

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

HOBBS OCD

JUN 15 2011

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

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Emergency ProceduresIn the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Shackelford Oil Co. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Lime Rock Resources response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

JUN 22 2011

H₂S CONTINGENCY PLAN EMERGENCY CONTACTS

Company Office –Shackelford Oil Co.

432-682-9784

Key Personnel

<u>Name</u>	<u>Title</u>	<u>Phone Number</u>
Bob Shackelford	Production Engineer	432-682-9784 Cell: 432-213-7090
Don Shackelford	President	432-682-9784

Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
Fire Department	575-746-2701
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283

Carlsbad

Ambulance	911
State Police	575-8885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-887-3798
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
24 Hour	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635
National Emergency Response Center (Washington, DC)	800-424-8802

Other

Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd PressureControl	915-699-0139 or 915-563-3356
Halliburton	575-746-2757
B. J. Services	575-746-3569
Flight For Life – 4000 24 th St. Lubbock, Texas	806-743-9911
Aerocare – R3, Box 49F, Lubbock, Texas	806-747-8923
Med Flight Air Amb – 2301 Yale Blvd SE #D3, Albuquerque, NM	505-842-4433
S B Air Med Service – 2505 Clark Carr Loop SE, Albuquerque, NM	505-842-4949

MULTI POINT SURFACE USE AND OPERATIONS PLAN

SHACKELFORD OIL CO.

Re-Enter: Mobil Federal, Well No. 3
2310' FSL & 330' FWL, Sec. 21-T19S-R32E
Lea County, New Mexico
Lease No.: NM-0175774
(Development Well)

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This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a USGS/BLM Topo map showing the location of the proposed existing well as staked. The well site location is approximately 33 road miles northeast of Carlsbad, New Mexico. Traveling east from Carlsbad there will be approximately 31 miles of paved highway and 2 miles of gravel ranch/oilfield roads.
- B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 23 miles to the NM Hwy 243. Turn on Hwy 243 NE for 2.5 miles then turn north on Maljamar Rd. for 6 miles to the Lusk plant on the left (west). Turn east on gravel road for .7 mile, then south for 1 mile to the Mobil Federal #3 well pad on the west side of the road. The well is approximately 150 feet west of the road. The existing access road will access the east side of the proposed Mobil Federal, Well No. 3 well pad.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The existing access road is on the east side of the existing well pad.
- B. Construction: The existing access road has been recently repaired by grading and topping with compacted caliche and is properly drained.
- C. Turnouts: None required.
- D. Culverts: None required.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off-Lease R/W: Shackelford has an off lease ROW for the existing road to service their other wells on the lease.

3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;

- A. There are production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities and gas production-process equipment will be installed on the drilling pad. A 3" SDR 7 flow line will run ~~north 100'~~ to the Mobil Fed. ^{#6 tank battery}
~~#7 flow line~~ from this well to the tank battery. ^{South 1600'}

Corrected per conversation w/ G. Smith 3-8-11

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to re-enter the well and drill out the plugs with fresh water that will be obtained from private or commercial sources and will be transported over the existing access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. No new construction will be required on the existing well pad.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings and liquids will be stored in steel tanks of the closed loop mud system during the drilling operation. Drill cuttings will be delivered to CRI, Permit No. R-9166, as needed, and at closure. Drilling liquids will be hauled to a separate approved disposal system.
- B. There are no mud pits to be fenced.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, closed loop system, and major rig components of the drilling rig.
- B. Mat Size: 265' X 245', including rig and closed mud system.
- C. Cut & Fill: None
- D. The existing surface well pad is ready for use. No new work required.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. The location will be cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible
- B. All produced mud and fluids of the closed mud system will be removed to authorized disposal sites.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The proposed well site and access road is located in a relatively level surface with a southwesterly slope of .003% from an elevation of 3584'.
- B. Soil: The topsoil around the well site is light brown colored loamy fine sand. The soil is of the Kermit-Palomas fine sands dune land complex.
- C. Flora and Fauna: The vegetation cover is a good to fair grass cover of three-awn, grama, dropseed, bluestem and other miscellaneous native grasses along with plants of mesquite, yucca, creosote bush, sage, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the area.
- E. Residences and Other Structures: None, but existing oil field facilities.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access roads are on Federal surface.
- H. There is no evidence of archaeological, historical or cultural sites on the drill site and access road area. An archaeological survey was conducted at the time Shackelford Oil Co. (Woodbine Petroleum, Inc.) drilled the original well and was submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

- A. The field representative responsible for assuring compliance with the approved surface use and operations plan is as follows:

Don Shackelford
Shackelford Oil Company
3510 N. A St., Bldg B-100
Midland, TX 79705
Office Phone: (432) 682-9784

Bob Shackelford
Shackelford Oil Company
3510 N. A St., Bldg B-100
Midland, TX 79705
Office Phone: (432) 682-9784
Cell Phone: (432) 813-7090

CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have knowledge of state and Federal laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Executed this 17th day of February, 2011.


George R. Smith

POA agent for Shackelford Oil Co.
P.O. Box 458
Roswell, NM 88202
575-623-4940

Bob Shackelford, Field Representative
3510 N. A St., Bldg. B-100
Midland, TX 79705
432-682-9784
432-813-7090—Cell#

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**POWER OF ATTORNEY
DESIGNATION OF AGENT**

SHACKELFORD OIL COMPANY, hereby names the following person as its agent

Name of Agent: George R. Smith d/b/a Energy Administrative Services Company

Agents Address: P.O. Box 458, Roswell, NM 88202

Agent's Telephone Number: (575) 623-4940

GRANT OF SPECIAL AUTHORITY

SHACKELFORD OIL COMPANY, grants its agent the authority to act for it with respect to the following only:

1. Executing forms required to be filed with the Bureau of Land Management of the Department of Interior of the United States of America.
2. Executing forms required to be filed with the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department.

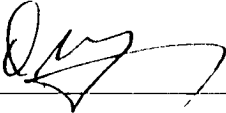
EFFECTIVE DATE

This power of attorney is effective immediately.

RELIANCE ON THE POWER OF ATTORNEY

Any person, including the agent, may rely upon the validity of this power of attorney or a copy of it unless that person knows it has terminated or is invalid.

SIGNATURE AND ACKNOWLEDGMENT



By: DON SHACKELFORD

Title: PRESIDENT

Date: 5-27-10

Address: 3510 N. A ST. BLDG B STE. 100
MIDLAND, TX. 79705

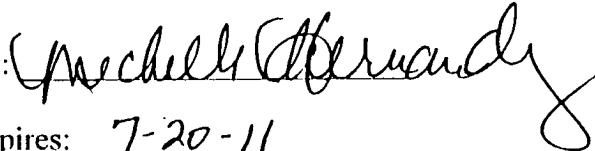
Telephone: 432-682-9784

STATE OF

COUNTY OF

This instrument was acknowledged before me on 5-27-10 by
DON SHACKELFORD of SHACKELFORD OIL COMPANY
acting on behalf of said corporation.

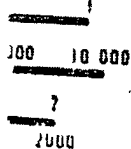
Signatory of notary:



My commission expires: 7-20-11



THIS COPY FOR: JOHN FAST



QUADRANGLE LOCATION

Proposed Access Road:

EXHIBIT "C"
SHACKELFORD OIL CO.
Re-entry: Mobil Federal, Well No. 3
23'10" FSL & 330' FWL, Sec. 21-T19S-R32E
Existing Wells