Basin Environmental Service Technologies, LLC

Environmental Site Summary & Work Plan

Company: BOPCO, LP **Address:** 522 W. Mermod, Suite 704, Carlsbad, NM 88220 **Telephone #:** (432)556-8730

Site Name: North Indian Flats 26 Federal #1 **NMOCD Reference#:** 2RP-1624

Land Owner: US Bureau of Land Management **Address:** 620 E. Greene St., Carlsbad, NM 88220-6292

Unit Letter: "G" (SW/NE) **Section:** 26 **Township:** 21S **Range:** 28E **County:** Eddy **GPS Coordinates:** 32.452530 N -104.054850 W

Depth to Ground Water: ≈ 135' - 140' **Distance to Surface Water Body:** ☐ <200' ☐ 200' - 1,000' ☑ >1,000'

Wellhead Protection Area: <1,000' from Water Source or <200' from Domestic Water Source? ☐ Y ☑ N

NMOCD Ranking Score: 0 **Soil Remediation Levels (mg/kg): Benzene:** 10 **BTEX:** 50 **TPH:** ☐ 100 ☐ 1,000 ☒ 5,000 **Chloride:** ☐ 100 ☐ 500 ☒ 1,000

Date/Time of Release: 4/4/13; time unknown **Type of Release:** Produced Water **Approximate Volume of Release:** 25 bbls

Background Information:

On April 4, 2013, BOPCO discovered a release had occurred at the North Indian Flats 26 Federal #1 tank battery. A 3" water dump line from the heater treater to the on-site water storage tank developed a leak, resulting in a release of produced water. The release was attributed to internal corrosion. The release impacted an area of the caliche well pad and tank battery pad measuring approximately 5,800 square feet. During initial response activities, a repair clamp was installed to mitigate the release, and heavily impacted soil was scraped up and stockpiled on-site, pending final disposition.

Summary of Field Activities:

Following initial response activities, on July 29, 2013, delineation of the release site commenced. A series of six (6) hand-augered soil borings were advanced along the flow path of the release to investigate the vertical and horizontal extent of impacted soil, beginning with soil boring HA-1 near the release point and ending with soil boring HA-6 near the terminus of the flow path. The soil borings were advanced in 3-foot increments. Soil boring HA-1 through HA-4 were each advanced to total depths of approximately 6 feet below ground surface (bgs), while soil borings HA-5 and HA-6 were each advanced to total depths of approximately 3 feet bgs. Core soil samples were field-screened using a chloride test kit and/or PID. A total of 4 soil samples (HA-1 @ 3', HA-3 @ 3', HA-4 @ 3', and HA-6 @ 3') were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of TPH, BTEX, and/or chloride concentrations. Laboratory analytical results indicated TPH and BTEX constituent concentrations were less than the appropriate laboratory method detection limit (MDL) in all submitted soil samples. Chloride concentrations ranged from 160 mg/kg in soil sample HA-6 @ 3' to 4,560 mg/kg in soil sample HA-1 @ 3'.

Proposed Activities:

BOPCO proposes a risk-based strategy to progress the North Indian Flats 26 Federal #1 release site toward an NMOCD-approved closure. To achieve vertical delineation, a trench will be advanced at a location equidistant between hand-augered soil borings HA-1 and HA-2, along the flow path of the release (the most heavily impacted area at the site). If vertical delineation cannot be achieved, a drilling rig will be mobilized to the site to advance a soil boring near that location. Due to environmental and safety concerns, and to preserve the integrity of the on-site storage tanks, the areas defined by soil borings HA-1 through HA-4 will be excavated to a total depth of 3 feet bgs and backfilled with non-impacted material. Prior to backfilling, a 20-mil polyurethane liner will be installed on the floor of the excavation. This engineered control will shed moisture to the edge of the liner and beyond the maximum horizontal extent of underlying impacted soil, effectively inhibiting vertical migration of contaminants to groundwater.
The areas represented by soil borings HA-5 and HA-6 will be excavated to a total depth of 1 foot bgs and backfilled with non-impacted material.

Proposed Soil Boring/Monitor Well Locations:		Name/Description:
_____ N	_____ W	_____
_____ N	_____ W	_____
_____ N	_____ W	_____
_____ N	_____ W	_____
_____ N	_____ W	_____
_____ N	_____ W	_____

Attachments:

Attachment #1: Initial C-141
Attachment #2: Site Location Map
Attachment #3: Site & Sample Location Map
Attachment #4: Soil Chemistry Data Table
Attachment #5: Field-Test Results
Attachment #6: Photographs

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

RECEIVED
APR 16 2013
NMOCD ARTESIA

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nJMW1310754297

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: North Indian Flats 26 Federal #1	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-~~1~~05-27556 015

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	26	21S	28E	2150	North	1980	East	Eddy

Latitude N 32.452530 **Longitude** W 104.054850

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 25 bbls	Volume Recovered: None
Source of Release 3" water dump line	Date and Hour of Occurrence 4/4/13 time unkown	Date and Hour of Discovery 4/4/13 10:00 a.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The 3" water dump line from the heater-treater to the water tank developed a leak due to internal corrosion. A repair clamp was placed on the affected area of the pipe.

Describe Area Affected and Cleanup Action Taken.* The spill affected approximately 5800 sq.ft. of caliche well pad and tank battery pad. The saturated soil was scraped and stockpiled on site pending further remediation activities. The spill area will be remediated following the NMOCD and BLM guidelines for spills and releases.

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

Signature: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 4/16/13 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: APR 17 2013 Expiration Date:

Conditions of Approval: Remediation per OCD Rule & Guidelines. **SUBMIT REMEDIATION PROPOSAL NO LATER THAN:** May 17, 2013

Attached ☐

2RP-1624

* Attach Additional Sheets If Necessary

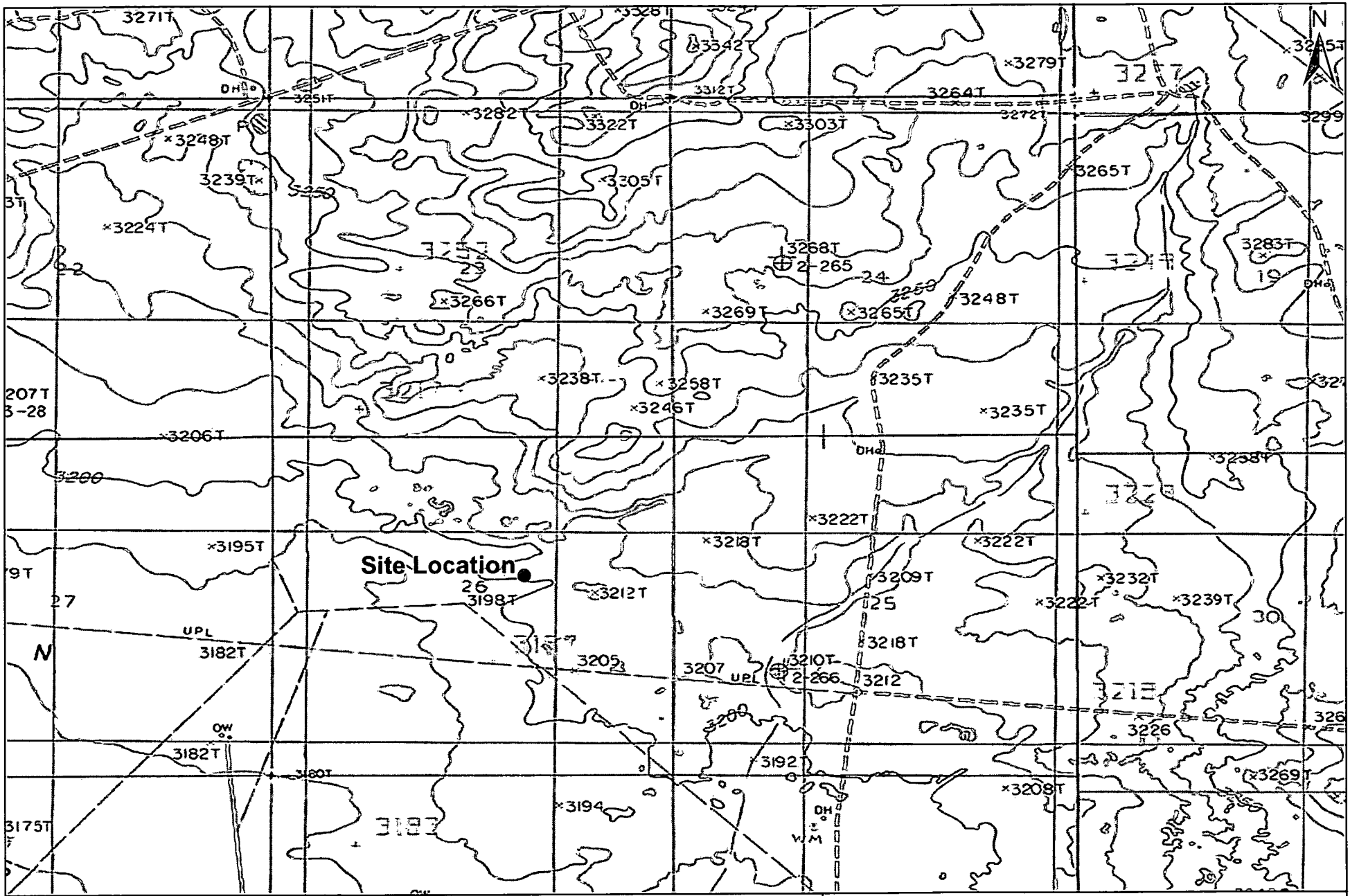
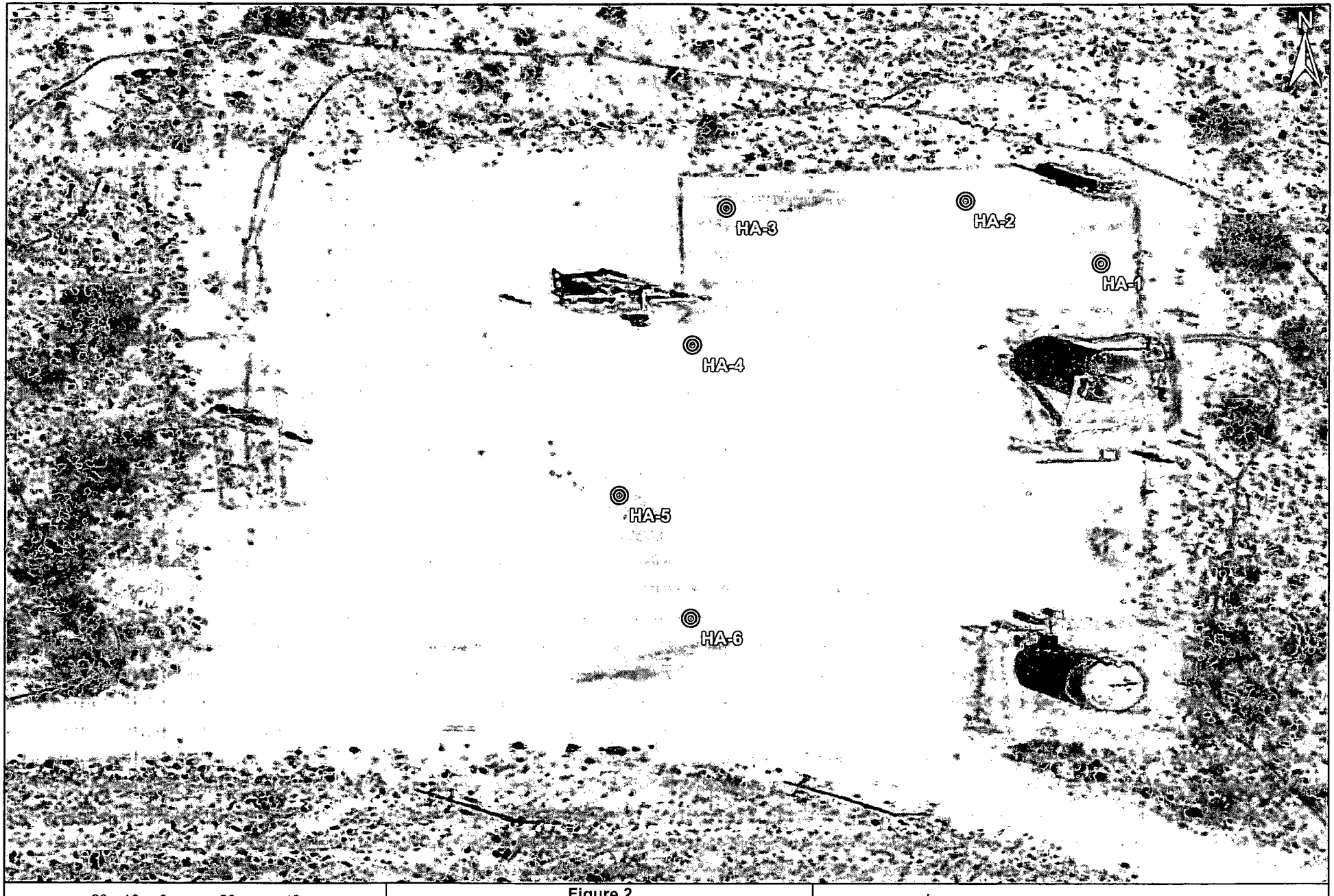


Figure 1
Site Location Map
BOPCO, LP
North Indian Flats 26 Federal #1
Eddy County, New Mexico
NMOCD Reference #: 2RP-1624

Basin Environmental Service Technologies

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

Drawn By: BJA	Checked By: BRB
August 17, 2013	Scale: 1" = 2000'



20 10 0 20 40

Distance in Feet

Legend

Soil Boring

Figure 2
Site & Sample Location Map
BOPCO, LP
North Indian Flats 26 Federal #1
Eddy County, New Mexico
NMOCD Reference #: 2RP-1624

Basin Environmental Service Technologies
Effective Solutions

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

Drawn By: BJA	Checked By: BRB
September 17, 2013	Scale: 1" = 40'

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

BOPCO, LP
NORTH INDIAN FLATS 26 FEDERAL #1
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-1624

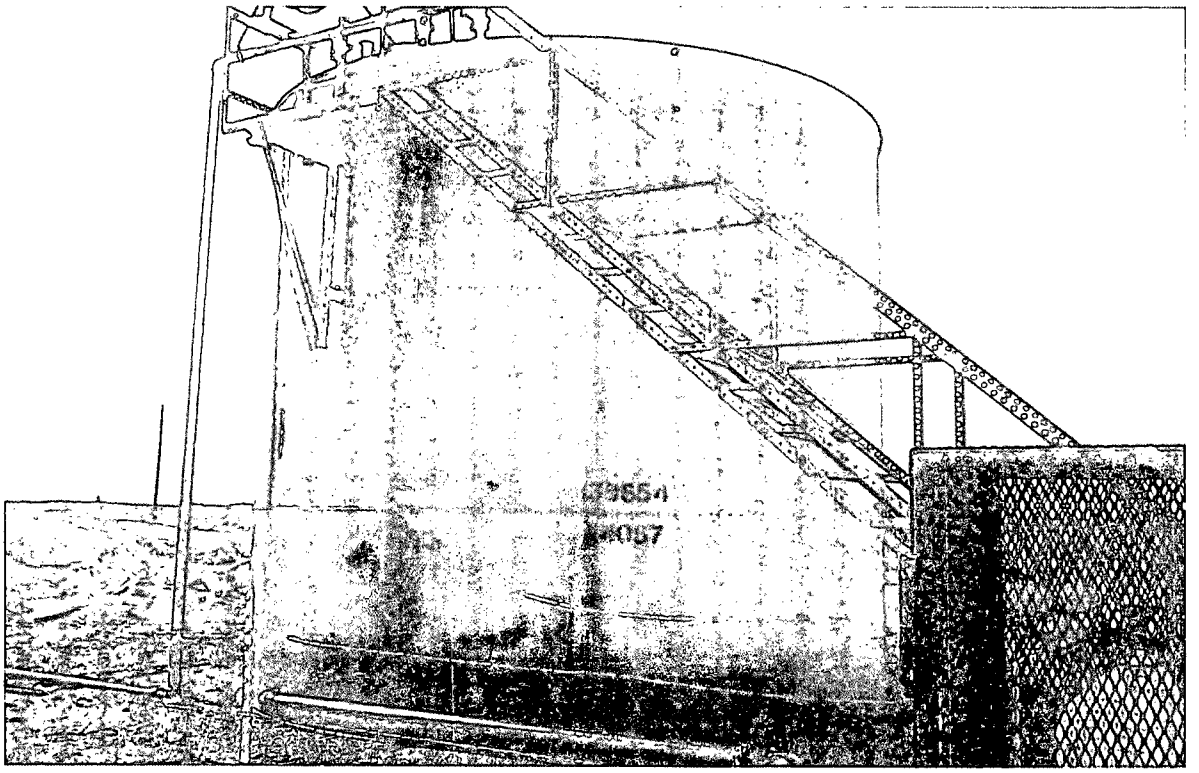
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C_6-C_{35} (mg/Kg)	4500 Cl-B
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)		CHLORIDE (mg/Kg)
HA-1 @ 3'	3'	7/29/2013	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	**4,560**
HA-3 @ 3'	3'	7/29/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	576
HA-4 @ 3'	3'	7/29/2013	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	**2,680**
HA-6 @ 3'	3'	7/29/2013	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	160
NMOCD Criteria				**10**					**50**			**5,000**	**1,000**

- = Not analyzed.

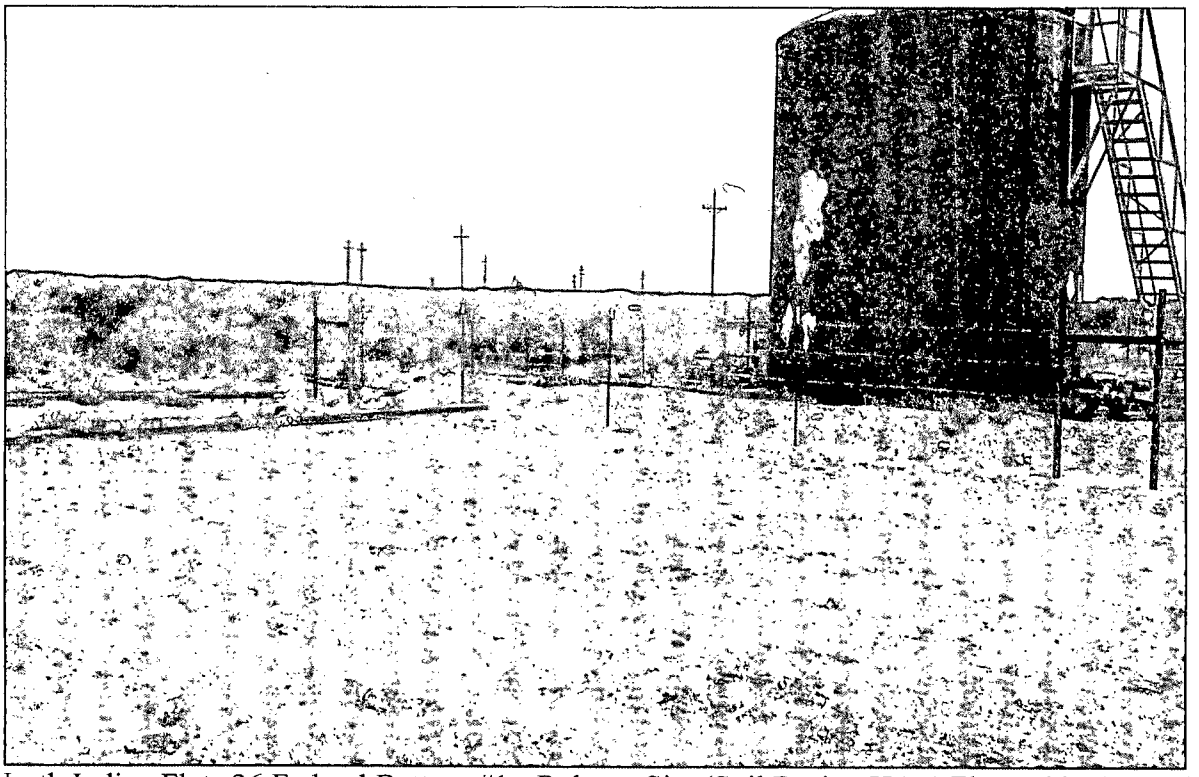
TABLE 2
FIELD-TEST RESULTS

BOPCO, LP
NORTH INDIAN FLATS 26 FEDERAL #1
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-1624

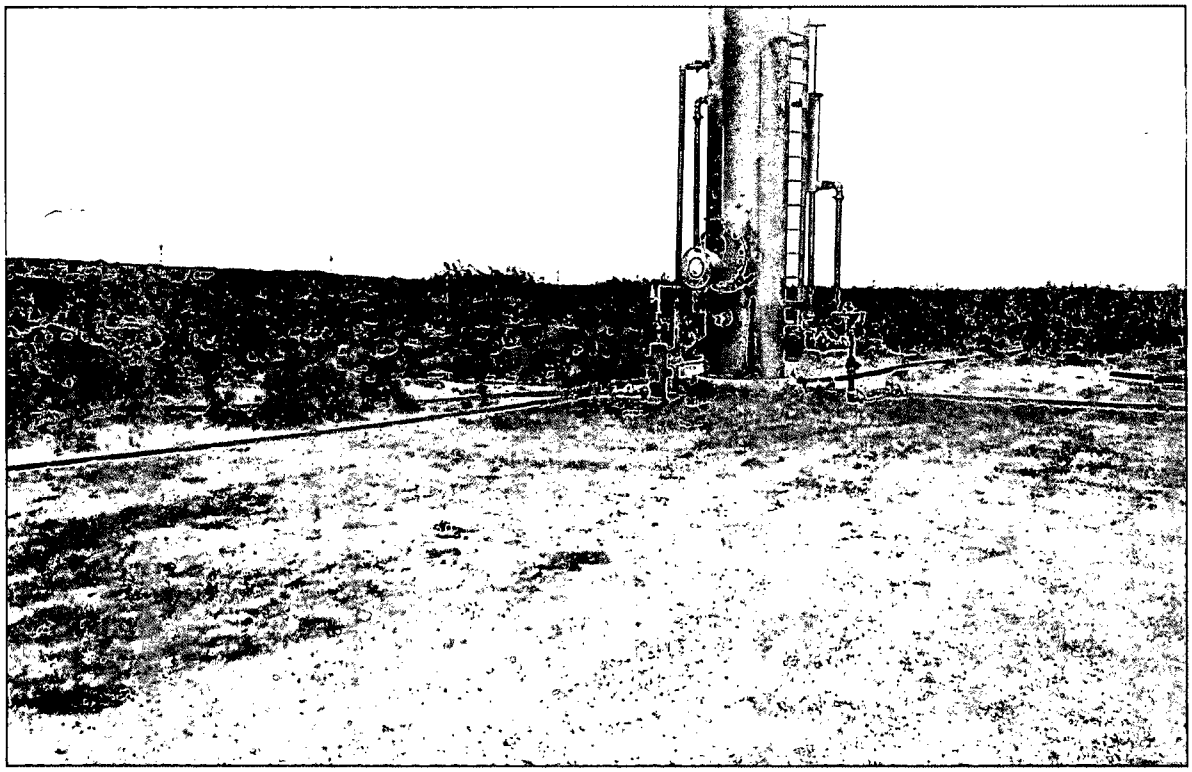
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	Hach Quantab CHLORIDE (PPM)	PID READING
HA-1 @ Surface	Surface	7/29/2013	In-Situ	**3,744**	0.0
HA-1 @ 3'	3'	7/29/2013	In-Situ	**4,048**	0.0
HA-1 @ 6'	6'	7/29/2013	In-Situ	**2,292**	0.0
HA-2 @ Surface	Surface	7/29/2013	In-Situ	**3,744**	0.0
HA-2 @ 3'	3'	7/29/2013	In-Situ	**1,916**	0.0
HA-2 @ 6'	6'	7/29/2013	In-Situ	**2,716**	0.0
HA-3 @ Surface	Surface	7/29/2013	In-Situ	896	0.0
HA-3 @ 3'	3'	7/29/2013	In-Situ	508	0.3
HA-3 @ 6'	6'	7/29/2013	In-Situ	708	0.0
HA-4 @ Surface	Surface	7/29/2013	In-Situ	**5,112**	0.0
HA-4 @ 3'	3'	7/29/2013	In-Situ	**1,916**	0.8
HA-4 @ 6'	6'	7/29/2013	In-Situ	**1,120**	0.0
HA-5 @ Surface	Surface	7/29/2013	In-Situ	**3,196**	0.0
HA-5 @ 3'	3'	7/29/2013	In-Situ	192	0.0
HA-6 @ Surface	Surface	7/29/2013	In-Situ	**5,524**	0.0
HA-6 @ 3'	3'	7/29/2013	In-Situ	192	0.6



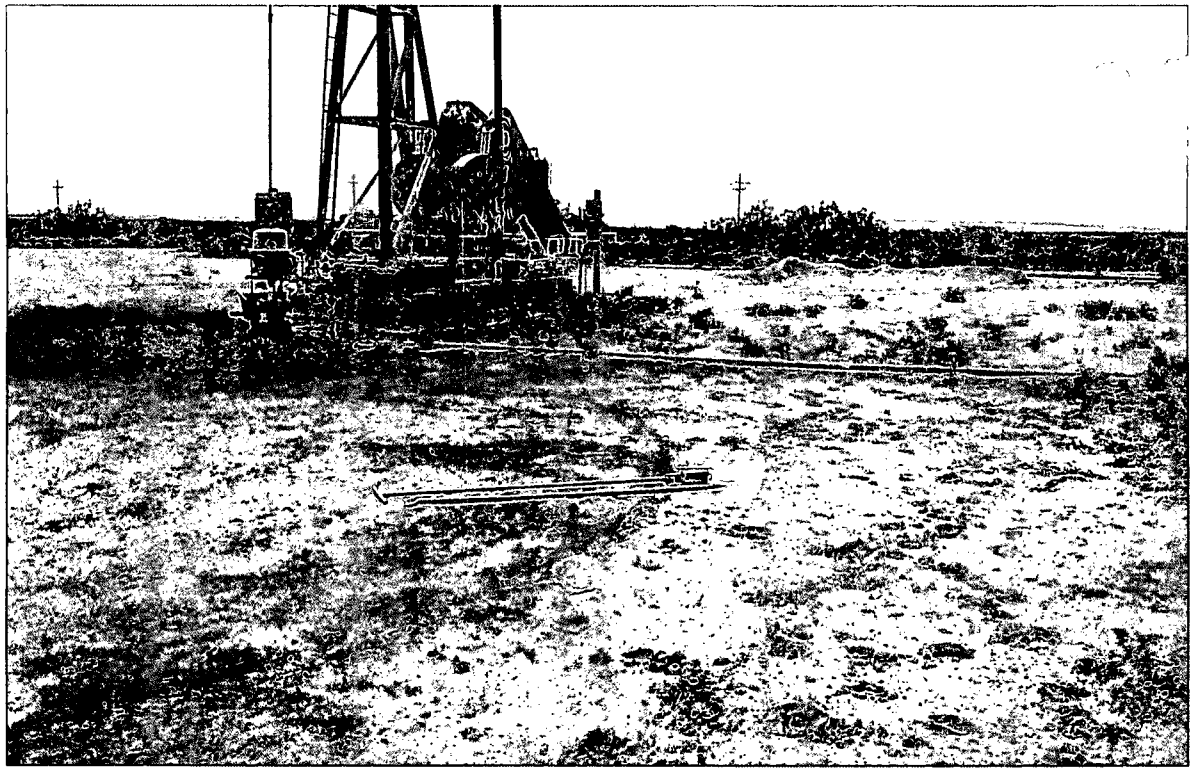
North Indian Flats 26 Federal Battery #1 - Release Site



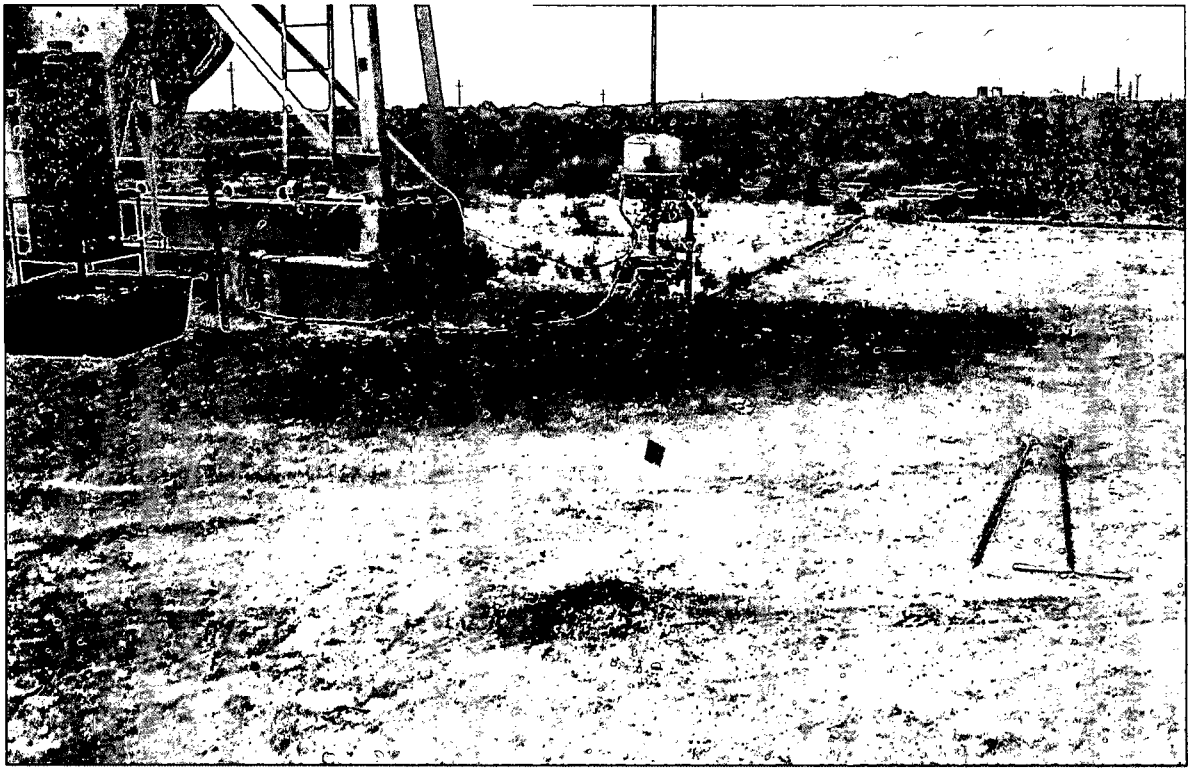
North Indian Flats 26 Federal Battery #1 - Release Site (Soil Boring HA-1 Flagged in Orange)



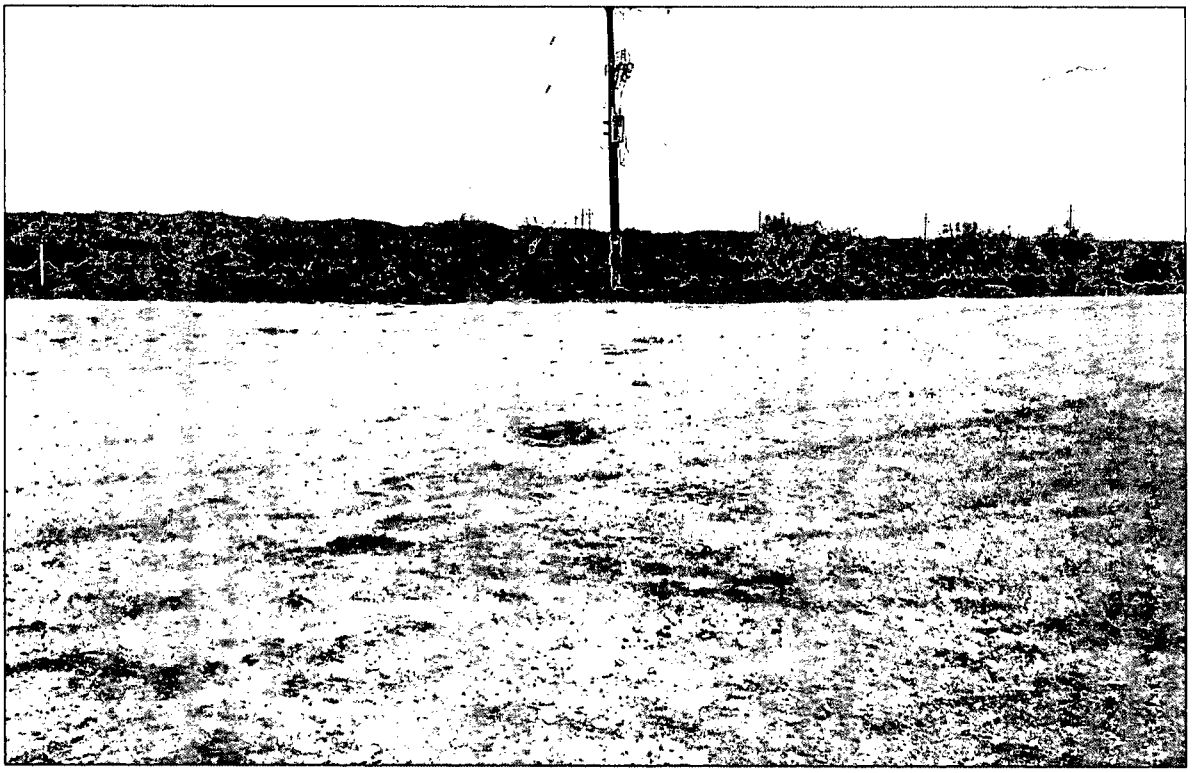
North Indian Flats 26 Federal Battery #1 - Flow Path (Soil Boring HA-2 Flagged in Orange)



North Indian Flats 26 Federal Battery #1 - Flow Path (Soil Boring HA-3 Flagged in Orange)



North Indian Flats 26 Federal Battery #1 - Soil Boring HA-4 (Flagged in Orange)



North Indian Flats 26 Federal Battery #1 - Flow Path
(Looking South (Soil Boring HA-5 Flagged in Orange)