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NMOCD ARTESIA

Secretary's Potash
OCD Artesia

12-881

Form 3160-3
(April 2004)

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM29233 TES

6. If Indian, Allotee or Tribe Name 10/29/2012

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. Federal 12 #14H 30048147

2. Name of Operator OXY USA Inc. 16696

9. API Well No. 30-015- 40821

3a. Address P.O. Box 50250 Midland, TX 79710

3b. Phone No. *(include area code)* 432-685-5717

10. Field and Pool, or Exploratory 96403 WILDCAT ~~Und Livingston Ridge Bone~~ Spring

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 330 FSL 405 FEL SESE(P)
At proposed prod. zone 660 FSL 330 FWL SWSW(M)

11. Sec., T. R. M. or Blk. and Survey or Area Sec 12 T22S R31E

14. Distance in miles and direction from nearest town or post office* 25 miles east from Carlsbad, NM

12. County or Parish Eddy

13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'

16. No. of acres in lease ~~480ac~~ 1120 AC

17. Spacing Unit dedicated to this well 160ac

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1905'

19. Proposed Depth PH - 11650 TVD - 14681'-M 10345'-V

20. BLM/BIA Bond No. on file ESB000226

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3620.3' GL

22. Approximate date work will start* 09/01/2012

23. Estimated duration 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature [signature] Name *(Printed/Typed)* David Stewart Date 6/21/12

Title Regulatory Advisor david_stewart@oxy.com

Approved by *(Signature)* /s/ Jesse J. Juen Name *(Printed/Typed)* /s/ Jesse J. Juen Date OCT 19 2012

Title STATE DIRECTOR Office NM STATE OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached. APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**(Instructions on page 2)*

Carlsbad Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

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

State of New Mexico
Energy, Minerals & Natural Resources
OIL CONSERVATION
1220 South St.
Santa Fe, NM

OPERATOR: Please do not report production under this pool id code until OCD confirms perfs and appropriate pool designation on completion and C104 approvals.

Form C-102
Revised October 12, 2005
Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 40821	96403 39350	WILDCAT; Undesignated Livingston Ridge Bone Spring

Property Code	Property Name	Well Number
304814	FEDERAL "12"	14H
OGRID No.	**Operator Name**	**Elevation**
16696	OXY USA INC.	3620.3'

Surface Location

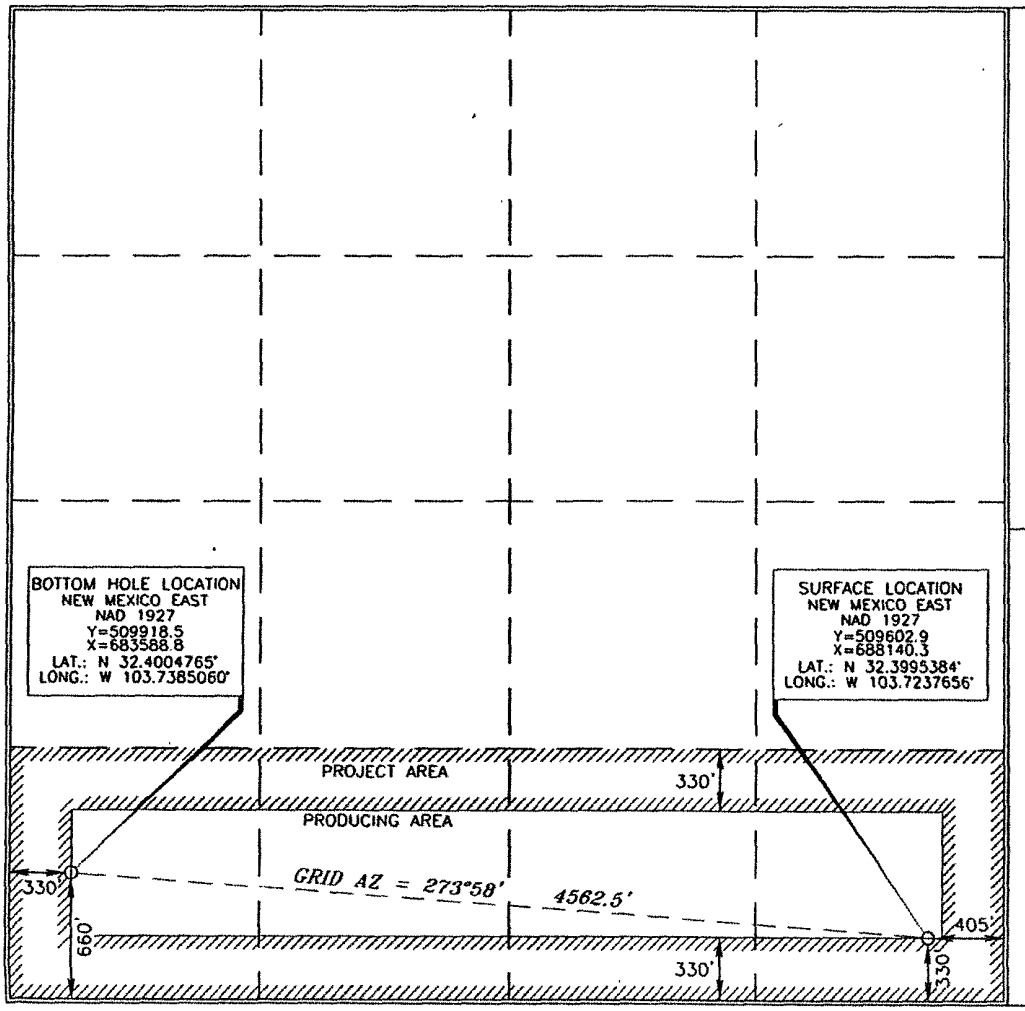
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	12	22 SOUTH	31 EAST, N.M.P.M.		330'	SOUTH	405'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	12	22 SOUTH	31 EAST, N.M.P.M.		660'	SOUTH	330'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	N		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 6/21/12

David Stewart - Reg Adv.
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

AUGUST 15, 2011
Date of Survey

Signature and Seal of Professional Surveyor

NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

2/14/2012

Certificate Number 15079

WO# 110815WL-a (Rev. A) (KA)

OPERATOR CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this 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 false statements. Executed this _____ day of _____, 2012.

Name: _____Peter Lawrence_____

Position: ___Reservoir Management Team Leader_____

Address: ___5 Greenway Plaza, Suite 110, Houston, TX 77046_____

Telephone: _____713-215-7644_____

E-mail: (optional): _____peter_lawrence@oxy.com_____

Company: _____OXY USA Inc._____

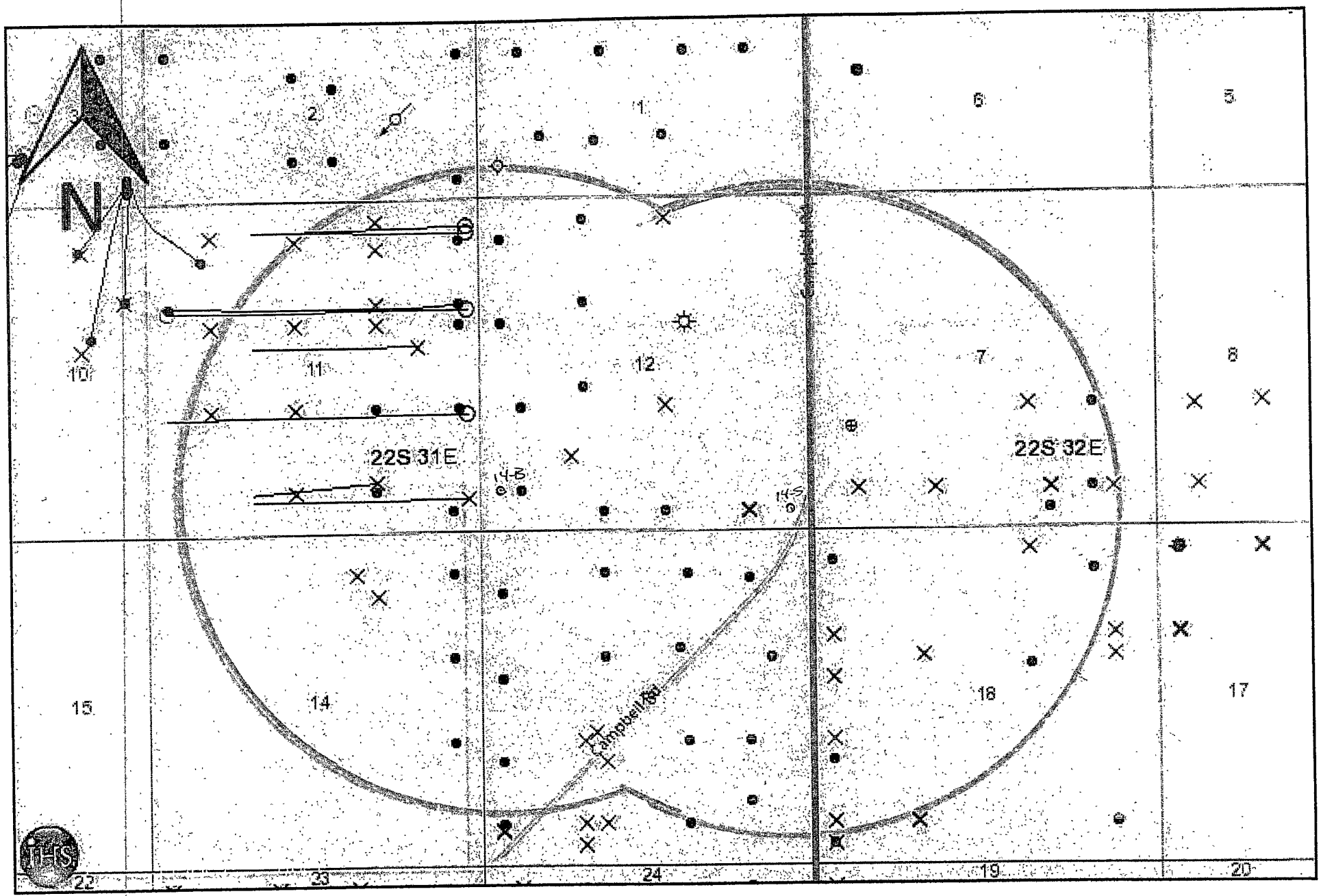
Field Representative (if not above signatory): _____Dusty Weaver _____

Address (If different from above): _P.O. Box 50250 Midland, TX 79710 _____

Telephone (if different from above): _____432-685-5723_____

E-mail (if different from above): _____calvin_weaver@oxy.com_____

Federal 12 #14H



OXY USA Inc. - Federal 12 #14H - 9 Sec AOR

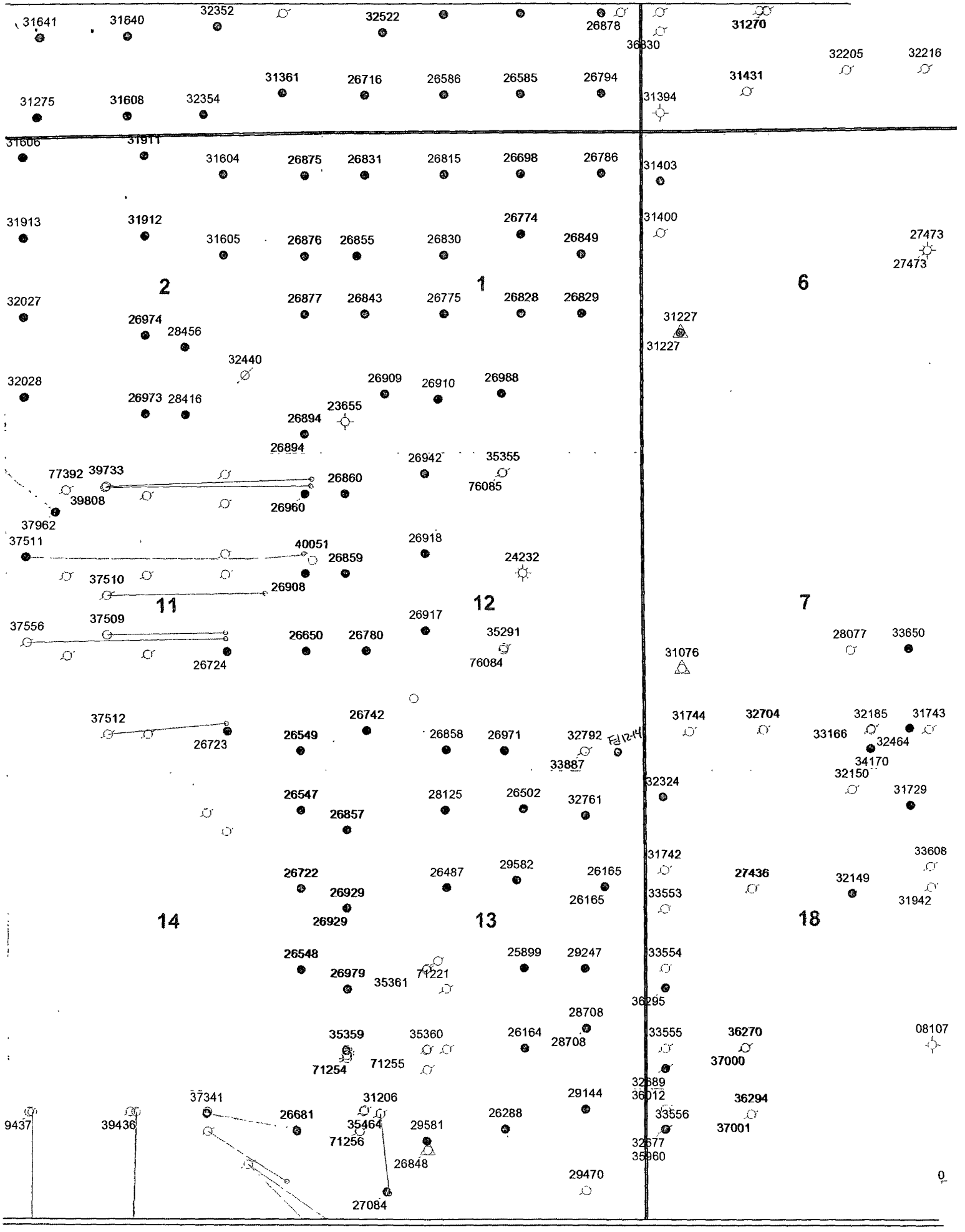
API	Lease Name	Well	Operator Name	Location	Footage	Field Name	IP Prod Form Name	Form at TD Name	TD	Final Status
30015236550000	SCL FEDERAL	1	POGO PRODUCING CO	22S 31E 1	530 FSL 330 FWL	WILDCAT		DELAWARE	4562	D&A
30015242320000	FEDERAL `SCL`	2	POGO PRODUCING CO	22S 31E 12	1980 FNL 1980 FEL	RED TANK	ATOKA	MORROW	14928	GAS
30015258990000	NEFF `13` FEDERAL	1	POGO PRODUCING CO	22S 31E 13 NW SE	1980 FSL 1980 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	MORROW LOWER	14975	OIL
30015261640000	NEFF `13` FEDERAL	3	TEXACO PROD INC	22S 31E 13 SW SE	660 FSL 1980 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BRUSHY CANYON	8450	OIL
30015261650000	NEFF `13` FEDERAL	2	TEXACO PROD INC	22S 31E 13 SE NE	1980 FNL 660 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BRUSHY CANYON	8450	OIL
30015261650001	NEFF 13 FEDERAL	2	TEXACO PROD INC	22S 31E 13 SE NE	1980 FNL 660 FEL	LIVINGSTON RIDGE		BRUSHY CANYON	8450	OIL-WO
30015264870000	NEFF `13` FEDERAL	5	TEXACO EXPL&PROD INC	22S 31E 13 SE NW	1980 FNL 1980 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8398	OIL
30015265020000	NEFF `13` FEDERAL	4	TEXACO EXPL&PROD INC	22S 31E 13 NW NE	660 FNL 1980 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8450	OIL
30015265470000	DOLORES `AIL` FEDERAL	1	YATES PETROLEUM CORP	22S 31E 14 NE NE	660 FNL 430 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8425	OIL
30015265480000	DOLORES `AIL` FEDERAL	2	YATES PETROLEUM CORP	22S 31E 14 NE SE	1980 FSL 430 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8440	OIL
30015265490000	MARTHA `AIK` FEDERAL	1	YATES PETROLEUM CORP	22S 31E 11 SE SE	330 FSL 430 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8425	OIL
30015266500000	MARTHA `AIK` FEDERAL	2	YATES PETROLEUM CORP	22S 31E 11 NE SE	1980 FSL 330 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8450	OIL
30015266980000	UNOCAL `AHU` FEDERAL	1	YATES PETROLEUM CORP	22S 31E 1 NW NE	660 FNL 1980 FEL	LOST TANK	DELAWARE	BONE SPRING	8500	OIL
30015267220000	DOLORES `AIL` FEDERAL	3	YATES PETROLEUM CORP	22S 31E 14 SE NE	1980 FNL 430 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8420	OIL
30015267230000	MARTHA `AIK` FEDERAL	3	YATES PETROLEUM CORP	22S 31E 11 SW SE	660 FSL 1650 FEL	LIVINGSTON RIDGE	DELAWARE	BONE SPRING	8411	OIL
30015267240000	MARTHA `AIK` FEDERAL	4	YATES PETROLEUM CORP	22S 31E 11 NW SE	1980 FSL 1650 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8530	OIL
30015267420000	FEDERAL `12`	1	POGO PRODUCING CO	22S 31E 12 SW SW	660 FSL 660 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8439	OIL
30015267740000	UNOCAL `HPC` FEDERAL	1	HANAGAN PET CORP	22S 31E 1 SW NE	1650 FNL 1980 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8461	OIL
30015267750000	FEDERAL `1`	1	POGO PRODUCING CO	22S 31E 1 NE SW	2310 FSL 1980 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8480	OIL
30015267800000	FEDERAL `12`	2	POGO PRODUCING CO	22S 31E 12 NW SW	1980 FSL 660 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8490	OIL
30015267860000	UNOCAL `AHU` FEDERAL	2	YATES PETROLEUM CORP	22S 31E 1 NE NE	660 FNL 660 FEL	LOST TANK	DELAWARE	BONE SPRING	8560	OIL
30015268150000	MOLLY STATE	1	PHILLIPS PETRLM CO	22S 31E 1 NE NW	660 FNL 1980 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8420	OIL
30015268280000	FEDERAL `1`	2	POGO PRODUCING CO	22S 31E 1 NW SE	2310 FSL 1980 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8530	OIL
30015268290000	FEDERAL `1`	3	POGO PRODUCING CO	22S 31E 1 NE SE	2310 FSL 990 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8555	OIL
30015268300000	MOLLY STATE	2	PHILLIPS PETRLM CO	22S 31E 1 SE NW	1980 FNL 1980 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8425	OIL
30015268310000	MOLLY STATE	3	PHILLIPS PETRLM CO	22S 31E 1 NW NW	660 FNL 660 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8400	OIL
30015268430000	FEDERAL `1`	4	POGO PRODUCING CO	22S 31E 1 NW SW	2310 FSL 660 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8450	OIL
30015268490000	UNOCAL `HPC` FEDERAL	2	HANAGAN PET CORP	22S 31E 1 SE NE	1980 FNL 990 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8532	OIL
30015268550000	MOLLY STATE	4	PHILLIPS PETRLM CO	22S 31E 1 SW NW	1980 FNL 535 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8409	OIL
30015268570000	NEFF `13` FEDERAL	6	TEXACO EXPL&PROD INC	22S 31E 13 NW NW	990 FNL 330 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8400	OIL
30015268580000	FEDERAL `12`	3	POGO PRODUCING CO	22S 31E 12 SE SW	330 FSL 1980 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8515	OIL
30015268590000	FEDERAL `12`	4	POGO PRODUCING CO	22S 31E 12 SW NW	1980 FNL 330 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8450	OIL
30015268600000	FEDERAL `12`	5	POGO PRODUCING CO	22S 31E 12 NW NW	660 FNL 330 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8460	OIL
30015268750000	GRAHAM `AKB` STATE	1	YATES PETROLEUM CORP	22S 31E 2 NE NE	660 FNL 330 FEL	LOST TANK	DELAWARE	BONE SPRING	8450	OIL
30015268760000	GRAHAM `AKB` STATE	2	YATES PETROLEUM CORP	22S 31E 2 SE NE	1980 FNL 330 FEL	LOST TANK	DELAWARE	BONE SPRING	8400	OIL
30015268770000	STATE `2`	3	POGO PRODUCING CO	22S 31E 2 NE SE	2310 FSL 330 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8415	OIL
30015268940000	STATE `2`	1	POGO PRODUCING CO	22S 31E 2	330 FSL 330 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8440	OIL
30015268940001	STATE `2`	1	POGO PRODUCING CO	22S 31E 2	330 FSL 330 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8440	OIL-WO
30015269080000	MARTHA `AIK` FEDERAL	5	YATES PETROLEUM CORP	22S 31E 11 SE NE	1980 FNL 330 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8420	OIL
30015269090000	FEDERAL `1`	5	POGO PRODUCING CO	22S 31E 1 SW SW	990 FSL 990 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8485	OIL
30015269100000	FEDERAL `1`	6	POGO PRODUCING CO	22S 31E 1 SE SW	900 FSL 1880 FWL	LOST TANK	BRUSHY CANYON	BONE SPRING	8520	OIL
30015269170000	FEDERAL `12`	6	POGO PRODUCING CO	22S 31E 12 NE SW	2310 FSL 1650 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8525	OIL
30015269180000	FEDERAL `12`	7	POGO PRODUCING CO	22S 31E 12	1650 FNL 1650 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8535	OIL
30015269290000	NEFF `13` FEDERAL	7	TEXACO EXPL&PROD INC	22S 31E 13 SW NW	2310 FNL 330 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8386	OIL
30015269290001	NEFF `13` FEDERAL	7	TEXACO EXPL&PROD INC	22S 31E 13 SW NW	2310 FNL 330 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8386	OIL-WO
30015269420000	FEDERAL `12`	8	POGO PRODUCING CO	22S 31E 12 NE NW	330 FNL 1650 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8510	OIL

OXY USA Inc. - Federal 12 #14H - 9 Sec AOR

API	Lease Name	Well	Operator Name	Location	Footage	Field Name	IP Prod Form Name	Form at TD Name	TD	Final Status
30015269600000	MARTHA `AIK` FEDERAL	6	YATES PETROLEUM CORP	22S 31E 11 NE NE	660 FNL 330 FEL	LIVINGSTON RIDGE	DELAWARE	BONE SPRING	8410	OIL
30015269710000	FEDERAL `12`	9	POGO PRODUCING CO	22S 31E 12	330 FSL 2310 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8535	OIL
30015269730000	FLORA `AKF` STATE	1	YATES PETROLEUM CORP	22S 31E 2 SE SW	660 FSL 2310 FWL	LOST TANK	DELAWARE	BONE SPRING	8325	OIL
30015269740000	FLORA `AKF` STATE	2	YATES PETROLEUM CORP	22S 31E 2	1980 FSL 2310 FWL	LOST TANK	DELAWARE	BONE SPRING	8322	OIL
30015269790000	NEFF `13` FEDERAL	8	TEXACO EXPL&PROD INC	22S 31E 13 NW SW	1651 FSL 330 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8378	OIL
30015269880000	FEDERAL `1`	7	POGO PRODUCING CO	22S 31E 1 SW SE	990 FSL 2310 FEL	LOST TANK	BONE SPRING	BONE SPRING	8530	OIL
30015281250000	NEFF `13` FEDERAL	9	TEXACO EXPL&PROD INC	22S 31E 13 NE NW	660 FNL 1980 FWL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8750	OIL
30015284160000	STATE `2`	2	POGO PRODUCING CO	22S 31E 2	660 FSL 2310 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8354	OIL
30015284560000	STATE `2`	4	POGO PRODUCING CO	22S 31E 2	1780 FSL 2310 FEL	LOST TANK	BRUSHY CANYON	BONE SPRING	8350	OIL
30015287080000	NEFF `13` FEDERAL	10	TEXACO EXPL&PROD INC	22S 31E 13	990 FSL 990 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8500	OIL
30015287080001	NEFF `13` FEDERAL	10	TEXACO EXPL&PROD INC	22S 31E 13	990 FSL 990 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8500	OIL-WO
30015292470000	NEFF `13` FEDERAL	12	TEXACO EXPL&PROD INC	22S 31E 13	1980 FSL 990 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8550	OIL
30015295820000	NEFF `13` FEDERAL	11	TEXACO EXPL&PROD INC	22S 31E 13	1839 FNL 2121 FEL	LIVINGSTON RIDGE	BRUSHY CANYON	BONE SPRING	8580	OIL
30015316040000	GRAHAM `AKB` STATE	3	YATES PETROLEUM CORP	22S 31E 2 E2 NW NE	660 FNL 1650 FEL	LOST TANK	CHERRY CANYON	BONE SPRING	8404	OIL
30015316050000	GRAHAM `AKB` STATE	4	YATES PETROLEUM CORP	22S 31E 2 E2 SW NE	1980 FNL 1650 FEL	LOST TANK	DELAWARE	BONE SPRING	8370	OIL
30015316060000	GRAHAM `AKB` STATE	9	YATES PETROLEUM CORP	22S 31E 2 NW NW NW	330 FNL 330 FWL	LOST TANK	CHERRY CANYON	BONE SPRING	8300	OIL
30015319110000	GRAHAM `AKB` STATE	5	YATES PETROLEUM CORP	22S 31E 2 NE NE NW	330 FNL 2310 FWL	LOST TANK	DELAWARE	BONE SPRING	8406	OIL
30015319120000	GRAHAM `AKB` STATE	6	YATES PETROLEUM CORP	22S 31E 2 NE SE NW	1650 FNL 2310 FWL	LOST TANK	CHERRY CANYON	BONE SPRING	8400	OIL
30015319130000	GRAHAM `AKB` STATE	8	YATES PETROLEUM CORP	22S 31E 2 NW SW NW	1650 FNL 330 FWL	LOST TANK	DELAWARE	BONE SPRING	8350	OIL
30015320270000	FLORA `AKF` STATE	3	YATES PETROLEUM CORP	22S 31E 2 NW NW SW	2310 FSL 330 FWL	LOST TANK	CHERRY CANYON	BONE SPRING	8350	OIL
30015320280000	FLORA `AKF` STATE	4	YATES PETROLEUM CORP	22S 31E 2 NW SW SW	990 FSL 330 FWL	LOST TANK	CHERRY CANYON	BONE SPRING	8350	OIL
30015324400000	STATE `2`	5	POGO PRODUCING CO	22S 31E 2 SW SE SE	1300 FSL 1300 FEL	LIVINGSTON RIDGE		BONE SPRING	8450	W-INJ
30015327610000	NEFF 13 FEDERAL	16	CHEVRON U S A INC	22S 31E 13 S2 NE NE	740 FNL 990 FEL	LIVINGSTON RIDGE	CHERRY CANYON	BONE SPRING	8600	OIL
30015327920000	FEDERAL 12	11	POGO PRODUCING CO	22S 31E 12 SW SE SE	330 FSL 990 FEL	LIVINGSTON RIDGE				AB-LOC
30015338870000	FEDERAL 12	11	POGO PRODUCING CO	22S 31E 12 SW SE SE	330 FSL 990 FEL	LIVINGSTON RIDGE				AB-LOC
30015352910000	FEDERAL `12`	12	OXY U S A INC	22S 31E 12 NW NW SE	2010 FSL 2310 FEL	LIVINGSTON RIDGE				AB-LOC
30015353550000	FEDERAL 12	13	OXY U S A INC	22S 31E 12 NW NW NE	330 FNL 2310 FEL	LIVINGSTON RIDGE				AB-LOC
30015353590000	NEFF 13 FEDERAL	17	CHEVRON U S A INC	22S 31E 13 W2 SW SW	660 FSL 330 FWL	LIVINGSTON RIDGE	DELAWARE	DELAWARE	8500	OIL
30015353600000	NEFF 13 FEDERAL	18	CHEVRON U S A INC	22S 31E 13 W2 SE SW	660 FSL 1650 FWL	LIVINGSTON RIDGE				AB-LOC
30015353610000	NEFF 13 FEDERAL	19	CHEVRON U S A INC	22S 31E 13 W2 NE SW	1980 FSL 1650 FWL	LIVINGSTON RIDGE				AB-LOC
30015375090000	MARTHA `AIK` FEDERAL	10H	YATES PETROLEUM CORP	22S 31E 11 NE SE	1880 FSL 200 FEL	LIVINGSTON RIDGE				
30015375100000	MARTHA AIK FEDERAL	11	YATES PETROLEUM CORP	22S 31E 11 SE NE	2310 FNL 990 FEL	LIVINGSTON RIDGE				AB-LOC
30015375110000	MARTHA AIK FEDERAL	13 H	YATES PETROLEUM CORP	22S 31E 11 SE NE	1650 FNL 330 FEL	LIVINGSTON RIDGE	DELAWARE	DELAWARE	12600	OIL
30015375120000	MARTHA `AIK` FEDERAL	9	YATES PETROLEUM CORP	22S 31E 11 SW SE	810 FSL 1650 FEL	LIVINGSTON RIDGE				AB-LOC
30015375560000	MARTHA `AIK` FEDERAL	14	YATES PETROLEUM CORP	22S 31E 11 SE SE	530 FSL 200 FEL	LIVINGSTON RIDGE				AB-LOC
30015397330000	MARTHA `AIK` FEDERAL	8H	YATES PETROLEUM CORP	22S 31E 11	430 FNL 200 FEL	LIVINGSTON RIDGE				
30015398080000	MARTHA `AIK` FEDERAL	12H	YATES PETROLEUM CORP	22S 31E 11	530 FNL 200 FEL	LIVINGSTON RIDGE				
30015400510000	MARTHA `AIK` FEDERAL	7H	YATES PETROLEUM CORP	22S 31E 11	1750 FNL 200 FEL	LIVINGSTON RIDGE				
	NEFF `13` FEDERAL	13	TEXACO EXPL&PROD INC	22S 31E 13	660 FSL 1980 FWL	LIVINGSTON RIDGE				AB-LOC
	NEFF `13` FEDERAL	14	TEXACO EXPL&PROD INC	22S 31E 13	580 FSL 330 FWL	LIVINGSTON RIDGE				AB-LOC
	NEFF `13` FEDERAL	15	TEXACO EXPL&PROD INC	22S 31E 13	2122 FSL 1838 FWL	LIVINGSTON RIDGE				AB-LOC
	NEFF `13` FEDERAL	9	TEXACO EXPL&PROD INC	22S 31E 13 SW SW	530 FSL 330 FWL	LIVINGSTON RIDGE				AB-LOC
	NEFF `13` FEDERAL	10	TEXACO EXPL&PROD INC	22S 31E 13 SE SW	330 FSL 1651 FWL	LIVINGSTON RIDGE				AB-LOC
	NEFF `13` FEDERAL	11	TEXACO EXPL&PROD INC	22S 31E 13 NE SW	1651 FSL 1981 FWL	LIVINGSTON RIDGE				AB-LOC
	DOLORES `AIL` FEDERAL	4	YATES PETROLEUM CORP	22S 31E 14 NW NE	660 FNL 1980 FEL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	10	YATES PETROLEUM CORP	22S 31E 11 NE SW	1980 FSL 2310 FWL	LIVINGSTON RIDGE				AB-LOC

OXY USA Inc. - Federal 12 #14H - 9 Sec AOR

API	Lease Name	Well	Operator Name	Location	Footage	Field Name	IP Prod Form Name	Form at TD Name	TD	Final Status
	MARTHA `AIK` FEDERAL	14	YATES PETROLEUM CORP	22S 31E 11 NW SW	1980 FSL 990 FWL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	11	YATES PETROLEUM CORP	22S 31E 11 SE NW	1980 FNL 2310 FWL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	12	YATES PETROLEUM CORP	22S 31E 11 NE NW	660 FNL 2310 FWL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	13	YATES PETROLEUM CORP	22S 31E 11 SW NW	1980 FNL 990 FWL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	7	YATES PETROLEUM CORP	22S 31E 11 SW NE	1980 FNL 1650 FEL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	9	YATES PETROLEUM CORP	22S 31E 11 SE SW	660 FSL 2310 FWL	LIVINGSTON RIDGE				AB-LOC
	MARTHA `AIK` FEDERAL	8	YATES PETROLEUM CORP	22S 31E 11 NW NE	800 FNL 1650 FEL	LIVINGSTON RIDGE				AB-LOC
	DOLORES AIL FEDERAL	4	YATES PETROLEUM CORP	22S 31E 14 SE NW NE	990 FNL 1650 FEL	LIVINGSTON RIDGE				AB-LOC
	MARTHA AIK FEDERAL	8	YATES PETROLEUM CORP	22S 31E 11 NE NW NE	330 FNL 1650 FEL	LIVINGSTON RIDGE				AB-LOC
	MARTHA AIK FEDERAL	7	YATES PETROLEUM CORP	22S 31E 11 NE SW NE	1650 FNL 1650 FEL	LIVINGSTON RIDGE				AB-LOC
	LOST TANK 11 FEDERAL	1	POGO PRODUCING CO	22S 31E 11 NE NW NW	550 FNL 990 FWL	LOST TANK WEST				AB-LOC
	FEDERAL `12`	10	POGO PRODUCING CO	22S 31E 12 NW SE SW	1200 FSL 1450 FWL	LIVINGSTON RIDGE				AB-LOC
30025081070000	FEDERAL-JENNINGS 18	1	TRIGG JOHN H	22S 32E 18	660 FSL 660 FEL			UNKNOWN	4896	D&A-O
30025274360000	BETA `18` FEDERAL	1	GETTY OIL COMPANY	22S 32E 18	1980 FNL 1780 FWL					AB-LOC
30025274730000	FEDERAL`CK`COM	1	AMOCO PROD CO	22S 32E 6	1980 FNL 660 FEL	BILBREY	MORROW	BARNETT /SH/	15018	GAS
30025274730001	FEDERAL `CK` COM	1	KAISER-FRANCIS OIL	22S 32E 6	1980 FNL 660 FEL	BILBREY WEST	ATOKA	BARNETT /SH/	15018	GAS-WO
30025280770000	FEDERAL `SCL-7`	1	POGO PRODUCING CO	22S 32E 7	1980 FSL 1980 FEL					AB-LOC
30025310760000	FLAMENCO FEDERAL	WD-1	YATES PETROLEUM CORP	22S 32E 7 NW SW	1650 FSL 660 FWL	LIVINGSTON RIDGE		BONE SPRING	8537	SERVCE
30025312270000	ROSEMARY `AJB` FEDERAL	1	YATES PETROLEUM CORP	22S 32E 6 NW SW	1980 FSL 660 FWL	LIVINGSTON RDG NE	DELAWARE	BONE SPRING	8600	OIL
30025312270001	ROSEMARY SWD	1	YATES PETROLEUM CORP	22S 32E 6 NW SW	1980 FSL 660 FWL	SWD		BONE SPRING	8600	SERW
30025314000000	FEDERAL `6`	2	POGO PRODUCING CO	22S 32E 6 SW NW	1650 FNL 330 FWL	LIVINGSTON RIDGE				AB-LOC
30025314030000	FEDERAL `6`	1	POGO PRODUCING CO	22S 32E 6 NW NW	800 FNL 330 FWL	LIVINGSTON RDG NE	BRUSHY CANYON	BONE SPRING	8600	OIL
30025317290000	EAST LIVINGSTON RIDGE UNIT	1	POGO PRODUCING CO	22S 32E 18 NE NE	660 FNL 990 FEL	LIVINGSTON RDG E	CHERRY CANYON	BONE SPRING	8780	OIL
30025317420000	LR `18` FEDERAL	2	POGO PRODUCING CO	22S 32E 18 SW NW	1650 FNL 330 FWL	LIVINGSTON RDG E				AB-LOC
30025317430000	LR `7` FEDERAL	1	POGO PRODUCING CO	22S 32E 7 SE SE	660 FSL 660 FEL	LIVINGSTON RDG E				AB-LOC
30025317440000	LR `7` FEDERAL	2	POGO PRODUCING CO	22S 32E 7 SW SW	660 FSL 760 FWL	LIVINGSTON RDG E				AB-LOC
30025319420000	EAST LIVINGSTON RIDGE UNIT	2	POGO PRODUCING CO	22S 32E 18 SE NE	1980 FNL 660 FEL	LIVINGSTON RDG E				AB-LOC
30025321490000	EAST LIVINGSTON RIDGE UNIT	3	POGO PRODUCING CO	22S 32E 18 SW NE	2130 FNL 1980 FEL	LIVINGSTON RDG E	BRUSHY CANYON	BONE SPRING	8782	OIL
30025321500000	EAST LIVINGSTON RIDGE UNIT	4	POGO PRODUCING CO	22S 32E 18 NW NE	330 FNL 1980 FEL	LIVINGSTON RDG E				AB-LOC
30025321850000	EAST LIVINGSTON RIDGE UNIT	5	POGO PRODUCING CO	22S 32E 7 SW SE	660 FSL 1650 FEL	LIVINGSTON RDG E				AB-LOC
30025323240000	LIVINGSTON RIDGE `18` FEDERAL	3	POGO PRODUCING CO	22S 32E 18 NW NW	480 FNL 330 FWL	LIVINGSTON RDG E	BRUSHY CANYON	BONE SPRING	8600	OIL
30025324640000	EAST LIVINGSTON RIDGE UNIT	6	POGO PRODUCING CO	22S 32E 7	660 FSL 990 FEL	LIVINGSTON RDG E	CHERRY CANYON	BRUSHY CANYON	7400	OIL
30025326890000	LIVINGSTON RIDGE `18` FEDERAL	4	POGO PRODUCING CO	22S 32E 18 SW SW	330 FSL 330 FWL	WILDCAT				AB-LOC
30025327040000	LIVINGSTON RIDGE `7` FEDERAL	3	POGO PRODUCING CO	22S 32E 7 SE SW	660 FSL 1980 FWL	WILDCAT				AB-LOC
30025331660000	EAST LIVINGSTON RIDGE UNIT	5	POGO PRODUCING CO	22S 32E 7	660 FSL 1650 FEL	LIVINGSTON RDG E				AB-LOC
30025335530000	EAST LIVINGSTON RIDGE UNIT	7	POGO PRODUCING CO	22S 32E 18	2310 FNL 330 FWL	LIVINGSTON RIDGE				AB-LOC
30025335540000	EAST LIVINGSTON RIDGE UNIT	8	POGO PRODUCING CO	22S 32E 18	1980 FSL 330 FWL	LIVINGSTON RIDGE				AB-LOC
30025335550000	EAST LIVINGSTON RIDGE UNIT	9	POGO PRODUCING CO	22S 32E 18	660 FSL 330 FWL	LIVINGSTON RIDGE				AB-LOC
30025336080000	EAST LIVINGSTON RIDGE UNIT	11	POGO PRODUCING CO	22S 32E 18	1650 FNL 660 FEL	LIVINGSTON RIDGE				AB-LOC
30025336500000	EAST LIVINGSTON RIDGE UNIT	12	POGO PRODUCING CO	22S 32E 7	1980 FSL 990 FEL	LIVINGSTON RDG E	BRUSHY CANYON	BRUSHY CANYON	7364	OIL
30025341700000	EAST LIVINGSTON RIDGE UNIT	5	POGO PRODUCING CO	22S 32E 7	330 FSL 1650 FEL	LIVINGSTON RDG E	BRUSHY CANYON	BRUSHY CANYON	7350	OIL
30025360120000	LIVINGSTON RIDGE 18 FEDERAL	4	POGO PRODUCING CO	22S 32E 18 SW SW SW	330 FSL 330 FWL	LIVINGSTON RDG E	BRUSHY CANYON	BONE SPRING	8590	OIL
30025362700000	LIVINGSTON RIDGE 18 FEDERAL	5	POGO PRODUCING CO	22S 32E 18 W2 SE SW	660 FSL 1650 FWL	LIVINGSTON RIDGE				AB-LOC
30025362950000	LIVINGSTON RIDGE 18 FEDERAL	6	POGO PRODUCING CO	22S 32E 18 SW NW SW	1650 FSL 330 FWL	LIVINGSTON RDG E	BRUSHY CANYON	BONE SPRING	8590	OIL
30025370000000	LIVINGSTON RIDGE 18 FEDERAL	5	POGO PRODUCING CO	22S 32E 18 W2 SE SW	660 FSL 1650 FWL	LIVINGSTON RDG E				AB-LOC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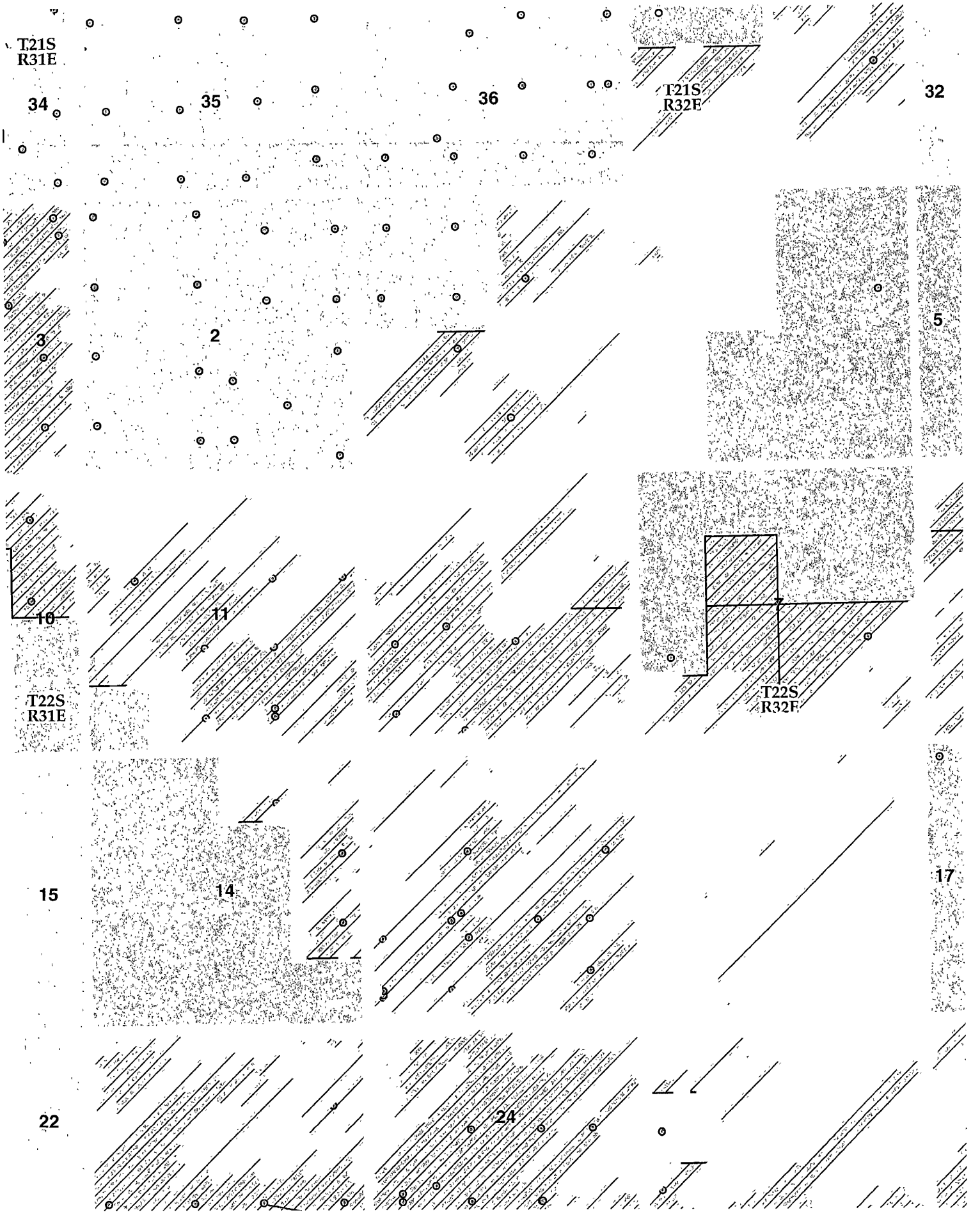
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Gas Well
Drill Hole
Red Tank
EDDY CO.
LEA CO.
Elect. Tie-In

DRILLING PROGRAM

Operator Name/Number:	**OXY USA Inc.**	**16696**
Lease Name/Number:	**Federal 12 #14H**	**Federal Lease No. NMNM29233**
Pool Name/Number:	**Undesignated Livingston Ridge Bone Spring**	**39350**
Surface Location:	**330 FSL 405 FEL SESE(P) Sec 12 T22S R31E**	
Bottom Hole Location:	**660 FSL 330 FWL SWSW(M) Sec 12 T22S R31E**	

Proposed TD: Pilothole: 11650' Horizontal Lateral 14681' TMD 10345' TVD
SL - Lat: 32.3995384 Long: 103.7237656 X= 688140.3 Y= 509602.9 NAD - 1927
BH - Lat: 32.4004765 Long: 103.7385060 X= 683588.8 Y= 509918.5 NAD - 1927
Elevation: 3620.3' GL

1. Geologic Name of Surface Formation:

a. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

Geological Marker	Depth	Type
a. Rustler Anhydrite	742'	-
b. Top Salt	2680'	-
c. Bottom Salt	4520'	-
d. Delaware	4570'	Oil
e. Cherry Canyon	5427'	Oil
f. Brushy Canyon	6856'	Oil
g. Bone Spring	8465'	Oil/Gas
h. BSPG 1st Sand	9385'	Oil/Gas
i. BSPG2 Limestone	9655'	Oil/Gas
j. BSPG 2nd Sand	10025'	Oil/Gas
k. BSPG 2nd Sand Target	10425'	Oil/Gas
l. BSPG3 Limestone	10500'	Oil/Gas
m. BSPG 3rd Sandstone	11130'	Oil/Gas
n. Wolfcamp	11650'	Oil/Gas
o. TD	11650'	Oil/Gas

3. Casing Program:

SOP
COA

Hole Size	Interval	OD Csg	Weight	Collar	Grade	Condition	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	0-895'	13-3/8"	48	ST&C	H-40	New	2.95	6.63	8.66
	4500			Hole filled with 8.6# Mud			770#	1730#	
12-1/4"	0-4620'	9-5/8"	40	LT&C	J-55	New	1.32	2	2.81
				Hole filled with 10 2# Mud			2570#	3950#	
8-3/4"	0-14681'	5-1/2"	17	BT&C	L-80	New	1.24	1.92	1.77
DVT @ 6000' - POST @ 4670'				Hole filled with 9.4# Mud			6280#	7740#	

Collapse and burst loads calculated using Stress Check with anticipated loads

4. Cement Program

a. 13-3/8"	Surface	Circulate cement to surface w/ 610sx PP cmt w/ 2% CaCl2 + 4% Bentonite + .25#/sx Poly E-Flake, 13.5ppg 1.75 yield 589# 24hr CS 165% Excess followed by 300sx PP cmt w/ 2% CaCl2, 14.8ppg 1.35 yield 1608# 24hr CS 165% Excess
b. 9-5/8"	Intermediate	Circulate cement to surface w/ 1190sx HES light PP cmt w/ 5% Salt + .125#/sx Poly-E-Flake + 3#/sx Kol-Seal, 12.9ppg 1.87 yield 625# 24hr CS 10% Excess followed by 450sx PP cmt w/ 1% CaCl2, 14.8ppg 1.34 yield 2125# 24hr CS 105% Excess
c. 5-1/2"	Production	Cement 1st stage w/ 760sx HES light PP cmt w/ 3#/sx Salt + .4% HR-601 + 3#/sx Kol-Seal, 12.4ppg 2.09 yield 500# 24hr CS 10% Excess followed by 1320sx Super H w/ .5% Halad-344 .4% CFR-3 + 3#/sx Kol-Seal + .15% HR-601 + .125#/sx Poly-E-Flake, 13.2ppg 1.61 yield 1477# 24hr CS 125% Excess Calc TOC-5995' Cement 2nd stage w/ 280sx HES light PP cmt w/ 3#/sx Salt + 1% HR-601 + 3#/sx Kol-Seal, 12.4ppg 2.07 yield 431# 24hr CS 85% Excess followed by 100sx PP cmt w/ 1% CaCl2, 14.8ppg 1.34 yield 1907# 24hr CS 85% Excess, Calc TOC-4665' Cement 3rd stage w/ 620sx HES Light PP cmt w/ 3#/sx Salt, 12.4ppg 1.98 yield 511# 24hr CS 85% Excess followed by 100sx PP cmt w/ 2% CaCl2, 14.8ppg 1.35 yield 2100# 24hr CS 85% Excess, Circ Surface
d. Pilot Hole Plug		Plug #1 cement w/ 340sx CL H 50/50 Poz cmt w/ .3% CFR-3 + .1% HR-601, 14.4ppg 1 25 yield 1275# 24hr CS 35% excess from 11650' to +/-10850'. Plug #2 cement w/ 360sx Cl H 50/50 Poz cmt w/ .3% CFR-3 + .1% HR-601, 14.4ppg 1.25 yield 1275# 24hr CS 35% Excess from 10850' to +/-10000'. Plug #3 cement w/ 290sx PP cmt w/ 3% KCl w/ .75% CFR-3 + .3% HR-601, 17.5ppg .96 yield 4550# 24hr CS 35% excess from 10000' to +/- 9500'.

The above cement volumes could be revised pending the caliper measurement.

5. Pressure Control Equipment:

Surface	None
Production	13-5/8" 10M three ram stack w/ 5M annular preventer, 10M Choke Manifold

All BOP's and associated equipment will be tested in accordance with Onshore Order #2 (250/5000 psi on rams for 10 minutes each and 250/3500 for 10 minutes for annular preventer, equal to 70% of working pressure) with a third party BOP testing service before drilling out the 13-3/8" casing shoe. Wellhead pressure rating will support this test and 13-3/8" casing will be protected from high pressure. Since the wellhead system is a multibowl design, this initial test will cover the requirements prior to drilling out the 9-5/8" casing shoe.

Pipe Rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be accommodated on the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having a 5000 psi WP rating.
OXY requests that the entire system be tested as a 5000psi WP rating.

6. Proposed Mud Circulation System

Depth	Mud Wt. ppg	Visc sec	Fluid Loss	Type System
0 - 775' 895	8.4-9.2	32-34	NC	Fresh Water/Spud Mud
775 - 4620' 4500	9.8-10.0	28-29	NC	Brine Water
4620 - 7200'	8.6-8.8	28-29	NC	Fresh Water
7200 - TD'	9.0-9.4	50-50	8-15	LSND

See COA

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

a. A Kelly cock will be in the drill string at all times.
b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
c. Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM.

8. Logging, Coring and Testing Program: See COA

a. Drill stem tests are not anticipated but if done will be based on geological sample shows.
b. The open hole electrical logging program will consist of Triple Combo, Sonic/CMR RS WC MWD-GR from build section to base of intermediate and GR/DSN to Surface.
c. No coring program is planned but if done will be sidewall rotary cores.
d. Mud logging program will be initiated from the base of surface casing to TD.

9. Potential Hazards:

No abnormal pressures, temperatures or H_2S gas are expected. The highest anticipated pressure gradient would 0.49 psi/ft.
If H2S is encountered the operator will comply with the provisions of Onshore Oil & Gas Order No.6.
No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

10. Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 45 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02744		ED		3	2	1	11	22S	31E	617374	3586631*	4911		
C 03150		ED		2	4	4	14	22S	31E	618412	3584025*	981		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 2

PLSS Search:

Section(s): 1, 2, 11, 12, 13, 14 **Township:** 22S **Range:** 31E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 6, 7, 18 **Township:** 22S **Range:** 32E

Federal 12 #14H
Eddy Co, New Mexico

FIELD DETAILS

Eddy Co, NM (Nad 27)

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

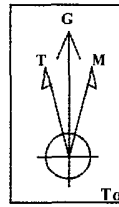
System Datum: Mean Sea Level
Local North: Grid North

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Federal 12 #14H	0.00	0.00	509602.90	688140.30	32°23'58.339N	103°43'25.556W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL Pilot	11650.00	0.00	0.00	509602.90	688140.30	Point



Azimuths to Grid North
True North: -0.33°
Magnetic North: 7.23°

Magnetic Field
Strength: 48637nT
Dip Angle: 60.30°
Date: 5/25/2012
Model: IGRF2010

Total Correction to Grid North: 7.22°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	11650.00	0.00	0.00	11650.00	0.00	0.00	0.00	0.00	0.00	PBHL Pilot

SITE DETAILS

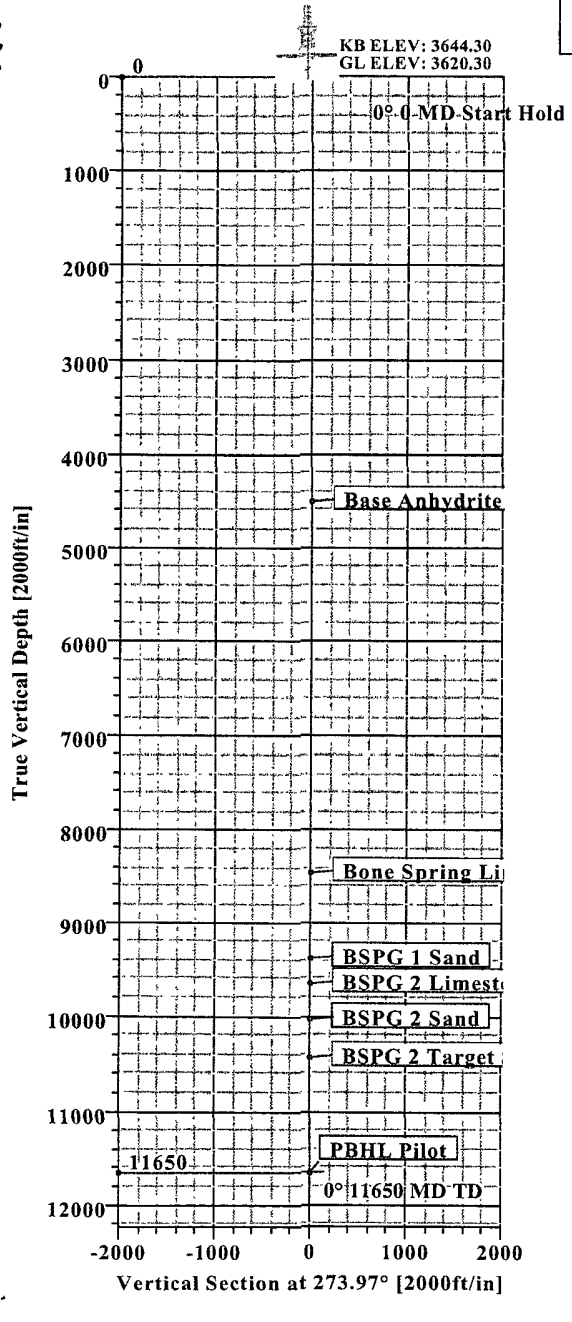
Federal 12 #14H

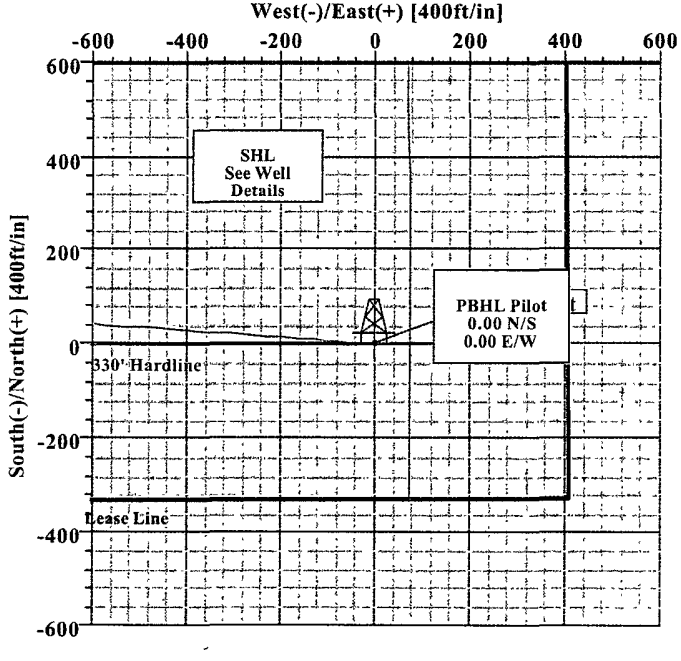
Site Centre Northing: 509602.90
Easting: 688140.30

Ground Level: 3620.30
Positional Uncertainty: 0.00
Convergence: 0.33

LEGEND

Federal 12 #14H (Lateral)
Pilot
Plan #1





Weatherford

Plan: Plan #1 (Federal 12 #14H/Pilot)

Created By: Patrick Rudolph Date: 5/25/2012

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd.	**Date:** 5/25/2012 **Time:** 12:31:22	**Page:** 1
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Federal 12 #14H, Grid North
Site:	Federal 12 #14H	**Vertical (TVD) Reference:**	SITE 3644.3
Well:	Federal 12 #14H	**Section (VS) Reference:**	Well (0.00N,0.00E,273.97Azi)
Wellpath:	Pilot	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan: Plan #1 **Date Composed:** 5/25/2012
Version: 1
Principal: Yes **Tied-to:** From Surface

Field: Eddy Co, NM (Nad 27)

Map System: US State Plane Coordinate System 1927 **Map Zone:** New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866) **Coordinate System:** Well Centre
Sys Datum: Mean Sea Level **Geomagnetic Model:** IGRF2010

Site: Federal 12 #14H

Site Position: **Northing:** 509602.90 ft **Latitude:** 32 23 58.339 N
From: Map **Easting:** 688140.30 ft **Longitude:** 103 43 25.556 W
Position Uncertainty: 0.00 ft **North Reference:** Grid
Ground Level: 3620.30 ft **Grid Convergence:** 0.33 deg

Well: Federal 12 #14H **Slot Name:**

Well Position: +N/-S 0.00 ft **Northing:** 509602.90 ft **Latitude:** 32 23 58.339 N
+E/-W 0.00 ft **Easting:** 688140.30 ft **Longitude:** 103 43 25.556 W
Position Uncertainty: 0.00 ft

Wellpath: Pilot **Drilled From:** Surface
Tie-on Depth: 0.00 ft
Current Datum: SITE **Height** 3644.30 ft **Above System Datum:** Mean Sea Level
Magnetic Data: 5/25/2012 **Declination:** 7.55 deg
Field Strength: 48637 nT **Mag Dip Angle:** 60.30 deg

Vertical Section:	Depth From (TVD) ft	+N/-S ft	+E/-W ft	Direction deg
	0.00	0.00	0.00	273.97

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11650.00	0.00	0.00	11650.00	0.00	0.00	0.00	0.00	0.00	0.00	PBHL Pilot

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
775.00	0.00	0.00	775.00	0.00	0.00	0.00	0.00	509602.90	688140.30	Csg
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	

DDP-3

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd.	Date: 5/25/2012 Time: 12:31:22	Page: 2
Field:	Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Federal 12 #14H, Grid North
Site:	Federal 12 #14H	Vertical (TVD) Reference:	SITE 3644.3
Well:	Federal 12 #14H	Section (VS) Reference:	Well (0.00N,0.00E,273.97Azi)
Wellpath:	Pilot	Survey Calculation Method:	Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4520.00	0.00	0.00	4520.00	0.00	0.00	0.00	0.00	509602.90	688140.30	Base Anhydrite
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4650.00	0.00	0.00	4650.00	0.00	0.00	0.00	0.00	509602.90	688140.30	Csg
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
5900.00	0.00	0.00	5900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6000.00	0.00	0.00	6000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6200.00	0.00	0.00	6200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6300.00	0.00	0.00	6300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6400.00	0.00	0.00	6400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6500.00	0.00	0.00	6500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6600.00	0.00	0.00	6600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6700.00	0.00	0.00	6700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	

DDP-4

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd.	**Date:** 5/25/2012 **Time:** 12:31:22	**Page:** 3
Field:	Eddy Co. NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Federal 12 #14H, Grid North
Site:	Federal 12 #14H	**Vertical (TVD) Reference:**	SITE 3644.3
Well:	Federal 12 #14H	**Section (VS) Reference:**	Well (0.00N,0.00E,273.97Azi)
Wellpath:	Pilot	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
6800.00	0.00	0.00	6800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
6900.00	0.00	0.00	6900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7000.00	0.00	0.00	7000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7100.00	0.00	0.00	7100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7200.00	0.00	0.00	7200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7300.00	0.00	0.00	7300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7400.00	0.00	0.00	7400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7500.00	0.00	0.00	7500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7600.00	0.00	0.00	7600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7700.00	0.00	0.00	7700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7800.00	0.00	0.00	7800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
7900.00	0.00	0.00	7900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8000.00	0.00	0.00	8000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8100.00	0.00	0.00	8100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8200.00	0.00	0.00	8200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8300.00	0.00	0.00	8300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8400.00	0.00	0.00	8400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8465.00	0.00	0.00	8465.00	0.00	0.00	0.00	0.00	509602.90	688140.30	Bone Spring Limest
8500.00	0.00	0.00	8500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8600.00	0.00	0.00	8600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8700.00	0.00	0.00	8700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8800.00	0.00	0.00	8800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
8900.00	0.00	0.00	8900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9000.00	0.00	0.00	9000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9100.00	0.00	0.00	9100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9200.00	0.00	0.00	9200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9300.00	0.00	0.00	9300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9385.00	0.00	0.00	9385.00	0.00	0.00	0.00	0.00	509602.90	688140.30	BSPG 1 Sand
9400.00	0.00	0.00	9400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9500.00	0.00	0.00	9500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9600.00	0.00	0.00	9600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9655.00	0.00	0.00	9655.00	0.00	0.00	0.00	0.00	509602.90	688140.30	BSPG 2 Limestone
9700.00	0.00	0.00	9700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9800.00	0.00	0.00	9800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10000.00	0.00	0.00	10000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10025.00	0.00	0.00	10025.00	0.00	0.00	0.00	0.00	509602.90	688140.30	BSPG 2 Sand
10100.00	0.00	0.00	10100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10200.00	0.00	0.00	10200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10300.00	0.00	0.00	10300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10400.00	0.00	0.00	10400.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10425.00	0.00	0.00	10425.00	0.00	0.00	0.00	0.00	509602.90	688140.30	BSPG 2 Target Sand
10500.00	0.00	0.00	10500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10600.00	0.00	0.00	10600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10700.00	0.00	0.00	10700.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10800.00	0.00	0.00	10800.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
10900.00	0.00	0.00	10900.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
11000.00	0.00	0.00	11000.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
11100.00	0.00	0.00	11100.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
11200.00	0.00	0.00	11200.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
11300.00	0.00	0.00	11300.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
11400.00	0.00	0.00	11400.00	0.00	0.00	0.00	0 00	509602.90	688140.30	
11500.00	0.00	0.00	11500.00	0.00	0.00	0.00	0.00	509602.90	688140.30	

Weatherford International Ltd.
WFT Plan Report - X & Y's

DDP-5

Weatherford

Company:	Occidental Permian Ltd.	Date:	5/25/2012	Time:	12:31:22	Page:	4
Field:	Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Federal 12 #14H, Grid North				
Site:	Federal 12 #14H	Vertical (TVD) Reference:	SITE 3644.3				
Well:	Federal 12 #14H	Section (VS) Reference:	Well (0.00N,0.00E,273.97Azi)				
Wellpath:	Pilot	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
11600.00	0.00	0.00	11600.00	0.00	0.00	0.00	0.00	509602.90	688140.30	
11650.00	0.00	0.00	11650.00	0.00	0.00	0.00	0.00	509602.90	688140.30	PBHL Pilot

Targets

Name	Description Dip:	Dir:	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<— Latitude —> Deg	Min	Sec	<— Longitude —> Deg	Min	Sec
PBHL Pilot -Plan hit target			11650.00	0.00	0.00	509602.90	688140.30	32	23	58.339 N	103	43	25.556 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
775.00	775.00	0.000	0.000	Csg
4650.00	4650.00	0.000	0.000	Csg

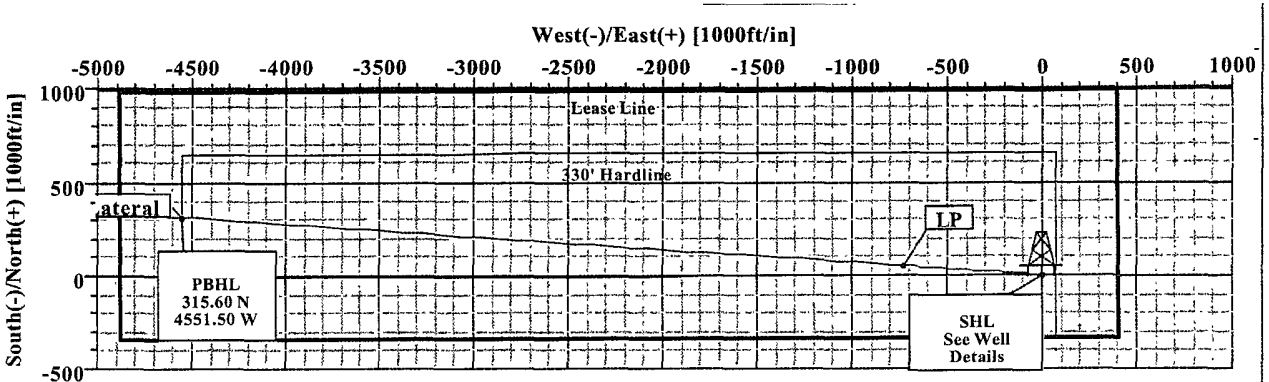
Annotation

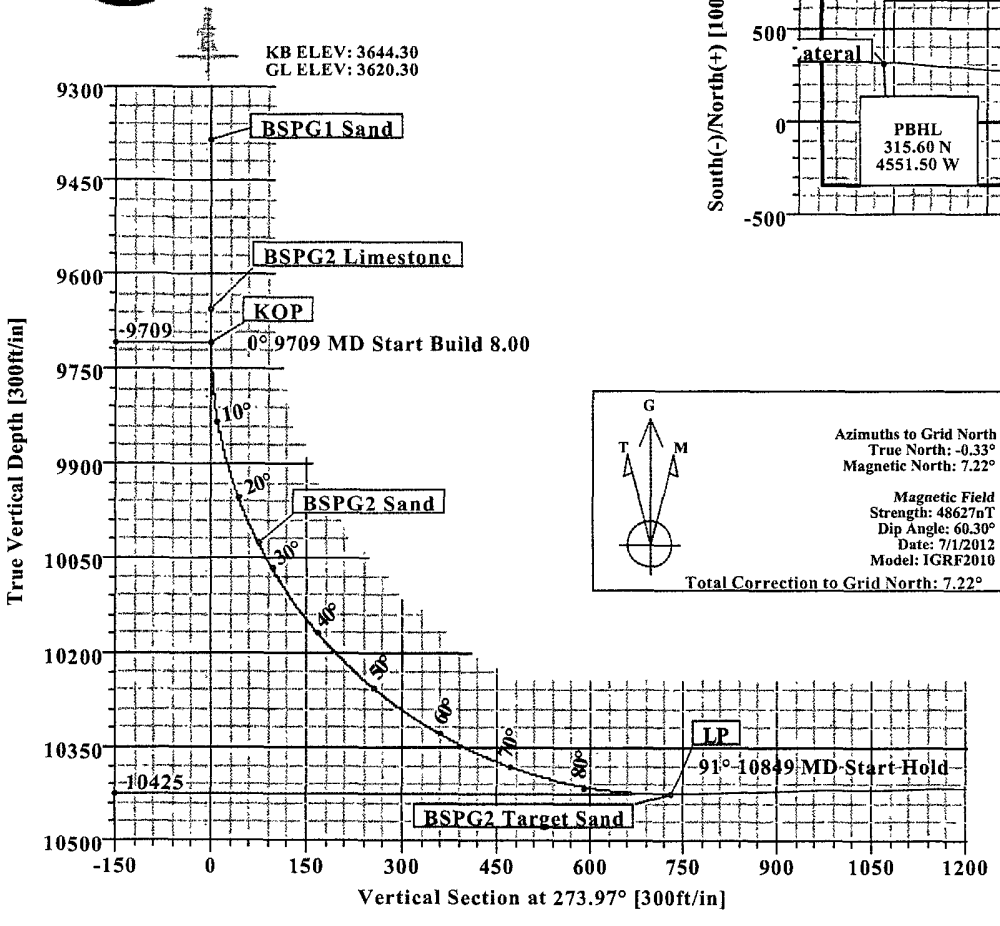
MD	TVD

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4520.00	4520.00	Base Anhydrite		0.00	0.00
8465.00	8465.00	Bone Spring Limestone		0.00	0.00
9385.00	9385.00	BSPG 1 Sand		0.00	0.00
9655.00	9655.00	BSPG 2 Limestone		0.00	0.00
10025.00	10025.00	BSPG 2 Sand		0.00	0.00
10425.00	10425.00	BSPG 2 Target Sand		0.00	0.00

Federal 12 #14H
Eddy Co, New Mexico





WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Federal 12 #14H	0.00	0.00	509602.90	688140.30	32°23'58.339N	103°43'25.556W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL #2	10345.00	315.60	-4551.50	509918.50	683588.80	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	273.97	0.00	0.00	0.00	0.00	0.00	0.00	
2	9708.96	0.00	273.97	9708.96	0.00	0.00	0.00	0.00	0.00	
3	10848.91	91.20	273.97	10425.00	50.58	-729.40	8.00	273.97	731.15	
4	14681.03	91.20	273.97	10345.00	315.60	-4551.50	0.00	0.00	4562.43	PBHL #2

FIELD DETAILS

Eddy Co, NM (Nad 27)

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

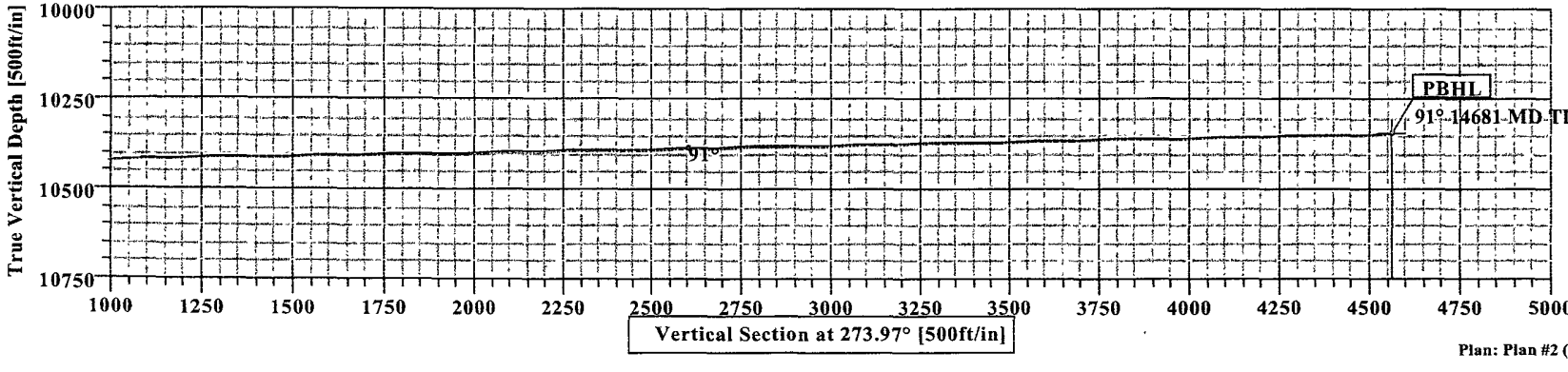
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Federal 12 #14H

Site Centre Northing: 509602.90
Easting: 688140.30

Ground Level: 3620.30
Positional Uncertainty: 0.00
Convergence: 0.33



Weatherford

LEGEND
Federal 12 #14H (Pilot)
Lateral
Plan #2

Plan: Plan #2 (Federal 12 #14H/Lateral)

Created By: Patrick Rudolph Date: 5/25/2012

DDP-7

Weatherford International Ltd.
WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd.	**Date:** 5/25/2012 **Time:** 12:07:31	**Page:** 1
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Federal 12 #14H, Grid: North
Site:	Federal 12 #14H	**Vertical (TVD) Reference:**	SITE 3644.3
Well:	Federal 12 #14H	**Section (VS) Reference:**	Well (0.00N,0.00E,273.97Azi)
Wellpath:	Lateral	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan:	Plan #2	**Date Composed:**	2/15/2012
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Field:	Eddy Co, NM (Nad 27)		
Map System:	US State Plane Coordinate System 1927	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	NAD27 (Clarke 1866)	**Coordinate System:**	Well Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	IGRF2010

Site:	Federal 12 #14H				
Site Position:		**Northing:**	509602.90 ft	**Latitude:**	32 23 58.339 N
From:	Map	**Easting:**	688140.30 ft	**Longitude:**	103 43 25.556 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3620.30 ft			**Grid Convergence:**	0.33 deg

Well:	Federal 12 #14H				**Slot Name:**	
Well Position:	+N/-S	0.00 ft	**Northing:**	509602.90 ft	**Latitude:**	32 23 58.339 N
	+E/-W	0.00 ft	**Easting :**	688140.30 ft	**Longitude:**	103 43 25.556 W
Position Uncertainty:		0.00 ft				

Wellpath:	Lateral			**Drilled From:**	Pilot
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	3644.30 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	7/1/2012			**Declination:**	7.54 deg
Field Strength:	48627 nT			**Mag Dip Angle:**	60.30 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	273.97

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	273.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9708.96	0.00	273.97	9708.96	0.00	0.00	0.00	0.00	0.00	0.00	
10848.91	91.20	273.97	10425.00	50.58	-729.40	8.00	8.00	0.00	273.97	
14681.03	91.20	273.97	10345.00	315.60	-4551.50	0.00	0.00	0.00	0.00	PBHL #2

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9708.96	0.00	273.97	9708.96	0.00	0.00	0.00	0.00	509602.90	688140.30	KOP
9750.00	3.28	273.97	9749.98	0.08	-1.17	1.18	8.00	509602.98	688139.13	
9800.00	7.28	273.97	9799.76	0.40	-5.76	5.78	8.00	509603.30	688134.54	
9850.00	11.28	273.97	9849.09	0.96	-13.81	13.84	8.00	509603.86	688126.49	
9900.00	15.28	273.97	9897.74	1.75	-25.27	25.33	8.00	509604.65	688115.03	
9950.00	19.28	273.97	9945.48	2.78	-40.08	40.18	8.00	509605.68	688100.22	
10000.00	23.28	273.97	9992.06	4.03	-58.19	58.33	8.00	509606.93	688082.11	
10036.28	26.19	273.97	10025.00	5.08	-73.33	73.50	8.00	509607.98	688066.97	BSPG2 Sand
10050.00	27.28	273.97	10037.26	5.51	-79.48	79.68	8.00	509608.41	688060.82	
10100.00	31.28	273.97	10080.86	7.20	-103.88	104.13	8.00	509610.10	688036.42	
10150.00	35.28	273.97	10122.65	9.10	-131.25	131.56	8.00	509612.00	688009.05	
10200.00	39.28	273.97	10162.42	11.20	-161.45	161.84	8.00	509614.10	687978.85	
10250.00	43.28	273.97	10199.99	13.48	-194.36	194.82	8.00	509616.38	687945.94	
10300.00	47.28	273.97	10235.16	15.93	-229.80	230.35	8.00	509618.83	687910.50	
10350.00	51.28	273.97	10267.77	18.55	-267.59	268.24	8.00	509621.45	687872.71	
10400.00	55.28	273.97	10297.66	21.33	-307.57	308.31	8.00	509624.23	687832.73	
10450.00	59.28	273.97	10324.68	24.24	-349.53	350.37	8.00	509627.14	687790.77	

DDP-8

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd	**Date:** 5/25/2012 **Time:** 12:07:31	**Page:** 2
Field:	Eddy Co, NM (Nad 27)	**Co-ordinate(NE) Reference:**	Well: Federal 12 #14H, Grid North
Site:	Federal 12 #14H	**Vertical (TVD) Reference:**	SITE 3644.3
Well:	Federal 12 #14H	**Section (VS) Reference:**	Well (0.00N,0.00E,273.97Azi)
Wellpath:	Lateral	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
10500.00	63.28	273.97	10348.70	27.27	-393.26	394.21	8.00	509630.17	687747.04	
10550.00	67.28	273.97	10369.60	30.41	-438.57	439.62	8.00	509633.31	687701.73	
10600.00	71.28	273.97	10387.28	33.64	-485.21	486.38	8.00	509636.54	687655.09	
10650.00	75.28	273.97	10401.66	36.96	-532.97	534.25	8.00	509639.86	687607.33	
10700.00	79.28	273.97	10412.67	40.33	-581.62	583.02	8.00	509643.23	687558.68	
10750.00	83.28	273.97	10420.24	43.75	-630.91	632.43	8.00	509646.65	687509.39	
10800.00	87.28	273.97	10424.35	47.19	-680.62	682.25	8.00	509650.09	687459.68	
10848.83	91.20	273.97	10425.00	50.57	-729.31	731.06	8.01	509653.47	687410.99	BSPG2 Target Sand
10848.91	91.20	273.97	10425.00	50.58	-729.40	731.15	0.00	509653.48	687410.90	LP
10900.00	91.20	273.97	10423.93	54.11	-780.35	782.23	0.00	509657.01	687359.95	
11000.00	91.20	273.97	10421.85	61.03	-880.09	882.20	0.00	509663.93	687260.21	
11100.00	91.20	273.97	10419.76	67.94	-979.83	982.18	0.00	509670.84	687160.47	
11200.00	91.20	273.97	10417.67	74.86	-1079.57	1082.16	0.00	509677.76	687060.73	
11300.00	91.20	273.97	10415.58	81.77	-1179.31	1182.14	0.00	509684.67	686960.99	
11400.00	91.20	273.97	10413.50	88.69	-1279.04	1282.12	0.00	509691.59	686861.26	
11500.00	91.20	273.97	10411.41	95.60	-1378.78	1382.09	0.00	509698.50	686761.52	
11600.00	91.20	273.97	10409.32	102.52	-1478.52	1482.07	0.00	509705.42	686661.78	
11700.00	91.20	273.97	10407.23	109.44	-1578.26	1582.05	0.00	509712.34	686562.04	
11800.00	91.20	273.97	10405.15	116.35	-1678.00	1682.03	0.00	509719.25	686462.30	
11900.00	91.20	273.97	10403.06	123.27	-1777.74	1782.01	0.00	509726.17	686362.56	
12000.00	91.20	273.97	10400.97	130.18	-1877.48	1881.99	0.00	509733.08	686262.82	
12100.00	91.20	273.97	10398.88	137.10	-1977.22	1981.96	0.00	509740.00	686163.08	
12200.00	91.20	273.97	10396.80	144.02	-2076.95	2081.94	0.00	509746.92	686063.35	
12300.00	91.20	273.97	10394.71	150.93	-2176.69	2181.92	0.00	509753.83	685963 61	
12400.00	91.20	273.97	10392.62	157.85	-2276.43	2281.90	0.00	509760.75	685863.87	
12500.00	91.20	273.97	10390.53	164.76	-2376.17	2381.88	0.00	509767.66	685764.13	
12600.00	91.20	273.97	10388.44	171.68	-2475.91	2481.85	0.00	509774.58	685664.39	
12700.00	91.20	273.97	10386.36	178.59	-2575.65	2581.83	0.00	509781.49	685564.65	
12800.00	91.20	273.97	10384.27	185.51	-2675.39	2681.81	0.00	509788.41	685464.91	
12900.00	91.20	273.97	10382.18	192.43	-2775.13	2781.79	0.00	509795.33	685365.17	
13000.00	91.20	273.97	10380.09	199.34	-2874.86	2881.77	0.00	509802.24	685265.44	
13100.00	91.20	273.97	10378.01	206.26	-2974.60	2981.75	0.00	509809.16	685165.70	
13200.00	91.20	273.97	10375.92	213.17	-3074.34	3081.72	0.00	509816.07	685065.96	
13300.00	91.20	273.97	10373.83	220.09	-3174.08	3181.70	0.00	509822.99	684966.22	
13400.00	91.20	273.97	10371.74	227.01	-3273.82	3281.68	0.00	509829.91	684866.48	
13500.00	91.20	273.97	10369.66	233.92	-3373.56	3381.66	0.00	509836.82	684766.74	
13600.00	91.20	273.97	10367.57	240.84	-3473.30	3481.64	0.00	509843.74	684667.00	
13700.00	91.20	273.97	10365.48	247.75	-3573.04	3581.61	0.00	509850.65	684567.26	
13800.00	91.20	273.97	10363.39	254.67	-3672.77	3681.59	0.00	509857.57	684467.53	
13900.00	91.20	273.97	10361.31	261.59	-3772.51	3781.57	0.00	509864.49	684367.79	
14000.00	91.20	273.97	10359.22	268.50	-3872.25	3881.55	0.00	509871.40	684268.05	
14100.00	91.20	273.97	10357.13	275.42	-3971.99	3981.53	0.00	509878.32	684168.31	
14200.00	91.20	273.97	10355.04	282.33	-4071.73	4081.51	0.00	509885.23	684068.57	
14300.00	91.20	273.97	10352.95	289.25	-4171.47	4181.48	0.00	509892.15	683968.83	
14400.00	91.20	273.97	10350.87	296.16	-4271.21	4281.46	0.00	509899.06	683869.09	
14500.00	91.20	273.97	10348.78	303.08	-4370.95	4381.44	0.00	509905.98	683769.35	
14600.00	91.20	273.97	10346.69	310.00	-4470.68	4481.42	0.00	509912.90	683669.62	
14681.03	91.20	273.97	10345.00	315.60	-4551.50	4562.43	0.00	509918.50	683588.80	PBHL #2

DDP-9

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd.	Date:	5/25/2012	Time:	12:07:31	Page:	3
Field:	Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Federal 12 #14H, Grid North				
Site:	Federal 12 #14H	Vertical (TVD) Reference:	SITE 3644.3				
Well:	Federal 12 #14H	Section (VS) Reference:	Well (0.00N,0.00E,273.97Azi)				
Wellpath:	Lateral	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Targets

Name	Description Dip:	Dir:	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg	Min	Sec		<--- Longitude ---> Deg	Min	Sec	
PBHL #2			10345.00	315.60	-4551.50	509918.50	683588.80	32	24	1.715	N	103	44	18.622	W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
775.00	775.00	0.000	0.000	Csg
4650.00	4650.00	0.000	0.000	Csg

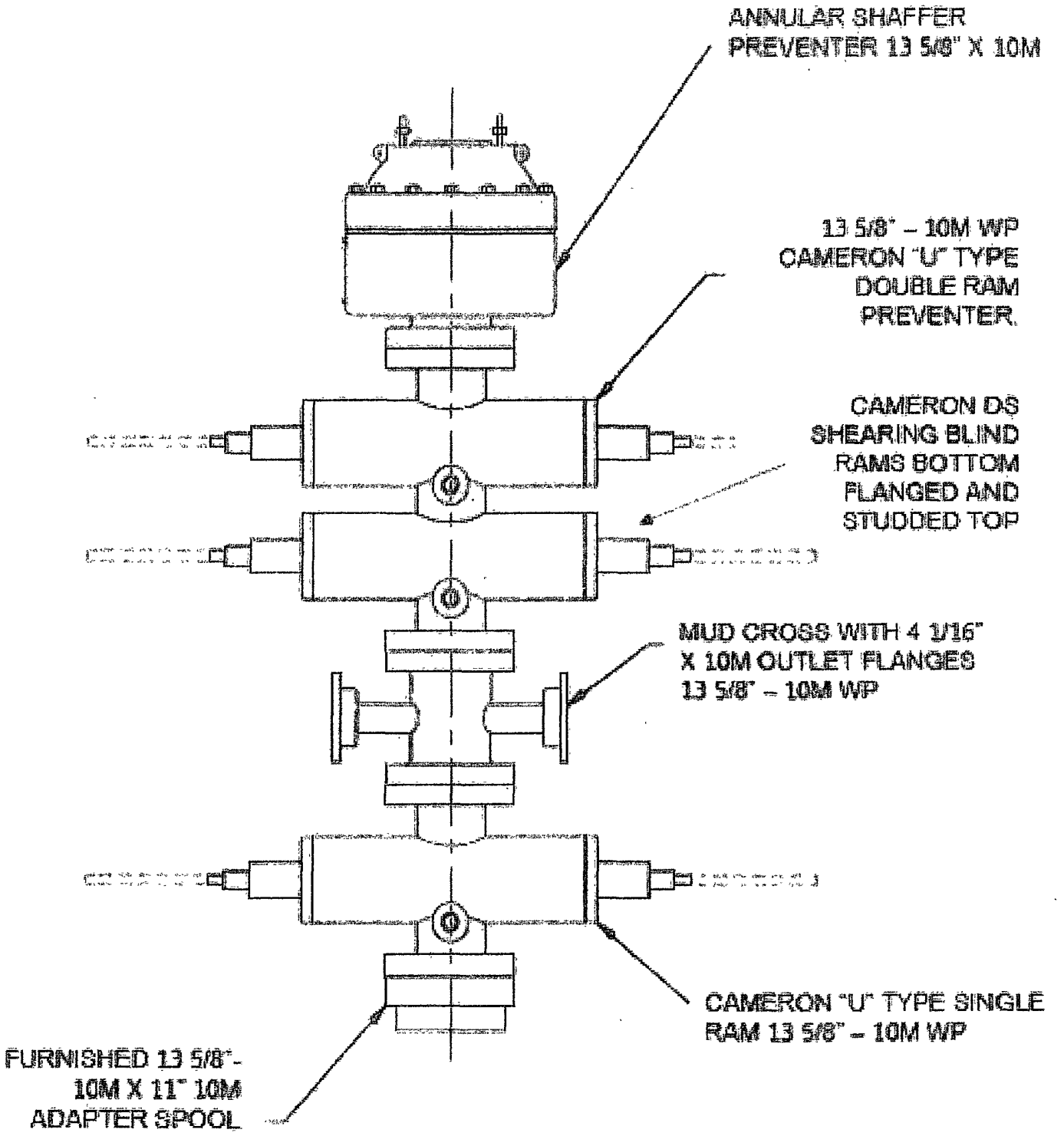
Annotation

MD ft	TVD ft	
9708.96	9708.96	KOP
10848.91	10425.00	LP
14681.02	10345.00	PBHL

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4520.00	4520.00	Base Anhydrite		0.00	0.00
8465.00	8465.00	BoneSpringLimestone		0.00	0.00
9385.00	9385.00	BSPG1 Sand		0.00	0.00
9655.00	9655.00	BSPG2 Limestone		0.00	0.00
10036.28	10025.00	BSPG2 Sand		0.00	0.00
10848.83	10425.00	BSPG2 Target Sand		0.00	0.00

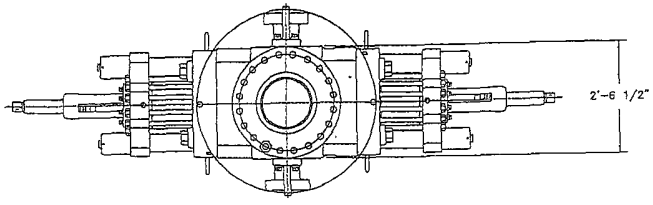
13. BOP Diagram

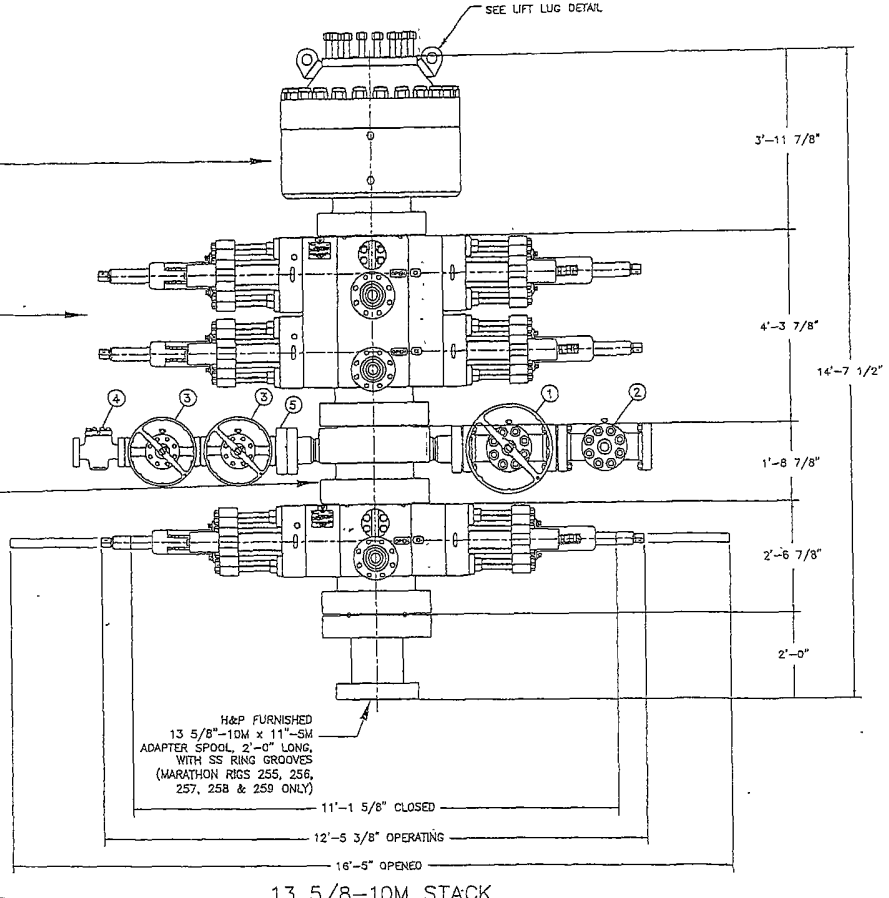


BOP STACK

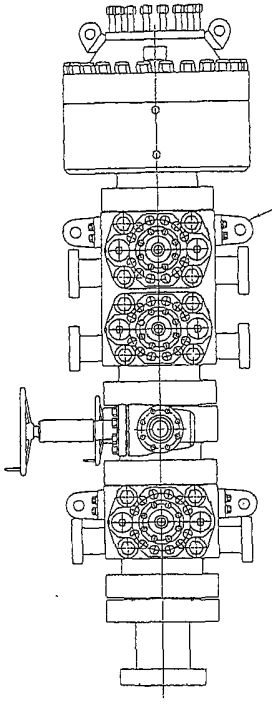
BOP-2

LEGEND
① 4 1/16"–10M FLANGED END GATE VALVE
② 4 1/16"–10M FLANGED END GATE VALVE WITH DOUBLE ACTING HYDRAULIC ACTUATOR
③ 2 1/16"–10M FLANGED END GATE VALVE
④ 2 1/16"–10M FLANGED END CHECK VALVE
⑤ DOUBLE STUDDED ADAPTER





13 5/8–10M STACK



ISSUED FOR FABRICATION
December-18-2007
DRAFTSMAN
ENGINEER

API 6A MONOGRAMMED CAMERON CHOKE AND KILL WING VALVE ASSEMBLIES ARE NOT SHOWN FOR CLARITY

WEIGHTS DO NOT INCLUDE HOSES, ADAPTER SPOOLS OR QUICK CONNECT FITTINGS

REV	DATE	DESCRIPTION	BY
E	12/18/07	ADDED SHEET 03	JAV
D	4-10-07	ORIENTATION REVISED, DOUBLE STUDDED ADAPTER, VALVES 1, 2, & 3 AND HS CHECK VALVE ADDED	JBG
C	4-04-07	5" ADDED TO SPACER ADAPTER SPOOL	JGC
B	02-07-07	ADDED ADAPTER SPOOL	MWL
A	06-13-02	CORRECTED BOP STACK	MWL

ENGINEERING APPROVAL | DATE

HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

TITLE: 13 5/8"–10M BOP 3 RAM STACK FLEXRIG3

CUSTOMER: H&P

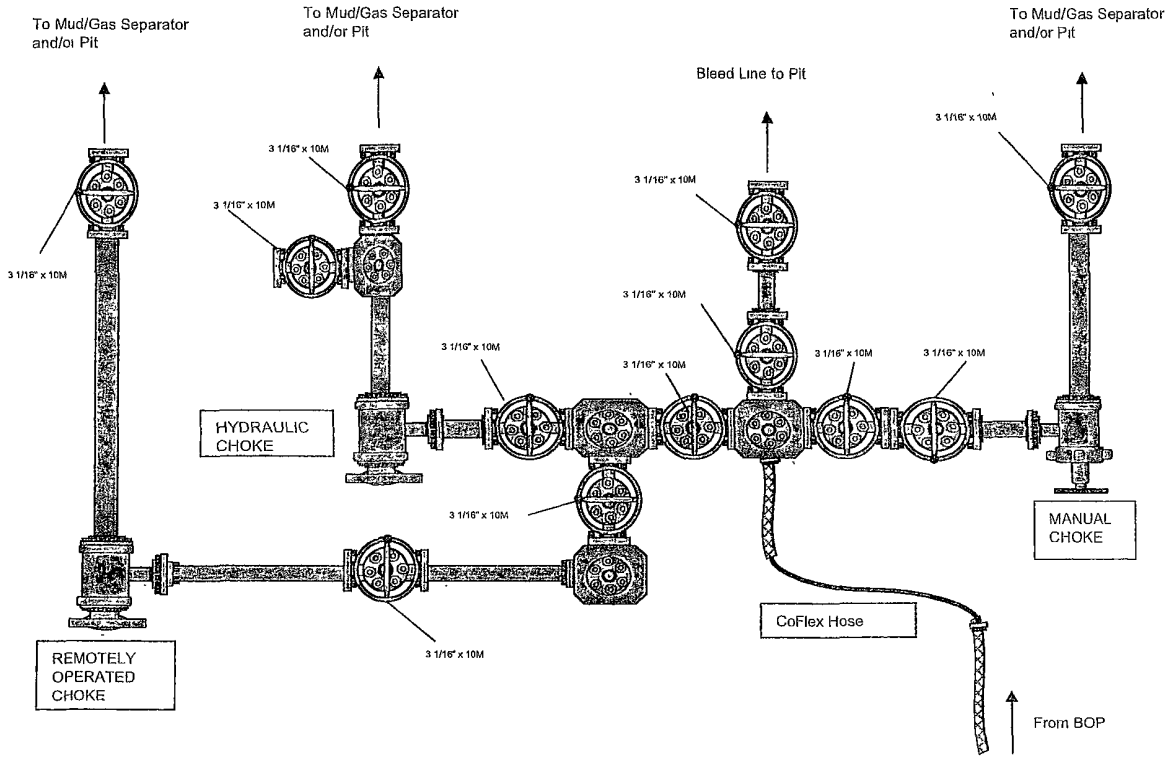
PROJECT: FLEXRIG3

DRAWN: MTS | DATE 6–5–02 | DWG NO. 210–P1–07 | REV. E

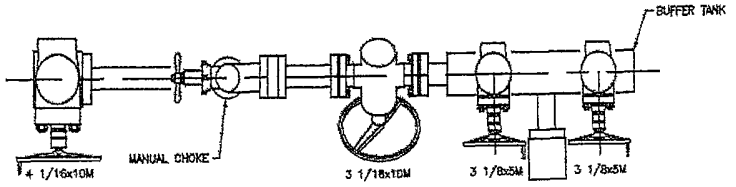
SCALE: 3/4"=1' | SHEET 1 of 3

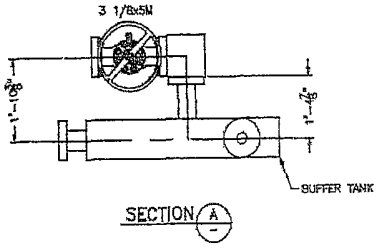
Chk Mnfd-1

10M CHOKE MANIFOLD CONFIGURATION

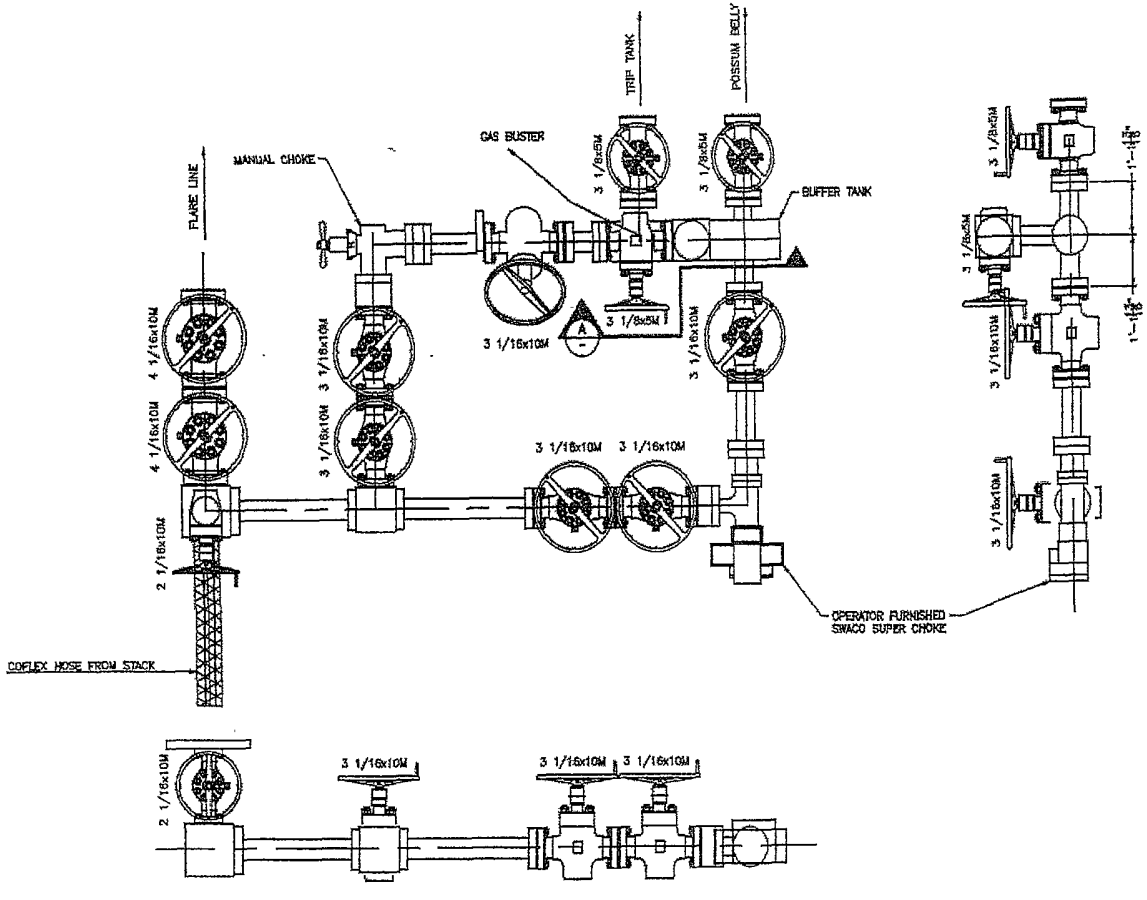


Chk Muffle-2





SECTION A



ISSUED FOR FABRICATION
MARCH 9, 2005
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY	ENGINEERING APPROVAL	DATE
4					
3					
2					
1					
A	10/15/02	ADJUST DIM TO FIELD CONFIRMED DIM	RAY		

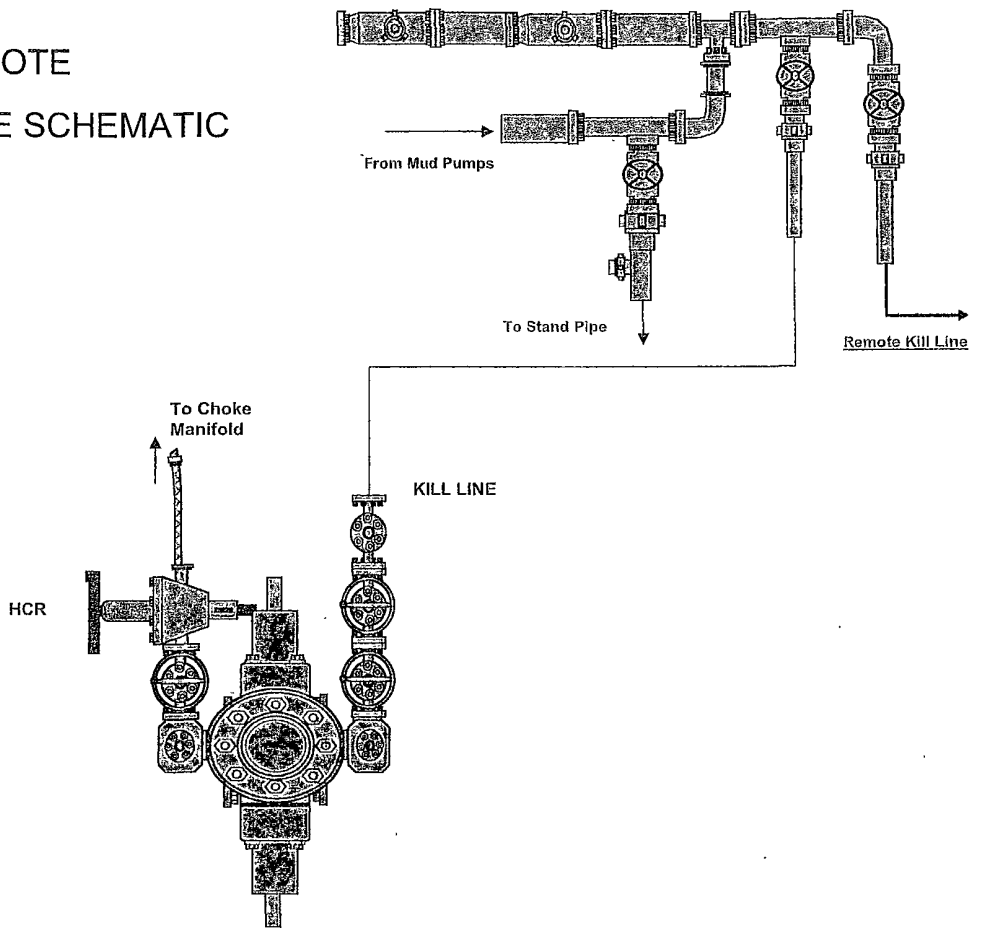
HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: CHOKE MANIFOLD

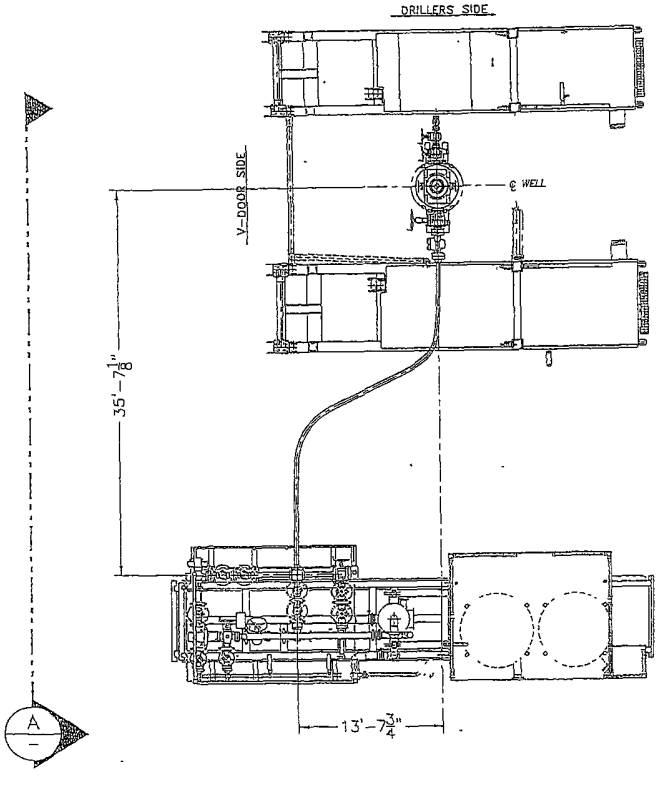
CUSTOMER: H&P
PROJECT: FLEXRIG3
DRAWN: MTS
DATE: 2-28-02
SCALE: 3/4"=1'
SHEET: 1 OF 1
DWG. NO.: 216-P1-05
REV: A

Chk Mnfd-3

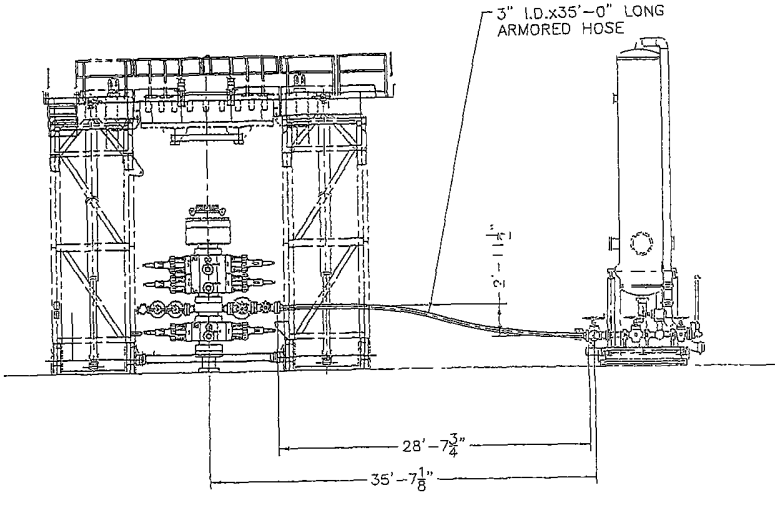
10M REMOTE KILL LINE SCHEMATIC



Flex Hose-7



PLAN VIEW



SECTION "A"

ISSUED FOR FABRICATION
December-19-2007
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY	ENGINEERING APPROVAL	DATE
1	12/18/07	REMOVED SHEET TOTAL CALLOUT	JAV		

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

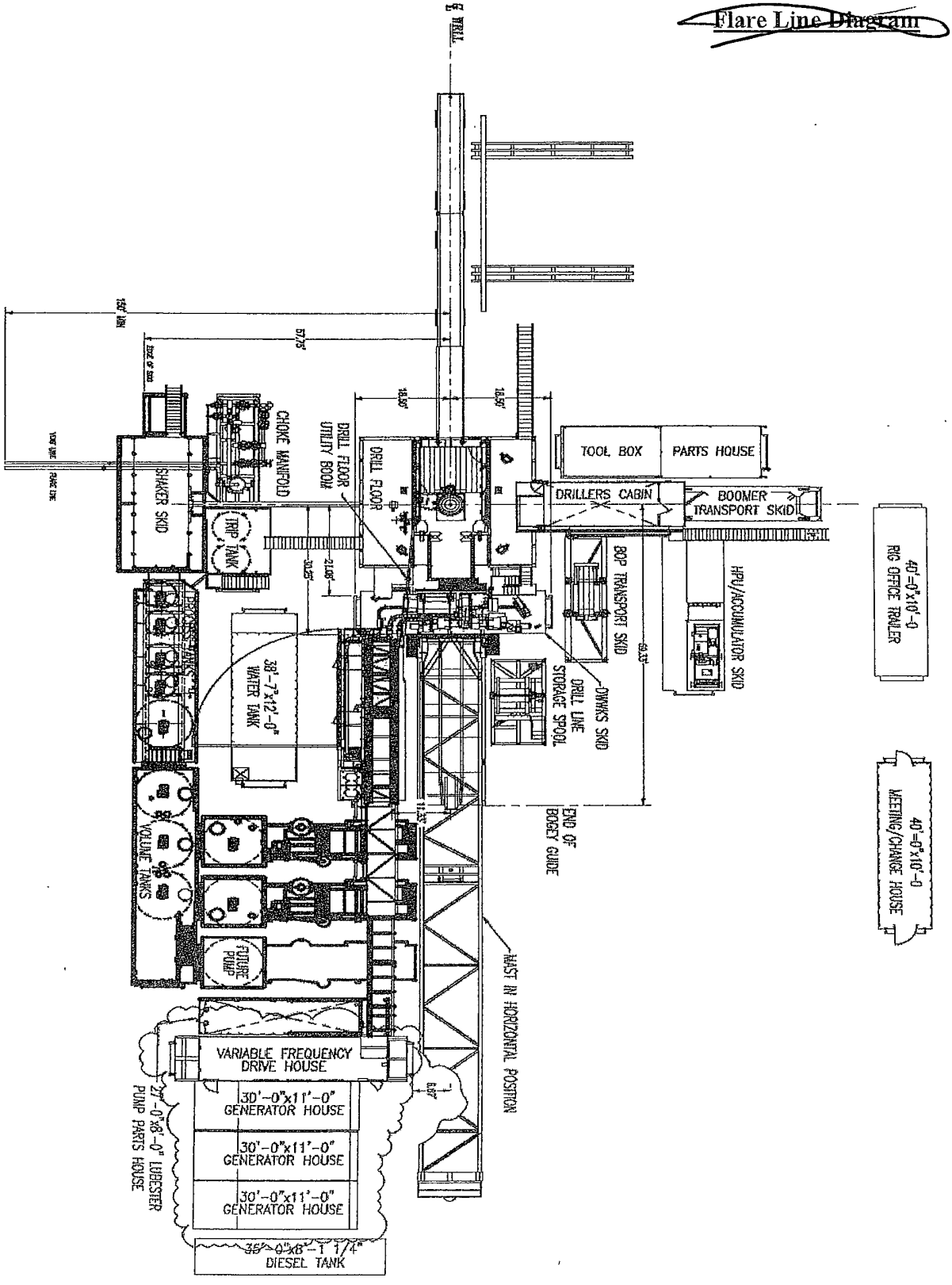
TITLE: CHOKE LINE SYSTEM
FLEXRIG3

CUSTOMER:

PROJECT

DRAWN: JBG	DATE: 4-10-07	DWG. NO.	REV
SCALE: 3/16"=1'	SHEET 2 OF 8	210-P1-07	A

Flare Line Diagram



Flex Hose -1

Continental CONTITECH

Fluid Technology

Quality Document

CERTIFICATE OF CONFORMITY

Supplier : CONTITECH RUBBER INDUSTRIAL KFT.
Equipment : 6 pcs. Choke and Kill Hose with installed couplings
Type : **3" x 10,67 m WP: 10000 psi**
Supplier File Number : 412638
Date of Shipment : April. 2008
Customer : Phoenix Beattie Co.
Customer P.o. : 002491
Referenced Standards / Codes / Specifications : API Spec 16 C
Serial No.: 52754,52755,52776,52777,52778,52782

STATEMENT OF CONFORMITY

We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Signed : .....

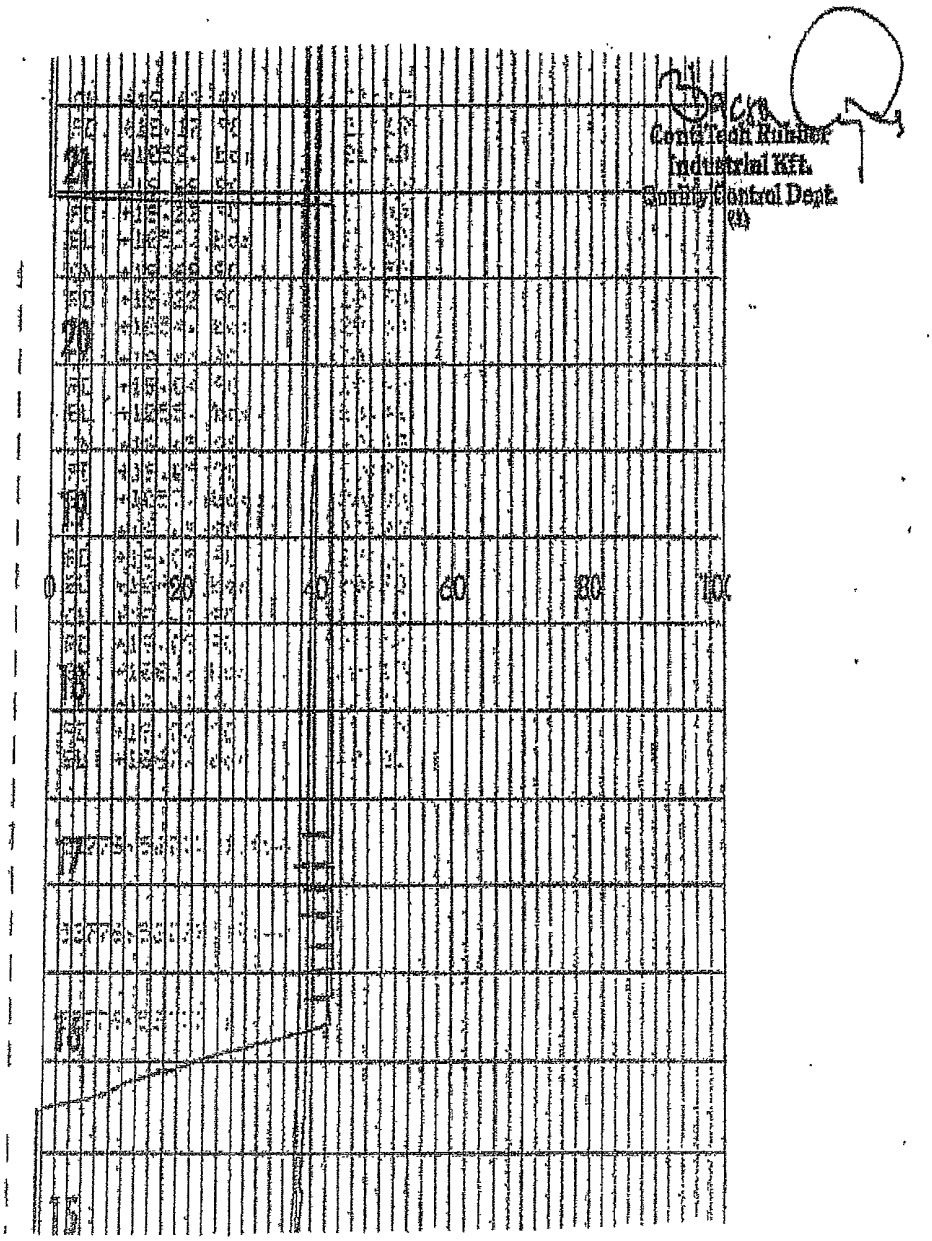
ContiTech Rubber Industrial Kft. Quality Control Dept. (I)

Date: 04. April. 2008

Position: Q.C. Manager

Flex Hose-2

Page: 1/1



Flex Hose-3

PHOENIX Beattie — **Material Identification Certificate**

PA No	006330	Client	HELMERICH & PAYNE INT'L DRILLING	Client Ref	370-369-001	Page	1

Part No	Description	Material Desc	Material Spec	Qty	WO No	Batch No	Test Cert No	Bin No	Drg No	Issue No
HP10CK3A-35-4F1	3" 10K 16C C&K HOSE X 35ft OAL			1	2491	52777/H884		WATER		
SECK3-HPF3	LIFTING & SAFETY EQUIPMENT TO			1	2440	002440		N/STK		
SC725-200CS	SAFETY CLAMP 200MM 7.25T	CARBON STEEL		1	2519	H655		22C		
SC725-132CS	SAFETY CLAMP 132MM 7.25T	CARBON STEEL		1	2242	H139		22		

We hereby certify that these goods have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industry standards within the requirements of the purchase order as issued to Phoenix Beattie Corporation.

05/23/08

Flexhose-4

Form No 100/12

PHOENIX Beattie

Phoenix Beattie Corp
11535 Brittmoore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	1

Customer / Invoice Address
HELMERICH & PAYNE INT'L DRILLING CO
1437 SOUTH BOULDER
TULSA, OK
74119

Delivery / Address
HELMERICH & PAYNE IDC
ATTN: JOE STEPHENSON - RIG 370
13609 INDUSTRIAL ROAD
HOUSTON, TX
77015

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
1	HP10CK3A-35-4F1 3" 10K 16C C&K HOSE x 35ft OAL CW 4.1/16" API SPEC FLANGE E/ End 1: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange End 2: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange c/w BX155 Standard ring groove at each end Suitable for H2S Service Working pressure: 10,000psi Test pressure: 15,000psi Standard: API 16C Full specification Armor Guarding: Included Fire Rating: Not Included Temperature rating: -20 Deg C to +100 Deg C	1	1	0
2	SECK3-HPF3 LIFTING & SAFETY EQUIPMENT TO SUIT HP10CK3-35-F1 2 x 160mm ID Safety Clamps 2 x 244mm ID Lifting Collars & element C's 2 x 7ft Stainless Steel wire rope 3/4" OD 4 x 7.75t Shackles	1	1	0
3	SC725-200CS SAFETY CLAMP 200MM 7.25T C/S GALVANISED	1	1	0

Continued...

Flex Hose-5
Form No 100/12

PHOENIX Beattie

Phoenix Beattie Corp
11535 Brittmoore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	2

Customer / Invoice Address
HELMERICH & PAYNE INT'L DRILLING CO
1437 SOUTH BOULDER
TULSA, OK
74119

Delivery / Address
HELMERICH & PAYNE IDC
ATTN: JOE STEPHENSON - RIG 370
13609 INDUSTRIAL ROAD
HOUSTON, TX
77015

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
4	SC725-132CS SAFETY CLAMP 132MM 7.25T C/S GALVANIZED C/W BOLTS	1	1	0
5	00CERT-HYDRO HYDROSTATIC PRESSURE TEST CERTIFICATE	1	1	0
6	00CERT-LOAD LOAD TEST CERTIFICATES	1	1	0
7	00FREIGHT INBOUND / OUTBOUND FREIGHT PRE-PAY & ADD TO FINAL INVOICE NOTE: MATERIAL MUST BE ACCOMPANIED BY PAPERWORK INCLUDING THE PURCHASE ORDER, RIG NUMBER TO ENSURE PROPER PAYMENT	1	1	0

Phoenix Beattie Inspection Signature :

Received In Good Condition : Signature

Print Name

Date

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days. Returns may be subject to a handling charge.

Flex Hose-6

Continental CONTITECH

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 746	
PURCHASER: Phoenix Beattie Co.				P.O. N°: 002491	
CONTITECH ORDER N°: 412638		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 52777		NOMINAL / ACTUAL LENGTH:		10,67 m	
W.P. 68,96 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration: 60 ~	min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 25 MPa

COUPLINGS

Type	Serial N°	Quality	Heat N°
3" coupling with	917 913	AISI 4130	T7988A
4 1/16" Flange end		AISI 4130	26984

INFOCHIP INSTALLED

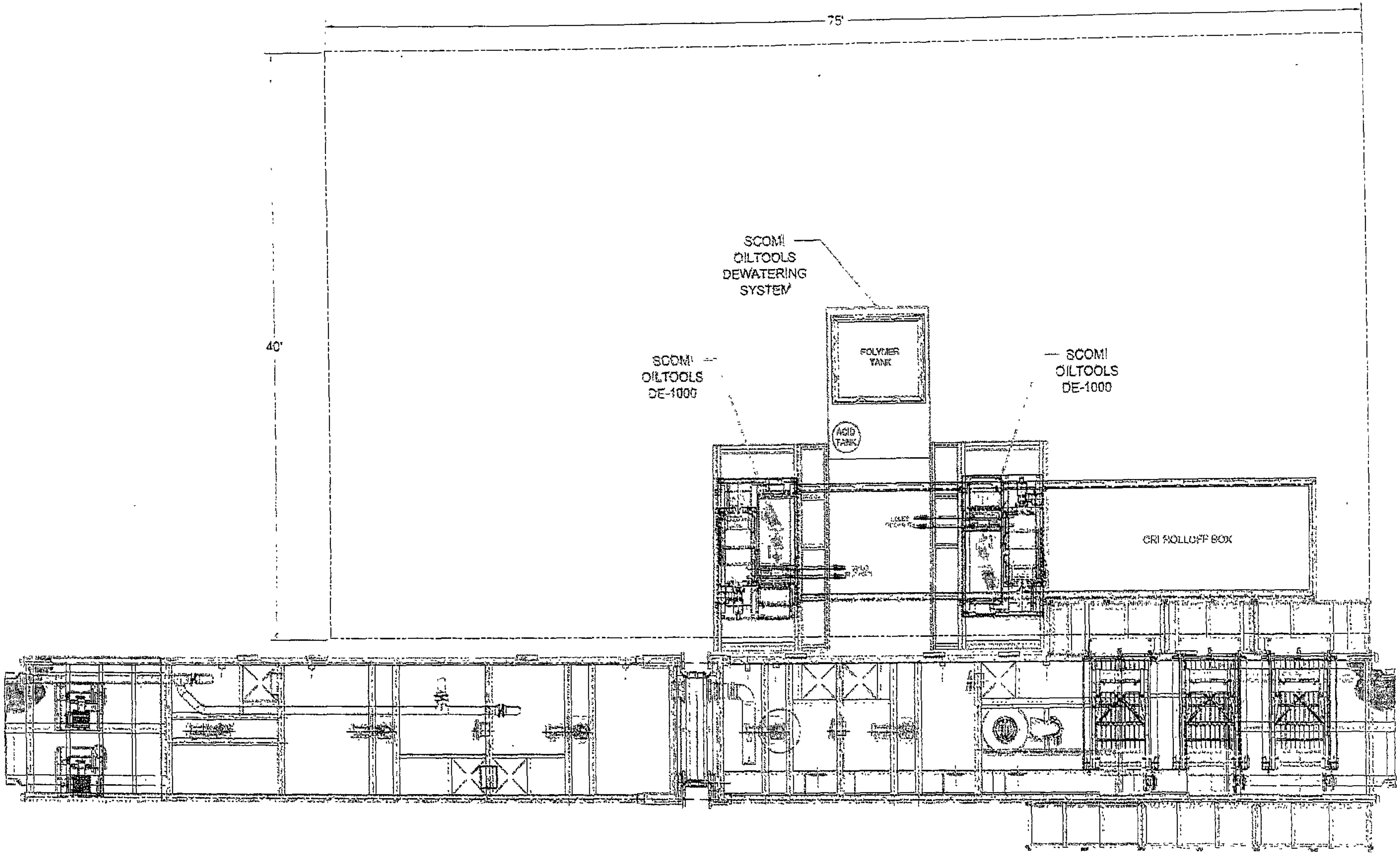
API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

Date:	Inspector	Quality Control
04. April. 2008		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

CL-1



1. ALL STRUCTURAL MATERIAL SHALL BE ASTM A36.
2. ALL PIPE SCH. 40 MATERIAL SA 106 Gr. B
3. ALL FLANGES SHALL BE CONF. 150# & MATERIAL SA 105.
4. ALL FITTINGS SCH. 40 MATERIAL SHALL BE SA 234 Gr. WPB.
5. TANK FABRICATION SHALL BE IN ACCORDANCE WITH API-650

TITLE

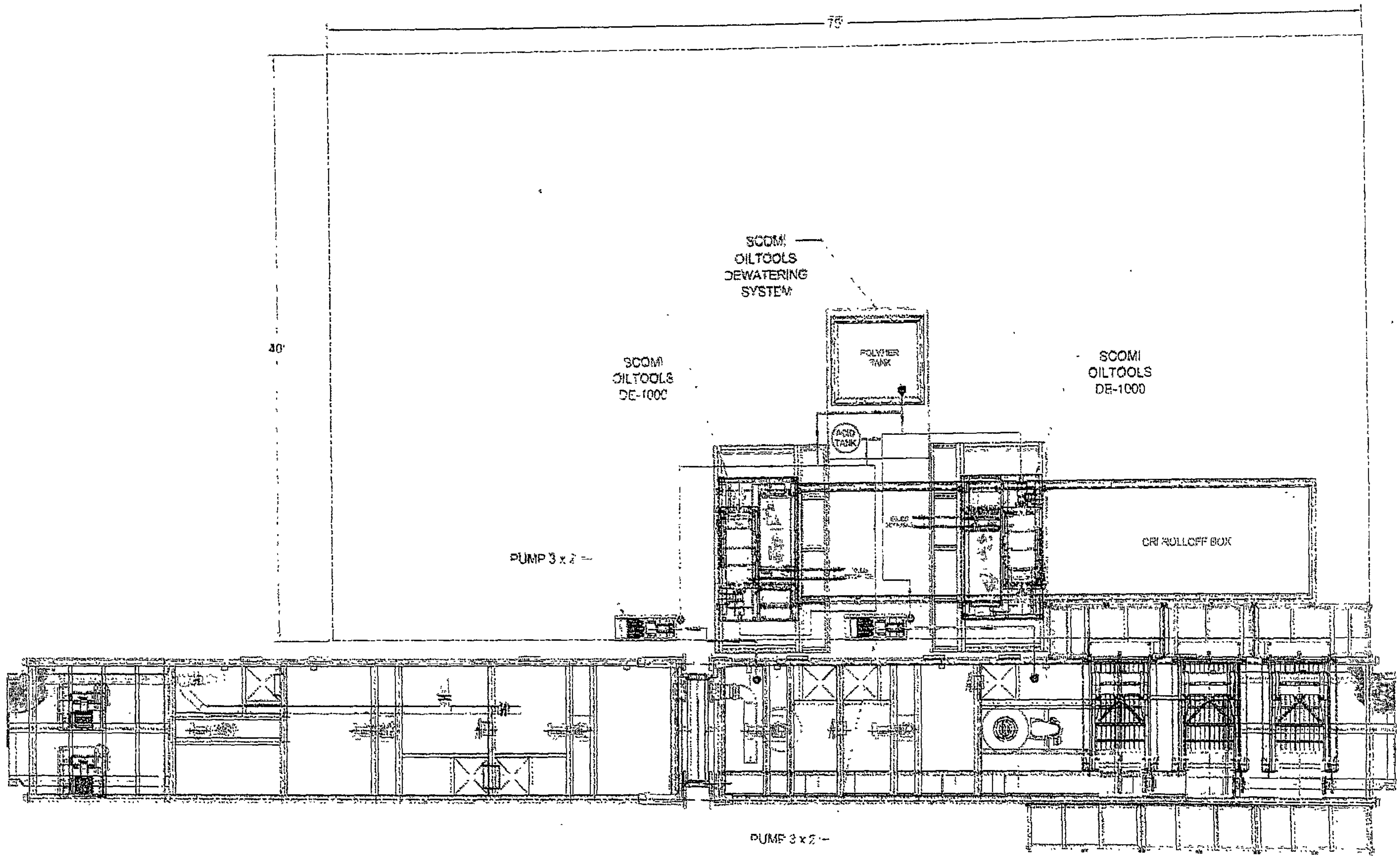
CLOSED LOOP SYSTEM BASIC LAYOUT AND TIE IN OXY - H&P - FLEX RIGS / PG 1 OF 2

DRAWN BY	DATE	CHECKED BY	DATE
PDL	10/30/08		
APPROVED	DATE	SCALE NTS	SIZE D

Scomi

DWG NO. 521S-014 REV A

CL-2



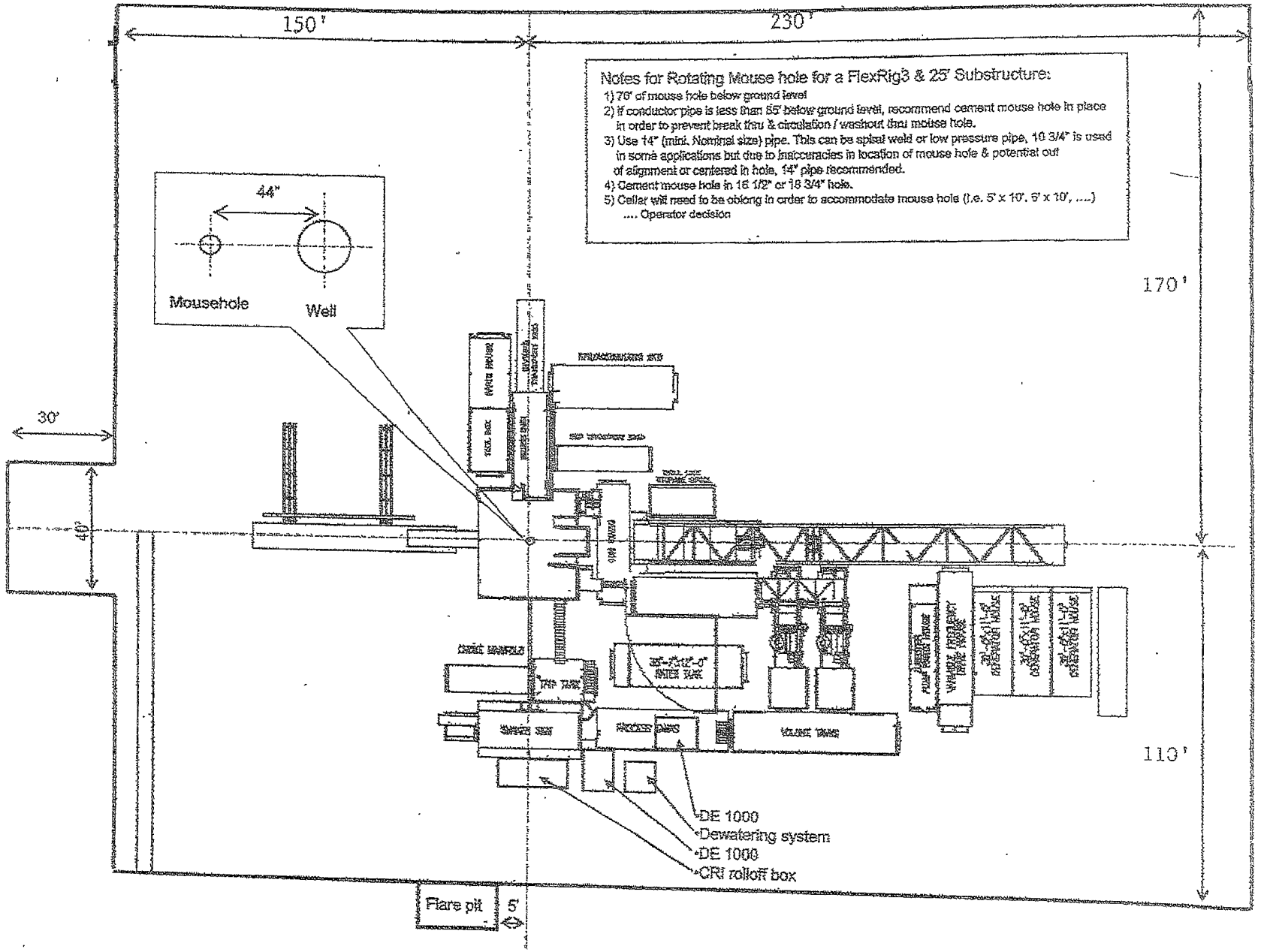
CLOSED LOOP SYSTEM
BASIC LAYOUT AND TIE IN
OXY - H&P - FLEX RIGS / PG 2 OF 2

Scomi

DRAWN BY: RDP | DATE: 10.26.09
SCALE: NTS | SIZE: D
521S-014 | REV: A

RL-CL-3

Level Area-No Caliche-For Offices and Living Quarters



Clear all brush + 20' off pad to allow Drk truck to drive off pad & maneuver drk into position

OXY USA Inc.

EMERGENCY ACTION PLAN

Federal 12 #14H

DRILLING/WORKOVER

DRILLING AND CRITICAL WELL OPERATIONS

DRILLING/WORKOVER
DRILLING AND CRITICAL WELL OPERATIONS

EMERGENCY ACTION PLAN

TABLE OF CONTENTS

PREFACE

An effective and viable Emergency Action Plan (EAP) is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

Although the plan addresses varied emergency situations that may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into operation without confusion. These actions should promote quick and decisive actions during the critical initial period and immediately following an emergency. As the response progresses, additional guidelines and procedures may need to be implemented as the situation dictates. In addition, all emergency incidents must be properly reported per the Oxy Incident Reporting and Notification Policy, state and federal requirements, etc.

The following procedures are provided as Oxy Permian's minimum expectations. The Contractor's own procedures may be utilized in lieu of Oxy Permian's, provided that it meets or exceeds the minimum deliverables. It should be understood that this list is not all-inclusive, but the overall plan should assist in lateral application to similar incidents.

This EAP is intended for use on Oxy Drilling/Workover projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

A. In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections on pages five (5) through nine (9) in this document for further responsibilities:

1. Notify the senior ranking contract representative on site.
2. Notify Oxy representative in charge.
3. Notify civil authorities if the Oxy Representative cannot be contacted and the situation dictates.
4. Perform rescue and first aid as required (without jeopardizing additional personnel).

General Responsibilities

Oxy Permian Personnel:

A. Drill Site Manager: The Oxy Drilling/Critical Well Servicing Operations Specialist or contract personnel serving in that capacity will serve as Operations Chief Officer for all emergency incidents. The Operations Chief Officer is responsible for:

1. Notification to the Drilling/Workover Team Leader of the incident occurrence.
2. Notification to the local RMT/PMT leader of the incident occurrence, and the need for the designated local RMT/PMT Incident Commander to act in that capacity for the response effort.
3. Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.

B. Local RMT/PMT Designated Incident Commander: The Oxy local RMT/PMT Designated Incident Commander will serve as the overall Incident Commander for the drilling or critical well servicing emergency incident. The Incident Commander is responsible for:

1. Coordinating with the Drilling Manager for notification to the Oxy Crisis Management team of the incident occurrence.
2. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.

C. Drilling/Workover HES Tech: The Drilling/Workover HES Tech (or his designate) is responsible for reporting to the incident as soon as reasonably possible, to provide support to the response effort as required by the Operations Chief Officer or the Incident Commander.

Contract Drilling Personnel will immediately report to their assigned stations and perform their duties as outlined in the appropriate Specific Emergency Guidance sections on pages five (5) through nine (9) in this document.

Other Contractor Personnel will report to the safe briefing area to assist Oxy personnel and civil authorities as requested when it is safe to do so and if they have been adequately trained in their assigned duties.

Civil Authorities (Law Enforcement, Fire, and EMS) will be responsible for:

1. Establishing membership in the Unified Incident Command.
2. As directed by the Incident Commander and the Unified Command, control site access, re-route traffic, and provide escort services for response personnel.
3. Perform all fire control activities in coordination with the Unified Command.
4. Initiate public evacuation plans as instructed by the Incident Commander.
5. Perform rescue or recovery activities with coordination from the Unified Command.
6. Provide medical assistance as dictated by the situation at hand.

WELL CONTROL

The following procedures will be implemented when a loss of primary control is indicated. Indicators of loss of primary control are flow from the well, an increase in pit volume, or when the drilling fluid used to fill the hole on trips is less than the calculated pipe displacement volume. The emergency signal for well control procedures will be a single long blast of the rig air horn.

Kick While Drilling - Procedures And Responsibilities

Driller:

1. Stop the rotary and hoist the kelly above the rotary table.
2. Stop the mud pump(s).
3. Check for flow.
4. If flowing, sound the alarm immediately.
5. Ensure that all crew members fill their responsibilities to secure the well.
6. Record drill pipe and casing shut-in pressures and pit volume increase and begin kill sheet.

Derrickman:

1. Go to BOP/choke manifold area.
2. Open choke line valve on BOP.
3. Signal to Floorman #1 that the choke line is open.
4. Close chokes after annular or pipe rams are closed.
5. Record shut-in casing pressure and pit volume increase.
6. Report readings and observations to Driller.
7. Verify actual mud weight in suction pit and report to Driller.
8. Be readily available as required for additional tasks.

Floorman # 1:

1. Go to accumulator control station and await signal from Derrickman.
2. Close annular preventer and HCR on signal (if available, if not then close pipe rams).
3. Record accumulator pressures and check for leaks in the BOP or accumulator system.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman # 2:

1. Start water on motor exhausts.
2. Notify Contractor Tool Pusher or Rig Manager of well control situation.
3. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman # 3:

1. Stand-by with Driller, and be readily available as required for additional tasks.

Tool Pusher/Rig Manager:

1. Notify Oxy Representative and report to rig floor.
2. Review and verify all pertinent information.
3. Communicate information to Oxy Representative, and confer on an action plan.
4. Finalize well control worksheets, calculations and preparatory work for action plan.
5. Initiate and ensure the action plan is carried out.
6. Communicate any changes in well or site conditions, or any indications that the action plan needs to be revised to the Oxy representative.

Oxy Representative:

1. Notify Drilling Superintendent or Drilling Manager and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

Kick While Tripping - Procedures and Responsibilities

Driller:

1. Sound the alarm immediately when pipe displacement volume is less than 75% of calculated.
2. Position the upper tool joint just above rotary table and set slips.
3. Check for flow.
4. Ensure that all crew members fill their responsibilities to secure the well.
5. Record drill pipe and casing shut-in pressures and pit volume increase, and begin kill sheets.

Derrickman: (same as while drilling)

Floor Man # 1:

1. Install full opening valve (with help from Floorman #2) in top drill string connection.
2. Tighten valve with make up tongs.
3. Go to accumulator control station and await signal from Derrickman.
4. Close annular preventer and HCR valve on signal (if available, if not then close pipe rams).
5. Record accumulator pressures and check for leaks in the BOP and accumulator system.
6. Report to Driller, and be readily available as required for additional tasks.

Floor Man # 2:

1. Assist installing full opening valve in drill string.
2. Position back-up tongs for valve make-up.
3. Start water on motor exhausts.
4. Notify Contractor Tool Pusher or Rig Manager of well control situation.
5. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
6. Report to Driller, and be readily available as required for additional tasks.

Floorman # 3, Rig Manager/Tool Pusher, and Oxy Representative: (same as while drilling)

H2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H2S siren and lights.

All Personnel:

1. On alarm, don escape unit (if available) and report to upwind briefing area.

Rig Manager/Tool Pusher:

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and /or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contractor management and Oxy Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

Two People Responsible For Shut-in and Rescue:

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

All Other Personnel:

1. Remain at the briefing area and await further instructions - do not leave unless instructed.

Oxy Representative:

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify Drilling Superintendent or Drilling Manager and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

PERSONAL INJURY OR DEATH

Call for assistance, and then administer first aid for the injured. Treatment should be prioritized by life-threatening conditions.

A. Do not move injured personnel unless they are in imminent danger. An ambulance should be summoned for any injury that appears to be serious.

FIRE OR EXPLOSION

Fire Fighting Philosophy

It is Oxy Permian's intent that Oxy and contract personnel will only extinguish incipient or beginning stage fires and perform or assist in initial non-threatening rescue operations. The responding fire department will be given primacy when they arrive to control a fire on any Oxy property. Any Oxy or contract employee who participates in a fire response must be fully trained and qualified as such, and must be utilizing appropriate Personal Protective Equipment.

Contract and Oxy Personnel Deployment

In the event of a fire or explosion all personnel will report to the safe briefing area. The Senior Contract Representative on site will designate personnel for rescue as appropriate depending on their qualifications and the risks of the rescue. Any rescue which involves significant risk to those performing the rescue should be deferred to professional response personnel.

No personnel will leave the area without direction / permission from the Senior Contract Representative on-site.

The Senior Contract Representative on site will notify local emergency response personnel as required, along with the Contract Company management and the Oxy Representative as soon as reasonably possible.

SPILLS

In the event of a significant spill of any substance, the person discovering it should immediately notify the rig supervisor and the Oxy Representative. Personnel onsite should **NOT** attempt identification, control or containment unless they are absolutely sure of the product spilled, are fully aware of the hazard characteristics, and are equipped with the appropriate personal protective equipment.

HYDROCARBON VAPOR CLOUD RELEASE

Upon discovery of a Hydrocarbon Vapor Cloud (NGL) release, take immediate safety precautions to protect any company personnel or others that might be in the area. Other emergency actions should be initiated only by trained expert personnel from the appropriate pipeline company.

The following guidelines should be followed:

1. Immediately notify the rig supervisor and the Oxy Representative.
2. Determine wind direction, and evacuate upwind or at 90 degrees to the release.
3. Maintain a safe distance from the cloud.
4. Render first aid and call for an ambulance as necessary.
5. Attempt to warn approaching individuals of the hazard.

BOMB THREAT

In the event of a bomb threat, the person receiving the call, on or off site, should try to get as much information as possible from the caller. The person receiving the call should immediately contact the supervisor in charge. Evacuation of the field should be considered at this time. Roadblocks may need to be installed. The supervisor in charge should make all appropriate contacts.

The Supervisor contacted should:

a. Realize that every bomb threat is serious.

b. Notify Corporate Security

c. Inform Police/Sheriff's Department and Fire Department

d. Contact RMT Leader or his designated relief to coordinate search efforts with the assistance of the local law enforcement agencies.

BOMB THREAT CHECKLIST

Date_____ Name of person taking call_____ Phone # call came on _____

FILL OUT COMPLETELY IMMEDIATELY AFTER BOMB THREAT

1. When is the bomb set to explode?_____
2. Where is the bomb located?_____
3. What does the bomb look like?_____
4. What type of bomb is it?_____
5. What will cause the bomb to explode?_____
6. Did the caller place the bomb?_____
7. Why did the caller place the bomb?_____
8. What is the caller's name and address?_____

Callers: Sex___ Age___Race___Length of call_____

DESCRIPTION OF CALLER'S VOICE (Check all that apply)

___Calm	___Rapid	___Laughing	___Lisp	___Disguised
___Angry	___Crying	___Raspy	___Accent	___Familiar? Who did
___Excited	___Normal	___Deep	___Stutter	it sound like?
___Slow	___Distinct	___Ragged	___Deep	___Deep Breathing
___Loud	___Slurred	___Nasal	___Clearing Throat	

BACKGROUND SOUNDS:

___Street Noises	___House Noises	___Factory	___Music	___Local Call
		___Machinery	___Static	___Long Distance
___Voices	___Motor	___Animals	___PA System	___Phone Booth
___Office	___Clear	___Other		

THREAT LANGUAGE:

___Well-Spoken	___Foul	___Incoherent	___Irrational	___Taped

___Message Read by Threat Maker

REMARKS:

NATURAL DISASTERS

Tornadoes

These general procedures should be followed by everyone seeking shelter from a severe storm or tornado:

Indoors:

1. Protect yourself from flying glass and debris.
2. Take refuge near the core of the building for maximum protection.
3. Do not smoke while taking shelter.
4. Shut all doors to offices, if time permits.

In the field:

1. Seek cover in a low-lying area, such as a culvert, ditch, pit, or water injection valve box.
2. Get out of and away from your vehicle.
3. Stay away from power lines.
4. Cover your head with your arms and clothing.

Thunderstorms

Indoors:

1. Avoid water pipes, sinks, showers, tubs, etc.
2. Stay away from doors and windows.
3. Do not use the telephone.
4. Take off head sets.
5. Turn off, unplug, and stay away from appliances, computers, power tools, & TV sets.

In the field:

1. Avoid water.
2. Avoid high ground and open spaces.
3. Avoid all metal objects including electric wires, fences, machinery, motors, power tools, etc. Unsafe places include underneath canopies, small picnic or rain shelters, or near trees. Where possible, find shelter in a substantial building or in a fully enclosed metal vehicle such as a car, truck or a van with the windows completely shut. If lightning is striking nearby when you are outside, you should:
    a. Crouch down, feet together, hands over ears
    b. Avoid proximity (minimum of 15 ft.) to other people.
4. SUSPEND ACTIVITIES for 30 minutes after the last observed lightning or thunder.

PUBLIC RELATIONS

Oxy recognizes that the news media have a legitimate interest in incidents at Oxy facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Oxy employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.

Drilling Dept. Emergency Contact list

Drilling Manager	**Douglas Chester**	**713-366-9124 office** **713-918-9124 cell**
Drilling Superintendent	**Chad Frazier**	**713-215-7357 office** **806-891-9473 cell**
Drilling Superintendent	**Robert Lovelady**	**432-685-5630 office** **432-813-6332 cell**
Drilling Engr Supervisor	**Juan Pinzon**	**713-366-5058 office** **713-503-3962 cell**
Drilling Engr Supervisor	**Luis Tarazona**	**713-366-5771 office** **713-628-9526 cell**
HES Specialist-Drilling	**Charles Bullard**	**432-685-5719 office** **432-894-3769 cell**
Construction Specialist	**Dusty Weaver**	**432-685-5723 office** **806-893-3067 cell**

OXY Permian Incident Reporting Phone List

OXY Permian Crisis Team Hotline Notification (713) 935-7210

Person	Location	Office Phone	Cell/Mobile Phone
Asset Management-Operations Areas			
OXY Permian Primary President & General Manager: Michael Land	Houston	(310) 443-6255	
Asset Development Manager-Denise Woods	Houston	(713) 215-7154	(832) 830-5273
Operations Manager-Keith Sevin	Houston	(713) 366-5979	(432) 661-4121
OXY Permian CO2 President & General Manager: Vicki Hollub	Houston	(713)-215-7332	(713) 885-6347
Asset Development Manager-Andrew Falls	Houston	(713) 366-5148	(713) 918-9096
Operations Manager-Bob Barnes	Houston	(713) 215-7906	(832) 433-0763
Operations CO2-Primary			
RMT Lead North-David Schellstede	Houston	(713) 366-5013	(713) 560-8061
RMT Lead South-Peter Lawrence	Houston	(713) 215-7644	(832) 830-5273
Well Oper Manager CO2-Bill Elliott	Midland	(432) 685-5845	(432) 557-6736
Well Oper Manager Primary-Charles Wagner	Carlsbad	(575) 628-4151	(575) 725-8306
Well Servicing Manager-Brit Meadows	Midland	(432) 685-5840	(432) 661-0387
WST Coord CO2-Terrell Rowe	Midland	(432) 685-5821	(432) 664-8888
WST Coord Primary-Dalton Dean	Midland	(432) 685-5816	(806) 215-0103
NM Frontier Oper Coord –Kim Moore	Hobbs	(575) 397-8236	(575) 706-1219
NM Frontier Oper Coord -Van Barton	Carlsbad	(575) 628-4111	(575) 706-7671
HES Staff&Areas of First Contact Support			
HES Manager: John Kirby	Houston	(713) 366-5460	(281) 974-9523
Environmental Consultant: Douglas Lowrie	Midland	(432) 685-5824	(432) 208-0958
Administrative Assistant: Debbie Robertson	Midland	(432) 685 5812	(432) 556-7495
Pipeline Safety: Steven Bishop	Midland	(432) 685-5614	(432) 238-4079
HES Lead CO2-Pete Maciula	Midland	(432) 685-5667	(432) 557-2450
HES Lead Primary-Nicholas Edwards	Midland	(432) 685-5843	(432) 777-2615
HES Advisor: Marty Bryant	Midland	(432) 685-5929	(432) 634-3964
HES Specialist-Drilling: Charles Bullard	Midland	(432) 685-5719	(432) 894-3769
HES Tech & Area of Responsibility			
Hobbs RMT: Raymond Aguilarl	Hobbs	(575) 397-8251	(575) 390-6312
Primary-New Mexico: Mark Richards	Carlsbad	(575) 628-4120	(806) 111-2615
CO2-New Mexico-CJ Summers	Hobbs	(575) 397-8236	(575) 390-9228
Regulatory Affairs			
Lead CO2 - Karen Sinard	Houston	(713) 366-5485	(713) 857-6068
Lead Primary – Keith Barton	Houston	(713) 350-4959	(713) 876-1457
Regulatory Advisor-David Stewart	Midland	(432) 685-5717	(432) 638-5688
Sr, Regulatory Analyst-Mark Stephens	Houston	(713) 366-5158	
Staff Regulatory Analyst-Jennifer Duarte	Houston	(713) 513-6640	

DOT-Pipeline Response Numbers

N. Hobbs Unit: Steve Bishop	Hobbs	(575) 397-8251	(575) 390-4784
Wasson PMT: Todd King	Denver City	(806) 592-6274	(806) 215-0183
Bravo/Slaughter PMT: Gary Polk	Levelland	(806) 229-9708	(806) 638-2425
Cogdell RMT: Dean Peevy	Cogdell	(325) 573-7272	(325) 207-3367
Sharon Ridge: Carl Morales	Sharon Ridge	(325) 573-6341	(325) 207-3374

OOGC HES Contacts

Manager HES: Wes Scott	OOGC – Houston	(713) 215-7171	(713) 203-4050
Worldwide Safety Mgr: Greg Hardin alternate	OOGC – Houston	(713) 366-5324	(713) 560-8037
Worldwide Environ. Mgr: Ravi Ravishankar	OOGC – Houston	(713) 366-5039	(832) 863-2240

OOGC Risk Management

Jim Garrett	Los Angeles	(310) 443-6588	(310) 710-3233
Greg LaSalle, alternate	Los Angeles	(310) 443-6542	(310) 710-2255

OSI

Workers Comp. Claim Manager: Steve Jones	Dallas	(972) 404-3542	
Workers Comp. Claims: Mark Ryan	Dallas	(972) 404-3974	
Auto Claims: Steve Jones	Dallas	(972) 404-3542	

Gallagher Bassett

Workers Comp. & Property Damage Claims- OXY Permian Ltd.: Danny Ross		(972) 728-3600 X252	(800) 349-8492

Axiom Medical Consulting

Medical Case Management		(877) 502-9466	

OXY Permian Legal

Tom Janiszewski	Houston	(713) 366-5529	(713) 560-8049

Human Resources

H.R. Manager: Barbara Bernhard	Houston	(713) 215-7150	(713) 702-7949
H.R. Consultant: Amy Thompson	Houston	(713) 215-7863	(281) 799-7348
H.R. Consultant: Laura Matthews	Houston	(713) 366-5137	(713) 569-0386
H.R. Consultant: Jill Williams	Midland	(432) 685-5818	(432) 661-4581

Corporate Security

Frank Zapalac	Houston	(713) 215-7157	(713) 829-5753
Hugh Moreno, alternate	Houston	(713) 215-7162	(713) 817-3322

Regulatory Agencies

Bureau of Land Management	Carlsbad, NM	(575) 887-6544	
Bureau of Land Management	Hobbs, NM	(575) 393-3612	
Bureau of Land Management	Roswell, NM	(575) 393-3612	
Bureau of Land Management	Santa Fe, NM	(505) 988-6030	

DOT Juisdictional Pipelines-Incident Reporting New Mexico Public Regulation Commission	Santa Fe, NM	(505) 827-3549 (505) 490-2375	
DOT Juisdictional Pipelines-Incident Reporting Texas Railroad Commission	Austin, TX	(512) 463-6788	
EPA Hot Line	Dallas, Texas	(214) 665-6444	
Federal OSHA, Area Office	Lubbock, Texas	(806) 472-7681	
National Response Center	Washington, D. C.	(800) 424-8802	
National Infrastructure Coordinator Center		(202) 282-9201	
New Mexico Air Quality Bureau	Santa Fe, NM	(505) 827-1494	
New Mexico Oil Conservation Division	Artesia, NM	(575) 748-1283	
New Mexico Oil Conservation Division	Hobbs, NM	(575) 393-6161	
New Mexico Oil Conservation Division	Santa Fe, NM	(505) 471-1068	
New Mexico OCD Environmental Bureau	Santa Fe, NM	(505) 827-7152 (505) 476-3470	
New Mexico Environmental Department	Hobbs, NM	(575) 827-9329	
NM State Emergency Response Center	Santa Fe, NM	(505) 827-9222	
Railroad Commission of TX	District 8, 8A Midland, TX	(432) 684-5581	
Texas Emergency Response Center	Austin, TX	(512) 463-7727	
TCEQ Air	Region 2 Lubbock, TX	(806) 796-3494	
TCEQ Water/Waste/Air	Region 7 Midland, TX	(432) 570-1359	

Medical Facilities

Artesia General Hospital	Artesia, NM	(575) 748-3333	
Guadalupe Medical Center	Carlsbad, NM	(575) 887-6633	
Lea Regional Hospital	Hobbs, NM	(575) 492-5000	
Medical Arts Hospital	Lamesa, TX	(806) 872-2183	
Medical Center Hospital	Odessa, TX	(432) 640-4000	
Memorial Hospital	Seminole, TX	(432) 758-5811	
Midland Memorial Hospital	Midland, TX	(432) 685-1111	
Nor-Lea General Hospital	Lovington, NM	(575) 396-6611	
Odessa Regional Hospital	Odessa, TX	(432) 334-8200	
St. Mary's Hospital	Lubbock, TX	(806) 796-6000	
Union County General Hospital	Clayton, NM	(575) 374-2585	
University Medical Center	Lubbock, TX	(806) 743-3111	

Local Emergency Planning Comm.

Richard H. Dolgener	Andrews County, TX	(432) 524-1401	
Joel Arnwine	Eddy County, NM	(575) 887-9511	
County Judge Judy House	Gaines County, TX	(432) 758-5411	
Myra Sande	Harding County, NM	(575) 673-2231	
Jerry Reynolds	Lea County, NM	(575) 396-8600	(575) 399-2376
Royce Creager	Loving County, TX	(432) 377-2231	
Mike Cherry	Quay County, NM	(575) 461-2476	
Della Wetsel	Union County, NM	(575) 374-8896	
Bonnie Leck	Winkler County, TX	(432) 586-6658	

Carl Whitaker	Yoakum County, TX	(806) 456-7491	

Law Enforcement - Sheriff

Andrews Cty Sheriff's Department	Andrews County	(432) 523-5545	
Eddy Cty Sheriff's Department	Eddy County (Artesia)	(575) 746-2704	
Eddy Cty Sheriff's Department	Eddy County (Carlsbad)	(575) 887-7551	
Gaines Cty Sheriff's Department	Gaines County (Seminole)	(432) 758-9871	
Lea Cty Sheriff's Department	Lea County (Eunice)	(575) 384-2020	
Lea Cty Sheriff's Department	Lea County (Hobbs)	(575) 393-2515	
Lea Cty Sheriff's Department	Lea County (Lovington)	(575) 396-3611	
Union Cty Sheriff's Department	Union County (Clayton)	(505) 374-2583	
Yoakum City Sheriff's Department	Yoakum Co.	(806) 456-2377	

Law Enforcement - Police

Andrews City Police	Andrews, TX	(432) 523-5675	
Artesia City Police	Artesia, NM	(575) 746-2704	
Carlsbad City Police	Carlsbad, NM	(575) 885-2111	
Clayton City Police	Clayton, NM	(575) 374-2504	
Denver City Police	Denver City, TX	(806) 592-3516	
Eunice City Police	Eunice, NM	(575) 394-2112	
Hobbs City Police	Hobbs, NM	(575) 397-9265 (575) 393-2677	
Jal City Police	Jal, NM	(575) 395-2501	
Lovington City Police	Lovington, NM	(575) 396-2811	
Seminole City Police	Seminole, TX	(432) 758-9871	

Law Enforcement - FBI

FBI	Alburqueque, NM	(505) 224-2000	
FBI	Midland, TX	(432) 570-0255	

Law Enforcement - DPS

NM State Police	Artesia, NM	(575) 746-2704	
NM State Police	Carlsbad, NM	(575) 885-3137	
NM State Police	Eunice, NM	(575) 392-5588	
NM State Police	Hobbs, NM	(575) 392-5588	
NM State Police	Clayton, NM	(575) 374-2473; 911	
TX Dept of Public Safety	Andrews, TX	(432) 524-1443	
TX Dept of Public Safety	Seminole, TX	(432) 758-4041	
TX Dept of Public Safety	Yoakum County TX	(806) 456-2377	

Firefighting & Rescue

Amistad/Rosebud	Amistad/Rosebud, NM	(505) 633-9113	
Andrews	Andrews, TX	(432) 523-4820 (432) 523-3111	
Artesia	Artesia, NM	(575) 746-5051	
Carlsbad	Carlsbad, NM	(575) 885-3125	

Clayton	Clayton, NM	(575) 374-2435	
Denver City	Denver City, TX	(806) 592-5426	
Eunice	Eunice, NM	(575) 394-2111	
Hobbs	Hobbs, NM	(575) 397-9308	
Jal	Jal, NM	(575) 395-2221	
Kermit	Kermit, TX	(432) 586-3468	
Lovington	Lovington, NM	(575) 396-2359	
Maljamar	Maljamar, NM	(575) 676-4100	
Monahans	Monahans, TX	(432) 943-4343	
Nara Visa	Nara Visa, NM	(575) 461-3300	
Pecos	Pecos, TX	(432) 445-2421	
Seminole	Seminole, TX	(432) 758-3676 (432) 758-9871	

Ambulance

Amistad/Rosebud	Amistad/Rosebud, NM	(575) 633-9113	
Andrews Ambulance	Andrews, TX	(432) 523-5675	
Artesia Ambulance	Artesia, NM	(575) 746-2701	
Carlsbad Ambulance	Carlsbad, NM	(575) 885-2111; 911	
Clayton, NM	Clayton, NM	(575) 374-2501	
Denver City Ambulance	Denver City, TX	(806) 592-3516	
Eunice Ambulance	Eunice, NM	(575) 394-3258	
Hobbs, NM	Hobbs, NM	(575) 397-9308	
Jal, NM	Jal, NM	(575) 395-2501	
Lovington Ambulance	Lovington, NM	(575) 396-2811	
Nara Visa, NM	Nara Visa, NM	(575) 461-3300	
Pecos Ambulance	Pecos, TX	(432) 445-4444	
Seminole Ambulance	Seminole, TX	(432) 758-8816 (432) 758-9871	

Medical Air Ambulance Service

AEROCARE - Methodist Hospital	Lubbock, TX	(800) 627-2376	
San Angelo Med-Vac Air Ambulance	San Angelo, TX	(800) 277-4354	
Southwest Air Ambulance Service	Stanford, TX	(800) 242-6199	
Southwest MediVac	Snyder, TX	(800) 242-6199	
Southwest MediVac	Hobbs, NM	(800) 242-6199	
Odessa Care Star	Odessa, TX	(888) 624-3571	
NWTH Medivac	Amarillo, TX	(800) 692-1331	

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
Federal 12 14H

Open drill site. No homes or buildings are near the proposed location.

1. Escape

   Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southwest side of the location. Personnel need to move to a safe distance and block the entrance to location.

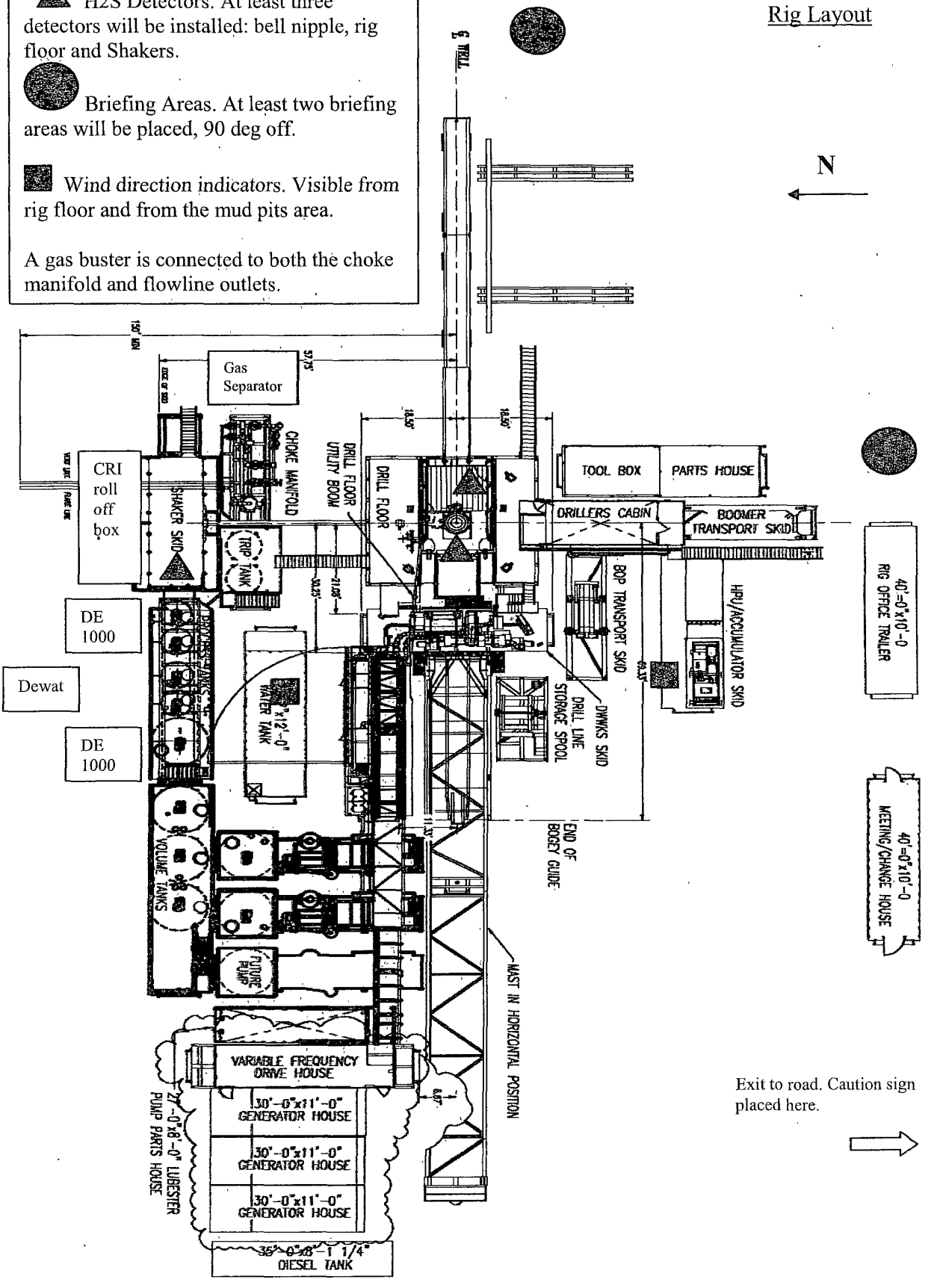
▲ H2S Detectors. At least three detectors will be installed: bell nipple, rig floor and Shakers.

● Briefing Areas. At least two briefing areas will be placed, 90 deg off.

■ Wind direction indicators. Visible from rig floor and from the mud pits area.

A gas buster is connected to both the choke manifold and flowline outlets.

Rig Layout



Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
New Mexico

Scope

This contingency plan establishes guidelines for the public, all company employees, and contract employees who's work activities may involve exposure to hydrogen sulfide (H2S) gas.
While drilling this well, it is possible to encounter H2S bearing formations. At all times, the first barrier to control H2S emissions will be the drilling fluid, which will have a density high enough to control influx.

Objective

1. Provide an immediate and predetermined response plan to any condition when H2S is detected. All H2S detections in excess of 10 parts per million (ppm) concentration are considered an Emergency.

2. Prevent any and all accidents, and prevent the uncontrolled release of hydrogen sulfide into the atmosphere.

3. Provide proper evacuation procedures to cope with emergencies.

4. Provide immediate and adequate medical attention should an injury occur.

Discussion

Implementation:	This plan with all details is to be fully implemented before drilling to commence.
Emergency response Procedure:	This section outlines the conditions and denotes steps to be taken in the event of an emergency.
Emergency equipment Procedure:	This section outlines the safety and emergency equipment that will be required for the drilling of this well.
Training provisions:	This section outlines the training provisions that must be adhered to prior to drilling.
Drilling emergency call lists:	Included are the telephone numbers of all persons to be contacted should an emergency exist.
Briefing:	This section deals with the briefing of all people involved in the drilling operation.
Public safety:	Public safety personnel will be made aware of any potential evacuation and any additional support needed.
Check lists:	Status check lists and procedural check lists have been included to insure adherence to the plan.
General information:	A general information section has been included to supply support information.

Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on the well:

1. The hazards and characteristics of H2S.
2. Proper use and maintenance of personal protective equipment and life support systems.
3. H2S detection.
4. Proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
5. Proper techniques for first aid and rescue procedures.
6. Physical effects of hydrogen sulfide on the human body.
7. Toxicity of hydrogen sulfide and sulfur dioxide.
8. Use of SCBA and supplied air equipment.
9. First aid and artificial respiration.
10. Emergency rescue.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile strength tubular is to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling a well, blowout prevention and well control procedures.
3. The contents and requirements of the H2S Drilling Operations Plan.

H2S training refresher must have been taken within one year prior to drilling the well. Specifics on the well to be drilled will be discussed during the pre-spud meeting. H2S and well control (choke) drills will be performed while drilling the well, at least on a weekly basis. This plan shall be available in the well site. All personnel will be required to carry the documentation proving that the H2S training has been taken.

Service company and visiting personnel

A. Each service company that will be on this well will be notified if the zone contains H2S.

B. Each service company must provide for the training and equipment of their employees before they arrive at the well site.

C. Each service company will be expected to attend a well site briefing

Emergency Equipment Requirements

1. Well control equipment

The well shall have hydraulic BOP equipment for the anticipated pressures. Equipment is to be tested on installation and follow Oxy Well Control standard, as well as BLM Onshore Order #2.

Special control equipment:

A. Hydraulic BOP equipment with remote control on ground.
B. Rotating head
C. Gas buster equipment shall be installed before drilling out of surface pipe.

2. Protective equipment for personnel

A. Four (4) 30-minute positive pressure air packs (2 at each briefing area) on location.

B. Adequate fire extinguishers shall be located at strategic locations.

C. Radio / cell telephone communication will be available at the rig.

- Rig floor and trailers.
- Vehicle.

3. Hydrogen sulfide sensors and alarms

A. H2S sensor with alarms will be located on the rig floor, at the bell nipple, and at the flow line. These monitors will be set to alarm at 10 ppm with strobe light, and audible alarm.
B. Hand operated detectors with tubes.
C. H2S monitor tester (to be provided by contract Safety Company.)
D. There shall be one combustible gas detector on location at all times.

4. Visual Warning Systems

A. One sign located at each location entrance with the following language:

Caution – potential poison gas
Hydrogen sulfide
No admittance without authorization

Wind sock – wind streamers:

A. One 36" (in length) wind sock located at protection center, at height visible from rig floor.
B. One 36" (in length) wind sock located at height visible from pit areas.

Condition flags

A. One each condition flag to be displayed to denote conditions.

green – normal conditions
yellow – potential danger
red – danger, H2S present

B. Condition flag shall be posted at each location sign entrance.

5. Mud Program

The mud program is designed to minimize the risk of having H2S and other formation fluids at surface. Proper mud weight and safe drilling practices will be applied. H2S scavengers will be used to minimize the hazards while drilling. Below is a summary of the drilling program.

Mud inspection devices:

Garrett gas train or hatch tester for inspection of sulfide concentration in mud system.

6. Metallurgy

A. Drill string, casing, tubing, wellhead, blowout preventers, drilling spools or adapters, kill lines, choke manifold, lines and valves shall be suitable for the H2S service.
B. All the elastomers, packing, seals and ring gaskets shall be suitable for H2S service.

7. Well Testing

No drill stem test will be performed on this well.

8. Evacuation plan

Evacuation routes should be established prior to well spud for each well and discussed with all rig personnel.

9. Designated area

A. Parking and visitor area: all vehicles are to be parked at a predetermined safe distance from the wellhead.
B. There will be a designated smoking area.
C. Two briefing areas on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds perpendicularly, or at a 45-degree angle if wind direction tends to shift in the area.

Emergency procedures

A. In the event of any evidence of H2S level above 10 ppm, take the following steps:

1. The Driller will pick up off bottom, shut down the pumps, slow down the pipe rotation.

2. Secure and don escape breathing equipment, report to the upwind designated safe briefing / muster area.

3. All personnel on location will be accounted for and emergency search should begin for any missing, the Buddy System will be implemented.

4. Order non-essential personnel to leave the well site, order all essential personnel out of the danger zone and upwind to the nearest designated safe briefing / muster area.

5. Entrance to the location will be secured to a higher level than our usual "Meet and Greet" requirement, and the proper condition flag will be displayed at the entrance to the location.

6. Take steps to determine if the H2S level can be corrected or suppressed and, if so, proceed as required.

B. If uncontrollable conditions occur:

1. Take steps to protect and/or remove any public in the down-wind area from the rig – partial evacuation and isolation. Notify necessary public safety personnel and appropriate regulatory entities (i.e. BLM) of the situation.

2. Remove all personnel to the nearest upwind designated safe briefing / muster area or off location.

3. Notify public safety personnel of safe briefing / muster area.

4. An assigned crew member will blockade the entrance to the location. No unauthorized personnel will be allowed entry to the location.

5. Proceed with best plan (at the time) to regain control of the well. Maintain tight security and safety procedures.

C. Responsibility:

1. Designated personnel.

a. Shall be responsible for the total implementation of this plan.
b. Shall be in complete command during any emergency.
c. Shall designate a back-up.

All personnel:	1. On alarm, don escape unit and report to the nearest upwind designated safe briefing / muster area upw 2. Check status of personnel (buddy system). 3. Secure breathing equipment. 4. Await orders from supervisor.
Drill site manager:	1. Don escape unit if necessary and report to nearest upwind designated safe briefing / muster area. 2. Coordinate preparations of individuals to return to point of release with tool pusher and driller (using the buddy system). 3. Determine H2S concentrations. 4. Assess situation and take control measures.
Tool pusher:	1. Don escape unit Report to up nearest upwind designated safe briefing / muster area. 2. Coordinate preparation of individuals to return to point of release with tool pusher drill site manager (using the buddy system). 3. Determine H2S concentration. 4. Assess situation and take control measures.
Driller:	1. Don escape unit, shut down pumps, continue rotating DP.

	2.	Check monitor for point of release.
	3.	Report to nearest upwind designated safe briefing / muster area.
	4.	Check status of personnel (in an attempt to rescue, use the buddy system).
	5.	Assigns least essential person to notify Drill Site Manager and tool pusher by quickest means in case of their absence.
	6.	Assumes the responsibilities of the Drill Site Manager and tool pusher until they arrive should they be absent.
Derrick man Floor man #1 Floor man #2	1.	Will remain in briefing / muster area until instructed by supervisor.
Mud engineer:	1.	Report to nearest upwind designated safe briefing / muster area.
	2.	When instructed, begin check of mud for ph and H2S level. (Garett gas train.)
Safety personnel:	1.	Mask up and check status of all personnel and secure operations as instructed by drill site manager.

Taking a kick

When taking a kick during an H2S emergency, all personnel will follow standard Well control procedures after reporting to briefing area and masking up.

Open-hole logging

All unnecessary personnel off floor. Drill Site Manager and safety personnel should monitor condition, advise status and determine need for use of air equipment.

Running casing or plugging

Following the same "tripping" procedure as above. Drill Site Manager and safety personnel should determine if all personnel have access to protective equipment.

Ignition procedures

The decision to ignite the well is the responsibility of the operator (Oxy Drilling Management). The decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. There is no hope controlling the blowout under the prevailing conditions at the well.

Instructions for igniting the well

1. Two people are required for the actual igniting operation. They must wear self-contained breathing units and have a safety rope attached. One man (tool pusher or safety engineer) will check the atmosphere for explosive gases with the gas monitor. The other man is responsible for igniting the well.
2. Primary method to ignite: 25 mm flare gun with range of approximately 500 feet.
3. Ignite upwind and do not approach any closer than is warranted.
4. Select the ignition site best for protection, and which offers an easy escape route.
5. Before firing, check for presence of combustible gas.
6. After lighting, continue emergency action and procedure as before.
7. All unassigned personnel will remain in briefing area until instructed by supervisor or directed by the Drill Site Manager.

Remember: After well is ignited, burning hydrogen sulfide will convert to sulfur dioxide, which is also highly toxic. **Do not assume the area is safe after the well is ignited.**

Status check list

Note: All items on this list must be completed before drilling to production casing point.

1. H2S sign at location entrance.
2. Two (2) wind socks located as required.
3. Four (4) 30-minute positive pressure air packs (2 at each Briefing area) on location for all rig personnel and mud loggers.
4. Air packs inspected and ready for use.
5. Cascade system and hose line hook-up as needed.
6. Cascade system for refilling air bottles as needed.
7. Condition flag on location and ready for use.
8. H2S detection system hooked up and tested.
9. H2S alarm system hooked up and tested.
10. Hand operated H2S detector with tubes on location.
11. 1 – 100' length of nylon rope on location.
12. All rig crew and supervisors trained as required.
13. All outside service contractors advised of potential H2S hazard on well.
14. No smoking sign posted and a designated smoking area identified.
15. Calibration of all H2S equipment shall be noted on the IADC report.

Checked by:_____ Date:_____

Procedural check list during H2S events

Perform each tour:

1. Check fire extinguishers to see that they have the proper charge.

2. Check breathing equipment to ensure that it in proper working order.

3. Make sure all the H2S detection system is operative.

Perform each week:

1. Check each piece of breathing equipment to make sure that demand or forced air regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you receive air or feel air flow.

2. BOP skills (well control drills).

3. Check supply pressure on BOP accumulator stand by source.

4. Check breathing equipment mask assembly to see that straps are loosened and turned back, ready to put on.

5. Check pressure on breathing equipment air bottles to make sure they are charged to full volume. (Air quality checked for proper air grade "D" before bringing to location)

6. Confirm pressure on all supply air bottles.

7. Perform breathing equipment drills with on-site personnel.

8. Check the following supplies for availability.

   A. Emergency telephone list.
   B. Hand operated H2S detectors and tubes.

General evacuation plan

1. When the company approved supervisor (Drill Site Manager, consultant, rig pusher, or driller) determines the H2S gas cannot be limited to the well location and the public will be involved, he will activate the evacuation plan.

2. Drill Site Manager or designee will notify local government agency that a hazardous condition exists and evacuation needs to be implemented.

3. Company or contractor safety personnel that have been trained in the use of H2S detection equipment and self-contained breathing equipment will monitor H2S concentrations, wind directions, and area of exposure. They will delineate the outer perimeter of the hazardous gas area. Extension to the evacuation area will be determined from information gathered.

4. Law enforcement personnel (state police, police dept., fire dept., and sheriff's dept.) Will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

5. After the discharge of gas has been controlled, company safety personnel will determine when the area is safe for re-entry.

Important: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

Emergency actions

Well blowout – if emergency

1. Evacuate all personnel to "Safe Briefing / Muster Areas" or off location if needed.

2. If sour gas – evacuate rig personnel.

3. If sour gas – evacuate public within 3000 ft radius of exposure.

4. Don SCBA and shut well in if possible using the buddy system.

5. Notify Drilling Superintendent and call 911 for emergency help (fire dept and ambulance) if needed.
6. Implement the Blowout Contingency Plan, and Drilling Emergency Action Plan.

6. Give first aid as needed.

Person down location/facility

1. If immediately possible, contact 911. Give location and wait for confirmation.

2. Don SCBA and perform rescue operation using buddy system.

Toxic effects of hydrogen sulfide

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 ppm, which is .001% by volume. Hydrogen sulfide is heavier than air (specific gravity – 1.192) and colorless. It forms an explosive mixture with air between 4.3 and 46.0 percent by volume. Hydrogen sulfide is almost as toxic as hydrogen cyanide and is between five and six times more toxic than carbon monoxide. Toxicity data for hydrogen sulfide and various other gases are compared in table i. Physical effects at various hydrogen sulfide exposure levels are shown in table ii.

Table i
Toxicity of various gases

Common name	Chemical formula	Specific gravity (sc=1)	Threshold limit (1)	Hazardous limit (2)	Lethal concentration (3)
Hydrogen Cyanide	Hcn	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H2S	1.18	10 ppm	250 ppm/hr	600 ppm
Sulfur Dioxide	So2	2.21	5 ppm	-	1000 ppm
Chlorine	Cl2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	Co	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide.	Co2	1.52	5000 ppm	5%	10%
Methane	Ch4	0.55	90,000 ppm	Combustible above 5% in air	

1) threshold limit – concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects.

2) hazardous limit – concentration that will cause death with short-term exposure.

3) lethal concentration – concentration that will cause death with short-term exposure.

Toxic effects of hydrogen sulfide

Table ii
Physical effects of hydrogen sulfide

Percent (%)	Ppm	Concentration Grains 100 std. Ft3*	Physical effects
0.001	<10	00.65	Obvious and unpleasant odor.

0.002	10	01.30	Safe for 8 hours of exposure.
0.010	100	06.48	Kill smell in 3 — 15 minutes. May sting eyes and throat.
0.020	200	12.96	Kills smell shortly; stings eyes and throat.
0.050	500	32.96	Dizziness; breathing ceases in a few minutes; needs prompt artificial respiration.
0.070	700	45.36	Unconscious quickly; death will result if not rescued promptly.
0.100	1000	64.30	Unconscious at once; followed by death within minutes.

*at 15.00 psia and 60'f.

Use of self-contained breathing equipment (SCBA)

1. Written procedures shall be prepared covering safe use of SCBA's in dangerous atmosphere, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available SCBA.

2 SCBA's shall be inspected frequently at random to insure that they are properly used, cleaned, and maintained.

3. Anyone who may use the SCBA's shall be trained in how to insure proper face-piece to face seal. They shall wear SCBA's in normal air and then wear them in a test atmosphere. (note: such items as facial hair {beard or sideburns} and eyeglasses will not allow proper seal.) Anyone that may be reasonably expected to wear SCBA's should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses or contact lenses.

4. Maintenance and care of SCBA's:

   a. A program for maintenance and care of SCBA's shall include the following:
      1. Inspection for defects, including leak checks.
      2. Cleaning and disinfecting.
      3. Repair.
      4. Storage.

   b. Inspection, self-contained breathing apparatus for emergency use shall be inspected monthly.
      1. Fully charged cylinders.
      2. Regulator and warning device operation.
      3. Condition of face piece and connections.
      4. Rubber parts shall be maintained to keep them pliable and prevent deterioration.

   c. Routinely used SCBA's shall be collected, cleaned and disinfected as frequently as necessary to insure proper protection is provided.

5. Persons assigned tasks that requires use of self-contained breathing equipment shall be certified physically fit (medically cleared) for breathing equipment usage at least annually.

6. SCBA's should be worn when:

   A. Any employee works near the top or on top of any tank unless test reveals less than 10 ppm of H2S.

B. When breaking out any line where H2S can reasonably be expected.

C. When sampling air in areas to determine if toxic concentrations of H2S exists.

D. When working in areas where over 10 ppm H2S has been detected.

E. At any time there is a doubt as to the H2S level in the area to be entered.

Rescue
First aid for H2S poisoning

Do not panic!

Remain calm – think!

1. Don SCBA breathing equipment.

2. Remove victim(s) utilizing buddy system to fresh air as quickly as possible. (go up-wind from source or at right angle to the wind. Not down wind.)

3. Briefly apply chest pressure – arm lift method of artificial respiration to clean the victim's lungs and to avoid inhaling any toxic gas directly from the victim's lungs.

4. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.

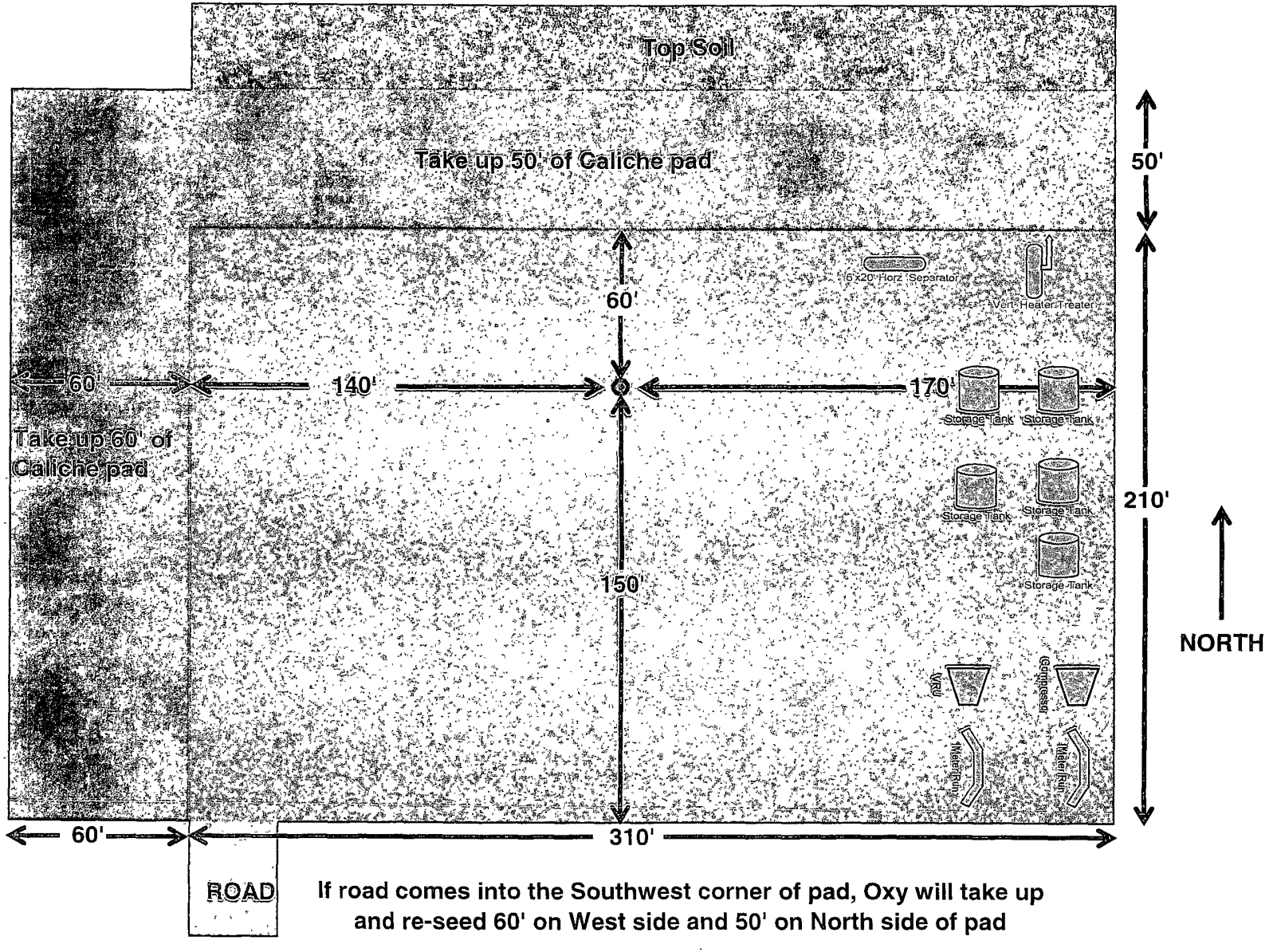
5. Hospital(s) or medical facilities need to be informed, before-hand, of the possibility of H2S gas poisoning – no matter how remote the possibility is.

6. Notify emergency room personnel that the victim(s) has been exposed to H2S gas.

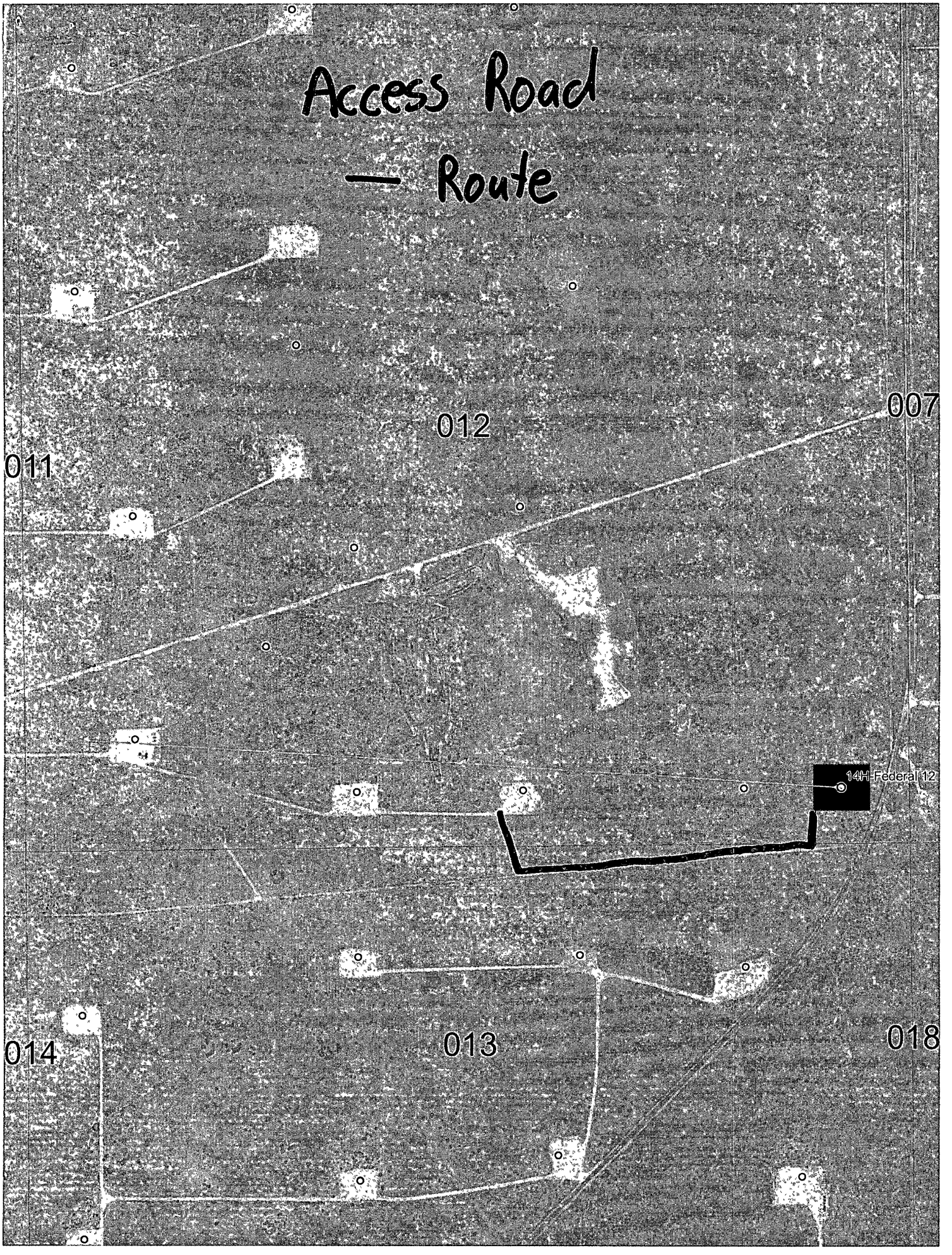
Besides basic first aid, everyone on location should have a good working knowledge of artificial respiration.

Wellsite Facility Layout

Nabors 764 - V-door East
Federal 12 #14



If road comes into the Southwest corner of pad, Oxy will take up and re-seed 60' on West side and 50' on North side of pad


Access Road
— Route
007
012
011
14H Federal 12
014
013
018

SURFACE USE PLAN OF OPERATIONS

Operator Name/Number:	**OXY USA Inc.**	**16696**
Lease Name/Number:	**Federal 12 #14H**	**Federal Lease No. NMNM29233**
Pool Name/Number:	**Undesignated Livingston Ridge Bone Spring**	**39350**
Surface Location:	**330 FSL 405 FEL SESE(P) Sec 12 T22S R31E**	
Bottom Hole Location:	**660 FSL 330 FWL SWSW(M) Sec 12 T22S R31E**	

1. Existing Roads

a. A copy of a USGS "The Divide, NM" quadrangle map is attached showing the proposed location. The well location is spotted on this map, which shows the existing road system.

b. The well was staked by Terry Asel, Certificate No. 15079 on 8/15/11, certified 2/14/12.

c. Directions to Location: At the intersection of Hwy 128 and ECR 798, go north on ECR 798 for 9.0 miles. at paved road curving to right continue North on caliche road for 1.2 miles. Turn right and go east for 0.6 miles. Turn right and go south for 0.1 miles. Turn left and go east for 0.3 miles. Turn left on proposed road and go north 216' to locati

2. New or Reconstructed Access Roads:

a. A new access road will be built. The access road will run approximately 216' north from an existing road to the location.

b. The maximum width of the road will be 15'. It will be crowned and made up of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.

c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.

d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

e. Blade, water & repair existing caliche road as needed.

3. Location of Existing Wells:

Existing wells within a one mile radius of the proposed well are shown on attached plat.

4. Location of Existing and/or Proposed Production Facilities.

a. In the event the well is found productive, the Federal 12 tank battery would be utilized and the necessary production equipment will be installed at the well site. See proposed Production Facilities Layout diagram.

b. If necessary, electric power poles will be set along side of the access road.

c. All flowlines will adhere to API Standards.

5. Location and types of Water Supply.

This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations in the area and will be hauled to location by transport truck using existing and proposed roads.

6. Construction Materials:

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

7. Methods of Handling Waste Material:

a. A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility, see C-144 CLEZ.
   1. Solids - CRI
   2. Liquids - Laguna

b. All trash, junk, and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.

c. The supplier, including broken sacks, will pick up slats remaining after completion of well.

d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

e. Disposal of fluids to be transported will be by the following companies:
   TFH Ltd. - Laguna SWD Facility

8. Ancillary Facilities: None needed

9. Well Site Layout

The proposed well site layout with dimensions of the pad layout and equipment location.

V-Door East CL Tanks North Pad 260' X 370'

10. Plans for Surface Reclamation:

a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.

b. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.

11. Surface Ownership

The surface is owned by the U.S. Government and is administered by the BLM. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The surface is leased to:Kenneth Smith, 267 Smith Ranch Rd., Hobbs, NM 88240
They will be notified of our intention to drill prior to any activity.

12. Other Information

a. The vegetation cover is generally sparse consisting of mesquite, yucca, shinnery oak, sandsage and perennial. native range grass. The topsoil is sandy in nature. Wildlife in the area is also sparse consisting of deer, coyotes, rabbits, rodents, reptiles, dove and quail.

b. There is no permanent or live water in the general proximity of the location.

c. There are no dwellings within 2 miles of the proposed well site.

d. Cultural Resources Examination - this well is located in the Permian Basin MOA.

Pad + 1/4 mile road	$1,463.00	$0.18/ft over 1/4 mile	$0.00	$1,463.00
Pipeline - up to 1mile	$1,350.00	$282 per 1/4 mile	$0.00	$1,350.00
Electric Line - up to 1mile	$676.00	$0.20/ft over 1 mile	$0.00	$676.00
Total	$3,489.00		$0.00	$3,489.00

13. Bond Coverage:

Bond Coverage is Nationwide Bond No. ESB000226.

Operators Representatives:

The OXY Permian representatives responsible for ensuring compliance of the surface use plan are listed below.

Kim Moore
Production Coordinator
1017 W. Stanolind Rd.
Hobbs, NM 88240
Office Phone: 575-397-8236
Cellular: 575-706-1219

Charles Wagner
Manager Field Operations
1502 West Commerce Dr.
Carlsbad, NM 88220
Office Phone: 575-628-4151
Cellular: 575-725-8306

Sergio Abauat
Drilling Superintendent
P.O. Box 4294
Houston, TX 77210
Office Phone: 713-366-5689
Cellular: 832-531-5636

Calvin (Dusty) Weaver
Operation Specialist
P.O. Box 50250
Midland, TX 79710
Office Phone: 432-685-5723
Cellular: 806-893-3067

Luis Tarazona
Drilling Engineering Supervisor
P.O. Box 4294
Houston, TX 77210
Office Phone: 713-366-5771
Cellular: 713-628-9526

Carlos Mercado
Drilling Engineer
P.O. Box 4294
Houston, TX 77210
Office Phone: 713-366-5418
Cellular: 713-455-3481

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INC
LEASE NO.:	NM29233
WELL NAME & NO.:	14H-FEDERAL 12
SURFACE HOLE FOOTAGE:	0330'/S. & 0405'/E.
BOTTOM HOLE FOOTAGE	0660'/S. & 0330'/W.
LOCATION:	Section 12, T. 22 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

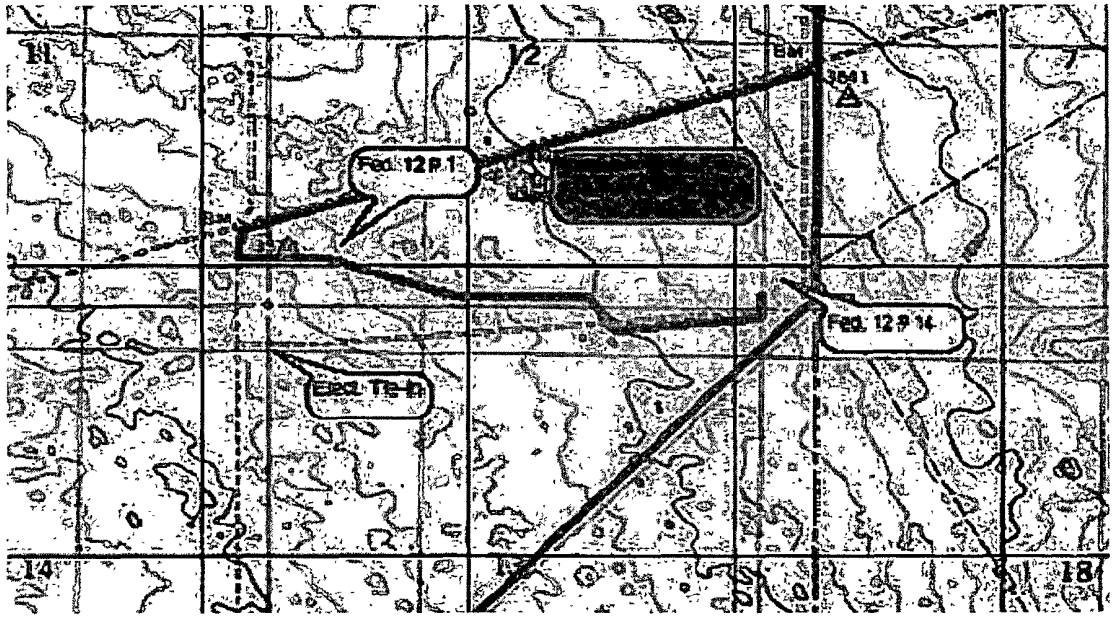
Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

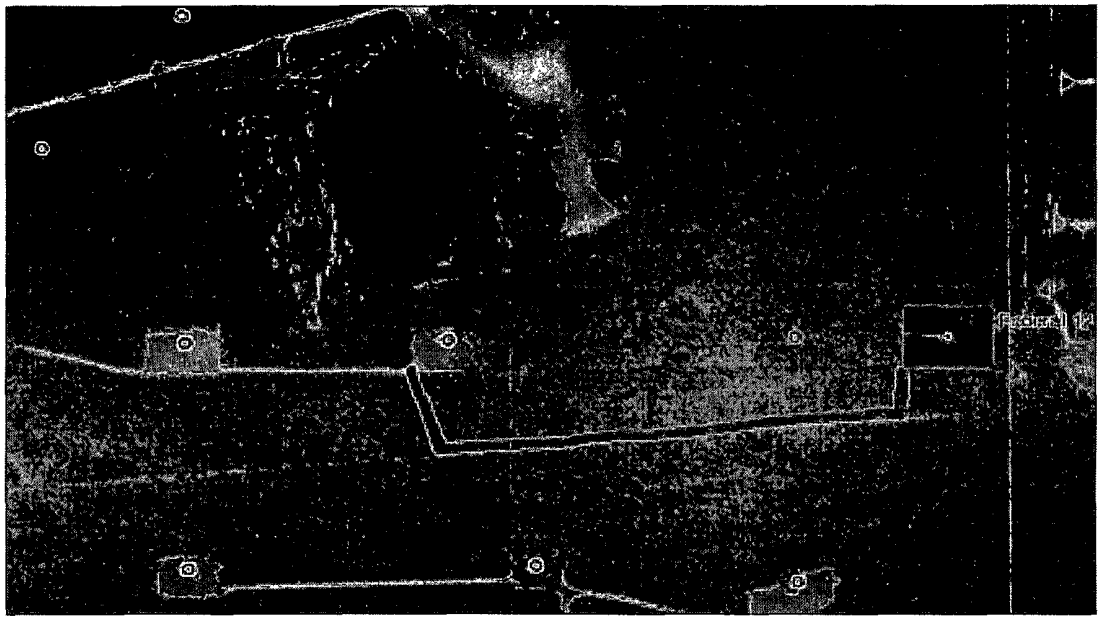
IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

The proposed access road will exit the southwest corner of the well pad and travel 215 feet south to two track road. The two track road will be upgraded for 1810 feet west. Finally, the road will travel 380 north to connect with the existing Federal 12 #9 as shown in the diagrams below.





Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-6235 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 4 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty (20) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

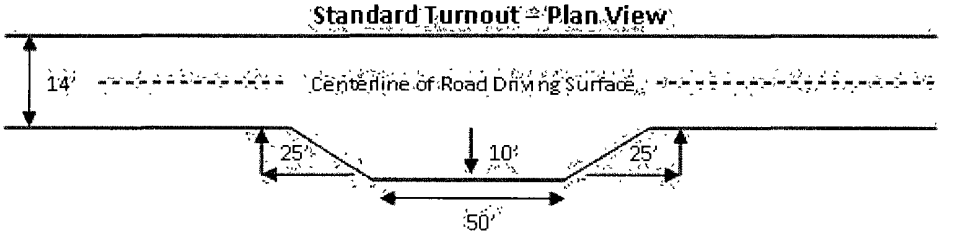
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

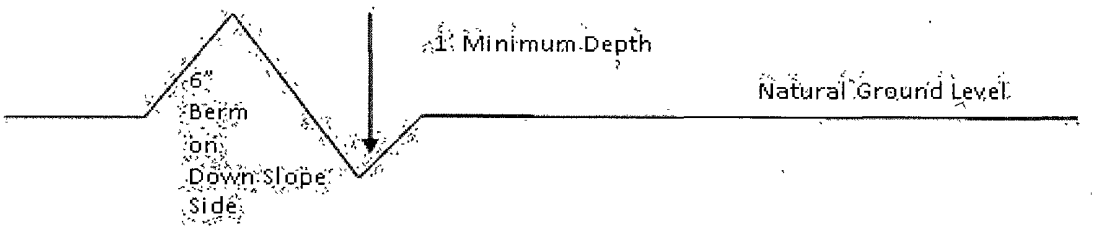
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

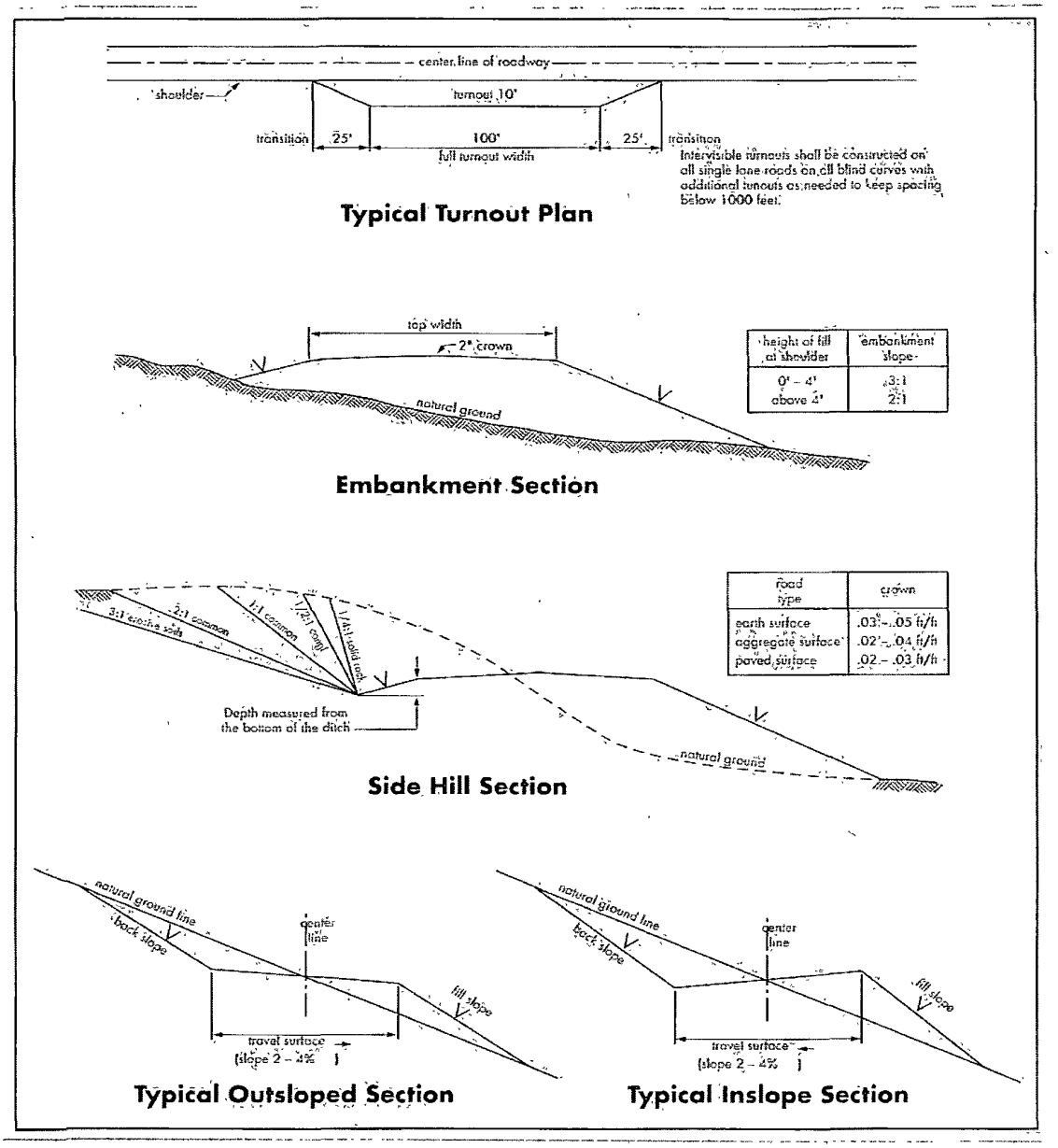
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Due to recent H2S encounters in the salt formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#).

Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P Potash
Possible high pressure gas burst when penetrating the Wolfcamp. (Pilot hole)
Possible lost circulation in the Delaware and Bone Spring formations.
Possible water and brine flows in the Salado and Castile Groups.

1. The **13-3/8** inch surface casing shall be set at approximately **895** feet (in a competent bed below the Magenta Dolomite, a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, **which is to be set in the base of the Castile or within the Lamar Limestone at approximately 4500',** is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash concerns.**

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

The pilot hole plugging procedure is approved as written.

3. The minimum required fill of cement behind the **5-1/2** inch production casing, is:

   a. First stage to DV tool:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

   b. Second stage above DV tool:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

   c. Third stage above DV tool:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement will be required as excess calculates to 12%.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review**. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

c. The results of the test shall be reported to the appropriate BLM office.

d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2. **(Pilot Hole)**

D. DRILLING MUD (Pilot Hole)

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES (not applied for in APD)

C. ELECTRIC LINES (not applied for in APD)

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed