

AP - 081

**GENERAL
CORRESPONDENCE**

YEAR(S):

2008

LETTER OF TRANSMITTAL

RECEIVED

2008 MAR 20 PM 2 15

AP081

ENVIRONMENTAL
PLUS, INC.



Date: March 14, 2008
To: **Mr. Glenn Von Gonten**
Company Name: New Mexico Oil Conservation Division
Environmental Bureau
Address: 1220 South St. Francis Drive
City / State / Zip: Santa Fe, New Mexico 87505
From: David P. Duncan
CC: Billy A. Anderson, Chevron USA - Eunice, NM
Targa Midstream, LLC - Eunice, NM
Project #: OCD Case No. AP081
NMOCD Ref. #NSL-5227-A: EPI Ref. #200074
Project Name: Mark #13 Drill Pit
Subject: **Initial NMOCD Form C-141**

# of originals	# of copies	Description
1		Chevron USA – Mark #13 Drill Pit – Initial NMOCD Form C-141

Remarks

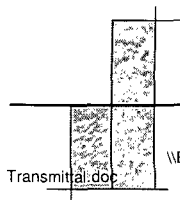
Dear Mr. Von Gonten:

Enclosed is a hard bound copy and electronic CD of the *Initial NMOCD Form C-141* for the above referenced project. Should you have any technical questions, concerns or need additional information, please contact me at (575) 394-3481, (575) 441-7802 (cellular) or via email at dduncan@envplus.net. Official communications and correspondence should be directed to Mr. Billy A. Anderson, Chevron USA, at (575) 394-1237 (office), (575) 441-5438 (cellular) or via e-mail at BillyAnderson@chevron.com.

Sincerely,

David P. Duncan
Civil Engineer

P. O. Box 1558
Eunice, NM 88240
(505) 394-3481
Fax: (505) 394-2601





ENVIRONMENTAL PLUS, INC.

CONSULTING AND REMEDIAL CONSTRUCTION

05 February 2008

Mr. Glenn Von Gonten
Hydrologist; Groundwater Remediations
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED, INC.
2008 MAR 20 PM 2 16

RE: **Initial NMOCD Form C-141**

Reference: OCD Case No. AP081

Chevron USA – Mark #13 Drill Pit

UL-G (SW ¼ of the NE ¼), Section 3, T 22 S, R 37 E

Latitude: 32° 25' 22.65"; Longitude: 103° 08' 46.23"

NMOCD Ref. #1NSL-5227-A; EPI Ref. #200074

Dear Mr. Von Gonten:

Enclosed is the Initial NMOCD Form C-141 for the above referenced project as requested in your letter dated February 20, 2008. Information presented herein is supplemental to the site *Closure Proposal* submitted on January 28, 2008.

Environmental Plus, Inc., (EPI) on behalf on Chevron USA, Inc., will prepare a Stage 1 Abatement Plan meeting the requirements specified in OCD Rule 19 (19.15.1.19 NMAC). The Stage 1 Abatement Plan will include public notice and participation requirements specified in OCD Rule 19G. Additional information will include a site investigation work plan, monitor program characterizing the chloride release utilizing isoconcentration maps and cross sections. Data will be provided to select and design an effective abatement plan. Said Stage 1 Abatement Plan will be submitted within sixty (60) days after Chevron USA receipt of NMOCD letter dated February 20, 2008 or approximately March 25, 2008.

Should you have concerns, questions or need additional technical information, please contact me at (575) 394-3481 (office), (575) 441-7802 (cellular) or via e-mail at dduncan@envplus.net. Official communications should be directed to Mr. Billy A. Anderson at (575) 394-1237 (office), (575) 441-5438 (cellular) or via e-mail at BillyAnderson@chevron.com while correspondence should be addressed to:

Mr. Billy A. Anderson
HES Champion
MidContinent SBU
Chevron North America
Exploration and Production Company
2401 West Avenue "O"
P.O. Box 1949
Eunice, New Mexico 88231

ENVIRONMENTAL PLUS, INC.



Sincerely,

ENVIRONMENTAL PLUS, INC.

David P. Duncan
Civil Engineer

Cc: Larry Johnson, NMOCD-Hobbs, NM
Billy A. Anderson, Chevron USA – Eunice, NM
File

Encl: Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Groundwater Map
Figure 5 – Sample Analytical Map – 4/5/2006 (Drill Pit Bottom)
Figure 6 – Sample Analytical Map – 4/5/2006 (Drill Pit Sidewalls)
Figure 7 – Sample Analytical Map – 1/12/2007 (Drill Pit Bottom and Sidewalls)
Figure 8 – Sample Map – 1/30/2007 (Overflow Area Bottom and Sidewalls)
Figure 9 – Soil Boring Map
Table 1 – Well Information Report
Table 2 – Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results
Table 3 – Summary of Soil Boring Soil Sample Field Analyses and Laboratory Analytical Results
Attachment I – Site Photographs
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms
Attachment III – Soil Boring Logs
Attachment IV – Information and Metrics Form
Initial NMOCD Form C-141

FIGURES



Figure 1 Area Map Chevron Corporation Mark 13	Lea County, New Mexico SW 1/4 of the NE 1/4, Sec. 3, T22S, R37E N 32° 25' 22.65" W 103° 08' 46.23" Elevation: 3,390 feet amsl	DWG By: Daniel Dominguez February 2006	REVISED: 0 3 6 Miles SHEET 1 of 1
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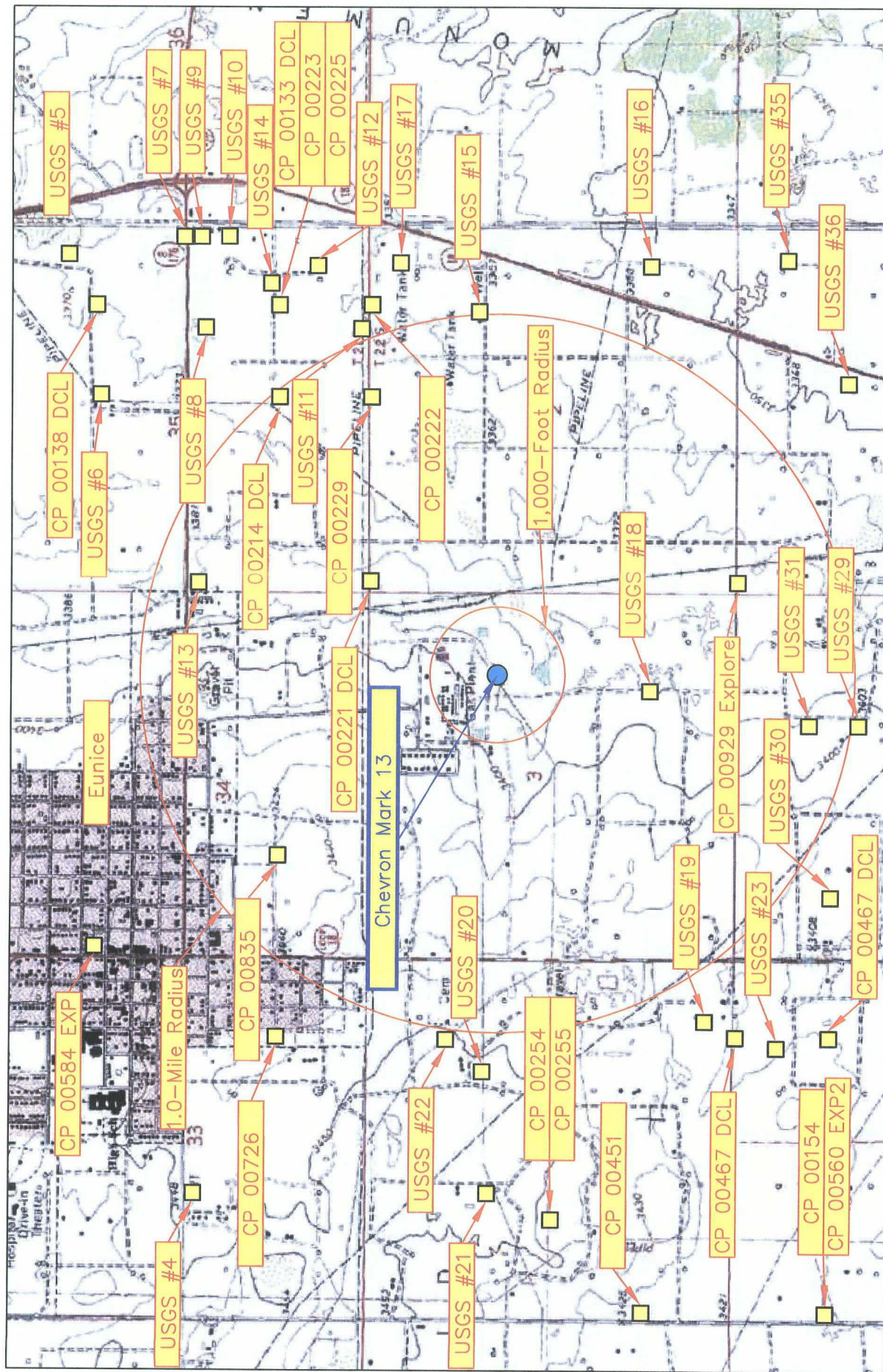
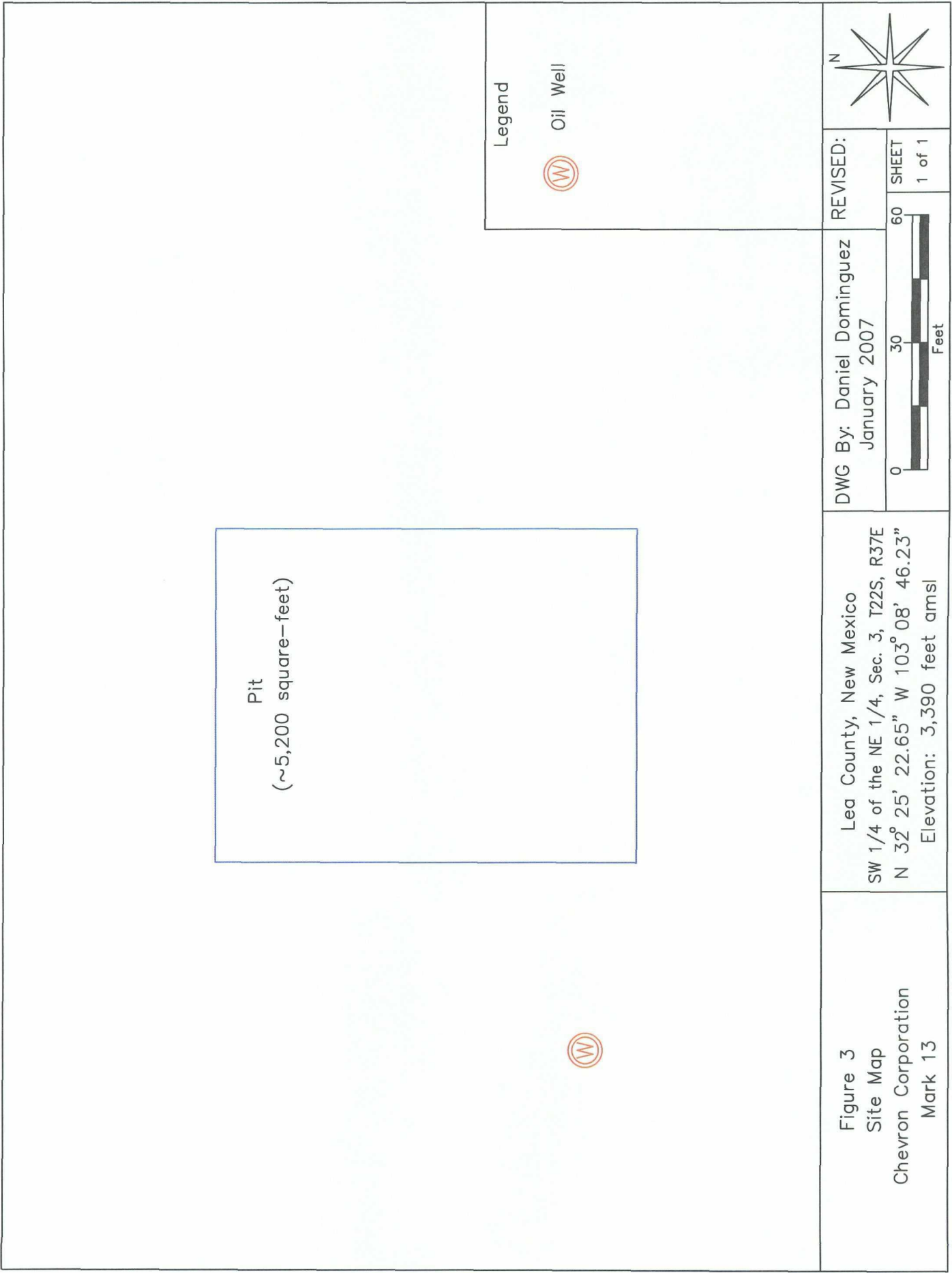


Figure 2 Site Location Map Chevron Corporation Mark 13	Lea County, New Mexico SW 1/4 of the NE 1/4, Sec. 3, T22S, R37E N 32° 25' 22.65" W 103° 08' 46.23" Elevation: 3,390 feet amsl	DWG By: Daniel Dominguez February 2006	REVISED: 0 2,000 4,000 SHEET 1 of 1
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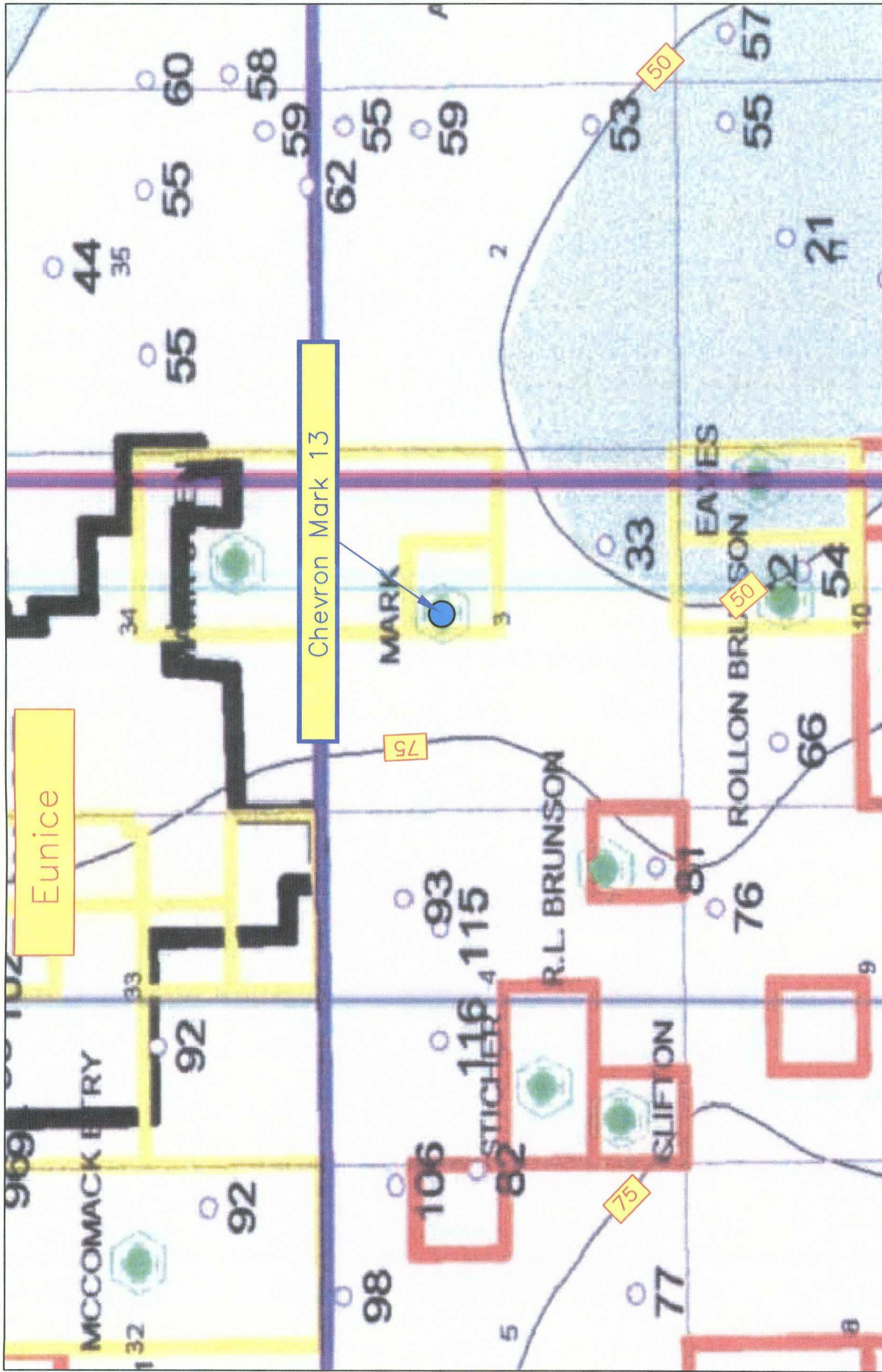


Figure 4 Groundwater Map Chevron Corporation Mark 13	Lea County, New Mexico SW 1/4 of the NE 1/4, Sec. 3, T22S, R37E N 32° 25' 22.65" W 103° 08' 46.23" Elevation: 3,390 feet amsl	DWG By: Daniel Dominguez February 2006	REVISD:	0 2,000 4,000 Feet 1 of 1
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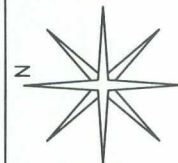
Pit
(~5,200 square-feet)

Q1	Q2
5'-Chloride 1,344 mg/Kg	5'-Chloride 1,999 mg/Kg
10'-Chloride 496 mg/Kg	10'-Chloride 432 mg/Kg
15'-Chloride 304 mg/Kg	15'-Chloride 416 mg/Kg
18'-Chloride 272 mg/Kg	18'-Chloride 480 mg/Kg
Q3	Q4
5'-Chloride 448 mg/Kg	5'-Chloride 10,477 mg/Kg
10'-Chloride 528 mg/Kg	10'-Chloride 176 mg/Kg
15'-Chloride 176 mg/Kg	15'-Chloride 96 mg/Kg

Legend



Oil Well



REVISED:

DWG By: Daniel Dominguez
January 2007

SHEET
1 of 1



Lea County, New Mexico

SW 1/4 of the NE 1/4, Sec. 3, T22S, R37E
N 32° 25' 22.65" W 103° 08' 46.23"
Elevation: 3,390 feet amsl

Figure 5

Sample Analytical Map - 4/5/2006
Chevron Corporation
Mark 13

Pit
(~5,200 square-feet)

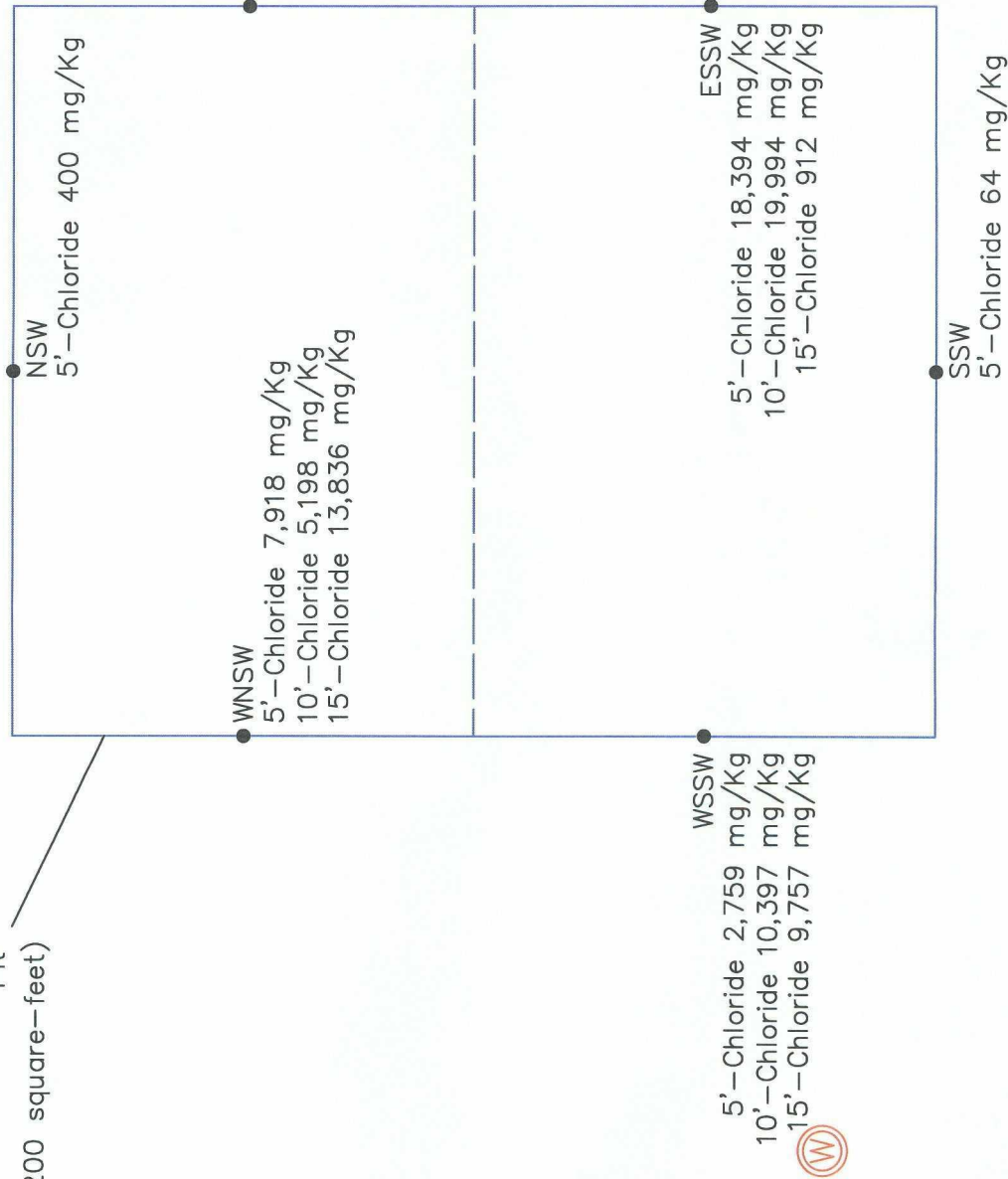


Figure 6

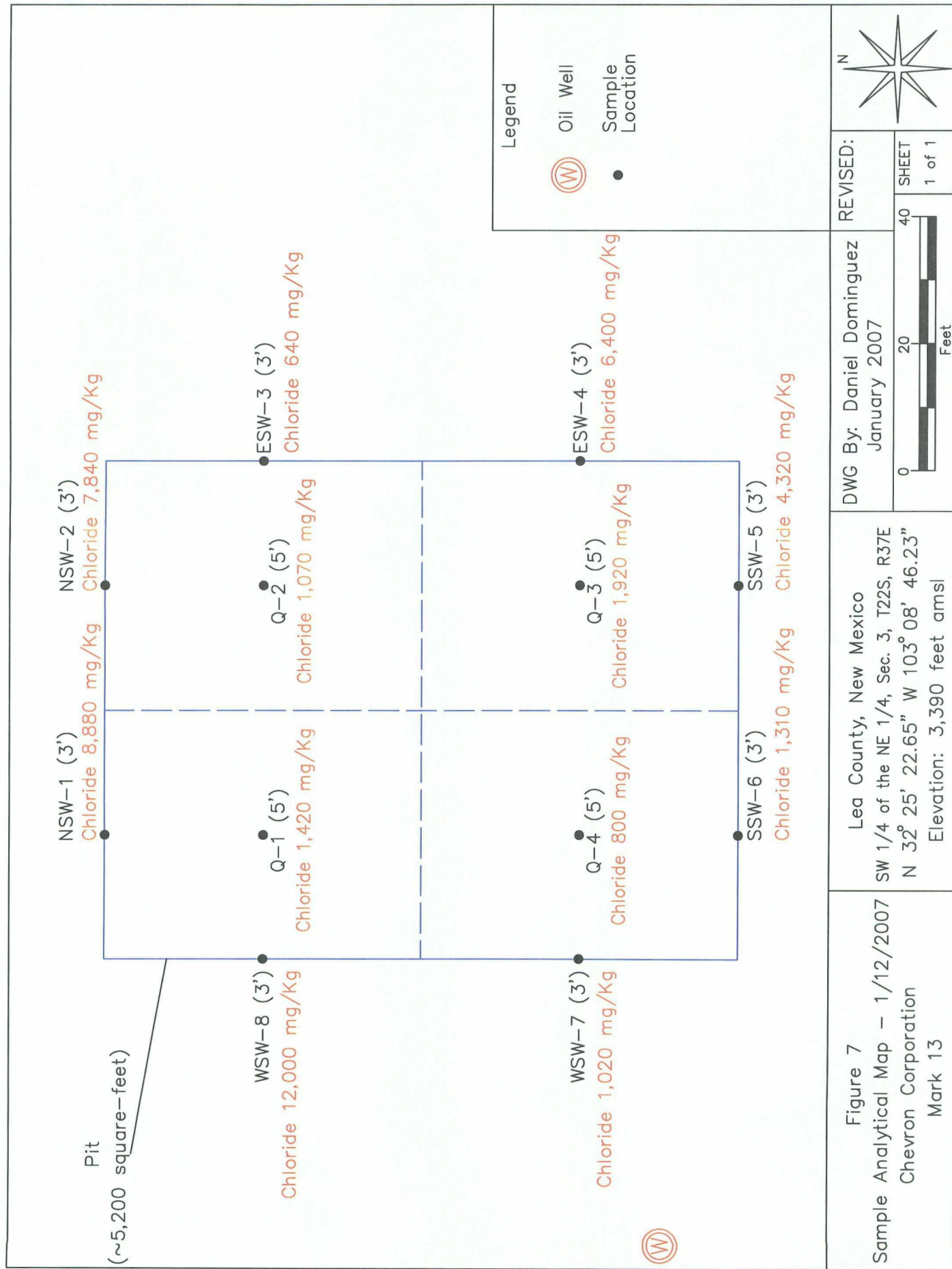
Sample Analytical Map - 4/5/2006
Chevron Corporation
Mark 13

Lea County, New Mexico
SW 1/4 of the NE 1/4, Sec. 3, T22S, R37E
N 32° 25' 22.65" W 103° 08' 46.23"
Elevation: 3,390 feet amsl

DWG By: Daniel Dominguez
January 2007

REVISED:

SHEET
1 of 1



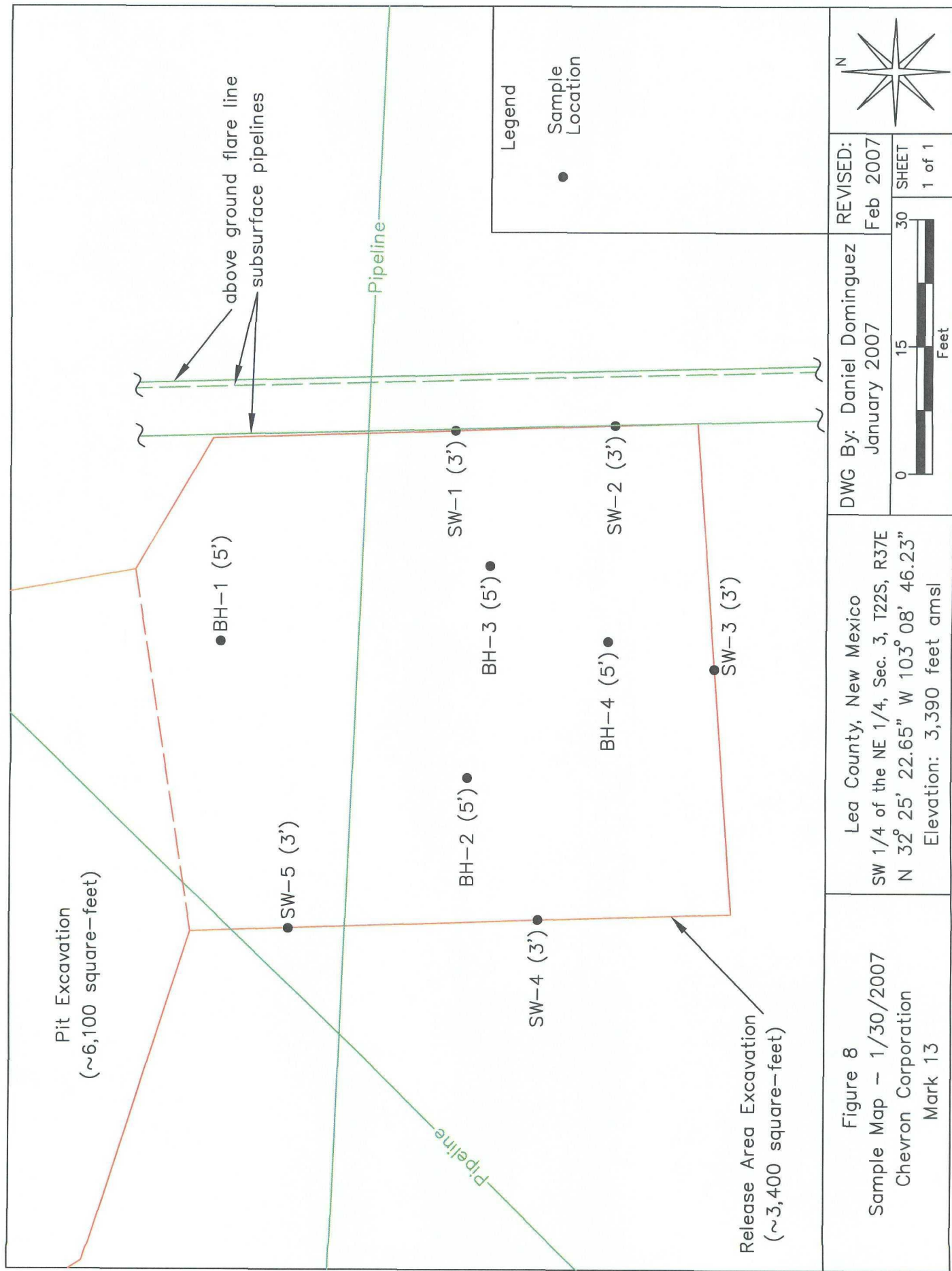
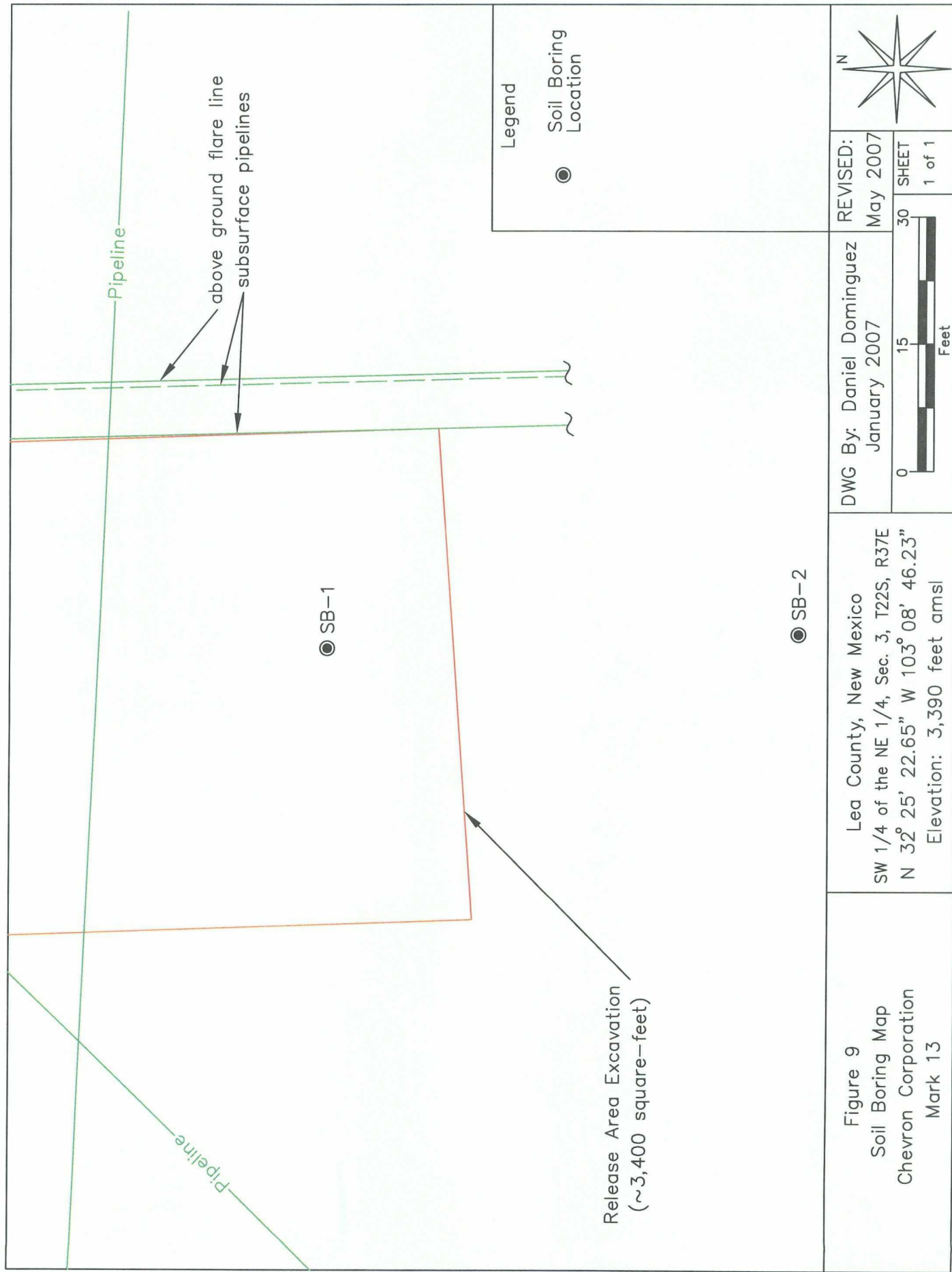


Figure 8
Sample Map - 1/30/2007
Chevron Corporation
Mark 13



TABLES

TABLE 1

WELL INFORMATION REPORT*

Chevron Mark 13 - (NMOCD Ref. #NSL-5227-A; EPI Ref #200074)

Well Number	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water ^B (ft bgs)
CP 00929 EXPLORE	0	STATE OF NM STATE ENGINEER	EXP	22S	37E	02 3 3 3	N32° 24' 48.58"	W103° 08' 30.64"		3,379	
CP 00254	64	VERSADO GAS PROCESSORS, LLC	IND	22S	37E	04 1 4 2	N32° 25' 14.63"	W103° 10' 18.31"	31-Aug-50	3,438	
CP 00255	60	VERSADO GAS PROCESSORS, LLC	IND	22S	37E	04 1 4 1	N32° 25' 14.63"	W103° 10' 18.31"	31-May-54	3,438	
CP 00451	0	SKELLY OIL COMPANY	PUB	22S	37E	04 3 1 3	N32° 25' 1.55"	W103° 10' 33.70"		3,434	
CP 00468 DCL	0	L. W. FRISTOE	DOM	22S	37E	04 4 4 3	N32° 24' 48.55"	W103° 09' 47.56"		3,425	
CP 00154	34	HOMBLE OIL AND REFINING COMPAN	COM	22S	37E	09 1 1 3	N32° 24' 35.45"	W103° 10' 33.70"		3,425	
CP 00467 DCL	0	L. W. FRISTOE	DOM	22S	37E	09 2 2 1	N32° 24' 35.50"	W103° 09' 47.55"		3,425	
CP 00560 EXP 2				22S	37E	09 1 1 2	N32° 24' 35.45"	W103° 10' 33.70"		3,425	
CP 00756	3	CHARLIE BETTIS	DOM	22S	37E	09 4 4 2	N32° 23' 56.34"	W103° 09' 47.53"	30-Oct-90	3,412	85
CP 00726	3	CLAYTON L. WOOTEN	DOM	21S	37E	33 4 2	N32° 25' 53.76"	W103° 09' 47.50"	23-Feb-88	3,445	100
CP 00548 EXP	0	A.J. REDDEN	DOM	21S	37E	34 1 1 3	N32° 26' 19.86"	W103° 09' 32.11"		3,445	
CP 00835	3	PAUL D PRATHER	STK	21S	37E	34 3 2 3	N32° 25' 53.75"	W103° 09' 16.72"	25-Feb-94	3,445	
CP 00133 DCL	0	HARIEN STEPHENS	DOM	21S	37E	35 4 2 2	N32° 25' 53.75"	W103° 07' 44.38"		3,369	
CP 00138 DCL	0	MARION AND WILLIAM O STEPHENS	STK	21S	37E	35 2 2 3	N32° 26' 19.87"	W103° 07' 44.40"		3,376	
CP 00214 DCL	0	J. M. AND M. W. OWEN	DOM	21S	37E	35 4 1 2	N32° 25' 53.75"	W103° 07' 59.77"		3,373	
CP 00221 DCL	0	J. M. OWEN	DOM	21S	37E	35	N32° 25' 40.70"	W103° 08' 30.55"		3,389	
CP 00222	15	VERSADO GAS PROCESSORS, LLC	IND	21S	37E	35 4 4 2	N32° 25' 40.69"	W103° 07' 44.37"		3,366	
CP 00223	69	VERSADO GAS PROCESSORS, LLC	IND	21S	37E	35 4 2 3	N32° 25' 53.75"	W103° 07' 44.38"	15-Mar-49	3,369	
CP 00225	32.38	VERSADO GAS PROCESSORS, LLC	IND	21S	37E	35 4 2 2	N32° 25' 53.75"	W103° 07' 44.38"	31-Jul-57	3,369	
CP 00229	19.36	VERSADO GAS PROCESSORS, LLC	IND	21S	37E	35 4 3 4	N32° 25' 40.69"	W103° 07' 59.76"	17-Mar-63	3,369	
USGS #18				22S	37E	3 4 3 2			27-Jan-76		32.58
USGS #15				22S	37E	2 2 4 2			17-Mar-81		58.79
USGS #16				22S	37E	2 4 4 2			09-Oct-53		53.3
USGS #17				22S	37E	2 2 2 2			26-Feb-86		55.12
USGS #19				22S	37E	4 4 4 3			16-Nov-65		83.15
USGS #20				22S	37E	4 2 3 2			06-Mar-54		114.81
USGS #21				22S	37E	4 1 4 1			25-Jul-66		115.8
USGS #22				22S	37E	4 2 2 3			15-Feb-96		93.07
USGS #23				22S	37E	9 2 1 2			17-Mar-81		76.2
USGS #29				22S	37E	10 2 3 2			27-Jan-76		54.44
USGS #30				22S	37E	10 1 3 2			27-Jan-76		65.59
USGS #31				22S	37E	10 2 1 4			27-Jan-76		41.88
USGS #35				22S	37E	11 2 2 4			26-Apr-91		54.87
USGS #36				22S	37E	11 2 3 1			30-Jun-76		20.51
USGS #4				21S	37E	33 3 2 1			17-Dec-70		92.12
USGS #5				21S	37E	35 2 2 4			22-Jan-76		55.77
USGS #6				21S	37E	35 2 3 1			01-Feb-96		43.68
USGS #7				21S	37E	35 2 4 4			23-Jan-76		58.29
USGS #8				21S	37E	35 4 1 2			23-Jan-76		57.05
USGS #9				21S	37E	35 4 2 2			23-Jan-76		58.97

TABLE 1

WELL INFORMATION REPORT**

Chevron Mark 13 - (NMOCD Ref. #NSL-5227-A; EPI Ref #200074)

Well Number	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
USGS #10				21S	37E	35 4 2 2			23-Jan-76	58.76	
USGS #11				21S	37E	35 4 3 4			23-Jan-76	62.44	
USGS #12				21S	37E	35 4 4 2			23-Jan-76	59.08	
USGS #13				21S	37E	35 3 2 1			25-Apr-91	54.51	
USGS #14				21S	37E	35 4 2 3			23-Jan-76	59.77	
CP-00560 EXP-1	0	SKELLY OIL COMPANY	DOM	22S	37E	09 3 3 2	N32° 23' 56.30"	W103° 10' 33.67"		3,405	
CP 00871	3	BILOR BARBARA TRULL	DOM	22S	37E	09 3 3 2	N32° 23' 56.30"	W103° 10' 33.67"	29-Sep-97	3,405	94
USGS #1				21S	37E	33 1 1 1			22-Jan-76		97.8
USGS #2				21S	37E	33 1 1 1			22-Jan-76		93.95
USGS #3				21S	37E	33 2 1 1			06-Jun-55		101.92
USGS #24				22S	37E	9 3 1 3			29-Sep-53		72.74
USGS #25				22S	37E	9 3 3 3			08-Mar-96		74.66
USGS #26				22S	37E	9 3 1 3			07-Mar-68		71.68R
USGS #27				22S	37E	9 4 2 2			02-May-91		81.1
USGS #28				22S	37E	9 4 2 3			29-Sep-53		85.51
USGS #32				22S	37E	10 3 2 1			27-Jan-76		69.54
USGS #33				22S	37E	10 3 2 1			17-Mar-81		66.05
USGS #34				22S	37E	10 3 4 1			15-Feb-96		91.64
USGS #37				22S	37E	11 3 2 2			18-Mar-96		38.97
USGS #38				22S	37E	11 4 4 4			25-Apr-91		57.98

* = Data obtained from the New Mexico Office of the State Engineer Website (http://waters.ose.state.nm.us:7001/AWATERS/wr_RegisServlet) and USGS Database.

A = in acre feet per annum

B = Interpolated from USGS Topographical Map

DOM = Domestic one household

EXP = Exploration

PUB = 2-12-1 Construction of public works

COM = Commercial

STK = 72-12-1 Livestock watering

IND = Industrial

(quarters are 1=NW, 2=NE, 3=SW, 4=SE)

(quarters are biggest to smallest - X Y are in Feet - UTM are in Meters)

Shaded area indicates wells not shown on Figure 2

TABLE 2
Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results
Chevron U.S.A. Inc.
Mark #13 Drill Pit (NMOC Ref. #NSL-5227-A; EPI Ref. # 200074)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
WNSW	1	Excavated	13-Mar-06	8.9	5,840	--	--	--	--	--	--	--	--	--
WNSW	1	Excavated	13-Mar-06	0.7	420	--	--	--	--	--	--	--	--	--
SSW	1	Excavated	13-Mar-06	0.5	1,000	--	--	--	--	--	--	--	--	--
SB	1.5	Excavated	13-Mar-06	0.5	2,180	--	--	--	--	--	--	--	--	--
ESSW	1	Excavated	13-Mar-06	0.3	1,600	--	--	--	--	--	--	--	--	--
ENSW	1	Excavated	13-Mar-06	0.5	5,600	--	--	--	--	--	--	--	--	--
NB	1.5	Excavated	13-Mar-06	0.7	4,240	--	--	--	--	--	--	--	--	--
NSW	1	Excavated	13-Mar-06	0.5	5,040	--	--	--	--	--	--	--	--	--
WNSW	5	Excavated	05-Apr-06	--	4,000	--	--	--	--	--	--	--	--	7,918
NSW	5	Excavated	05-Apr-06	--	240	--	--	--	--	--	--	--	--	400
ENSW	5	Excavated	05-Apr-06	--	400	--	--	--	--	--	--	--	--	496
ESSW	5	Excavated	05-Apr-06	--	4,000+	--	--	--	--	--	--	--	--	18,394
SSW	5	Excavated	05-Apr-06	--	160	--	--	--	--	--	--	--	--	64
WSSW	5	Excavated	05-Apr-06	--	4,000+	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	2,759

TABLE 2
Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results
Chevron U.S.A. Inc.
Mark #13 Drill Pit (NMOCD Ref. #NSL-5227-A; EPI Ref.# 200074)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-C10) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
WNSW	10	In situ	05-Apr-06	--	3,840	--	--	--	--	--	--	--	--	5,198
ENSW	10	In situ	05-Apr-06	--	160	--	--	--	--	--	--	--	--	16
ESSW	10	In situ	05-Apr-06	--	4,000+	--	--	--	--	--	--	--	--	19,994
WSSW	10	In situ	05-Apr-06	--	4,000+	--	--	--	--	--	--	--	--	10,397
WNSW	15	In situ	05-Apr-06	--	4,000+	--	--	--	--	--	--	--	--	13,836
ESSW	15	In situ	05-Apr-06	--	960	--	--	--	--	--	--	--	--	912
WSSW	15	In situ	05-Apr-06	--	4,000+	--	--	--	--	--	--	--	--	9,757
Q1 (Test Trench)	5	In situ	05-Apr-06	--	1,120	--	--	--	--	--	--	--	--	1,344
Q1 (Test Trench)	10	In situ	05-Apr-06	--	400	--	--	--	--	--	--	--	--	496
Q1 (Test Trench)	15	In situ	05-Apr-06	--	400	--	--	--	--	--	--	--	--	304
Q1 (Test Trench)	18	In situ	05-Apr-06	--	320	--	--	--	--	--	--	--	--	272
Q2 (Test Trench)	5	In situ	05-Apr-06	--	1,520	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	1,999
Q2 (Test Trench)	10	In situ	05-Apr-06	--	400	--	--	--	--	--	--	--	--	432
Q2 (Test Trench)	15	In situ	06-Apr-06	--	400	--	--	--	--	--	--	--	--	416
Q2 (Test Trench)	18	In situ	06-Apr-06	--	320	<0.005	<0.005	<0.005	<0.015	<0.030	<10.0	<10.0	<20.0	480

TABLE 2
Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results
Chevron U.S.A. Inc.
Mark #13 Drill Pit (NMOCD Ref. #NSL-5227-A; EPI Ref. # 200074)

[illegible]

TABLE 2
Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results
Chevron U.S.A. Inc.
Mark #13 Drill Pit (NMOCD Ref. #NSL-5227-A; EPI Ref.# 200074)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-Cl0) (mg/Kg)	DRO (>Cl 0-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
BH-3 (5')	5	In situ	30-Jan-07	5.0	640	--	--	--	--	--	--	--	--	720
BH-4 (5')	5	In situ	30-Jan-07	27.5	1,200	--	--	--	--	--	--	--	--	2,111
SW-1 (3')	3	In situ	30-Jan-07	19.5	640	--	--	--	--	--	--	--	--	736
SW-2 (3')	3	In situ	30-Jan-07	26.8	4,000+	--	--	--	--	--	--	--	--	15,595
SW-3 (3')	3	In situ	30-Jan-07	36.1	1,200	--	--	--	--	--	--	--	--	2,015
SW-4 (3')	3	In situ	30-Jan-07	16.3	880	--	--	--	--	--	--	--	--	1,168
SW-5 (3')	3	In situ	30-Jan-07	8.8	4,000+	--	--	--	--	--	--	--	--	5,478
NMOCD Remedial Thresholds														
				100		10				50			100	250

Bolded values are in excess of NMOCD Remediation Threshold Goals

-- = Not Analyzed

BH = Soil samples collected from the bottom of the excavation; SW = Soil samples collected from the side walls of the excavation (E=East, W=West, N=North and S=South)

TABLE 3
Summary of Soil Boring Soil Sample Field Analyses and Laboratory Analytical Results
Chevron U.S.A. Inc.
Mark #13 Drill Pit (NMOCD Ref.#NSL-5227-A; EPI Ref.# 200074)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO (C6-Cl0) (mg/Kg)	DRO (>C10-C28) (mg/Kg)	Total Hydrocarbons nC6-nC28 (mg/Kg)	Chloride (mg/Kg)
SB1-1 (5')	5	In situ	12-Jan-07	--	840	--	--	--	--	--	--	--	--	1010
SB1-2 (10')	10	In situ	12-Jan-07	--	840	--	--	--	--	--	--	--	--	672
SB1-3 (15')	15	In situ	12-Jan-07	--	560	--	--	--	--	--	--	--	--	464
SB1-4 (20')	20	In situ	12-Jan-07	--	320	--	--	--	--	--	--	--	--	208
SB2-1 (5') (Background)	5	In situ	12-Jan-07	--	880	--	--	--	--	--	--	--	--	752
SB2-2 (10') (Background)	10	In situ	12-Jan-07	--	800	--	--	--	--	--	--	--	--	592
SB2-3 (15') (Background)	15	In situ	12-Jan-07	--	680	--	--	--	--	--	--	--	--	528
SB2-4 (20') (Background)	20	In situ	12-Jan-07	--	320	--	--	--	--	--	--	--	--	176
NMOCD Remedial Thresholds				100		10				50			100	250

Bolded values are in excess of NMOCD Remediation Threshold Goals

-- = Not Analyzed

BH = Soil samples collected from the bottom of the excavation; SW = Soil samples collected from the side walls of the excavation (E=East, W=West, N=North and S=South)

ATTACHMENTS

ATTACHMENT I
SITE PHOTOGRAPHS



Photograph No. 1 – Lease Sign.



Photograph No. 2 – Looking northerly at west bank of drill pit excavation.



Photograph No. 3 – Looking at northeast corner of pit excavation.



Photograph No. 4 – Looking at southeast corner of pit/northwest corner of overflow area.



Photograph No. 5 – Looking northeasterly at overflow area excavation and buried pipeline.



Photograph No. 6 – Looking northerly at junction of drill pit and overflow area.



Photograph No. 7 – Installation of liners.



Photograph No. 8 – Backfilling excavation.



Photograph No. 9 – Remediated site.



Photograph No. 10 – Remediated site.

ATTACHMENT II

**LABORATORY ANALYTICAL RESULTS
AND
CHAIN-OF-CUSTODY FORM**

ATTACHMENT III

SOIL BORING LOGS

(NOTE - Page 1 of 1)



ENVIRONMENTAL PLUS, INC.
CONSULTING AND
REMEDIAL CONSTRUCTION
EUNICE, NEW MEXICO
505-394-3481

Project Number: 200074

Project Name: Chevron - Mark #13

Location: UL-G, Section 3, Township 22 South, Range 37 East

Boring Number: SB-1

Surface Elevation: 3,390-feet amsl

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Start Date: <u>1-12-07</u> Time: <u>0700 hrs</u> Completion Date: <u>1-12-07</u> Time: <u>1115 hrs</u> Description	
									Top Soil, brown
									Fractured Rock
0800	SS	6	little		840		5		5' CALICHE
0830	SS	6	little		840		10		10' SAND/Caliche, tan
									SAND, brown
0845	SS	6	damp		560		15		15' SAND, brown
0900	SS	6	very moist		320		20		20' SANDSTONE, dark brown, very dense
1100									Limestone
									Refusal
							25		
							30		
Water Level Measurements (feet)								Drilling Method:	Auger
Date	Time	Sample Depth	Casing Depth	Cave-In Depth	Water Level			Backfill Method:	Bentonite
-	-	-	-	-	-				
-	-	-	-	-	-			Field Representative:	GB

Log Of Test Borings

(NOTE - Page 1 of 1)



ENVIRONMENTAL PLUS, INC.
CONSULTING AND
REMEDIAL CONSTRUCTION
EUNICE, NEW MEXICO
505-394-3481

Project Number: 200074

Project Name: Chevron - Mark #13

Location: UL-G, Section 3, Township 22 South, Range 37 East

Boring Number: SB-2

Surface Elevation: 3,390-feet amsl

Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	Chloride Analysis (mg/Kg)	U.S.C.S. Symbol	Depth (feet)	Start Date: 1-12-07 Time: 1300 hrs	Completion Date: 1-12-07 Time: 1630 hrs	Description			
										Top Soil, brown			
										Fractured Rock			
1300	SS	6	little		880		5			5' CALICHE			
1315	SS	6	little		800		10			10' SAND, brown/red			
1330	SS	6	damp		680		15			15' SAND, brown/red			
1400	SS	6	very moist		320		20			20' SAND, brown/muddy			
1600										Limestone			
										Refusal			
							25						
							30						
Water Level Measurements (feet)								Drilling Method: Auger					
Date	Time	Sample Depth	Casing Depth	Cave-In Depth	Water Level	Backfill Method: Bentonite							
-	-	-	-	-	-	Field Representative: GB							
-	-	-	-	-	-								

ATTACHMENT IV

**INFORMATION AND METRICS FORM
INITIAL NMOCD FORM C-141**



Information and Metrics

Incident Date:
N/A

NMOCD Notified:
N/A

Site: Mark #13 Drill Pit		Assigned Site Reference : EPI Reference #200074	
Company: Chevron			
Street Address: 2401 Avenue 'O'			
Mailing Address: P.O. Box 1949			
City, State, Zip: Eunice, NM 88231			
Representative: Billy Anderson			
Representative Telephone: (575) 394-1237			
Telephone:			
Fluid volume released (bbls): N/A		Recovered (bbls): N/A	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: Mark #13 Drill Pit			
Source of contamination: Drill Pit			
Land Owner, i.e., BLM, ST, Fee, Other: DCP Midstream, LLC			
LSP Dimensions :			
LSP Area: ~6,100-ft ² (Drill Pit); ~3,400-ft ² (Overflow Area)			
Location of Reference Point (RP):			
Location distance and direction from RP:			
Latitude: N 32° 25' 22.65"			
Longitude: W 103° 08' 46.23"			
Elevation above mean sea level: 3,412 feet			
Feet from North Section Line:			
Feet from West Section Line:			
Location- Unit or ¼¼: SW¼ of the NE¼		Unit Letter: G	
Location- Section: 3			
Location- Township: T22S			
Location- Range: R37E			
Surface water body within 1000' radius of site: zero (0)			
Domestic water wells within 1000' radius of site: zero (0)			
Agricultural water wells within 1000' radius of site: zero (0)			
Public water supply wells within 1000' radius of site: zero (0)			
Depth from land surface to groundwater (DG): ~63 feet			
Depth of contamination (DC): ~18 feet			
Depth to groundwater (DG - DC = DtGW): ~45 feet			
1. Groundwater		2. Wellhead Protection Area	
If Depth to GW <50 feet: <i>20 points</i>		If <1000' from water source, or; <200' from private domestic water source: <i>20 points</i>	
If Depth to GW 50 to 99 feet: <i>10 points</i>		If >1000' from water source, or; >200' from private domestic water source: <i>0 points</i>	
If Depth to GW >100 feet: <i>0 points</i>			
Site Rank (1+2+3) = 20 + 0 + 0 = 0			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1,000 ppm	5,000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR



Initial Report



Final Report

Name of Company: Chevron USA	Contact: Billy Anderson	
Address: P.O. Box 1949, Eunice, NM 88231	Telephone No.: (575) 394-1237	
Facility Name: Mark #13 Drill Pit	Facility Type: Drill Pit	
Surface Owner: Targa	Mineral Owner:	Lease No.:

LOCATION OF RELEASE

Unit Letter G	Section 03	Township 22S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude: N 32° 25' 22.65" **Longitude:** W 103° 46' 46.23"

NATURE OF RELEASE

Type of Release: Drilling fluids	Volume of Release: >5.0 bbls	Volume Recovered: Unknown
Source of Release: Drill pit	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: Unknown
Was Immediate Notice Given? Unknown ☐ 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: Not Applicable	
If a Watercourse was Impacted, Describe Fully.* Not Applicable		
Depth to water: ~63 bgs		
Describe Cause of Problem and Remedial Action Taken.* Possible leakage of fluids through the drill pit liner; inundation of overflow area after south-east corner of the drill pit failed		
Describe Area Affected and Cleanup Action Taken An unknown volume of drilling fluids were vacuumed from the release area and the south-east corner restructured (Note: Relevant documentation of major chronological project events are detailed on attached sheets)		
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: Billy Anderson	Approved by District Supervisor:	
Title: HES Champion	Approval Date:	Expiration Date:
E-mail Address: BillyAnderson@chevron.com	Conditions of Approval:	Attached ☐
Date: 3-05-08	Phone: (575) 394-1237	

* Attach Additional Sheets If Necessary



Mark #13 production well was spudded on December 07, 2005 and reached total depth on January 27, 2008. The drill pit was constructed prior to the spud date. Outside dimensions of the drill pit were 100-feet X 100-ft X 8-feet deep with a single horse shoe of 80-feet X 80-feet X 8-feet deep. Usable volume for the drill pit was 3,000-barrels (bbls). The pit was lined with a 12-mil thick polyethylene sheet. Contents were typical drilling mud and brine water.

Environmental Plus, Inc., (EPI) was retained by Chevron USA to remove and dispose drilling mud and fluids with deposit at a State approved disposal facility. On February 9, 2006 an EPI representative conducted a GPS survey, site assessment, photographed and inspected the Drill Pit and adjacent Overflow Area located on the south-east corner. The Overflow Area became inundated when the south-east corner failed allowing drilling fluid onto the surface. Exact knowledge of time of occurrence, volume of fluid released and recovered is unknown.

On March 6, 2006 EPI began stiffening drill mud with clean dirt and transporting the material to Sundance Services, Inc., for disposal. From March 3-10, 2006 approximately (~) 826 cubic yards of drill mud were stiffened and disposed. During this interval, the bottom and sidewalls were field analyzed for TPH and chloride concentrations. With field analyses indicating the bottom and sidewalls were above remedial threshold goals for these constituents of concern (CoC), two (2) test trenches were excavated to determine depth of contamination. Vertical extent of contamination was determined ~18-feet bgs.

EPI returned to the site on January 8, 2007 and commenced excavating the Drill Pit and adjacent Overflow Area. One (1) soil boring was advanced in the release area with a second one advanced south of the location for background reference on January 12, 2007. Depth of contamination in the overflow area was determined to be ~15-feet bgs. During the period of January 8-30, 2007 ~3,118 cubic yards of impacted soil were excavated from the Drill Pit and Overflow Area with disposal at Sundance Services.

On July 26, 2007 EPI advanced two (2) soil borings located up gradient and down gradient of projected groundwater flow. The soil borings were converted to temporary monitor wells (TMW-1 and TMW-2) with TMW-1 located up gradient and TMW-2 down gradient. The two (2) temporary monitor wells were developed and water samples collected for transportation to an independent laboratory for analyses. Laboratory analytical results indicated groundwater had miscellaneous contaminants above New Mexico Water Quality Conservation Commission (NMWQCC) Ground Water Standards with chlorides being the prevalent contaminant. On August 16, 2007 the two (2) TMWs were developed again and water samples collected with transportation to an independent laboratory for analyses of selected constituents. As with the first analyses, chlorides were above NMWQCC Ground Water Standards of 250 mg/Kg and demonstrated similar characteristics of increasing concentrations from TMW-1 to TMW-2.

After additional study and consultations with professionals, two (2) additional monitor wells (TMW-3 and TMW-4) were installed on August 18, 2007 at locales more clearly representing groundwater flow. Development of the TMWs, groundwater sampling methods and laboratory analyses duplicated techniques used on TMW-1 and TMW-2. Laboratory analytical results correlated previous data with chlorides above NMWQCC Ground Water Standards and concentrations increasing between TMW-3 and TMW-4. While dormant in previous analyses, sulfates were above NMWQCC Ground Water Standards of 600 mg/L, but showed a reverse trend with dissipation in concentrations from TMW-3 to TMW-4. Results of the groundwater contamination were verbally conveyed to the NMOCD (L. Johnson – Hobbs).



In conformance with NMOCD Rules and Regulations, TMW-1 and TMW-2 were plugged and abandoned (P&A) with TMW-3 and TMW-4 converted to permanent monitor wells. P & A and conversion of temporary monitor wells were done in strict conformance with State of New Mexico Engineer's Rules and Regulations.

After the *Remediation Proposal* submitted on January 28 was approved by the NMOCD (L. Johnson - Hobbs) on February 7, 2008, EPI commenced backfilling activities. Bottoms of the Drill Pit and Overflow Area were cleared of large rocks, protuberances and depressions filled with sand. A 40-mil polyethylene liner sandwiched between two (2) foot thick layers of cushion sand was installed in the bottom of the Drill Pit. Similarly a 20-mil polyethylene liner sandwiched between one (1) foot thick layers of cushion sand was installed in the Overflow Area. Caliche was placed from top of cushion sand to original gradient in the area where the production pad overlaps the Drill Pit excavation. The easterly portion extending past the production pad was backfilled with caliche to within three (3) feet of original ground surface and remainder with clean top soil. The Overflow Area was backfilled with clean top soil from cushion sand to original ground surface. The entire disturbed areas were contoured to promote natural drainage and allow vehicular traffic. The areas covered with topsoil will be seeded in spring 2008 with a blend preferred by the property owner.