Grand Banks Energy Company-Remediation Project

ARU#16 API# 30-025-00368

UL T Section 2-Ts16s-R32e

Lea County, NM

Background:

On September 27, 2012 a produced water release occurred due a corroded steel nipple on the ARU #16 injection well. The quantity of release was reported at 700 barrels.

The site is located approximately six miles NN-East of Maljamar, NM and is situated on the Llano Estacado Caprock area on NM State Land Office (SLO) Trust lands. Map attached.

The release did not impact a watercourse and the groundwater depth is estimated to be greater than 225 feet in the Ogallala formation of the Lea County Water Basin.

Preliminary Site Investigation:

A preliminary investigation using field test kits have identified the horizontal footprint and is attached hereto for reference. It appears and is expected, that the majority of the salts and hydrocarbons is contained in the top two feet of the horizon.

The total vertical extent of the contamination has not been completed as of to date.

Scope of Work:

The SLO and Rancher have requested the salt to be removed sufficiently in order to re-establish range grass for his cattle as soon as possible.

Grand Banks plans on removing the majority of the salt and any hydrocarbon contamination in the top horizon and dispose of at the Gandy-Marley OCD permitted Landfill.

COMMENTS

Geoffrey Leking

Environmental Specialist

NMOCD - DIST 1

2/7/14

This material will be replaced with native clean topsoil purchased from the Ranch, including organic amendments, reseeded with SLO approved seed mix.

The local SLO representative has discouraged ripping of the underlying caliche on such sites. Grand Banks will adhere to their request in order to expedite re-vegetation.

The goal is to have a clean-up standard of 1000 ppm of chlorides in the top root zone. Some inadvertent mixing may occur.

Once the contaminated topsoil has been removed, the vertical extent of contamination will be documented using field test kits and Lab confirmation samples using a track-hoe for delineation.

The vertical extent areas will be selected where the water may have pooled, or there is visual evidence, or where the excavated contamination area(s) exceed a limit of 2500 ppm of chlorides, or volatile organics exceed 100 ppm using a PID meter. Sample frequency will be every five feet, if required, with a maximum depth of 15 ft for the track-hole.

Delineation will be complete if the bottom hole samples reflect 600 ppm of chlorides or less, and PID hydrocarbon volatile organic readings of less than100 ppm.

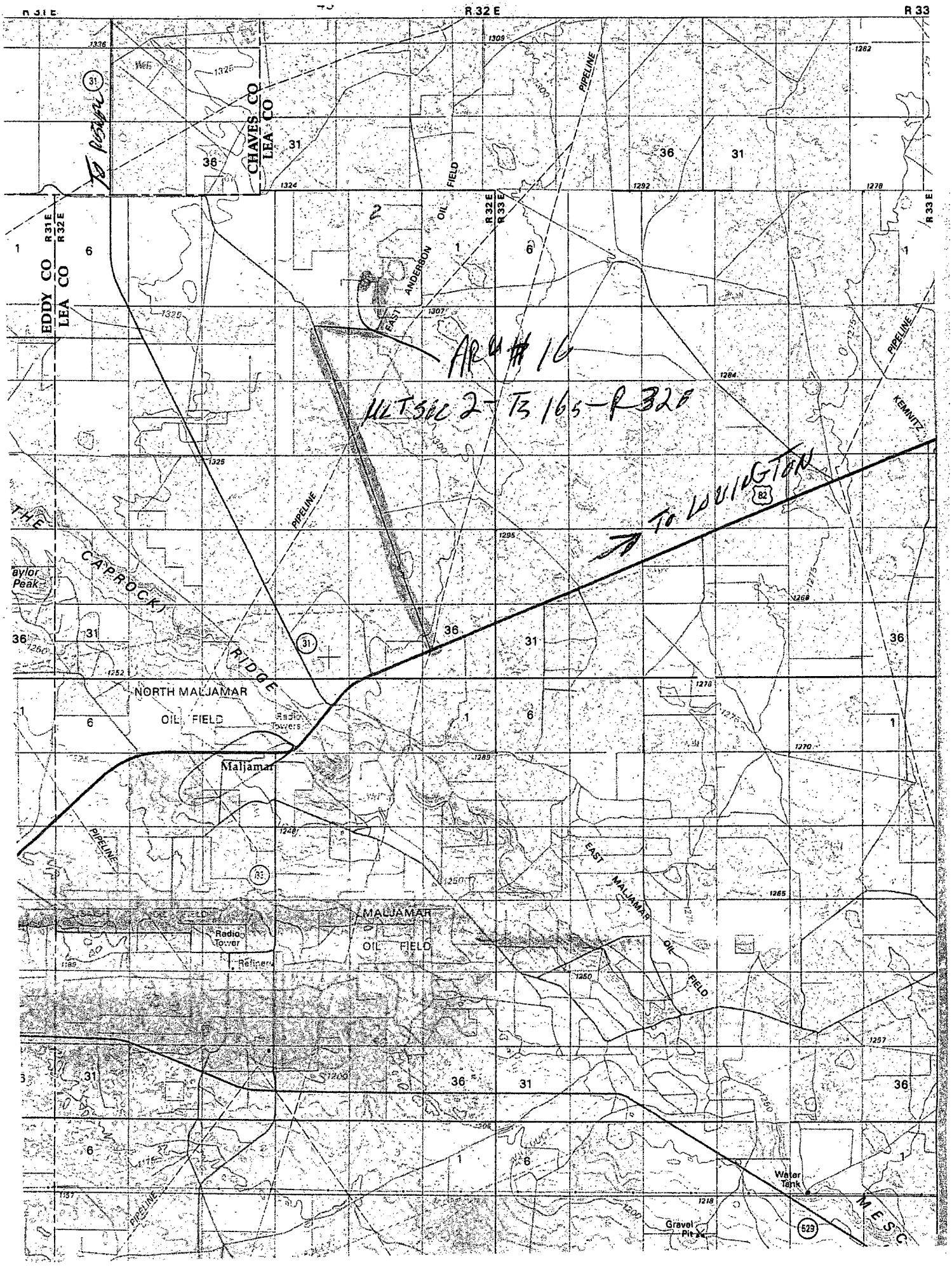
Bottom hole Lab Confirmation soil samples will be analyzed for Chlorides, BTEX and TPH (8015-M) per OCD guidelines.

Reporting:

Once the surface restoration has been completed, a report will be submitted to both OCD and SLO. The report will include, field test results, logs, waste manifest, photos, laboratory confirmation samples and any other pertinent information.

Safety Plan:

A tail-gate safety meeting will be held every day for any personnel coming on site. The meeting will address any known hazards as pointed out by anyone, especially truck traffic control and hand signals. Any person working on site will have to sign-in and be briefed of the hazardous.


R 31 E
R 32 E
R 33
CHAVES CO
LEA CO
EDDY CO
LEA CO
ANDERSON
FIELD
EAST
PIPELINE
KEMNITZ
To LOVINGTON
82
THE CAPROCK
RIDGE
Baylor Peak
NORTH MALJAMAR
OIL FIELD
Radio Towers
Maljamar
MALJAMAR
OIL FIELD
Radio Tower
Refinery
EAST MALJAMAR
OIL FIELD
Water Tank
Gravel Pit
529
MESC
ARCO # 16
ULT Sec 2 - T 17S - R 32E

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Report

Name of Company GRAND BANKS ENERGY	Contact JOHN KIMBERLY
Address 10 DESTA DR. MIDLAND TX 79705	Telephone No. 432-682-1044
Facility Name ANDERSON RANCH	Facility Type SWD

Surface Owner SLO	Mineral Owner SLO	API No. 30-025-00368

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
T	2	16S	32E	1980	S	660	W	LEA

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release SALT WATER	Volume of Release 700 B	Volume Recovered NONE
Source of Release INJECTION LINE	Date and Hour of Occurrence 9-26	Date and Hour of Discovery 9-27-12
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.*

STEEL NIPPLE NEAR WELLHEAD CORRODED-OUT

Describe Area Affected and Cleanup Action Taken.*

ABOUT 3-4 ACRES — NO RECOVERY DUE TO ABSORPTION

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.

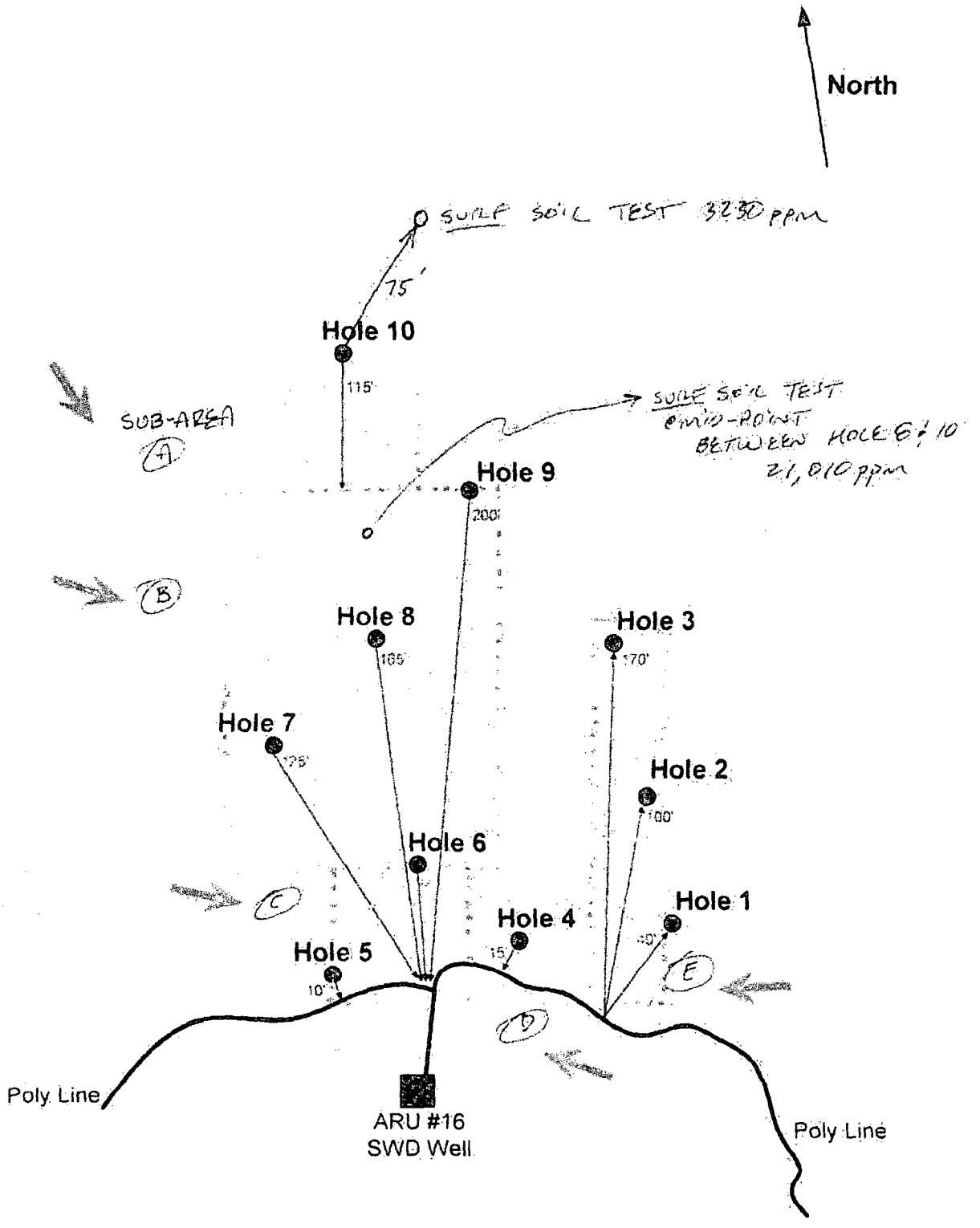
Signature:	OIL CONSERVATION DIVISION
Printed Name: TERRY DUFFEY	Approved by Environmental Specialist:
Title: AGENT	Approval Date: / Expiration Date:
E-mail Address: TERRY.DUFFEY@ATT.NET	Conditions of Approval: / Attached ☐
Date: 10-13-13 Phone: 432-686-9790	

* Attach Additional Sheets If Necessary

Grand Banks Energy Company
Anderson Ranch - Saltwater Leak - Affected Area

Sub-Area*	Area Length *Feet*	Area Width *Feet*	Removal Depth *Inches*	Area Affected *SqFt*	Volume Affected *CuFt*	Volume Affected *CuYds*
A	80	50	8	4,000	2,667	99
B	135	100	18	13,500	20,250	750
C	65	40	18	2,600	3,900	144
D	30	30	18	900	1,350	50
E	170	20	18	3,400	5,100	189
Total				**24,400**	**33,267**	**1,232**

* Note: refer to map showing affected area



- COMPOSITE SURF SOIL TEST OF AFFECTED AREA 16,430 ppm
- COMPOSITE 4-6" DEEP SOIL TEST " " 8750 ppm

WAYNE: THESE WERE MY FIELD TEST RESULTS USING HACH STRIPS

Chloride Testing of Soils in Affected Area

Hole#	Test Depth *Inches*	Chlorides *ppm*
1	4	tstm
2	4	7,440
	12	12,960
3	4	3,590
	6	3,980
4	4	6,850
	12	3,980
5	4	tstm
	8	tstm
6	4	8,750
	12	8,070
7	4	11,080
	12	9,470
8	4	11,990
		9,470
9	4	6,300
	6	4,390
10	6	tstm
	12	tstm
Composite	at surface	16,430
Composite	4-6	8,750
Mid-point between 8 & 10	2	21,010