



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

Salado Draw 29 26 33 Fed 1H

Salado Draw 29 26 33 Fed 3H

Salado Draw 29 26 33 Fed 2H

Salado Draw 29 26 33 Fed 4H

HOBBS OCD

## Training

JUN 15 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.

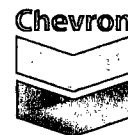
### Advanced Level H<sub>2</sub>S Training

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.

JUN 16 2015



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

## 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 upwind 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

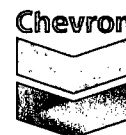
- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

### 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.



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

## 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

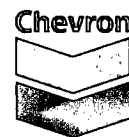
In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 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

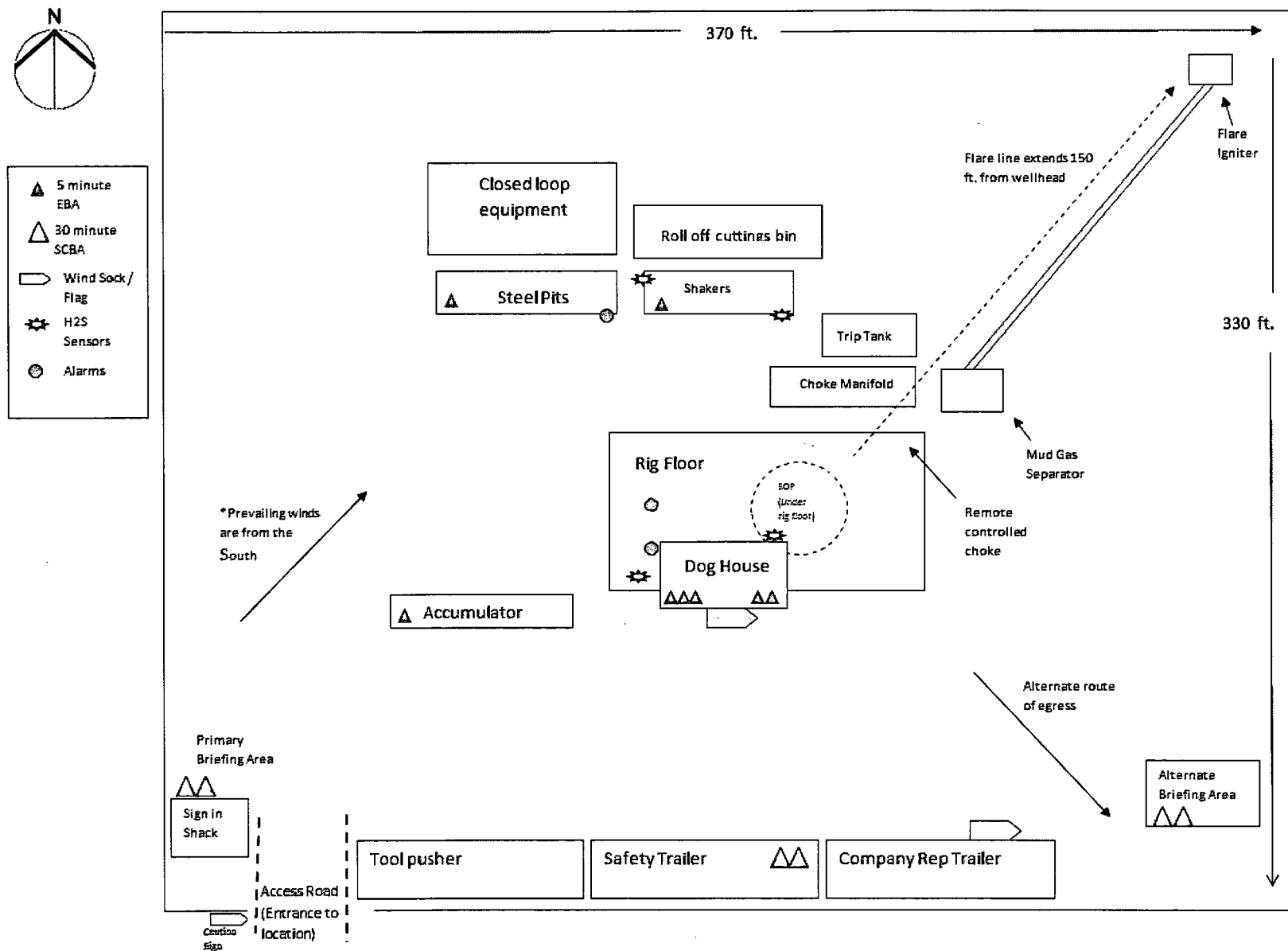


## Chevron MCBU D&C Emergency Notifications

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



# Exhibit E

NW ARCH. AREA CORNER	NE ARCH. AREA CORNER	SE ARCH. AREA CORNER	SW ARCH. AREA CORNER
X= 727.536 NAD 27	X= 728.211 NAD 27	X= 728.215 NAD 27	X= 727.540 NAD 27
Y= 372.471	Y= 372.475	Y= 371.875	Y= 371.871
ELEVATION +321'4" NAVD 88	ELEVATION +321'6" NAVD 88	ELEVATION +320'5" NAVD 88	ELEVATION +321'5" NAVD 88
NW TOP SOIL AREA CORNER	NE TOP SOIL AREA CORNER/NW PAD CORNER	SE TOP SOIL AREA CORNER/SW PAD CORNER	SW TOP SOIL AREA CORNER
X= 727.627 NAD 27	X= 727.667 NAD 27	X= 727.669 NAD 27	X= 727.629 NAD 27
Y= 372.297	Y= 372.297	Y= 371.967	Y= 371.967
ELEVATION +321'1" NAVD 88	ELEVATION +321'2" NAVD 88	ELEVATION +320'8" NAVD 88	ELEVATION +321'2" NAVD 88
NW SATELLITE BATTERY PAD CORNER	NE SATELLITE BATTERY PAD CORNER	SE SATELLITE BATTERY PAD CORNER	
X= 728.059 NAD 27	X= 728.139 NAD 27	X= 728.139 NAD 27	
Y= 372.069	Y= 372.070	Y= 371.970	
ELEVATION +321'6" NAVD 88	ELEVATION +321'7" NAVD 88	ELEVATION +320'6" NAVD 88	
NE PAD CORNER	SE PAD CORNER/SW SATELLITE BATTERY PAD CORNER		
X= 728.037 NAD 27	X= 728.039 NAD 27		
Y= 372.259	Y= 371.969		
ELEVATION +322'1" NAVD 88	ELEVATION +321'3" NAVD 88		
SALADO DRAW 29 26 33 FED COM NO. 4H WELL			
X= 727.913 NAD 27			
Y= 372.174			
LAT. 32.021087			
LONG. 103.597958			
X= 769.101 NAD83			
Y= 372.230			
LAT. 32.021212			
LONG. 103.598425			
ELEVATION +321'5" NAVD 88			

T  
26  
S