไร่ไ \mathcal{O} Yes Yes Sampler - UPS - Bus - Other:

|Add'l Phone #: O Yes 1 Yes Add'I Fax #: Please email results to pm@basinenv.com & TASavoie@BassPez.com julowry @basinenv.com

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



June 29, 2012

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

RE: JAMES RANCH UNIT 36 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/28/12 8:15.

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 www.tceg.texas.gov/field/qa/lab 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.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	06/28/2012	Sampling Date:	06/27/2012
Reported:	06/29/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #8 (H201453-01)

BTEX 8021B	mg,	/kg	Analyzed By: ZZZ						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.250	0.250	06/28/2012	ND	2.06	103	2.00	8.92	
Toluene*	0.867	0.250	06/28/2012	ND	2.08	104	2.00	10.2	
Ethylbenzene*	3.29	0.250	06/28/2012	ND	2.12	106	2.00	10.4	
Total Xylenes*	7.97	0.750	06/28/2012	ND	6.42	107	6.00	11.3	

Surrogate: 4-Bromofluorobenzene (PIL 213 % 89.4-126

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	06/28/2012	ND	416	104	400	3.92	
TPH 8015M	mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	999	100	06/28/2012	ND	166	82.9	200	1.48	
DR0 >C10-C28	15100	100	06/28/2012	ND	168	83.9	200	0.998	
EXT DRO >C28-C35	4410	100	06/28/2012	ND					
Surrogate: 1-Chlorooctane	159 %	65.2-14) .						
Surrogate: 1-Chlorooctadecane	352 %	63.6-15	4						

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Celeg Z: Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/28/2012	Sampling Date:	06/27/2012
Reported:	06/29/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #9 (H201453-02)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP				<u> </u>	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	17600	16.0	06/28/2012	ND	416	104	400	3.92	
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	11.4	10.0	06/28/2012	ND	166	82.9	200	1.48	
DRO >C10-C28	662	10.0	06/28/2012	ND	168	83.9	200	0.998	
EXT DRO >C28-C35	185	10.0	06/28/2012	ND					
Surrogate: 1-Chlorooctane	71.7 9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.4	% 63.6-15	4						

Sample ID: SAMPLE #10 (H201453-03)

Chloride, SM4500CI-B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8400 16.0			ND	400	100	400	0.00	
TPH 8015M	mg/	/kg	Analyzed By: MS			<u></u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	06/28/2012	ND	166	82.9	200	1.48	
DRO >C10-C28	335	50.0	06/28/2012	ND	168	83.9	200	0.998	
EXT DRO >C28-C35	308	50.0	06/28/2012	ND					
Surrogate: 1-Chlorooctane	68.9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	rrogate: 1-Chlorooctadecane 99.0 % 63.6-1.		4						

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/28/2012	Sampling Date:	06/27/2012
Reported:	06/29/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #11 (H201453-04)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride 6		16.0	06/28/2012	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	06/28/2012	ND	166	82.9	200	1.48	
DRO >C10-C28	1330	50.0	06/28/2012	ND	168	83.9	200	0.998	
EXT DRO >C28-C35	478	50.0	06/28/2012	ND					
Surrogate: 1-Chlorooctane	79.4	% 65.2-14	0.	<u></u>					
Surrogate: 1-Chlorooctadecane	121 9	63.6-15	4						

Sample ID: SAMPLE #12 (H201453-05)

Chloride, SM4500Cl-B	mg/l	kg	Analyze	d By: AP		<u>_</u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride 16400		16.0	06/28/2012	ND	400	100	400	0.00	
TPH 8015M	mg/l	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/28/2012	ND	166	82.9	200	1.48	
DRO >C10-C28	443	10.0	06/28/2012	ND	168	83.9	200	0.998	
EXT DRO >C28-C35	144	10.0	06/28/2012	ND					
Surrogate: 1-Chlorooctane	68.3 %	65.2-14	0						
Surrogate: 1-Chlorooctadecane	95.8 %	63.6-15	4						

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Celez Di Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	06/28/2012	Sampling Date:	06/27/2012
Reported:	06/29/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #13 (H201453-06)

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240 16.0		06/28/2012	400	100	400	0.00		
ТРН 8015М	mg/	kg	Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	80.2	50.0	06/28/2012	ND	166	82.9	200	1.48	
DRO >C10-C28	4200	50.0	06/28/2012	ND	168	83.9	200	0.998	
EXT DRO >C28-C35	941	50.0	06/28/2012	ND					
Surrogate: 1-Chlorooctane	97.1 9	% 65.2-14	10						
urrogate: 1-Chlorooctadecane 177 % 63.6-15		4							

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Celey D. Kerne

Celey D. Keene, Lab Director/Quality Manager



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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
NÐ	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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Celez Di Kerne

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	(575) 393-2326 FAX (575) 393-247																		C - Classical and		
Company Name	Basin Environmental Service	reci	inol	ogies	s, Ll	.C	L	BI	LL 70						ANA	LYSIS	RE	QUE	ST		
Project Manage	^{1:} Ben J. Arquijo						P.O. #:														
Áddress: P.O						Co	mpany; B	op co , Lé													
City: Lovingto	on State: NM	Zip	: 8	3260			At	tn: Tony	Savoic]					i					
Phone #: (575)396-2378 Fax #:(575)3	96•2	1429)			Ac	ldress: 52	? w. Meri	bơi											
Project#:	Project Owner	: ВС)PCC), LP			Ċi	ty: Carlst	ad							}					
Project Name:	James Ranch Unit 36 1	SAT	TER	Y			SI	ate: NM	Zip: 8822	0			1								
•	EDDY NM		,				P.h	one #: (43	2)556-87	30											
Sampler Name:	Jody Walters						Fa	x.#:													
FOR LAE USE ONLY					MATI	RIX T	1	PRESERV	SAMPLI	NG			3								
Lab I.D. H201453	Sample I.D.	(G)PAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL		OTHER.	ACID/BASE: ICE / COOL OTHER	DATE	TIME	RAISM		S FER	N 16X							WELSE MOL
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PLEASE HOTE: Habity and Damages. Cardinal's labitity and chert's exclusive remedy for any claim rising valence hosed in contract or ton, shall be ended in the amount paid by the chert for the analysies. All domy including these for negligence and any other cause whatsoever shall be general whether made in writing and received by Candinal which 30 days riter complexion of the applicable.

service. In no syent shall Cartinal be under for inclusion or consequental damages, including valued timitation, business intervotions, loss of use, or loss of profes erannel by chent, its subvillation.

ustables of success ars ansing out of or related to the performance of variaces berequive by Cardinal, repardiess of variaces of variaces ary of the above scalar feasons or otherwise	
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Fax Result: □ Yes □ No Add'I Fax #:	
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Sampler - UPS - Bus - Other:	
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† Cardinal cannot accept verbal changes. Please fax written changes 19 595-393-2476	
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August 07, 2012

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

RE: JAMES RANCH UNIT 36 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 08/02/12 16:45.

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 www.tceq.texas.gov/field/qa/lab accredited rettif.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.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 1 @ 5' (H201804-01)

Chioride, SM4500CI-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS.	% Recovery	True Value QC	RPD	Qualifier
Chioride	272	16.0	08/03/2012	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed 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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	88.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	88.1	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 1 @ 10' (H201804-02)

BTEX 8021B	mg,	/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	

Surrogate: 4-Bromofluorobenzene (PIL 100 % 89.4-126

Chloride, SM4500CI-B	mg,	/kg	Analyzed B						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	08/03/2012	ND	400	100	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/03/2012	NÐ	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	95.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	96.0	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 1 @ 25' (H201804-03)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/201 2	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	, 08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
Surrogate: 4-Bromofluorobenzene (PIL	101 %	5 89.4-12	6						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	08/03/2012	ND	400	100	400	0.00	
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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: I-Chlorooctane	96.4 %	65.2-140)						
Surrogate: 1-Chlorooctadecane	92.8 %	63.6-154	1						

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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 1 @ 35' (H201804-04)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	08/03/2012	ND	400	100	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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	96.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92 .7	% 63.6-15	4						

Sample ID: SB - 1 @ 45' (H201804-05)

Chloride, SM4500Cl-B mg/kg		Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/03/2012	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 1 @ 50' (H201804-06)

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	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
Surrogate: 4-Bromofluorobenzene (PIL	99.9 9	6 89.4-12	6						
Chioride, SM4500Ci-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/03/2012	ND	400	100	400	0.00	
TPH 8015M	mg/l	(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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	87.7 %	65.2-140)						
Surrogate: 1-Chlorooctadecane	86.5 %	63.6-154	1						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 2 @ 5' (H201804-07)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	08/03/2012	ND	400	100	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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	15.4	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	93.0	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.1	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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Reported: 08/07/2012 Sampling Type: Soil	Received:	08/02/2012	Sampling Date:	07/31/2012	
Device Name: JAMEC DANCH UNIT 26 PATTERY Sampling Condition: Cool 9 Integr	Reported:	08/07/2012	Sampling Type:	Soil	
Project Name: JAMES KANCH UNIT SO DATTERT Sampling Conductor. Cool & Intact	Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact	
Project Number: NONE GIVEN Sample Received By: Jodi Henson	Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson	
Project Location: EDDY COUNTY, NM	Project Location:	EDDY COUNTY, NM			

Sample ID: SB - 2 @ 10' (H201804-08)

BTEX 80218	mg/l	(g	Analyza	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
Surrogate: 4-Bromofluorobenzene (PIL	100 %	89.4-12	6						
Chloride, SM4500Cl-B	mg/k	9	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
Chloride	944	16.0	08/03/2012	ND	400	100	400	0.00	
TPH 8015M	mg/k	9	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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	87.4 %	65.2-140)						
Surrogate: 1-Chlorooctadecane	85.0%	63.6-154	r						

Sample ID: SB - 2 @ 20' (H201804-09)

Chloride, SM4500Cl-B mg/kg		/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/03/2012	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 2 @ 25' (H201804-10)

BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
	<u> </u>							. –	

Surrogate: 4-Bromofluorobenzene (PIC 122 % 89.4-126

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	08/03/2012	ND	400	100	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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	95.3	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.5	% 63.6-15	4						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 3 @ 5' (H201804-11)

mg,	/kg	Analyze	d By: HM		·		·	
Result	Reporting Limit	Analyzed	Method Blank	BS % Recovery	% Recovery	True Value QC	RPD	Qualifier
1520	16.0	08/03/2012	ND	400	100	400	0.00	
mg/	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	08/03/2012	ND	185	92.4	200	0.862	
<10.0	10.0	08/03/2012	ND	183	91.3	200	1,23	
<10.0	10.0	08/03/2012	ND					
90.9 \$	% 65.2-14	0						
90.4 9	63.6-15	4						
	Result 1520 mg, Result <10.0 <10.0 <10.0 90.9	1520 16.0 mg/kg Result Reporting Limit <10.0	Result Reporting Limit Analyzed 1520 16.0 08/03/2012 mg/kg Analyzed Result Reporting Limit Analyzed <10.0	Result Reporting Limit Analyzed Method Blank 1520 16.0 08/03/2012 ND mg/kg Analyzed By: MS Method Blank Result Reporting Limit Analyzed Method Blank <10.0	Result Reporting Limit Analyzed Method Blank BS 1520 16.0 08/03/2012 ND 400 mg/kg Analyzed By: MS Method Blank BS Result Reporting Limit Analyzed Method Blank BS <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery 1520 16.0 08/03/2012 ND 400 100 mg/kg Analyzed By: MS Method Blank BS % Recovery <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC 1520 16.0 08/03/2012 ND 400 100 400 mg/kg Analyzed BS % Recovery True Value QC Analyzed By: MS Method Blank BS % Recovery True Value QC Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 1520 16.0 08/03/2012 ND 400 100 400 0.00 mg/kg Analyzed By: MS Method Blank BS % Recovery True Value QC RPD Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD <10.0

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Celey D. Keene, Lab Director/Quality Manager



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Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 3 @ 10' (H201804-12)

BTEX 8021B	mg,	/kg	Апајуze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	

Surrogate: 4-Bromofluorobenzene (PIL 101 % 89.4-126

Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	08/03/2012	ND	400	100	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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	95.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	93.7 9	% 63.6-15	4						

Sample ID: SB - 3 @ 15' (H201804-13)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	08/03/2012	ND	400	100	400	0.00	

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Celey D.Kure

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:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 3 @ 20' (H201804-14)

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	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
Surrogate: 4-Bromofluorobenzene (PIL	96.0 %	6 89.4-12	6						
Chloride, SM4500CI-B	mg/i	g	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	08/03/2012	ND	400	100	400	0.00	
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	08/03/2012	ND	185	92.4	200	0.862	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	183	91.3	200	1.23	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	97.5 %	65.2-140)						
Surrogate: 1-Chlorooctadecane	97.8 %	63.6-154	1			×			

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Celeg Z. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 4 @ 5' (H201804-15)

mg,	/kg	Analyze	d By: HM					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
480	16.0	08/03/2012	ND	400	100	400	0.00	
mg,	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	08/03/2012	ND	185	92.3	200	0.279	
<10.0	10.0	08/03/2012	ND	195	97.6	200	5.50	
<10.0	10.0	08/03/2012	ND					
95.3	% 65.2-14	0						
94.3	% 63.6-15	4						
	Result 480 mg, Result <10.0 <10.0 <10.0 95.3	480 16.0 mg/kg Result Reporting Limit <10.0	Result Reporting Limit Analyzed 480 16.0 08/03/2012 mg/kg Analyzed Result Reporting Limit Analyzed <10.0	Result Reporting Limit Analyzed Method Blank 480 16.0 08/03/2012 ND mg/kg Analyzed By: MS Method Blank Result Reporting Limit Analyzed Method Blank <10.0	Result Reporting Limit Analyzed Method Blank BS 480 16.0 08/03/2012 ND 400 mg/kg Analyzed By: MS 400 Result Reporting Limit Analyzed By: MS 85 <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery 480 16.0 08/03/2012 ND 400 100 mg/kg Analyzed By: MS 100 100 Result Reporting Limit Analyzed By: MS % Recovery <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC 480 16.0 08/03/2012 ND 400 100 400 mg/kg Analyzed By: MS Method Blank BS % Recovery True Value QC <10.0	Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 480 16.0 08/03/2012 ND 400 100 400 0.00 mg/kg Analyzed By: MS Method Blank BS % Recovery True Value QC RPD Analyzed By: MS Method Blank BS % Recovery True Value QC RPD <10.0

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 4 @ 10' (H201804-16)

BTEX 8021B	mg/	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
Surrogate: 4-Bromofluorobenzene (PIE	100 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/l	«g	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	08/03/2012	ND	400	100	400	0.00	
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	08/03/2012	ND	185	92.3	200	0.279	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	195	97.6	200	5.50	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	91.5 %	65.2-14)						
Surrogate: 1-Chlorooctadecane	89.5 %	63.6-154	1						

Sample ID: SB - 4 @ 15' (H201804-17)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM				_	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	08/06/2012	ND	416	104	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Page 14 of 18



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

Received:	08/02/2012	Sampling Date:	07/31/2012
Reported:	08/07/2012	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB - 4 @ 20' (H201804-18)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	08/06/2012	ND	416	104	400	3.92	

Sample ID: SB - 4 @ 25' (H201804-19)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/07/2012	ND	1.70	85.2	2.00	7.84	
Toluene*	<0.050	0.050	08/07/2012	ND	1.83	91.3	2.00	6.14	
Ethylbenzene*	<0.050	0.050	08/07/2012	ND	1.87	93.5	2.00	6.07	
Total Xylenes*	<0.150	0.150	08/07/2012	ND	5.64	94.0	6.00	5.24	
Surrogate: 4-Bromofluorobenzene (PIL	101 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	08/06/2012	ND	416	104	400	3.92	
TPH 8015M	mg/	'kg	Analyzed By: MS						
Analista	Desult	Departing Limit	A	Mathad Disals	DC.	0/ D	True Malue OC	000	Qualifian

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/03/2012	ND	185	92.3	200	0.279	
DRO >C10-C28	<10.0	10.0	08/03/2012	ND	195	97.6	200	5.50	
EXT DRO >C28-C35	<10.0	10.0	08/03/2012	ND					
Surrogate: 1-Chlorooctane	90.4 %	65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.7 %	63.6-15	4						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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Celeg Zithera

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	Easin Environmental Service	Tecl	100]	ögies, LLC	, LLC BILL TO ANALYSIS REQUEST															
Project Manager	Ben J. Arquijo					P.O.·#:							1							
Address: P.O.						Company: E	OPCO, LI	\$												
City: Lovingto	State: NM	Zip	: sé	3250		Attn: Tóny Savòie														
Phone #: (575)		96:	1429			Address: 52	2 W. Mer	riod												
Project #:	Project Owne	r: BC)PCO	, LP		City: Carls	oad													
Project Name:	James Ranch Unit #36 Battery					State: NM	Zip: 8822	Q												
Project Location	: Eddy Co., MM				ľ	Phone #: (43	2)556-87	30	:											
Sampler Name:		-				Fax,#:		-					·							
FOR LAB USE CHLY		Τ		MATRIX		PRESERV.	SAMPLI	NG												
Lab I.D. H20 1804	Sample I.D.	(G)RAB OR (C)OMP.		GROUNDWATER. WASTEWATER SOIL OIL	SLUDGE	OTHER; ACID/BASE: ICE / COOL OTHER:	DATE	TIME	Chlan de	8015 M	BTEX									
	5B-1 Q51	6	Ĺ	X		Ύ	7/3/15	0930	X	X										
2	5B-1 @ 10'	1	11					0945		ĸ	X	i				· · · ·	ļ			
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{	513-2651	Ц.,						1230		X.									······	
	<u>58-2010'</u>	44-,	-					1735		X	X			.						
<u> </u>	5B-2020' 3B-2025'	뉪	H					1245 1250		X	X									

PLEASE NOTE: Unably and Damages. Cardnar's lipbility and client's evoluance remody to any clima misming whether based in contract or tort, shall be timiled to ne amount pare by the client for the analyses. All claims indigiding linkse for negligence and any other cause whatsoevers shall be takened where during and received by Cardinal within 30 days after completion of the approach pervice. In or event shall Cardnard be table for indiciental or consequental duringes, midded within during indiversity of client, set subsidiaries, and set the set of the set of the subsidiaries.

amiliates or successors ansing out of or related to the performance	a of services hereunder by Cardi	nal, regardless of whether such claim is based	upon any of the above stated re	asons of otherwase.	·		
Relinquished By:	Date:	Received By: / /		Phone Result:	C Yes	🗆 No	Add'l Phone #:
	7/3/13	And M.	1	Fax Result:	🖸 Yes	🖸 No	Add'l Fax #:
1105	Time:	NEMI MADIA	IA DUC	REMARKS:			
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	Time:						
	1		······································	Pleas	se email	l result	ts to pm@basineny.com
Delivered By: (Circle One)		Sample Condition	CHECKED BY:	ā TAs	avoie⊛	BassPet.	. com
	ľ	- 0 Cool Intact	(Initials),				
Sampler - UPS - Bus - Other:		C PYes PYes					
		No No		L	annen med serbesidens		

† Cardinal cannot accept verbal changes. Please fax written changes to 505,393-247



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Company Name:	Basin Environmental Service 1	Tech	nol	ogies, LLC [BIL	.L 7	0					AN	ALYSI	S RE	QUE	ST			
Project Manager	² Ben J. Arguijo	_			P.C). #:						Ī		ľ	Γ				T]
Address: P.O.					Co	mpany: E	0200	LP							ł	1	 			
City: Lovingto	on State: MM	Zip	63	.260	Attn: Tony Savoie														i	
Phone #: {575)	396-2378 Fax #: (575) 3	96-1	425		Address: 522 W. Mermod												1 '		1	
Project #:	Project Owner	r: 80	PCO	, LP	Cit	y: Carlsb	ad								l l					
Project Name:	James Ranch Unit #36 Battery				Sta	ate: NM	Zip:	8322	D								}			
Project Location	n: Eddy Co., IM				Ph	one #: (43)	2)55	é - 87	30				l l	1 I			Ì		1 1	
Sampler Name:						x #:					 									
FOR LAB USE ONLY		Γ.		MATRIX		PRESERV	SA	MPLI	NG			1	}							
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER :	ACID/BASE ICE / COOL OTHER	DA	ATE	TIME	Chlor de	80151N	BTEX								
ţì	5B-3A5'	6		X		X	7/3	1/13	,340	X	X									
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altitudes or subcrasors among out of or related to the purformance of sensions meleander by Cardinal locardorss of whether such thanks based upon any of the above stated reasons or otherwise

Relinquished By:	Date: (12/13) Time: (4:45	Received By:	MIDON	Phone Result: Fax Result: REMARKS:	□ Yes □ Yes	C No	Add'l Phone #: Add'l Fax #:	
Relinquished By:	Date: Time:	Received By:		0.58	se omai	. rosu	.ts to pmcbasinenv.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact	CHECKED BY: (Initial\$)	1	savnieš			
† Cardinal cannot accept verb	al changes. Pleas	e fax written changes to 505-39	13-2476			·		Page



February 19, 2013

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

RE: JAMES RANCH UNIT 36 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 02/13/13 15:20.

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 www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab 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.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #1 (H300413-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	02/18/2013	ND	448	112	400	0.00	

Sample ID: SAMPLE #2 (H300413-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW	•				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/18/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #3 (H300413-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	02/18/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #4 (H300413-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/18/2013	ND	432	108	400	3.64	

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Celeg Z. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #5 (H300413-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: DW			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	02/18/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #6 (H300413-06)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	02/18/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #7 (H300413-07)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/18/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #8 (H300413-08)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/18/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #9 (H300413-09)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/18/2013	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #10 (H300413-10)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
Chloride	1540	16.0	02/19/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #11 (H300413-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/19/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #12 (H300413-12)

Chloride, SM4500CI-B	mg	/kg	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/19/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #13 (H300413-13)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: DW					<u> </u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/19/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #14 (H300413-14)

Chloride, SM4500CI-B	mg	/kg	Analyzed By: DW					_	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/19/2013	ND	432	108	400	3.64	

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Celey Di Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #15 (H300413-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	02/19/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #16 (H300413-16)

Chloride, SM4500Cl-B	 mg,	/kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	02/19/2013	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Basin Environmental Service		logies; LLC	BILL TO				ANALY	SIS REC	QUEST		
Project Manager: Ben J. Arquijo			P.O. #:						·		·
Address: P.O. Box 301			Company: BOPCG, LP								
City: Lovington State: NM	Zip: 3	3260	Attn: Tony Savoie								
Phone #: (\$75)396-2378 Fax #:(575)3	96-142	3	Address: 522 W. Mermo	á							
Project #: Hudson well PAD Project Owne	: BOFC	3,12	City: Carlsbad								
Project Name: James Panch Unit 36 Bati			State: NM Zip: 88220								
Project Location: EDDY, NM.			Phone #: (432) 556-8730)	}				1		
Sampler Name: Jody Walters			Fax #:								
FOR LAB USE OALY		MATRIX	PRESERV. SAMPLING	5	5						
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS	GROUNDWATER WASTEWATER Soll OIL SLUDGE	OTHER : ACID/BASE: CE / COOL OTHER : OTHER :	тіме	Chler Des						
SAmple # 1	<u>G 1</u>	<u> </u>	2.13.13 8	:36	×						
2 SAMpler Z	G /	1/1//	2-13-13 8		*	-			<u>.</u>		
5 SAmple#3	<u>G </u>	<u> </u>		:40	<u>X</u>						
y Sarplet 4	<u>c /</u>	<u> </u>	2.13.13 8		$\frac{x}{\cdot}$						
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10 Sample # 6	GI		A COMPANY AND	:55	<u>×</u> ×						
J SAmple #7 J Sample #8			21313 9.	00	$\frac{\lambda}{\lambda}$						
Li Sample #0	GI			10	$\hat{\boldsymbol{\lambda}}$	-					
1) Sample #10	61	17.	2.13.12 9.		$\hat{\mathbf{x}}$	• • • • • • • • • • • • • • • • • • • •				·	

PLEASE NOTE: Labely and Devaged, Cardinals liability and chentle contrast-remody for any claim ensing whether based in contrast or card any data gravity and chentle contrast-or card any other event for me analysis. All claims including those for negligence and any other cause whitsnews shall be deemed waved unless made in writing and secret-ad by flaid nativery 30 days atter comparison of the spectral-

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affectes or succosed a anong but of or related to the performance of services hereunder by Control regordless of whether succ clarms used upon any of the acove stated rejectors broken vise

Date: Received By: O Yes Relinguished By: Phone Result: No |Add'l Phone # Fax Result: 🗆 Yes 🗆 No Add'I Fax #: Time: REMARKS: 1 1.114 OTAU Sec. Relinquished By: Date: Received By: Time: Please email results to pm@basinenv.com Sample Condition Delivered By: (Circle One) CHECKED BY: & TAsavoiedBassPet.com (Infulats) Cool Intact 140 Yes Yes Sampler - UPS - Bus - Other:

† Cardinal calinot accept verbal changes. Please fax written changes to 505-393-2476



1

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		nicaina IIC	ŀ	BIL	L TO				A	NAL	rsis	REC	QUES	Т			
Project Manager: Ben J. Arguijo			P.O. #:						T	T		T		<u> </u>		T	-1
Address: P.C. 60% 301			Company	г: В(OPCO, LP							ļ					1
City: Lovington State: NM	Zip:	33260	Attn: 7														ļ
Phone #: 1575)396-2378 Fax #:(575)39					2 W. Mermod												
Project #: Hudson well Pud Project Owner	: EOP	CO, LP	City: Ca.	rlsb	ad					- I.					[- [
Project Name: Junes Kunch Unit 36 Batter			State: NM		Zip: 88220				ľ	ł							
Project Location: E DDY N IN	0		Phone #:	(43	2)556-8730	1			1				1			1	· 1
Sampler Name: Joby Walters			Fax #:						Į	1		l			1		_ [
For Las use cally	<u>,</u>	MATRIX	PRES		SAMPLING				ļ								
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP.	GROUNDWATER GROUNDWATER WASTEWATER SOIL OIL	OTHER ACID/BASE: ICE / COOL	OTHER :	DATE TIME	C'hloride											
11 SAMPLE HIL	GI	<u> </u>		1	1313 9:20	X											
12 Sample #12 13 Sumple #13	G	1 X 1			2-13-13 9:25	X											
15 Sumple #13	C				2-13-13 9:30	11	l										
14 Sample #14	6		+		2.13.13 9:35								}				
E Sample #15					2.13.13 9:40	<u>+</u>											
LI Sumple #16	6	<u>'</u> X			2-13-13 9:45	$ \Sigma $							}				
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PLEASE NOTE: Upoky and Damigns. Caronials labelity and clent's exclusive remedy for any claim ansing underse hased in contract or test, shall be limited to the annual pacing the clerif for the unalyses. At taking including these for negligence and any other clusse whatsoower shall be opened waved unless mate in an end shall be indeed to the annual pacing the clerif for the clerif shall be needed or unalyses. At taking including these for negligence and any other clusse whatsoower shall be opened waved unless mate in an end shall be protected by Caronial extrine 30 days after comprehend of the sequence in the clerif shall be cleared with a taking underset the cleared shall be cleared by the clear is a state of the cleared by the cleared area of the cleared by the cleared by the cleared area of the cleared by the cleared by the cleared area of the cleared by the cleared by the cleared by the cleared area of the cleared by the cleared by the cleared by the cleared area of the cleared by the cleared

Relinguished By: Relinguished By:	Date: Received By: Time: Received By: Date: Received By: Time:	Phone Result: Fax Result: Yes No Add'I Fax #: REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition CHECKED BY: Cool Intact. ((niflais) Yes Yes No No	Please email results to pm#basinonv.com & TAsavoie+BassPet.com

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

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Page 8 of 8



March 14, 2013

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

RE: JAMES RANCH UNIT 36 BATTERY POOLING AREA

Enclosed are the results of analyses for samples received by the laboratory on 03/12/13 16:00.

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 on accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab 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.

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

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	03/12/2013	Sampling Date:	03/11/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY POOLI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #1 (H300619-01)

Chloride, SM4500CI-B	mg/kg		Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	03/13/2013	ND	448	112	400	3.64	

Sample ID: SAMPLE #2 (H300619-02)

Chloride, SM4500Cl-B mg/kg			Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #3 (H300619-03)

BTEX 8021B	mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/14/2013	ND	2.24	112	2.00	3.79	
Toluene*	<0.050	0.050	03/14/2013	ND	2.16	108	2.00	3.51	
Ethylbenzene*	<0.050	0.050	03/14/2013	ND	2.06	103	2.00	3.28	
Total Xylenes*	<0.150	0.150	03/14/2013	ND	6.28	105	6.00	3.46	
Total BTEX	<0.300	0.300	03/14/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	114 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	03/13/2013	ND	448	112	400	3.64	
TPH 8015M	mg/kg Analyze		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

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alog E. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/12/2013	Sampling Date:	03/11/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY POOLI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #3 (H300619-03)

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/13/2013	ND	209	105	200	2.42	
DRO >C10-C28	<10.0	10.0	03/13/2013	ND	208	104	200	3.91	
EXT DRO >C28-C35	<10.0	10.0	03/13/2013	ND					
Surrogate: 1-Chlorooctane	87.7 9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	107 %	63.6-15	4						

Sample ID: SAMPLE #4 (H300619-04)

Chloride, SM4500CI-B mg/kg			Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #5 (H300619-05)

Chloride, SM4500CI-B mg/kg			Analyze	Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #6 (H300619-06)

hloride, SM4500Cl-B mg/kg		Analyze	Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/13/2013	ND	432	108	400	3.64	

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/12/2013	Sampling Date:	03/11/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY POOLI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #7 (H300619-07)

Chloride, SM4500CI-B	mg	mg/kg Analyze		d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #8 (H300619-08)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #9 (H300619-09)

Chloride, SM4500CI-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #10 (H300619-10)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/13/2013	ND	432	108	400	3.64	

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Celey Di Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/12/2013	Sampling Date:	03/11/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY POOLI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #11 (H300619-11)

BTEX 8021B	mg/kg		Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/14/2013	ND	2.24	112	2.00	3.79		
Toluene*	0.056	0.050	03/14/2013	ND	2.16	108	2.00	3.51		
Ethylbenzene*	<0.050	0.050	03/14/2013	ND	2.06	103	2.00	3.28		
Total Xylenes*	<0.150	0.150	03/14/2013	ND	6.28	105	6.00	3.46		
Total BTEX	<0.300	0.300	03/14/2013	ND						

89.4-126

Surrogate: 4-Bromofluorobenzene (PIL 115 %

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/13/2013	ND	432	108	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	03/13/2013	ND	209	105	200	2.42	
DRO >C10-C28	<10.0	10.0	03/13/2013	ND	208	104	200	3.91	
EXT DRO >C28-C35	<10.0	10.0	03/13/2013	ND					
Surrogate: 1-Chlorooctane	85.5	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	105	% 63.6-15	4						

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Celley D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/12/2013	Sampling Date:	03/11/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	JAMES RANCH UNIT 36 BATTERY POOLI	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SAMPLE #12 (H300619-12)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/13/2013	ND	432	108	400	3.64	

Sample ID: SAMPLE #13 (H300619-13)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/13/2013	ND	432	108	400	3.64		

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Celeg Di Kerre

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

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

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Celeg Di Keene

Celey D. Keene, Lab Director/Quality Manager

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Page 8 of 9

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

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Date: Time: Received By:

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

Sample Condition

Cool Intact Yes Yes No No

ĸ Reinquished By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other.

Company Name: Basin Environmental Service Technologies,	LLC BILL TO		ANALYSIS	REQUEST	
Project Manager: Ben J. Arguijo	P.O. #;				
Address: P.O. Box 301	Company: BOPCO, LP				
City: Lovington State: NM Zip: 88260	Attn: Tony Savoie				
Phone #: (575) 396-2378 Fax #: (575) 396-1429	Address: 522 W. Merr	mod			
Project #: Froject Owner: BOPCO, LP	City: Carlsbad				
Project Name: James Ranch Unit 36 Battery Poding	AREA State: NM Zip: 8822	0			
Project Location: EDDY, N.M.	Phone #: (432) 556-87	30			
Sampler Name: Jody Walter S	Fax #:				
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(C)OMP ERS TER			8764		
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2 Sample#Z Coll	X 3-11-13	8:35 ×			
	Y X 3-11-13				
4 Sample #4 GI		8:45 X			
J Jumpie #		8:50 X			: ·
6 Sample # 6 6 1		8:55 X			
Sample # @ 1 G		9.00 X			
8 Sample # 8 6-1	X 3-11-13	9:05 X	╶╌╄╾╍╌┠╌╌┊┠╍╌╌┠╴		
1 Jamp 18#7 (0-1	X 3-11-13 X 11-13	9:10 X			
D Shmple#10 G 1		9.15 X	يلحج لنصلصه		
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affiliates of successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whet			I No Add'l Phone #		
Reunquished By:	· W · · ·	Fax Result: U Yes	No Add'I Fax #:	<u></u>	

CHECKED BY:

& TAsavoie@BassPet.com

REMARKS:

No Add'I Fax #:

Please email results to pm@basinenv.com



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Page 9 of 9

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:					BILL TO				ANALYSIS REQUEST													
Project Manager:					Ρ.	P.O. #:				Ι												
Address:					Ca	Company:]												
City: State: Zip:					At	Attn:																
Phone #: Fax #:				Ac	Address:]]				}							
Project #: Project Owner:				Ci	City:																	
Project Name:					St	State: Zip:																
Project Location:					Ph	Phone #:																
Sampler Name:					Fa	Fax #:																
FOR LAB USE ONLY					PRESERV. SAMPLING					h _												
Lab I.D. H3D061	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL SOIL	SLUDGE	OTHER :	ACID/BASE: ICE / COOL	OTHER :	DATE	ТІМЕ	Chlorid.	~5108	BTEX				-				
	SAmple # 11	G	١		y y			X		3-11-13	A:20	· x	X	¥								
12	SAmple #12	6	1		X					3-1+13 /		x										
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service. In the version (shall calculate to the deformance of services here under by Cardinal, regardless of whether such claim is based on the service here the otherwise.

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		Fax Result: 🛛 Yes 🖾 No Add'l Fax #:							
	The Lenger	REMARKS:							
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Reiniquistied By:	inderived by:								
X U Tin	ime:								
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Delivered By: (Circle One)	Sample Condition CHECKED B	IY:							
Sampler - UPS - Bus - Other:	22 Cool Intact (Initials)								
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