



# H<sub>2</sub>S Preparedness and Contingency Plan Summary

Salado Draw 18 26 33 Fed 1H

Salado Draw 18 26 33 Fed 2H

Salado Draw 19 26 33 Fed 1H

Salado Draw 19 26 33 Fed 2H

HOBBS OCD

## Training

JUL 02 2015

MCBU Drilling and Completions H<sub>2</sub>S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S. RECEIVED

### Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S, who are not required to perform work in H<sub>2</sub>S areas, will be provided with an awareness level of H<sub>2</sub>S training prior to entering any H<sub>2</sub>S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H<sub>2</sub>S
2. Health hazards of H<sub>2</sub>S
3. Personal protective equipment
4. Information regarding potential sources of H<sub>2</sub>S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

### Advanced Level H<sub>2</sub>S Training

Employees and contractors required to work in areas that may contain H<sub>2</sub>S will be provided with Advanced Level H<sub>2</sub>S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H<sub>2</sub>S training will include:

1. H<sub>2</sub>S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H<sub>2</sub>S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H<sub>2</sub>S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H<sub>2</sub>S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H<sub>2</sub>S training;
6. Proficiency examination covering all course material.

Advanced H<sub>2</sub>S training courses will be instructed by personnel who have successfully completed an appropriate H<sub>2</sub>S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

JUL 07 2015



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## H<sub>2</sub>S Training Certification

All employees and visitors will be issued an H<sub>2</sub>S training certification card (or certificate) upon successful completion of the appropriate H<sub>2</sub>S training course. Personnel working in an H<sub>2</sub>S environment will carry a current H<sub>2</sub>S training certification card as proof of having received the proper training on their person at all times.

## Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be up-wind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

## H<sub>2</sub>S Equipment

### Respiratory Protection

- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

### Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

### H<sub>2</sub>S Detection and Monitoring System

- a) H<sub>2</sub>S monitoring system (sensor head, warning light and siren) placed throughout rig.
  - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
  - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



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## Well Control Equipment

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

## Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc based mud treatment
- 3. Increasing mud weight

## Public Safety - Emergency Assistance

<u>Agency</u>	<u>Telephone Number</u>
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

# H<sub>2</sub>S Preparedness and Contingency Plan Summary



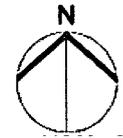
## Chevron MCBU D&C Emergency Notifications

Below are lists of contacts to be used in emergency situations.

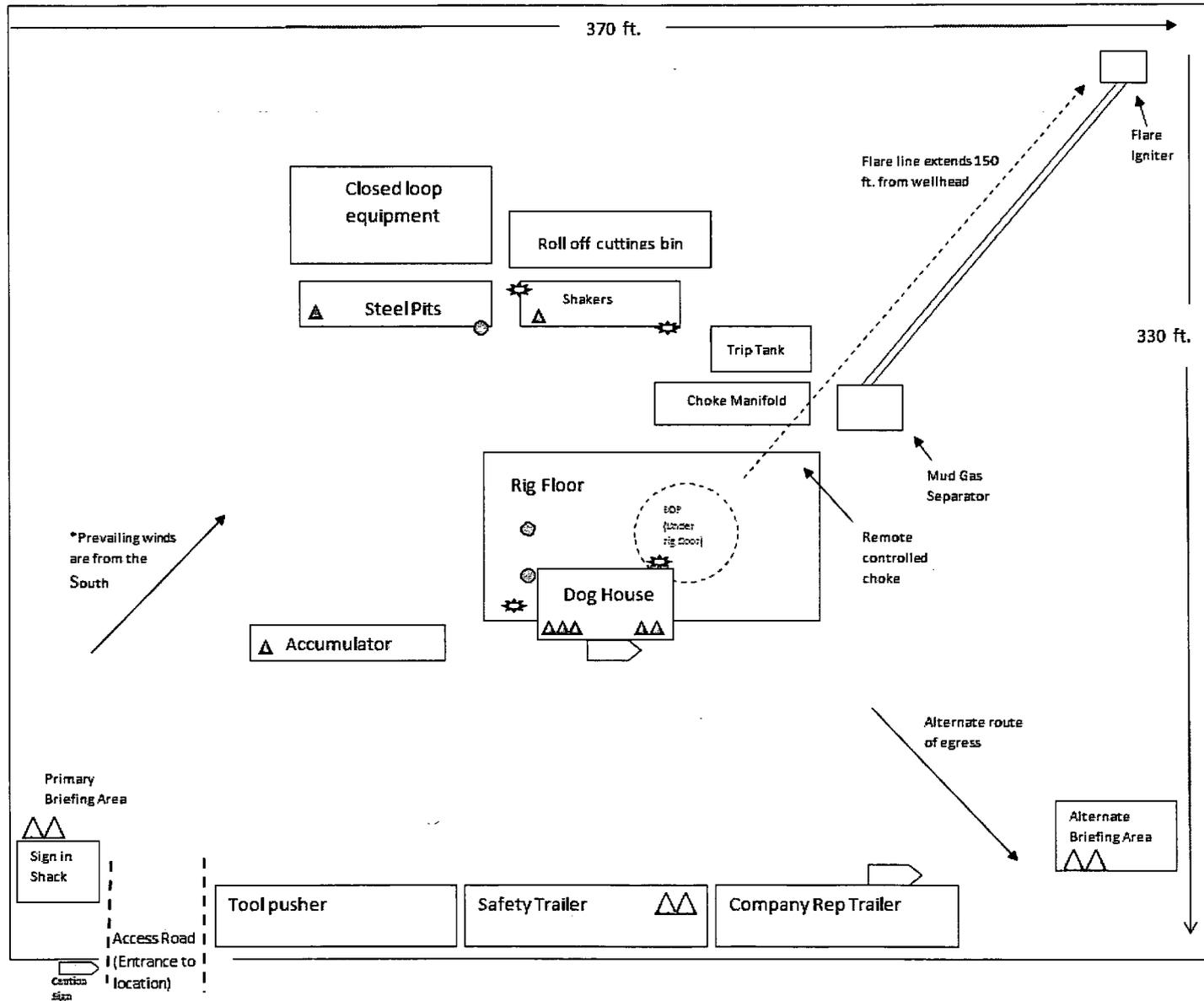
	Name	Title	Office Number	Cell Phone
1.	Vicente Ruiz	Drilling Engineer	(713) 372-6181	(713) 898-5436
2.	Phil Clark	Superintendent	(713) 372-7588	(832) 741-4175
5.	Kim McHugh	Drilling Manager	(713) 372-7591	(713) 204- 8550
6.	Darrell Hammons	Operations Manager	(713) 372-5747	(281) 352 2302
7.	Andrea Calhoun	D&C HES	(713) 372-7586	(832) 588-0100
8.	Said Daher	Completion Engineer	(713) 372-0233	(832) 714-0724



# H<sub>2</sub>S Preparedness and Contingency Plan Summary



-  5 minute EBA
-  30 minute SCBA
-  Wind Sock / Flag
-  H<sub>2</sub>S Sensors
-  Alarms



Salado Draw 19-26-33 Fed 1H, 2H

# Exhibit E

**NOTE:**

Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100% effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc. may exist undetected on site.

**NOTE:**

Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities. For guidance: New Mexico One Call - [www.nmonecall.org](http://www.nmonecall.org)

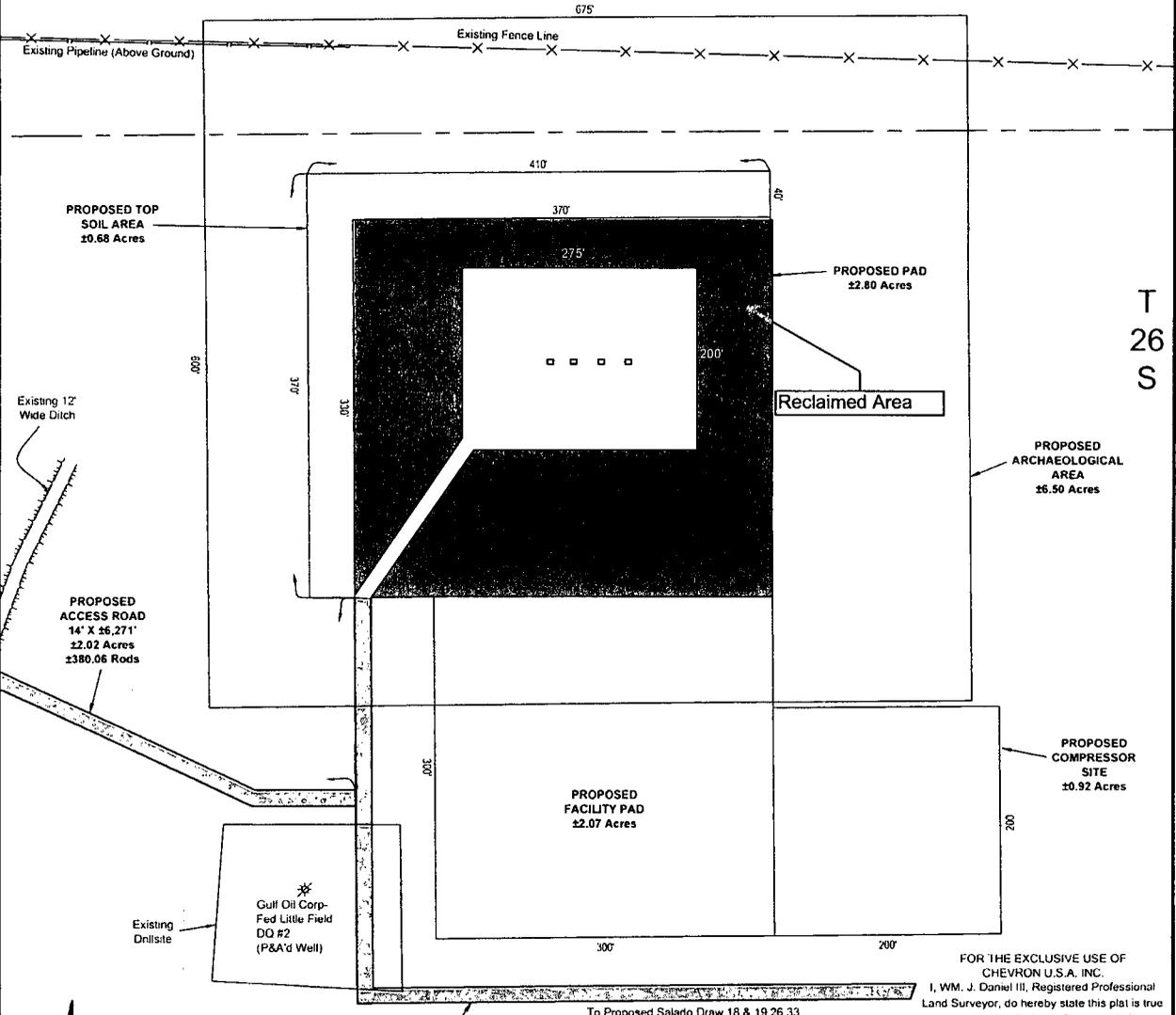
**DISCLAIMER:** At this time, C.H. Fenstermaker & Associates, LLC has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

NW ARCH. AREA CORNER	NE ARCH. AREA CORNER	SE ARCH. AREA CORNER	SW ARCH. AREA CORNER	SALADO DRAW 18 26 33 FED 1H WELL
X= 721,819 NAD 27 Y= 377,707	X= 722,494 NAD 27 Y= 377,713	X= 722,500 NAD 27 Y= 377,113	X= 721,824 NAD 27 Y= 377,107	X= 722,122 NAD 27 Y= 377,410
ELEVATION +3174' NAVD 88	ELEVATION +3180' NAVD 88	ELEVATION +3187' NAVD 88	ELEVATION +3172' NAVD 88	X= 32.035588 LONG. 103.616531
NW TOP SOIL AREA CORNER	NE TOP SOIL AREA CORNER	SE TOP SOIL AREA CORNER	SW TOP SOIL AREA CORNER	X= 763.308 NAD83 Y= 377.467 LONG. 103.616999
X= 721,910 NAD 27 Y= 377,573	X= 722,320 NAD 27 Y= 377,576	X= 722,321 NAD 27 Y= 377,536	X= 721,913 NAD 27 Y= 377,203	ELEVATION +3176' NAVD 88
ELEVATION +3177' NAVD 88	ELEVATION +3178' NAVD 88	ELEVATION +3178' NAVD 88	ELEVATION +3172' NAVD 88	ELEVATION +3176' NAVD 88
NW PAD CORNER	SE PAD CORNER	SW PAD CORNER	NW COMPRESSOR SITE CORNER	NE COMPRESSOR SITE CORNER
X= 721,951 NAD 27 Y= 377,534	X= 722,323 NAD 27 Y= 377,206	X= 721,953 NAD 27 Y= 377,204	X= 722,324 NAD 27 Y= 377,107	X= 722,524 NAD 27 Y= 377,108
ELEVATION +3176' NAVD 88	ELEVATION +3178' NAVD 88	ELEVATION +3173' NAVD 88	ELEVATION +3179' NAVD 88	ELEVATION +3188' NAVD 88
NW FACILITY PAD CORNER	SE FACILITY PAD CORNER	SW FACILITY PAD CORNER	SE COMPRESSOR SITE CORNER	
X= 722,023 NAD 27 Y= 377,204	X= 722,025 NAD 27 Y= 376,804	X= 722,025 NAD 27 Y= 376,804	X= 722,525 NAD 27 Y= 376,808	
ELEVATION +3173' NAVD 88	ELEVATION +3171' NAVD 88	ELEVATION +3171' NAVD 88	ELEVATION +3185' NAVD 88	

Sec. 18

Bureau of Land Management

R 33 E



T  
26  
S



LEGEND	
	Section Line
	Fence Line
	Ditch
	Existing Pipeline

Sec. 19

Bureau of Land Management

FOR THE EXCLUSIVE USE OF CHEVRON U.S.A. INC.  
I, WM. J. DANIEL III, Registered Professional Land Surveyor, do hereby state this plat is true and correct to the best of my knowledge.

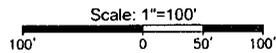


CHEVRON U.S.A. INC.  
PROPOSED PAD & ACCESS ROAD  
SALADO DRAW 18 26 33 FED 1H WELL  
SECTION 19, T26S-R33E & SECTIONS 23 & 24, T26S-R32E  
LEA COUNTY, NEW MEXICO

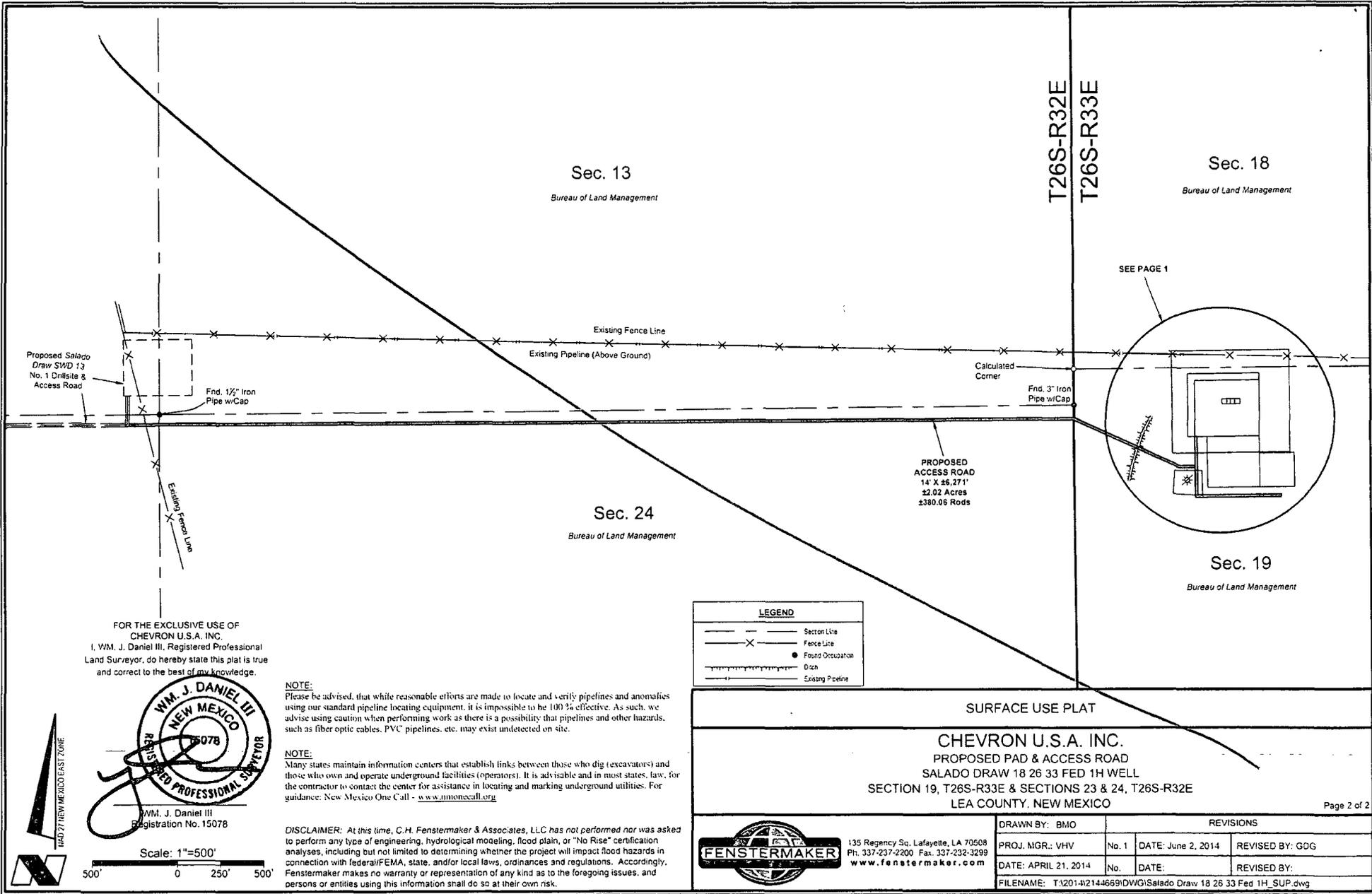
Page 1 of 2



135 Regency Sq. Lafayette, LA 70508  
Ph: 337-237-2200 Fax: 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)



DRAWN BY: BMO		REVISIONS	
PROJ. MGR.: ]	No. 1	DATE: June 2, 2014	REVISED BY: GOG
DATE: APRIL 21, 2014	No.	DATE:	REVISED BY:
FILENAME: T:\2014\2146691\DWG\Salado Draw 18 26 33 Fed 1H_SUP.dwg			



Sec. 13

Bureau of Land Management

Sec. 18

Bureau of Land Management

T26S-R32E  
T26S-R33E

SEE PAGE 1

Proposed Salado  
Draw SWD 13  
No. 1 Drillsite &  
Access Road

Fnd. 1 1/2" Iron  
Pipe w/Cap

Existing Fence Line  
Existing Pipeline (Above Ground)

Calculated  
Corner

Fnd. 3" Iron  
Pipe w/Cap

PROPOSED  
ACCESS ROAD  
14' X 26,271'  
±2.02 Acres  
±380.05 Rods

Sec. 24

Bureau of Land Management

Sec. 19

Bureau of Land Management

FOR THE EXCLUSIVE USE OF  
CHEVRON U.S.A. INC.  
I, WM. J. Daniel III, Registered Professional  
Land Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.



Wm. J. Daniel III  
Registration No. 15078

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**LEGEND**

	Section Line
	Fence Line
	Found Occupation
	Dish
	Existing Pipeline

**SURFACE USE PLAT**

**CHEVRON U.S.A. INC.**  
PROPOSED PAD & ACCESS ROAD  
SALADO DRAW 18 26 33 FED 1H WELL  
SECTION 19, T26S-R33E & SECTIONS 23 & 24, T26S-R32E  
LEA COUNTY, NEW MEXICO

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PROJ. MGR.: VHV	No. 1	DATE: June 2, 2014	REVISED BY: GDG
DATE: APRIL 21, 2014	No.	DATE:	REVISED BY:
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