ATS-12-1024

R-111-POTASH

I & E CFO

Form 3160-3
(April 2004)

WIPP

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. SHL-NM 02884-B
BHL-NMNM0546732

6. If Indian, Allotee or Tribe Name TES 11/21/2012

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 #1H 3955547

2. Name of Operator
Occidental Permian Limited Partnership 157984

9. API Well No.
30-015- 40840

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

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

10. Field and Pool, or Exploratory
Quahada Ridge Delaware, SE

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)
At surface 1159 FSL 1343 FEL SWSE(O) Sec 1
At proposed prod. zone 350 FSL 678 FEL SESE(P) Sec 12

11. Sec., T. R. M. or Blk. and Survey or Area
S-Sec 1 BH-Sec 12 T23S R30E

RECEIVED
NOV 21 2012
NMOCD ARTESIA

14. Distance in miles and direction from nearest town or post office*
13 miles northeast from Loving, 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)
S-1159' BH-350'

16. No. of acres in lease
BHL = 681.49
~~640ac~~ SHL = 320.24

17. Spacing Unit dedicated to this well
160ac

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
50'

19. Proposed Depth
13005'M 7674'V

20. BLM/BIA Bond No. on file
NMB000819 & NM2797

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3287.8' GL

22. Approximate date work will start*
09/30/2012

23. Estimated duration
30 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 7/30/12

Title Regulatory Advisor david_stewart@oxy.com

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

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

Witness Surface & Intermediate Casing
APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
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 Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to 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- 40840	50443	Quahada Ridge Delaware, Southeast

Property Code	Property Name	Well Number
39354	FEDERAL "12"	1H

OGRID No.	Operator Name	Elevation
157984	Occidental Permian Limited Partnership	3287.8'

Surface Location

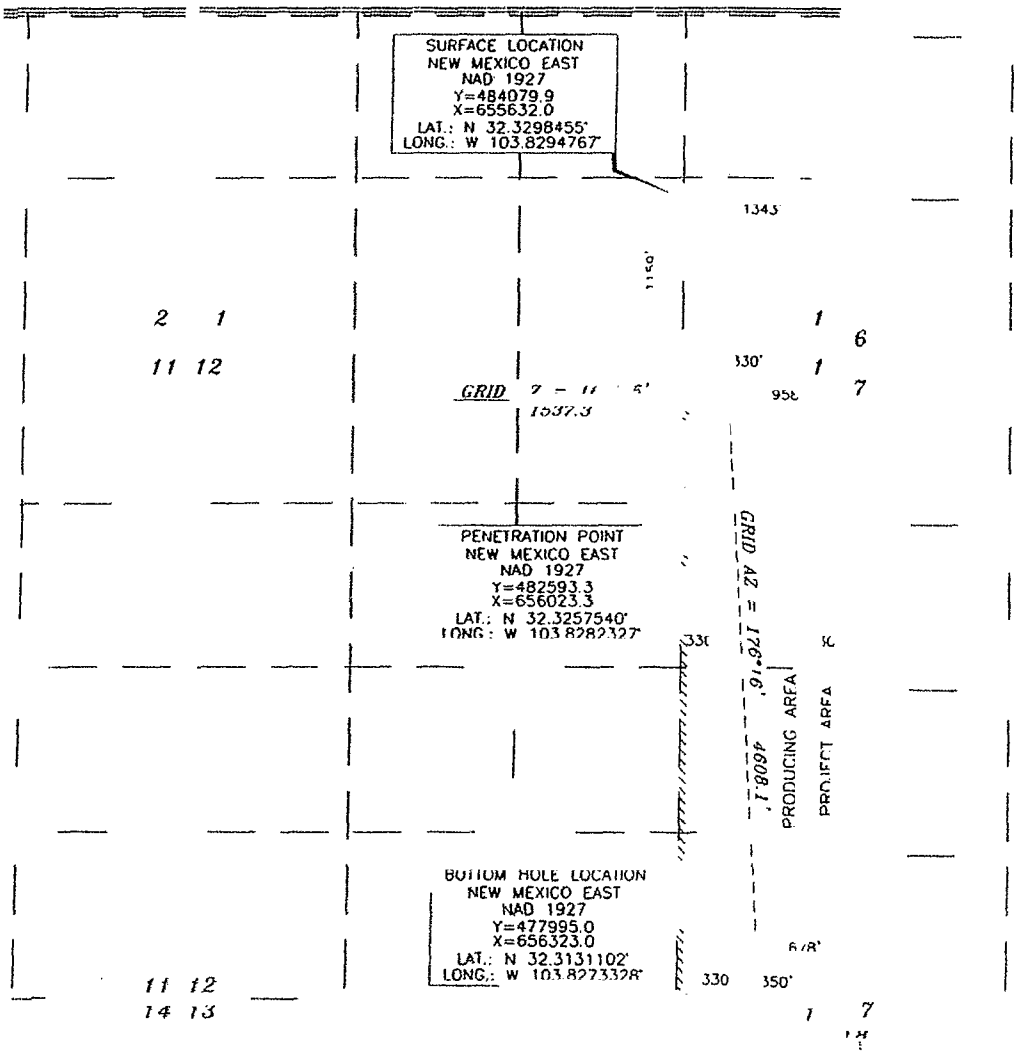
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	1	23 SOUTH	30 EAST, N.M.P.M.		1159'	SOUTH	1343'	EAST	EDDY

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
P	12	23 SOUTH	30 EAST, N.M.P.M.		350'	SOUTH	678'	EAST	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 7/30/12
Date

David Stewart - Reg. Adv.
Printed Name
d_stewart@ com

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.

JUNE 28, 2011
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number 15079

7/19/2012

WO# 110628WL-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 23RD day of August, 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.~~ Occidental Permian LP

Field Representative (if not above signatory): Dusty Weaver

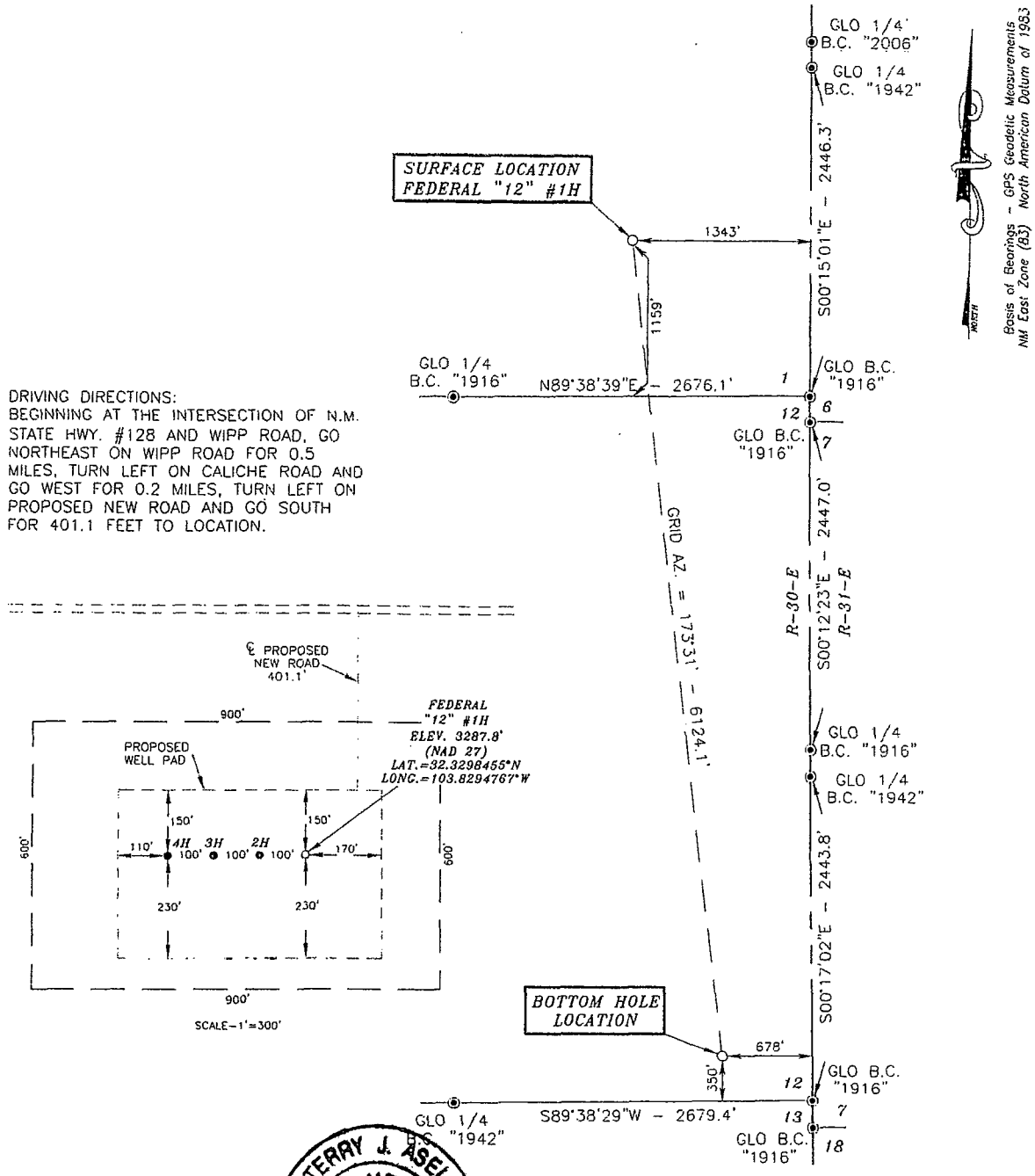
Address (If different from above): P.O. Box 50250 Midland, TX 79710

Telephone (if different from above): 432-685-5723

E-mail (if different from above): calvin_weaver@oxy.com

600' & 600'

SECTIONS 1 & 12, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY NEW MEXICO



DRIVING DIRECTIONS:
BEGINNING AT THE INTERSECTION OF N.M. STATE HWY. #128 AND WIPP ROAD, GO NORTHEAST ON WIPP ROAD FOR 0.5 MILES, TURN LEFT ON CALICHE ROAD AND GO WEST FOR 0.2 MILES, TURN LEFT ON PROPOSED NEW ROAD AND GO SOUTH FOR 401.1 FEET TO LOCATION.

TERRY J. ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL SURVEYOR

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 8/2/2011
Terry J. Asel N.M. R.P.S. No. 15079

Asel Surveying
P.O. BOX 393 - 310 W TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

LEGEND

◉ - DENOTES FOUND MONUMENT AS NOTED

1000' 0 1000' 2000' FEET
SCALE: 1"=1000'

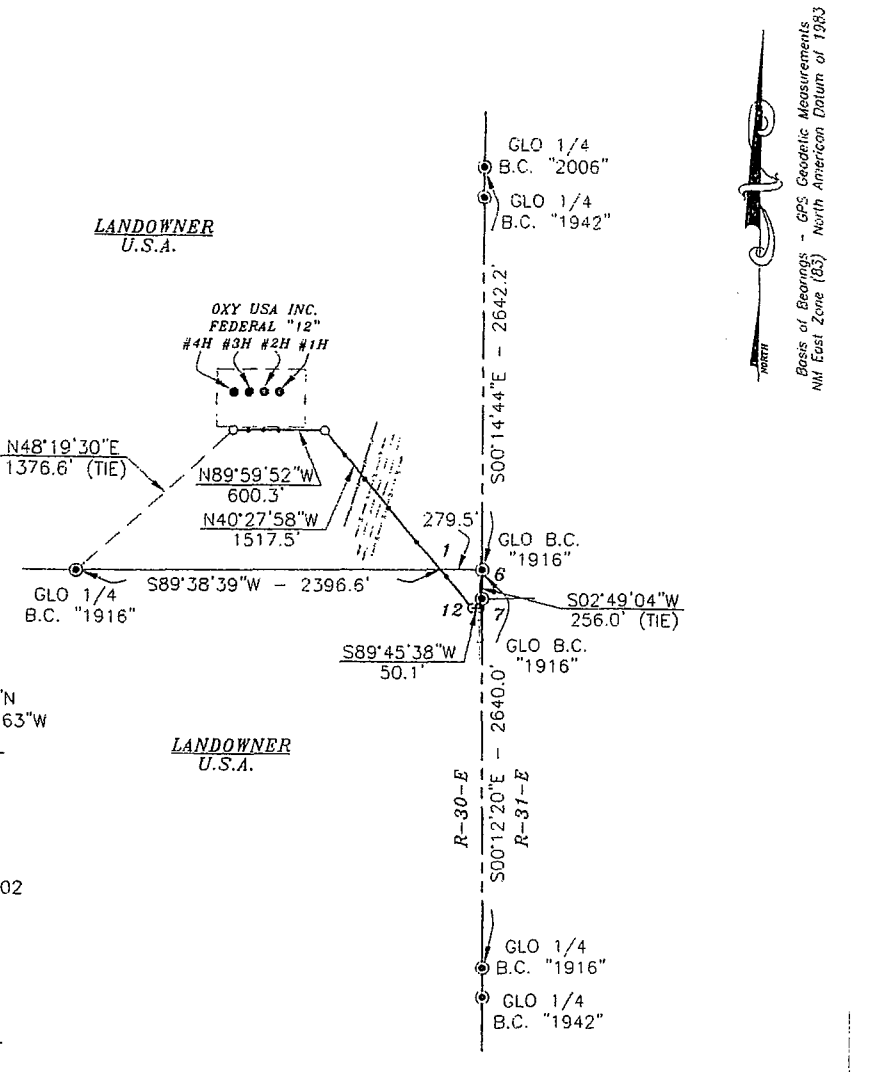
Occidental Permian LP
~~OXY USA INC.~~

FEDERAL "12" #1H LOCATED AT
1159' FSL & 1343' FEL IN SECTION 1,
TOWNSHIP 23 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 06/28/11	Sheet 1 of 1 Sheets	
W.O. Number: 110628WL-a	Drawn By: KA	Rev:
Date: 07/21/11	110628WL-a	Scale:1"=1000'

Elec Line -1

SECTIONS 12 & 1, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY NEW MEXICO



0+00.0		BEGIN SURVEY @ EXISTING POLE
NAD 27		LAT. = 32°19'33.47"N LONG. = 103°49'30.63"W
0+50.1		P.I. 49°46'24" RT. & POLE
3+40.1		POLE
3+84.1		E-W SECTION LINE
6+30.2		POLE
9+20.2		POLE
9+38.0		FENCE
10+20.2		CL COUNTY ROAD #802 (WIPP ROAD)
11+02.8		FENCE
11+65.3		POLE
12+01.7		BPL
12+08.4		BPL
13+66.5		POLE
15+67.6		P.I. 49°31'54" LT. & POLE
18+67.9		POLE
19+68.0		POLE
20+67.5		POLE
21+67.9		END SURVEY @ OXY USA INC. FEDERAL "12" #4H
NAD 27		LAT. = 32°19'44.96"N LONG. = 103°49'49.62"W

DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE AND 2167.9 FEET OR 0.411 MILES IN LENGTH CROSSING U.S.A. LAND IN SECTIONS 12 & 1, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

TERRY J. ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL SURVEYOR

LEGEND

◉ – DENOTES FOUND MONUMENT AS NOTED

1000' 0 1000' 2000' FEET

SCALE: 1"=1000'

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 11/22/2011

Terry J. Asel, N.M. R.P.S. No. 15079

Asel Surveying

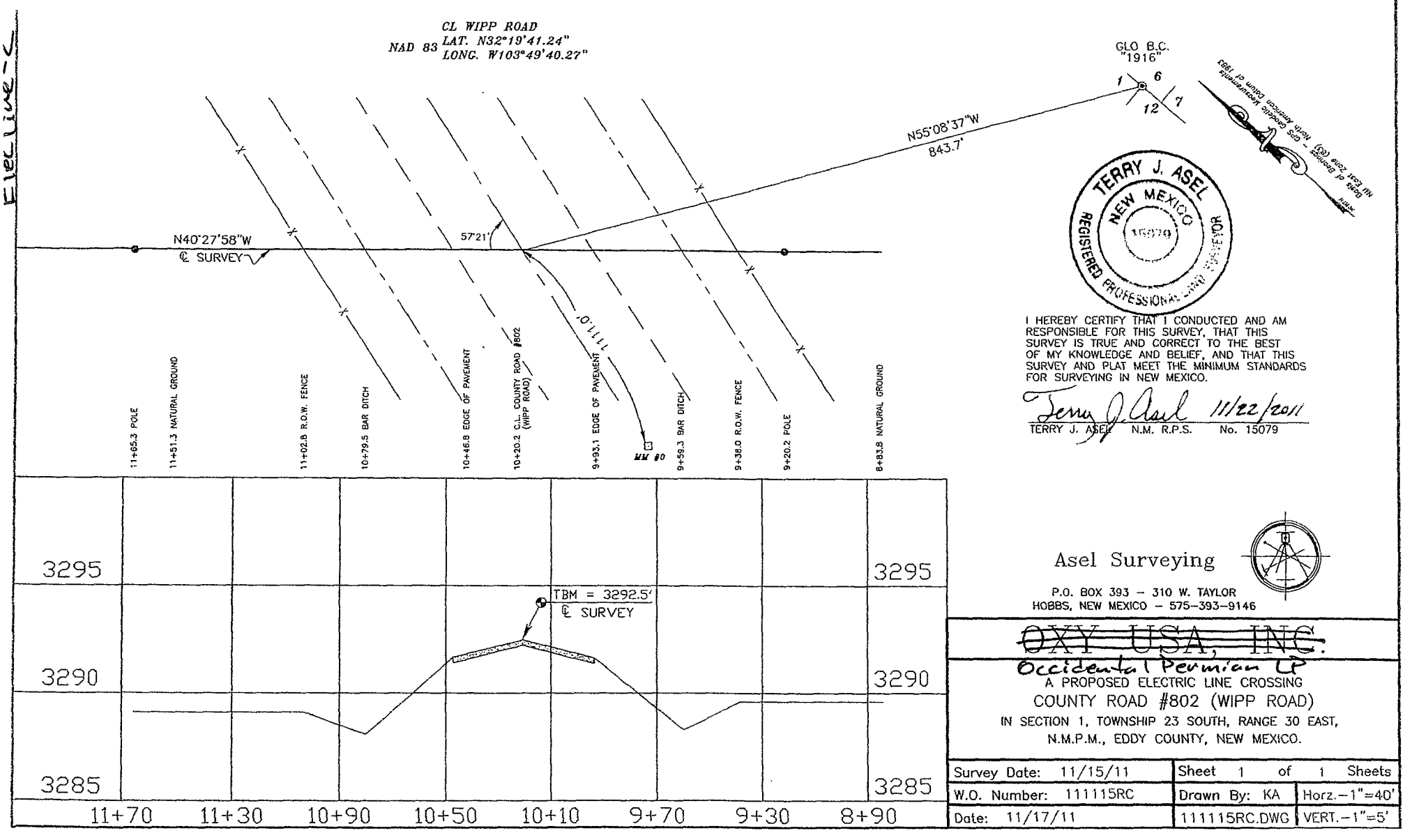
P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

~~OXY USA INC~~
Occidental Permian LP

SURVEY FOR AN ELECTRIC LINE EASEMENT CROSSING U.S.A. LAND IN SECTIONS 12 & 1, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 11/15/11	Sheet 1 of 1 Sheets	
W.O. Number: 111115EL	Drawn By: KA	
Date: 11/17/11	111115EL.DWG	Scale: 1"=1000'

Elec Line - C



I HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Terry J. Asel 11/22/2011

TERRY J. ASEL N.M. R.P.S. No. 15079

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

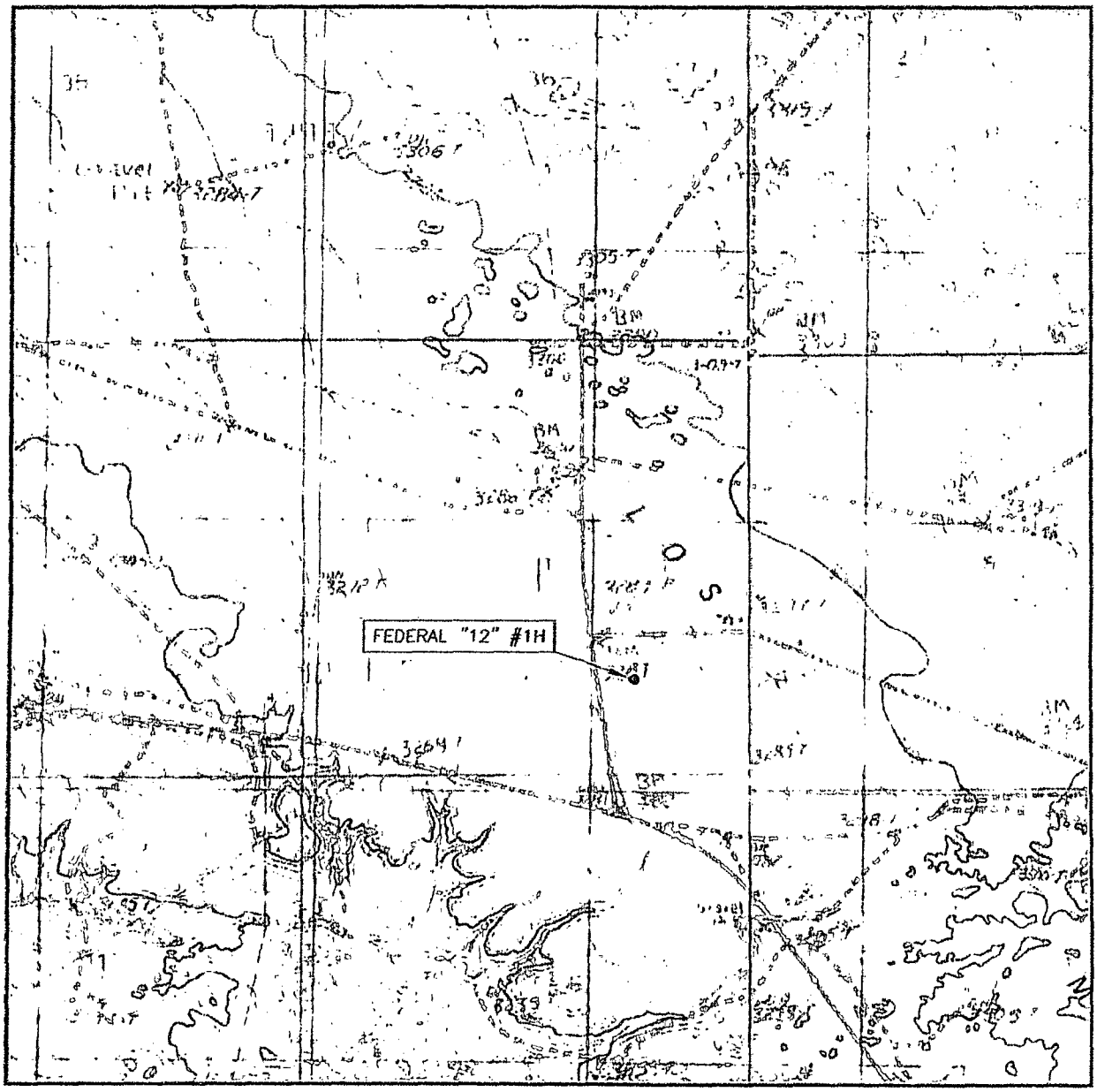
~~OXY USA, INC.~~
Occidental Permian LP

A PROPOSED ELECTRIC LINE CROSSING
COUNTY ROAD #802 (WIPP ROAD)
IN SECTION 1, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 11/15/11	Sheet 1 of 1 Sheets	
W.O. Number: 111115RC	Drawn By: KA	Horz.-1"=40'
Date: 11/17/11	111115RC.DWG	VERT.-1"=5'

LUM

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 1 TWP. 23-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1159' FSL & 1343' FEL

ELEVATION 3287.8'

OPERATOR ~~OXY USA INC.~~ Occidental Permian LP

LEASE FEDERAL "12" #1H

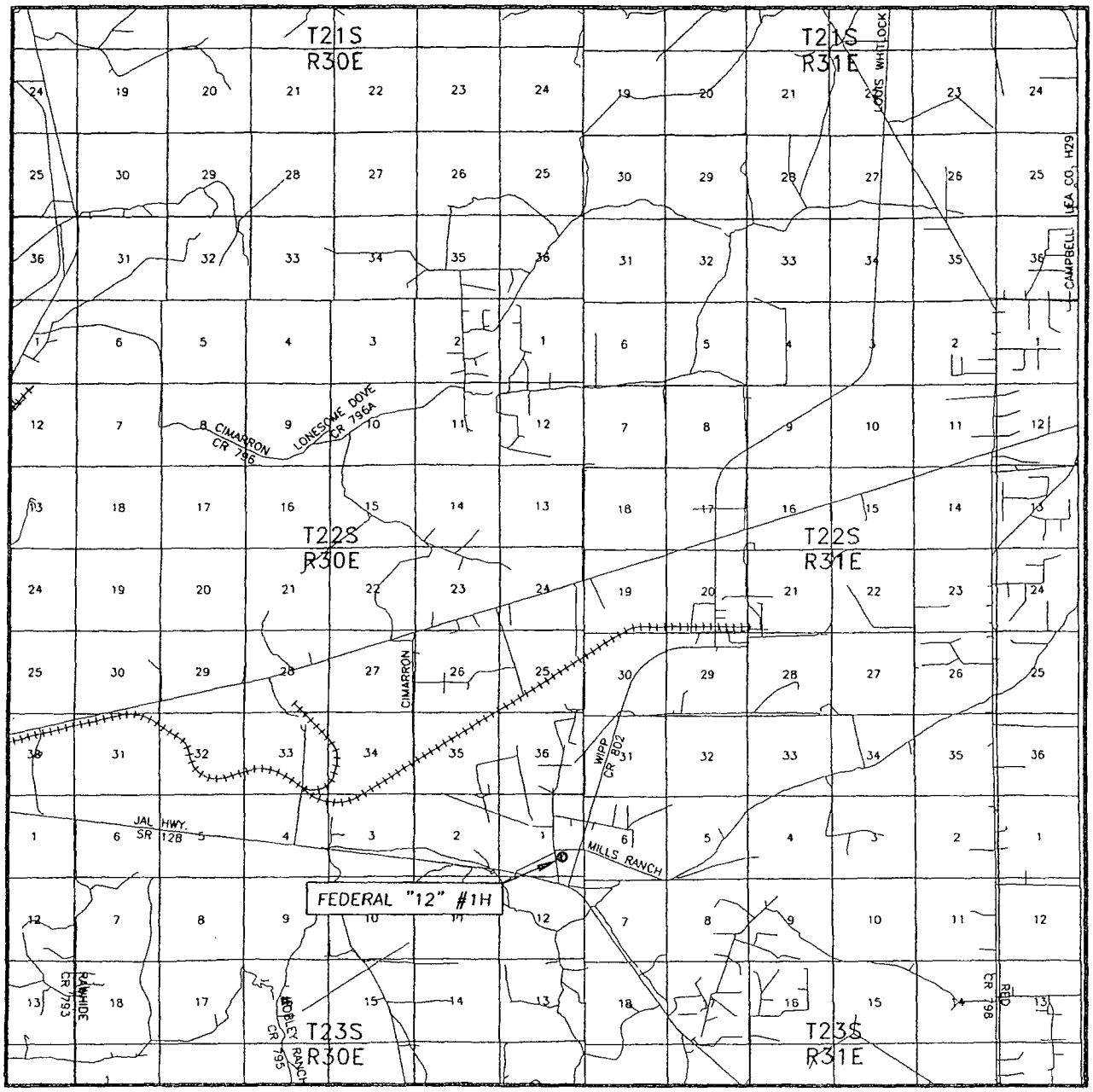
U.S.G.S. TOPOGRAPHIC MAP
LOS MEDANOS, N.M.

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

V

VICINITY MAP



SCALE: 1" = 2 MILES

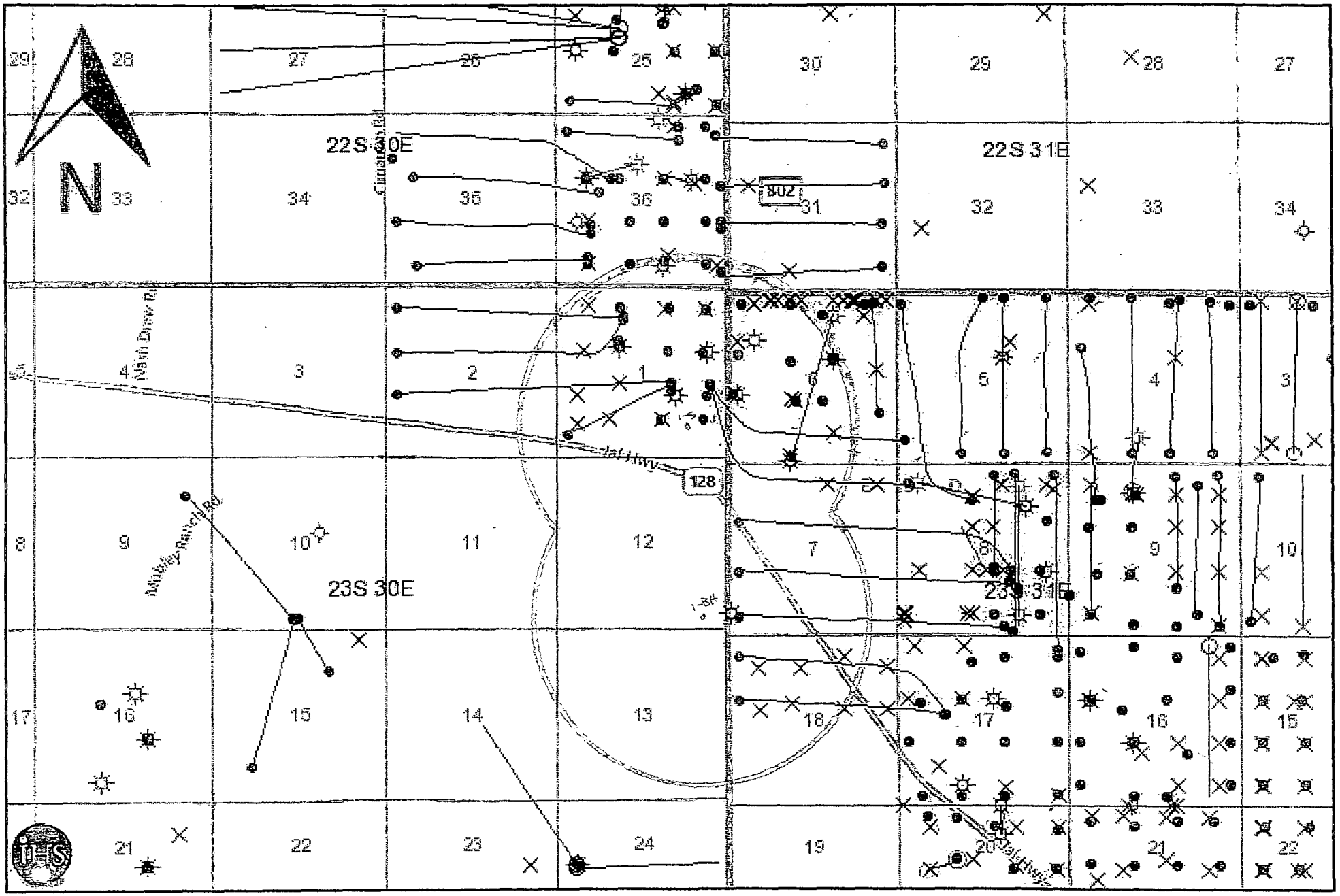
SEC. 1 TWP. 23-S RGE. 30-E
SURVEY N.M.P.M.
COUNTY EDDY
DESCRIPTION 1159' FSL & 1343' FEL
ELEVATION 3287.8'
OPERATOR ~~OXY USA INC.~~ Occidental Permian LP
LEASE FEDERAL "12" #1H

Asel Surveying
P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 575-393-9146

DIRECTIONS BEGINNING AT THE INTERSECTION OF N.M. STATE HWY. #128 AND WIPP ROAD, GO NORTHEAST ON WIPP ROAD FOR 0.5 MILES, TURN LEFT ON CALICHE ROAD AND GO WEST FOR 0.2 MILES, TURN LEFT ON PROPOSED NEW ROAD AND GO SOUTH FOR 401.1 FEET TO LOCATION.

9 sec ACAD - 1

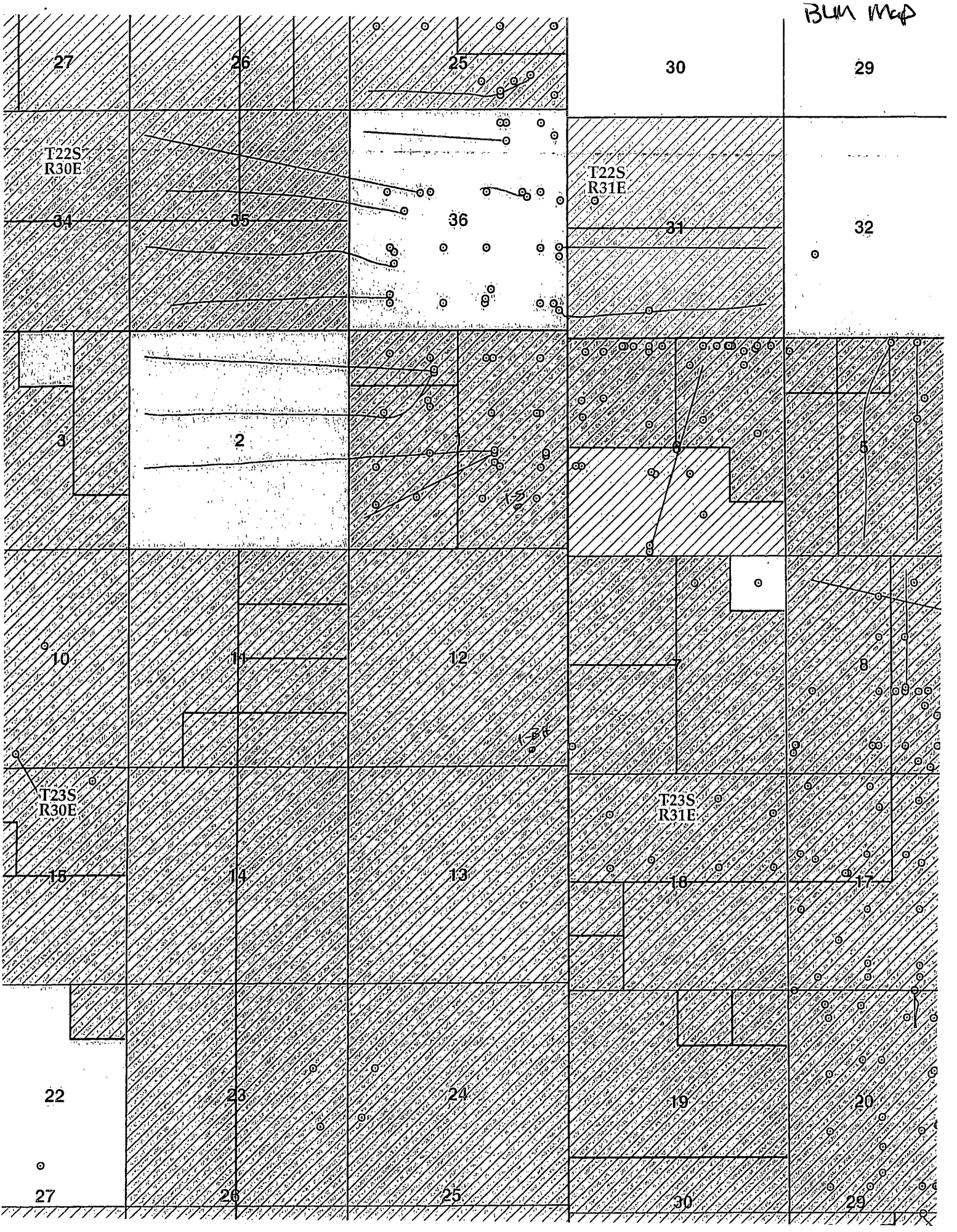
Federal 12 #1H



API	Lease Name	Well	Operator Name	Location	Footage	Field Name	IP Prod Form	Form at TD	TD	Final Status
30015047350000	JAMES RANCH UNIT	1	SHELL OIL CO	22S 30E 36	660 FSL 2009 FEL	LOS MEDANOS	ATOKA	UNKNOWN	17555	GAS
30015202320000	JAMES RANCH UNIT	3	BELCO PET NRTH AMER	23S 30E 1	1980 FSL 1658 FEL	LOS MEDANOS	MORROW	UNKNOWN	15595	GAS
30015202320001	JAMES RANCH UNIT	3	BELCO PET NRTH AMER	23S 30E 1	1980 FSL 1658 FEL	LOS MEDANOS	STRAWN	.	15595	2GASWO
30015208030000	JAMES RANCH UNIT	4	BELCO PET NRTH AMER	23S 31E 6	2180 FSL 330 FWL	LOS MEDANOS	MORROW	MORROW	14380	GAS
30015210520000	HUDSON FEDERAL	1	BELCO PET NRTH AMER	23S 30E 1 SE NW	1830 FNL 1980 FWL	LOS MEDANOS	ATOKA	MISSISSIPPIAN	14325	GAS
30015210520001	HUDSON FEDERAL	1	ENRON OIL & GAS CO	23S 30E 1 SE NW	1830 FNL 1980 FWL	QUAHADA RIDGE SE	DELAWARE	ATOKA	14325	OIL-WO
30015210520002	HUDSON FEDERAL	1	ENRON OIL & GAS CO	23S 30E 1 SE NW	1830 FNL 1980 FWL	LOS MEDANOS	DELAWARE	ATOKA	14325	2OILWO
30015210570000	JAMES RANCH UNIT	5	BELCO PET NRTH AMER	22S 30E 36	1980 FSL 660 FWL	UNNAMED		UNKNOWN		D&A
30015212470000	JAMES RANCH U	7	CONTINENTAL OIL CO	23S 31E 6	1980 FNL 1980 FEL	LOS MEDANOS	MORROW	BARNETT /SH/	14590	GAS
30015212470001	JAMES RANCH UNIT	7	CONOCO INCORPORATED	23S 31E 6	1980 FNL 1980 FEL	LOS MEDANOS	BONE SPRING	BARNETT /SH/	14590	OIL-WO
30015220290000	JAMES RANCH UNIT	8	CONOCO INCORPORATED	22S 31E 31	1980 FNL 660 FWL					AB-LOC
30015228970000	JAMES RANCH UT	9	BELCO DEV CORP	23S 31E 6	1495 FNL 330 FWL					AB-LOC
30015230750000	JAMES RANCH UNIT	10	BELCO PET NRTH AMER	23S 30E 1	1980 FNL 660 FEL	LOS MEDANOS	ATOKA	MORROW	14335	GAS
30015233770000	JAMES RANCH UNIT	11	BELCO PET NRTH AMER	22S 30E 36	1980 FNL 920 FWL	LOS MEDANOS	ATOKA	MISSISSIPPIAN	14600	GAS
30015233770001	JAMES RANCH UNIT	11	BASS ENTRPRS PROD CO	22S 30E 36	1980 FNL 920 FWL	LOS MEDANOS	BONE SPRING	MISSISSIPPIAN	14600	OIL-WO
30015240620000	JAMES RANCH UNIT	13	BASS PERRY R	23S 31E 6	1440 FNL 860 FWL	LOS MEDANOS	ATOKA	BARNETT /SH/	15078	GAS
30015244200000	JAMES RANCH UNIT	14	BELCO PET NRTH AMER	23S 31E 6	100 FSL 1980 FWL	LOS MEDANOS	MORROW	MORROW	14640	GAS
30015247800000	JAMES RANCH UNIT	15	BELCO DEV CORP	23S 31E 7	660 FSL 100 FWL	LOS MEDANOS	MORROW	MORROW	15090	GAS
30015247800001	JAMES RANCH UNIT	15	BASS ENTRPRS PROD CO	23S 31E 7	660 FSL 100 FWL	LOS MEDANOS	ATOKA	MORROW	15090	GAS-WO
30015247800002	JAMES RANCH UNIT	15	BOPCO LP	23S 31E 7	660 FSL 100 FWL	LOS MEDANOS	STRAWN	MORROW	15090	GAS-WO
30015249790000	JAMES RANCH UT	17	BASS PERRY R	23S 31E 8 NW SW	1980 FSL 660 FWL	WILDCAT				AB-LOC
30015272080000	JAMES RANCH UNIT	18	ENRON OIL & GAS CO	22S 30E 36 SE NE	1980 FNL 1100 FEL	LOS MEDANOS	MORROW	MORROW LOWER	14530	GAS
30015273570000	JAMES RANCH UNIT	19	ENRON OIL & GAS CO	22S 30E 36 NW SE	1980 FSL 1980 FEL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7800	OIL
30015274600000	JAMES RANCH UNIT	16	ENRON OIL & GAS CO	22S 30E 36 SE NE	2100 FNL 990 FEL	EDDY UNDESIGNATED				AB-LOC
30015276120000	JAMES RANCH UNIT	32	ENRON OIL & GAS CO	22S 30E 36 SW SE	990 FSL 1860 FEL	EDDY UNDESIGNATED				AB-LOC
30015276840000	JAMES RANCH UNIT	35	ENRON OIL & GAS CO	23S 30E 1 NE NE	660 FNL 660 FEL	EDDY UNDESIGNATED				AB-LOC
30015276860000	JAMES RANCH UNIT	36	ENRON OIL & GAS CO	23S 30E 1 SW NE	1980 FNL 1860 FEL	QUAHADA RIDGE SE	BONE SPRING	BONE SPRING	7820	OIL
30015276970000	JAMES RANCH UNIT	33	ENRON OIL & GAS CO	23S 30E 1 NW NE	660 FNL 1980 FEL	EDDY UNDESIGNATED				AB-LOC
30015277010000	JAMES RANCH UNIT	31	ENRON OIL & GAS CO	22S 30E 36 SW NE	1980 FNL 1980 FEL	EDDY UNDESIGNATED				AB-LOC
30015277020000	JAMES RANCH UNIT	34	ENRON OIL & GAS CO	22S 30E 36 SE SE	660 FSL 330 FEL	EDDY UNDESIGNATED				AB-LOC
30015277030000	JAMES RANCH UNIT	37	ENRON OIL & GAS CO	22S 30E 36 NE SE	1980 FSL 660 FEL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7781	OIL
30015277040000	JAMES RANCH UNIT	30	BASS ENTRPRS PROD CO	23S 31E 6 NW SE	1980 FSL 2310 FEL	LOS MEDANOS	BONE SPRING	BONE SPRING	11305	OIL
30015277040001	JAMES RANCH UNIT	30	BASS ENTRPRS PROD CO	23S 31E 6 NW SE	1980 FSL 2310 FEL	LOS MEDANOS		BONE SPRING	11305	OIL-WO
30015277340000	JAMES RANCH UNIT	41	BASS ENTRPRS PROD CO	22S 30E 36 SE SW	660 FSL 2310 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7850	OIL
30015277350000	JAMES RANCH UNIT	29	BASS ENTRPRS PROD CO	22S 30E 36 NE SW	1980 FSL 2310 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7850	OIL
30015277840000	JAMES RANCH UNIT	17	ENRON OIL & GAS CO	23S 31E 6 SE NW	2080 FNL 1980 FWL	LOS MEDANOS	BONE SPRING	WOLFCAMP	11300	OIL
30015277840001	JAMES RANCH UNIT	17	ENRON OIL & GAS CO	23S 31E 6 SE NW	2080 FNL 1980 FWL	LOS MEDANOS SOUTH	DELAWARE	WOLFCAMP	11300	OIL-WO
30015278490000	JAMES RANCH UNIT	66	BASS ENTRPRS PROD CO	22S 30E 36 SW SW	660 FSL 990 FWL	EDDY UNDESIGNATED				AB-LOC
30015278500000	JAMES RANCH UNIT	67	BASS ENTRPRS PROD CO	22S 30E 36 NW SW	1980 FSL 990 FWL	EDDY UNDESIGNATED				AB-LOC
30015279270000	JAMES RANCH UNIT	71	ENRON OIL & GAS CO	22S 30E 36 NE NE	330 FNL 660 FEL	LOS MEDANOS SOUTH	BONE SPRING 3 /SD/	WOLFCAMP	11250	OIL
30015279950000	JAMES RANCH UNIT	65	BASS ENTRPRS PROD CO	23S 31E 6	660 FNL 2310 FEL	LOS MEDANOS	WOLFCAMP	WOLFCAMP	11332	OIL
30015279950001	JAMES RANCH UNIT	65	BASS ENTRPRS PROD CO	23S 31E 6	660 FNL 2310 FEL	QUAHADA RIDGE SE	DELAWARE	WOLFCAMP	11332	OIL-WO
30015286230000	JAMES RANCH UNIT	16	ENRON OIL & GAS CO	22S 30E 36	1980 FNL 660 FEL	QUAHADA RIDGE SE	DELAWARE	WOLFCAMP	11250	OIL
30015289790000	JAMES RANCH UNIT	73	ENRON OIL & GAS CO	23S 31E 6	330 FNL 1980 FWL	LOS MEDANOS	WOLFCAMP	WOLFCAMP	11331	2OIL

API	Lease Name	Well	Operator Name	Location	Footage	Field Name	IP Prod Form	Form at TD	TD	Final Status
30015291730000	JAMES RANCH UNIT	76	ENRON OIL & GAS CO	23S 31E 6	1900 FNL 360 FWL	EDDY UNDESIGNATED	WOLFCAMP	WOLFCAMP	11250	OIL
30015291730001	JAMES RANCH UNIT	76	ENRON OIL & GAS CO	23S 31E 6	1900 FNL 360 FWL	QUAHADA RIDGE SE	DELAWARE	WOLFCAMP	11250	OIL-WO
30015295080000	JAMES RANCH UNIT	75	ENRON OIL & GAS CO	23S 31E 6	2030 FSL 2030 FWL	EDDY UNDESIGNATED				AB-LOC
30015308290000	JAMES RANCH UNIT	31	BASS ENTRPRS PROD CO	22S 30E 36 C SW NE	1980 FNL 1980 FEL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7780	OIL
30015308300000	JAMES RANCH UNIT	32	BASS ENTRPRS PROD CO	22S 30E 36 NW SW SE	760 FSL 2000 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7775	OIL
30015308560000	JAMES RANCH UNIT	38	BASS ENTRPRS PROD CO	23S 30E 1 S2 NE SE	1950 FSL 660 FEL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING DOLO	7802	OIL
30015308570000	JAMES RANCH UNIT	63	BASS ENTRPRS PROD CO	23S 30E 1 C NE NW	660 FNL 1980 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7754	OIL
30015310040000	JAMES RANCH UNIT	67	BASS ENTRPRS PROD CO	22S 30E 36 SE NW SW	1874 FSL 1096 FWL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING LM	7720	OIL
30015310050000	JAMES RANCH UNIT	80	BASS ENTRPRS PROD CO	22S 30E 36 NE NW NE	330 FNL 1650 FEL	LOS MEDANOS				AB-LOC
30015310260000	JAMES RANCH UNIT	20	BASS ENTRPRS PROD CO	23S 31E 6 N2 NW NW	200 FNL 1320 FWL	LOS MEDANOS				AB-LOC
30015310270000	JAMES RANCH UNIT	21	BASS ENTRPRS PROD CO	23S 31E 6 NW NE NW	200 FNL 1380 FWL	LOS MEDANOS				AB-LOC
30015310280000	JAMES RANCH UNIT	22	BASS ENTRPRS PROD CO	23S 31E 6 N2 NE NE	200 FNL 1320 FEL	LOS MEDANOS				AB-LOC
30015310290000	JAMES RANCH UNIT	23	BASS ENTRPRS PROD CO	23S 31E 6 NW NE NE	200 FNL 1270 FEL	LOS MEDANOS				AB-LOC
30015310300000	JAMES RANCH UNIT	24	BASS ENTRPRS PROD CO	23S 31E 6 NW NE NE	200 FNL 1295 FEL	LOS MEDANOS				AB-LOC
30015310310000	JAMES RANCH UNIT	25	BASS ENTRPRS PROD CO	23S 31E 6 NE NW NE	200 FNL 1355 FEL	LOS MEDANOS			.	AB-LOC
30015310320000	JAMES RANCH UNIT	26	BASS ENTRPRS PROD CO	23S 31E 6 NW NE NW	200 FNL 1355 FWL	LOS MEDANOS				AB-LOC
30015310330000	JAMES RANCH UNIT	27	EOG RESOURCES INC	22S 30E 36 SE NE SE	1780 FSL 200 FEL	LOS MEDANOS	BONE SPRING	WOLFCAMP	11450	2OIL
30015310340000	JAMES RANCH UNIT	2501	BASS ENTRPRS PROD CO	23S 31E 6 NE NW NE	200 FNL 1380 FEL	LOS MEDANOS				AB-LOC
30015310350000	JAMES RANCH UNIT	2601	BASS ENTRPRS PROD CO	23S 31E 6 NW NE NW	200 FNL 1595 FWL	LOS MEDANOS				AB-LOC
30015310560000	JAMES RANCH UNIT	79	BASS ENTRPRS PROD CO	23S 31E 6 NW NE NE	330 FNL 990 FEL	QUAHADA RIDGE SE	DELAWARE	WOLFCAMP	11470	OIL
30015310640000	JAMES RANCH UNIT	34	BASS ENTRPRS PROD CO	22S 30E 36 C SE SE	660 FSL 660 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7800	OIL
30015310650000	JAMES RANCH UNIT	66	BASS ENTRPRS PROD CO	22S 30E 36 E2 SW SW	660 FSL 990 FWL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7730	OIL
30015311670000	JAMES RANCH UNIT	35	BASS ENTRPRS PROD CO	23S 30E 1 C NE NE	660 FNL 660 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7808	OIL
30015311680000	JAMES RANCH UNIT	74	BASS ENTRPRS PROD CO	23S 31E 6 NW NW NW	330 FNL 430 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7810	OIL
30015312070000	JAMES RANCH UNIT	33	BASS ENTRPRS PROD CO	23S 30E 1	660 FNL 1813 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7770	OIL
30015312080000	JAMES RANCH UNIT	82	BASS ENTRPRS PROD CO	23S 30E 1 NW SE SE	1200 FSL 760 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	7800	OIL
30015314050000	JAMES RANCH UNIT	84	BASS ENTRPRS PROD CO	23S 30E 1 W2 SE NE	1980 FNL 760 FEL	QUAHADA RIDGE SE	DELAWARE	BRUSHY CANYON	7780	OIL
30015315130000	HUDSON `1` FEDERAL	7	BASS ENTRPRS PROD CO	23S 30E 1 NW SE NW	1680 FNL 1930 FWL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING LM	7775	OIL
30015315800000	JAMES RANCH UNIT	83	BASS ENTRPRS PROD CO	23S 30E 1 NE NW SE	2080 FSL 1780 FEL	QUAHADA RIDGE SE	BRUSHY CANYON	BONE SPRING	7780	OIL
30015317500000	JAMES RANCH UNIT	75	BASS ENTRPRS PROD CO	23S 31E 6 E2 NE SW	1980 FSL 2130 FWL	LOS MEDANOS SOUTH				AB-LOC
30015317670000	JAMES RANCH UNIT	85	BEPCO LP	23S 31E 6 NW NW SW	2180 FSL 185 FWL	QUAHADA RIDGE SE				AB-LOC
30015328680000	JAMES RANCH UNIT	80	BASS ENTRPRS PROD CO	22S 30E 36 NE NW NE	330 FNL 1500 FEL	LOS MEDANOS SOUTH	DELAWARE	WOLFCAMP	11280	OIL
30015331140000	JAMES RANCH UNIT	75	BASS ENTRPRS PROD CO	23S 31E 6 E2 NE SW	1980 FSL 2130 FWL	LOS MEDANOS	BONE SPRING	WOLFCAMP	11400	OIL
30015331140001	JAMES RANCH UNIT	75	BASS ENTRPRS PROD CO	23S 31E 6 E2 NE SW	1980 FSL 2130 FWL	QUAHADA RIDGE	DELAWARE	WOLFCAMP	11400	OIL-WO
30015336010000	JAMES RANCH UNIT	91	BASS ENTRPRS PROD CO	22S 30E 36 C SE NW	1980 FNL 1980 FWL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7825	OIL
30015336190000	JAMES RANCH UNIT	93	BASS ENTRPRS PROD CO	23S 31E 7 C NE NE	660 FNL 660 FEL	LOS MEDANOS				AB-LOC
30015342770000	JAMES RANCH UNIT	87	BASS ENTRPRS PROD CO	23S 31E 6 S2 SE SW	250 FSL 1980 FWL	LOS MEDANOS	DELAWARE	WOLFCAMP	11340	OIL
30015353220000	JAMES RANCH UNIT	85	BEPCO LP	23S 31E 6 NW NW SW	2180 FSL 185 FWL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7850	OIL
30015353400000	JAMES RANCH UNIT	62	BASS ENTRPRS PROD CO	23S 30E 1 NW SW SE	1200 FSL 2080 FEL	QUAHADA RIDGE SE	DELAWARE	BONE SPRING	7800	OIL
30015367220000	JAMES RANCH UNIT	112H	BOPCO LP	22S 30E 36 SE SE SE	500 FSL 200 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	12070	OIL
30015370460000	JAMES RANCH UNIT	113H	BOPCO LP	22S 30E 36 NE SE	2000 FSL 200 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	12090	OIL
30015370620000	JAMES RANCH UNIT	107H	BOPCO LP	22S 30E 36 NE SW SW	860 FSL 990 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	12436	OIL
30015370630000	JAMES RANCH UNIT	106H	BOPCO LP	22S 30E 36 NW SW	1595 FSL 1096 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	13234	OIL
30015370640000	JAMES RANCH UNIT	105H	BOPCO LP	22S 30E 36 SE NW	2428 FNL 1340 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	13018	OIL

API	Lease Name	Well	Operator Name	Location	Footage	Field Name	IP Prod Form	Form at TD	TD	Final Status
30015371750000	JAMES RANCH UNIT	103H	BOPCO LP	22S 30E 36	760 FNL 1500 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	10610	OIL
30015372710000	JAMES RANCH UNIT	104H	BOPCO LP	22S 30E 36 SE NW	2000 FNL 1730 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	14132	OIL
30015372720000	HUDSON FEDERAL 1	8H	BOPCO LP	23S 30E 1	1015 FNL 2080 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	14636	OIL
30015372730000	JAMES RANCH UNIT	108H	BOPCO LP	23S 30E 1	940 FNL 2080 FWL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	14087	OIL
30015373090000	HUDSON FEDERAL 1	10H	BOPCO LP	23S 30E 1 NW SE	2300 FSL 1780 FEL	QUAHADA RIDGE SE	DELAWARE	BRUSHY CANYON	16274	OIL
30015373100000	HUDSON FEDERAL COM 1	9H	BOPCO LP	23S 30E 1 NW SE	2375 FSL 1780 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	15675	OIL
30015379250000	JAMES RANCH UNIT	114H	BOPCO LP	23S 31E 6 NE NE	270 FNL 710 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE SD	10842	OIL
30015381140000	JAMES RANCH UNIT	109H	BOPCO LP	23S 30E 1 NE SE	2310 FSL 530 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	14100	OIL
30015381150000	JAMES RANCH UNIT	110H	BOPCO LP	23S 30E 1 NE SE	2235 FSL 530 FEL	QUAHADA RIDGE SE	DELAWARE	BRUSHY CANYON	15389	OIL
30015381180000	JAMES RANCH UNIT	115H	BOPCO LP	23S 31E 5 NW NW	330 FNL 120 FWL	QUAHADA RIDGE SE	DELAWARE	BRUSHY CANYON	14494	OIL
30015382880000	JAMES RANCH UNIT	129H	BOPCO LP	22S 30E 36 NE NE	630 FNL 330 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	12580	OIL
30015383080000	JAMES RANCH UNIT	130H	BOPCO LP	22S 30E 36 SE NE	2185 FNL 180 FEL	QUAHADA RIDGE SE	DELAWARE	DELAWARE	12532	OIL
	JAMES RANCH UNIT	79	BASS ENTRPRS PROD CO	23S 31E 6	660 FNL 990 FEL	LOS MEDANOS				AB-LOC
		13	BASS PERRY R	22S 31E 31	660 FSL 1980 FWL					AB-LOC
	JAMES RANCH UNIT	68	BASS ENTRPRS PROD CO	23S 31E 6 SE NE	2310 FNL 660 FEL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	69	BASS ENTRPRS PROD CO	23S 31E 6 SW SE	990 FSL 1980 FEL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	21	BASS ENTRPRS PROD CO	23S 31E 6 NE NW	200 FNL 1980 FWL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	22	BASS ENTRPRS PROD CO	23S 31E 6 NW NE	200 FNL 1980 FEL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	23	BASS ENTRPRS PROD CO	23S 31E 6 NE NE	200 FNL 660 FEL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	24	BASS ENTRPRS PROD CO	23S 31E 6 NE NE	200 FNL 330 FEL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	25	BASS ENTRPRS PROD CO	23S 31E 6 NW NE	200 FNL 1650 FEL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	26	BASS ENTRPRS PROD CO	23S 31E 6 NE NW	200 FNL 2310 FWL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	74	ENRON OIL & GAS CO	23S 31E 6	330 FNL 860 FWL	EDDY UNDESIGNATED				AB-LOC
		14	BELCO PETROLEUM CORP	23S 31E 7	660 FNL 3100 FWL					AB-LOC
	JAMES RANCH UNIT	89	BASS ENTRPRS PROD CO	23S 31E 8 W2 SW SW	660 FSL 228 FWL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	81	BASS ENTRPRS PROD CO	23S 30E 1 NE NW NW	560 FNL 990 FWL	QUAHADA RIDGE SE				AB-LOC
	HUDSON `1` FEDERAL	3	BASS ENTRPRS PROD CO	23S 30E 1 E2 SW NW	1980 FNL 850 FWL	QUAHADA RIDGE SE				AB-LOC
	HUDSON `1` FEDERAL	2	BASS ENTRPRS PROD CO	23S 30E 1 N2 NE SW	2310 FSL 1980 FWL	QUAHADA RIDGE SE				AB-LOC
	JAMES RANCH UNIT	46	BASS ENTRPRS PROD CO	23S 31E 18 NW NE	630 FNL 1650 FEL	SAND DUNES				AB-LOC
	JAMES RANCH UNIT	49	BASS ENTRPRS PROD CO	23S 31E 18 NE NW	990 FNL 2310 FWL	SAND DUNES				AB-LOC
	JAMES RANCH UNIT	50	BASS ENTRPRS PROD CO	23S 31E 18 NW NW	990 FNL 990 FWL	SAND DUNES				AB-LOC
	JAMES RANCH UNIT	51	BASS ENTRPRS PROD CO	23S 31E 18 SW NW	2310 FNL 990 FWL	SAND DUNES				AB-LOC
	HUDSON `1` FEDERAL	4	BASS ENTRPRS PROD CO	23S 30E 1 C NW SW	1980 FSL 660 FWL	QUAHADA RIDGE SE				AB-LOC
	JAMES RANCH UNIT	62	BASS ENTRPRS PROD CO	23S 30E 1 NW SW SE	1200 FSL 2080 FEL	QUAHADA RIDGE SE				AB-LOC
	JAMES RANCH UNIT	87	BASS ENTRPRS PROD CO	23S 31E 6 S2 SE SW	250 FSL 1980 FWL	LOS MEDANOS				AB-LOC
	JAMES RANCH UNIT	89	BASS ENTRPRS PROD CO	23S 31E 8 W2 SW SW	660 FSL 228 FWL	LOS MEDANOS				AB-LOC
	HUDSON `1` FEDERAL	5	BASS ENTRPRS PROD CO	23S 30E 1 N2 SW SW	1070 FSL 660 FWL	QUAHADA RIDGE SE				AB-LOC
	HUDSON `1` FEDERAL	6	BASS ENTRPRS PROD CO	23S 30E 1 NW SE SW	1245 FSL 1650 FWL	QUAHADA RIDGE SE				AB-LOC


BLM Map
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DRILLING PROGRAM

Operator Name/Number:	**Occidental Permian Ltd.**	**157984**
Lease Name/Number:	**Federal 12 #1H**	
Pool Name/Number:	**Quahada Ridge Delaware, Southeast**	**50443**
Surface Location:	**1159 FSL 1343 FEL SWSE(O) Sec 1 T23S R30E**	**Federal Lse No. NMNM0546732**
Bottom Hole Location:	**350 FSL 678 FEL SESE(P) Sec 12 T23S R30E**	

Proposed TD: Horizontal Lateral 13005' TMD 7674' TVD
SL - Lat: 32.3298455 Long: 103.8294767 X= 655632.0 Y= 484079.9 NAD - 1927
BH - Lat: 32.3131102 Long: 103.8273328 X= 656323.0 Y= 477995.0 NAD - 1927
Elevation: 3287.8' 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	212'	Formation
b. Top Salt	730'	Formation
c. Bottom Salt	3923	Formation
d. Delaware	3923'	Oil/Gas
e. Bell Canyon	3963'	Oil/Gas
f. Cherry Canyon	4873'	Oil/Gas
g. Brushy Canyon	6148'	Oil/Gas

*See attached for NMOSE Water/Column Depth to Water

3. Casing Program:

Hole Size	Interval	OD Csg	Weight	Collar	Grade	Condition	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	580' (350)	13-3/8"	48	ST&C	H-40	New	1.98	4.62	2.38
	3900			Hole filled with 8.4# Mud			770#	1730#	
12-1/4"	4025'	9-5/8"	40	LT&C	J-55	New	1.16	1.21	2.12
				Hole filled with 10# Mud			2570#	3950#	
8-3/4"	13005'	5-1/2"	17	BT&C	L-80	New	1.6	2.69	1.89
DVT @ 6000' - POST @ 4075'				Hole filled with 9.2# Mud			6290#	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/ 410sx 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/ 1020sx HES light PP cmt w/ 5% Salt + .125#/sx Poly-E-Flake + 5#/sx Kol-Seal, 12.9ppg 1.90 yield 947# 24hr CS 105% Excess followed by 410sx PP cmt w/ 1% CaCl2, 14.8ppg 1.34 yield 1841# 24hr CS 105% Excess

c. 5-1/2" Production Cement 1st stage w/ 1980sx Super H w/ .5% Halad R-344 + .4% CFR-3 + 3#/sx Kol-Seal + .125#/sx Poly-E-Flake + .1% HR-601 + 3#/sx salt, 13.2ppg 1.66 yield 1719# 24hs CS 85% Excess Calc TOC-5995'
Cement 2nd stage w/ 460sx HES light PP cmt w/ 1#/sx Salt + 5#/sx Gilsonite + .4% CFR-3 + .3% HR-800 + .125#/sx Poly-E-Flake, 13.2ppg 2.08 yield 1536# 24hr CS 125% Excess Calc TOC-4020'
Cement 3rd stage w/ 150sx HES Light PP cmt w/ 3#/sx Salt, 12.4ppg 1.98 yield 511# 24hr CS 10% Excess followed by 150sx PP cmt w/ 2% CaCl2, 14.8ppg 1.35 yield 2025# 24hr CS 35% Excess, Circ Surface

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. Occidental requests that the system be tested at 5000 psi WP rating.

OXY also requests a variance to connect the BOP outlet to the choke manifold using a co-flex hose that is manufactured by Contitech Rubber Industrial KFT. It is a 3" ID X 35' flexible hose rated to 10000psi working pressure. It has been tested to15000psi and is built to API Spec 16C. Once the flex line is installed, it will be tied down with safety clamps, see attached for certifications.

6. Proposed Mud Circulation System

Depth	Mud Wt. ppg	Visc sec	Fluid Loss	Type System
0 - 580'	8.4-8.9	28-36	NC	Fresh Water/Spud Mud
580 - 4025'	9.8-10.2	28-34	NC	Brine Water
4025 - 5730'	8.8-9.2	28-36	NC	Fresh Water
5730 - TD'	9.2-9.6	32-48	>10	LSND

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 MWD-GR from kick-off point to TD.
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 intermediate casing to TD.

9. Potential Hazards:

No abnormal pressures, temperatures or H_2S gas are expected. The highest anticipated pressure gradient would 0.54 psi/ft. The bottomhole pressure is anticipated to be between 3300-3700 psi.
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 02770			ED	4	4	1	14	23S	30E	608004	3574921*	286		
C 02771			ED	1	2	3	14	23S	30E	607807	3574718*	295		
C 02772 POD1	C		ED	4	4	1	14	23S	30E	608043	3574840	300		
C 03139			ED	4	2	4	01	23S	30E	610424	3577764*	425		
C 03222 EXPLORE			ED	1	1	4	12	23S	30E	609833	3576349*	365		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 5

PLSS Search:

Section(s): 1, 2, 11, 12, 13, 14 **Township:** 23S **Range:** 30E

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 02492			ED	4	4	4	06	23S	31E	612056	3577320*	135	85	50
C 02865			ED	4	4	4	06	23S	31E	612056	3577320*	174		
C 03520 POD1	C		ED	3	1	1	07	23S	31E	610733	3576905	500		

Average Depth to Water: **85 feet**

Minimum Depth: **85 feet**

Maximum Depth: **85 feet**

Record Count: 3

PLSS Search:

Section(s): 6, 7, 18 **Township:** 23S **Range:** 31E

Federal 12 #1H
Eddy Co, New Mexico

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	5730.30	0.00	0.00	5730.30	0.00	0.00	0.00	0.00	0.00	
3	7305.30	47.25	161.57	7132.75	-581.99	193.90	3.00	0.00	600.15	
4	7657.81	47.25	161.57	7372.03	-827.58	275.72	0.00	0.00	853.40	
5	8396.50	89.56	176.27	7639.00	-1486.64	391.29	6.00	21.29	1521.30	Updated LP
6	13004.65	89.56	176.27	7674.00	-6084.90	691.00	0.00	0.00	6124.01	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Federal 12 #1H	0.00	0.00	484079.90	655632.00	32°19'47.444N	103°49'46.116W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Updated LP	7639.00	-1486.64	391.29	482593.26	656023.29	Point
PBHL	7674.00	-6084.90	691.00	477995.00	656323.00	Point

SITE DETAILS

Federal 12 #1H

Site Centre Northing: 484079.90
Easting: 655632.00

Ground Level: 3287.80
Positional Uncertainty: 0.00
Convergence: 0.27

FIELD DETAILS

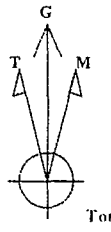
Eddy Co, NM (Nad 27)

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

LEGEND

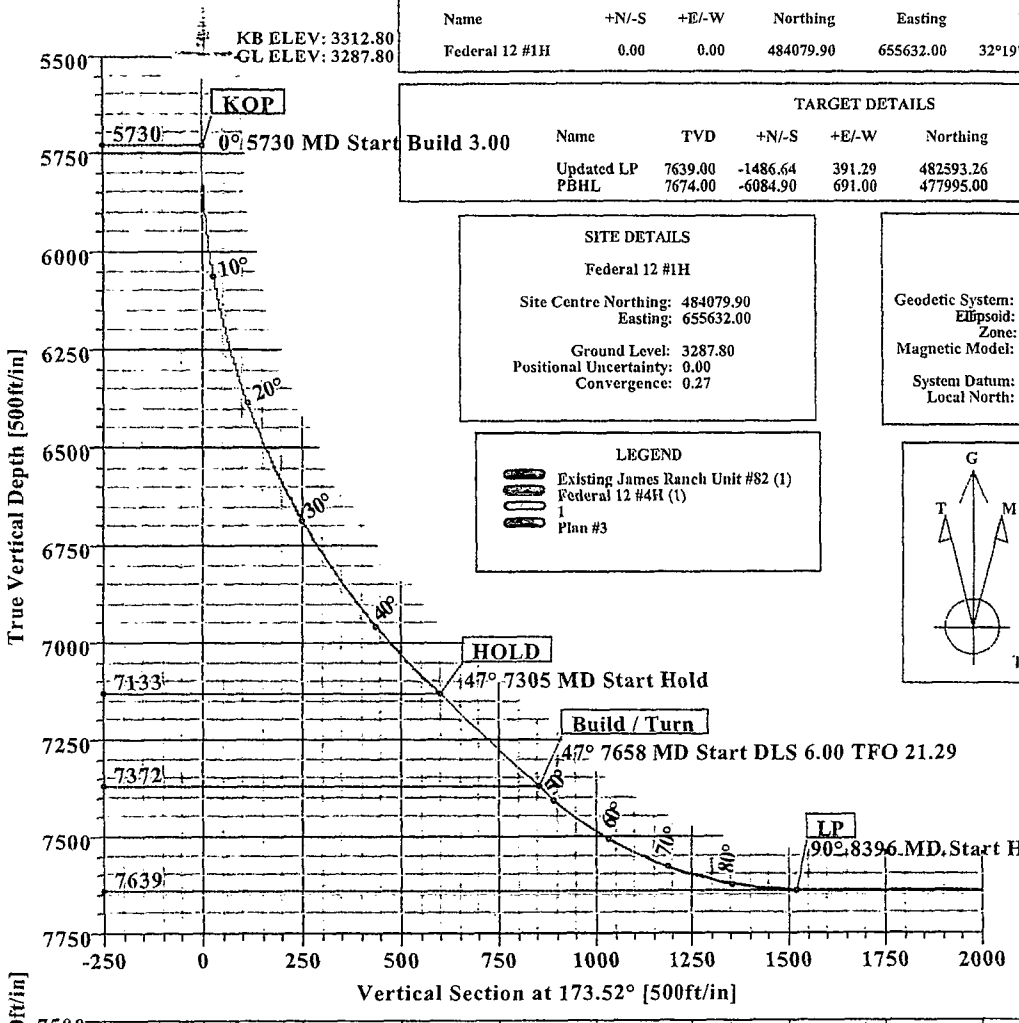
- Existing James Ranch Unit #82 (1)
- Federal 12 #4H (1)
- 1
- Plan #3

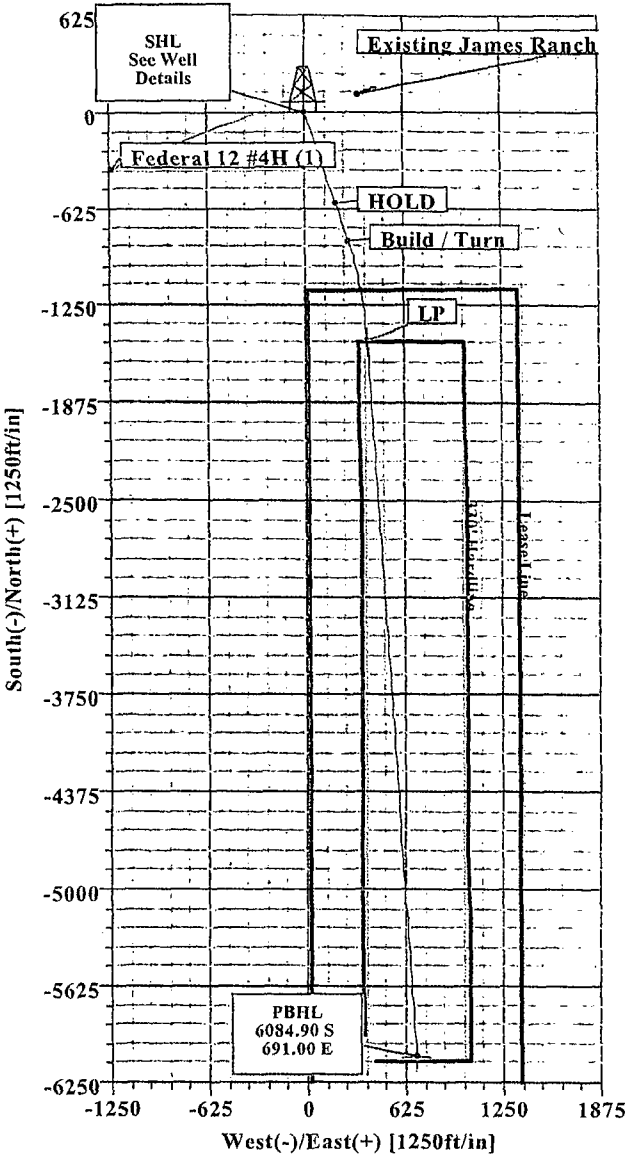


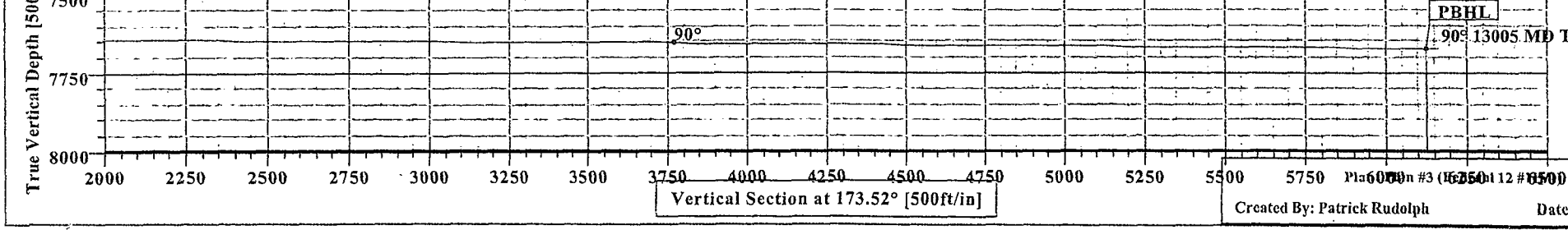
Azimuths to Grid North
True North: -0.27°
Magnetic North: 7.26°

Magnetic Field
Strength: 48523nT
Dip Angle: 60.20°
Date: 12/31/2012
Model: IGRF2010

Total Correction to Grid North: 7.26°







Created By: Patrick Rudolph Date: 5/30/2012

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

Weatherford

Company:	Occidental Permian Ltd	Date:	5/30/2012	Time:	10:43:04	Page:	1
Field:	Eddy Co, NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Federal 12 #1H, Grid North				
Site:	Federal 12 #1H	Vertical (TVD) Reference:	SITE 3312.8				
Well:	Federal 12 #1H	Section (VS) Reference:	Well (0.00N,0.00E,173.52Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Plan:	Plan #3	**Date Composed:**	5/30/2012
		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 #1H				
Site Position:		**Northing:**	484079.90 ft	**Latitude:**	32 19 47.444 N
From:	Map	**Easting:**	655632.00 ft	**Longitude:**	103 49 46.116 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3287.80 ft			**Grid Convergence:**	0.27 deg

Well:	Federal 12 #1H				**Slot Name:**	
Well Position:	+N/-S	0.00 ft	**Northing:**	484079.90 ft	**Latitude:**	32 19 47.444 N
	+E/-W	0.00 ft	**Easting :**	655632.00 ft	**Longitude:**	103 49 46.116 W
Position Uncertainty:		0.00 ft				

Wellpath:	1			**Drilled From:**	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	3312.80 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	12/31/2012			**Declination:**	7.52 deg
Field Strength:	48523 nT			**Mag Dip Angle:**	60.20 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	7674.00	0.00	0.00	173.52

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	
5730.30	0.00	0.00	5730.30	0.00	0.00	0.00	0.00	0.00	0.00	
7305.30	47.25	161.57	7132.75	-581.99	193.90	3.00	3.00	0.00	0.00	
7657.81	47.25	161.57	7372.03	-827.58	275.72	0.00	0.00	0.00	0.00	
8396.50	89.56	176.27	7639.00	-1486.64	391.29	6.00	5.73	1.99	21.29	Updated LP
13004.65	89.56	176.27	7674.00	-6084.90	691.00	0.00	0.00	0.00	0.00	PBHL

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
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	0.00	484079.90	655632.00	
5730.30	0.00	0.00	5730.30	0.00	0.00	0.00	0.00	484079.90	655632.00	KOP
5800.00	2.09	161.57	5799.98	-1.21	0.40	1.24	3.00	484078.69	655632.40	
5900.00	5.09	161.57	5899.78	-7.15	2.38	7.37	3.00	484072.75	655634.38	
6000.00	8.09	161.57	5999.10	-18.04	6.01	18.60	3.00	484061.86	655638.01	
6100.00	11.09	161.57	6097.70	-33.84	11.28	34.90	3.00	484046.06	655643.28	
6200.00	14.09	161.57	6195.28	-54.52	18.16	56.22	3.00	484025.38	655650.16	
6300.00	17.09	161.57	6291.59	-80.02	26.66	82.51	3.00	483999.88	655658.66	
6400.00	20.09	161.57	6386.36	-110.26	36.74	113.70	3.00	483969.64	655668.74	
6500.00	23.09	161.57	6479.33	-145.17	48.37	149.70	3.00	483934.73	655680.37	
6600.00	26.09	161.57	6570.25	-184.64	61.52	190.40	3.00	483895.26	655693.52	
6700.00	29.09	161.57	6658.87	-228.58	76.16	235.71	3.00	483851.32	655708.16	
6800.00	32.09	161.57	6744.94	-276.85	92.24	285.49	3.00	483803.05	655724.24	
6900.00	35.09	161.57	6828.23	-329.34	109.72	339.62	3.00	483750.56	655741.72	
7000.00	38.09	161.57	6908.52	-385.89	128.56	397.93	3.00	483694.01	655760.56	

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd	Date:	5/30/2012	Time:	10:43:04	Page:	2
Field:	Eddy Co, NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Federal 12 #1H, Grid North				
Site:	Federal 12 #1H	Vertical (TVD) Reference:	SITE 3312.8				
Well:	Federal 12 #1H	Section (VS) Reference:	Well (0.00N,0.00E,173.52Azi)				
Wellpath:	1	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
7100.00	41.09	161.57	6985.57	-446.34	148.71	460.27	3.00	483633.56	655780.71	
7200.00	44.09	161.57	7059.18	-510.54	170.10	526.47	3.00	483569.36	655802.10	
7305.30	47.25	161.57	7132.75	-581.99	193.90	600.15	3.00	483497.91	655825.90	HOLD
7400.00	47.25	161.57	7197.04	-647.97	215.88	668.19	0.00	483431.93	655847.88	
7500.00	47.25	161.57	7264.92	-717.64	239.09	740.03	0.00	483362.26	655871.09	
7600.00	47.25	161.57	7332.80	-787.30	262.30	811.87	0.00	483292.60	655894.30	
7657.81	47.25	161.57	7372.03	-827.58	275.72	853.40	0.00	483252.32	655907.72	Build / Turn
7700.00	49.62	162.78	7400.03	-857.63	285.38	884.35	6.00	483222.27	655917.38	
7750.00	52.43	164.10	7431.48	-894.88	296.44	922.62	6.00	483185.02	655928.44	
7800.00	55.26	165.33	7460.97	-933.83	307.08	962.51	6.00	483146.07	655939.08	
7850.00	58.11	166.48	7488.43	-974.35	317.24	1003.92	6.00	483105.55	655949.24	
7900.00	60.96	167.56	7513.78	-1016.34	326.92	1046.74	6.00	483063.56	655958.92	
7950.00	63.82	168.57	7536.95	-1059.68	336.08	1090.84	6.00	483020.22	655968.08	
8000.00	66.69	169.54	7557.87	-1104.26	344.69	1136.10	6.00	482975.64	655976.69	
8050.00	69.56	170.47	7576.50	-1149.96	352.73	1182.41	6.00	482929.94	655984.73	
8100.00	72.44	171.37	7592.78	-1196.63	360.19	1229.63	6.00	482883.27	655992.19	
8150.00	75.32	172.24	7606.66	-1244.17	367.04	1277.64	6.00	482835.73	655999.04	
8200.00	78.21	173.08	7618.10	-1292.44	373.25	1326.30	6.00	482787.46	656005.25	
8250.00	81.10	173.91	7627.08	-1341.31	378.82	1375.48	6.00	482738.59	656010.82	
8300.00	83.99	174.72	7633.57	-1390.63	383.73	1425.05	6.00	482689.27	656015.73	
8350.00	86.88	175.53	7637.56	-1440.29	387.97	1474.87	6.00	482639.61	656019.97	
8396.50	89.56	176.27	7639.00	-1486.64	391.29	1521.30	6.00	482593.26	656023.29	Updated LP
8400.00	89.56	176.27	7639.03	-1490.13	391.52	1524.80	0.00	482589.77	656023.52	
8500.00	89.56	176.27	7639.79	-1589.92	398.03	1624.68	0.00	482489.98	656030.03	
8600.00	89.56	176.27	7640.55	-1689.70	404.53	1724.56	0.00	482390.20	656036.53	
8700.00	89.56	176.27	7641.31	-1789.49	411.03	1824.44	0.00	482290.41	656043.03	
8800.00	89.56	176.27	7642.06	-1889.28	417.54	1924.32	0.00	482190.62	656049.54	
8900.00	89.56	176.27	7642.82	-1989.06	424.04	2024.20	0.00	482090.84	656056.04	
9000.00	89.56	176.27	7643.58	-2088.85	430.54	2124.09	0.00	481991.05	656062.54	
9100.00	89.56	176.27	7644.34	-2188.63	437.05	2223.97	0.00	481891.27	656069.05	
9200.00	89.56	176.27	7645.10	-2288.42	443.55	2323.85	0.00	481791.48	656075.55	
9300.00	89.56	176.27	7645.86	-2388.20	450.06	2423.73	0.00	481691.70	656082.06	
9400.00	89.56	176.27	7646.62	-2487.99	456.56	2523.61	0.00	481591.91	656088.56	
9500.00	89.56	176.27	7647.38	-2587.77	463.06	2623.50	0.00	481492.13	656095.06	
9600.00	89.56	176.27	7648.14	-2687.56	469.57	2723.38	0.00	481392.34	656101.57	
9700.00	89.56	176.27	7648.90	-2787.34	476.07	2823.26	0.00	481292.56	656108.07	
9800.00	89.56	176.27	7649.66	-2887.13	482.57	2923.14	0.00	481192.77	656114.57	
9900.00	89.56	176.27	7650.42	-2986.91	489.08	3023.02	0.00	481092.99	656121.08	
10000.00	89.56	176.27	7651.18	-3086.70	495.58	3122.91	0.00	480993.20	656127.58	
10100.00	89.56	176.27	7651.94	-3186.49	502.09	3222.79	0.00	480893.41	656134.09	
10200.00	89.56	176.27	7652.70	-3286.27	508.59	3322.67	0.00	480793.63	656140.59	
10300.00	89.56	176.27	7653.46	-3386.06	515.09	3422.55	0.00	480693.84	656147.09	
10400.00	89.56	176.27	7654.22	-3485.84	521.60	3522.43	0.00	480594.06	656153.60	
10500.00	89.56	176.27	7654.98	-3585.63	528.10	3622.32	0.00	480494.27	656160.10	
10600.00	89.56	176.27	7655.74	-3685.41	534.61	3722.20	0.00	480394.49	656166.61	
10700.00	89.56	176.27	7656.50	-3785.20	541.11	3822.08	0.00	480294.70	656173.11	
10800.00	89.56	176.27	7657.26	-3884.98	547.61	3921.96	0.00	480194.92	656179.61	
10900.00	89.56	176.27	7658.01	-3984.77	554.12	4021.84	0.00	480095.13	656186.12	
11000.00	89.56	176.27	7658.77	-4084.55	560.62	4121.73	0.00	479995.35	656192.62	
11100.00	89.56	176.27	7659.53	-4184.34	567.12	4221.61	0.00	479895.56	656199.12	
11200.00	89.56	176.27	7660.29	-4284.13	573.63	4321.49	0.00	479795.77	656205.63	
11300.00	89.56	176.27	7661.05	-4383.91	580.13	4421.37	0.00	479695.99	656212.13	
11400.00	89.56	176.27	7661.81	-4483.70	586.64	4521.25	0.00	479596.20	656218.64	

Weatherford International Ltd.

WFT Plan Report - X & Y's

Weatherford

Company:	Occidental Permian Ltd.	Date:	5/30/2012	Time: 10:43:04	Page: 3
Field:	Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Federal 12 #1H, Grid North		
Site:	Federal 12 #1H	Vertical (TVD) Reference:	SITE 3312.8		
Well:	Federal 12 #1H	Section (VS) Reference:	Well (0.00N,0.00E,173.52Azi)		
Wellpath:	1	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
11500.00	89.56	176.27	7662.57	-4583.48	593.14	4621.14	0.00	479496.42	656225.14	
11600.00	89.56	176.27	7663.33	-4683.27	599.64	4721.02	0.00	479396.63	656231.64	
11700.00	89.56	176.27	7664.09	-4783.05	606.15	4820.90	0.00	479296.85	656238.15	
11800.00	89.56	176.27	7664.85	-4882.84	612.65	4920.78	0.00	479197.06	656244.65	
11900.00	89.56	176.27	7665.61	-4982.62	619.16	5020.66	0.00	479097.28	656251.16	
12000.00	89.56	176.27	7666.37	-5082.41	625.66	5120.55	0.00	478997.49	656257.66	
12100.00	89.56	176.27	7667.13	-5182.19	632.16	5220.43	0.00	478897.71	656264.16	
12200.00	89.56	176.27	7667.89	-5281.98	638.67	5320.31	0.00	478797.92	656270.67	
12300.00	89.56	176.27	7668.65	-5381.76	645.17	5420.19	0.00	478698.14	656277.17	
12400.00	89.56	176.27	7669.41	-5481.55	651.67	5520.07	0.00	478598.35	656283.67	
12500.00	89.56	176.27	7670.17	-5581.34	658.18	5619.96	0.00	478498.56	656290.18	
12600.00	89.56	176.27	7670.93	-5681.12	664.68	5719.84	0.00	478398.78	656296.68	
12700.00	89.56	176.27	7671.69	-5780.91	671.19	5819.72	0.00	478298.99	656303.19	
12800.00	89.56	176.27	7672.45	-5880.69	677.69	5919.60	0.00	478199.21	656309.69	
12900.00	89.56	176.27	7673.21	-5980.48	684.19	6019.48	0.00	478099.42	656316.19	
13004.65	89.56	176.27	7674.00	-6084.90	691.00	6124.01	0.00	477995.00	656323.00	PBHL

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
Updated LP			7639.00	-1486.64	391.29	482593.26	656023.29	32	19	32.714 N	103	49	41.638 W
PBHL			7674.00	-6084.90	691.00	477995.00	656323.00	32	18	47.197 N	103	49	38.398 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
250.00	250.00	0.000	0.000	Csg
4050.00	4050.00	0.000	0.000	Csg

Annotation

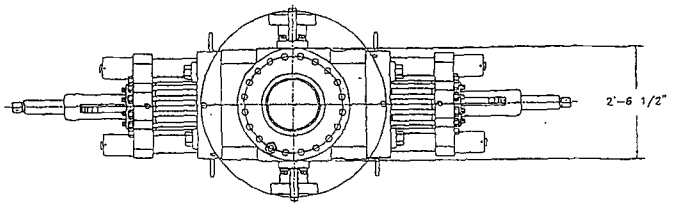
MD ft	TVD ft	
5730.30	5730.30	KOP
7305.30	7132.75	HOLD
7657.81	7372.04	Build / Turn
8396.50	7639.00	LP
13004.64	7674.00	PBHL

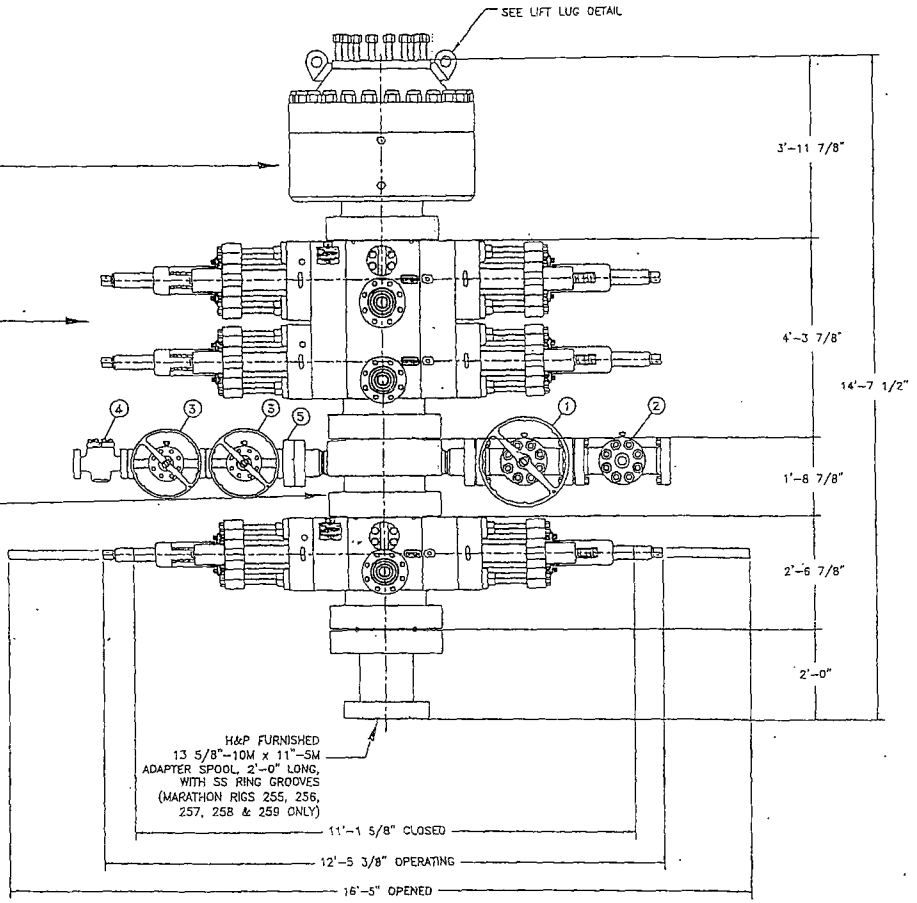
Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

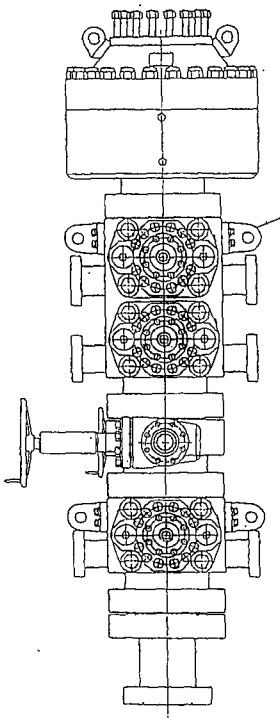
BOP-

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	ENGINEERING APPROVAL	DATE
E	12/18/07	ADDED SHEET 03	JAV		
D	4–10–07	ORIENTATION REVISED, DOUBLE STUDDED ADAPTER, VALVES 1, 2, & 3, AND U5 CHECK VALVE ADDED	JBC		
C	4–04–07	6" ADDED TO SPACER ADAPTER SPOOL	JBC		
B	02–07–07	ADDED ADAPTER SPOOL	MWL		
A	08–13–02	CORRECTED BOP STACK	MWL		

HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

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

CUSTOMER: H&P

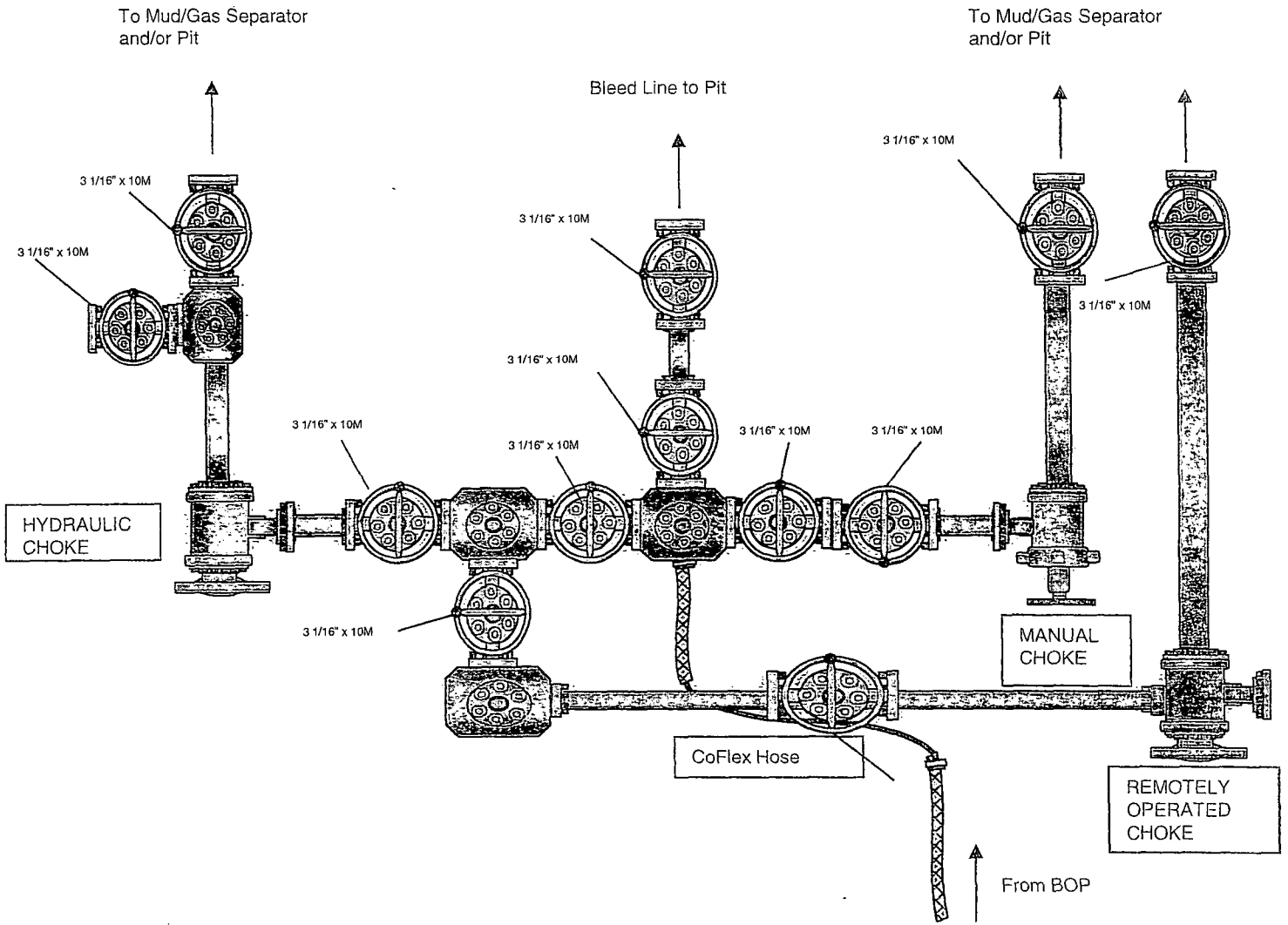
PROJECT: FLEXRIG3

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

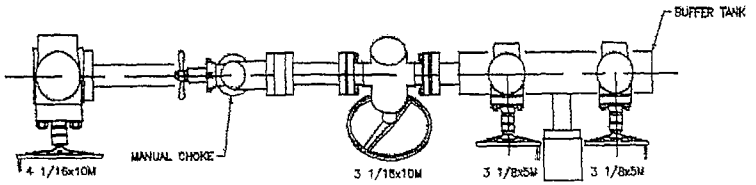
SCALE: 3/4"=1' | SHEET: 1 OF 1

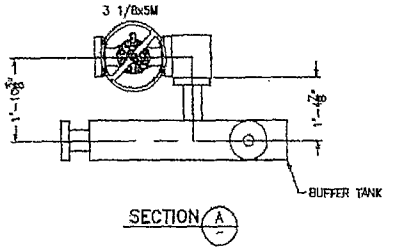
Chk Manifd-1

10M CHOKE MANIFOLD CONFIGURATION

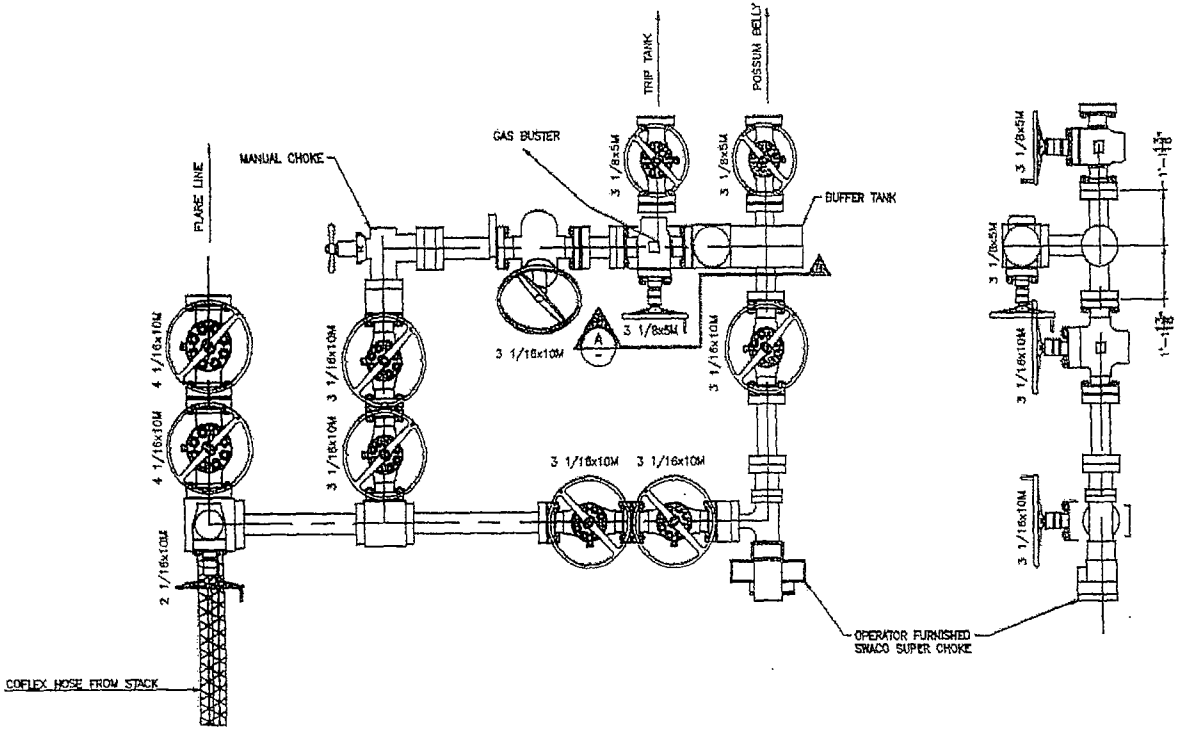


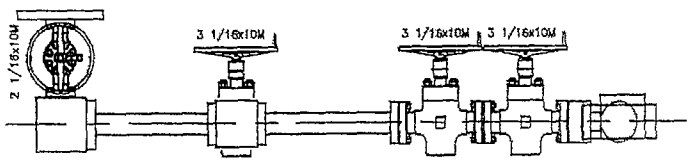
Chk Manifd-2





SECTION A





ISSUED FOR FABRICATION
MARCH 9, 2002
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY	ENGINEERING APPROVAL	DATE
1					
2					
3					
4					
5	10/15/02	ADJUST DIM TO FIELD CONFIRMED DIM	RAY		

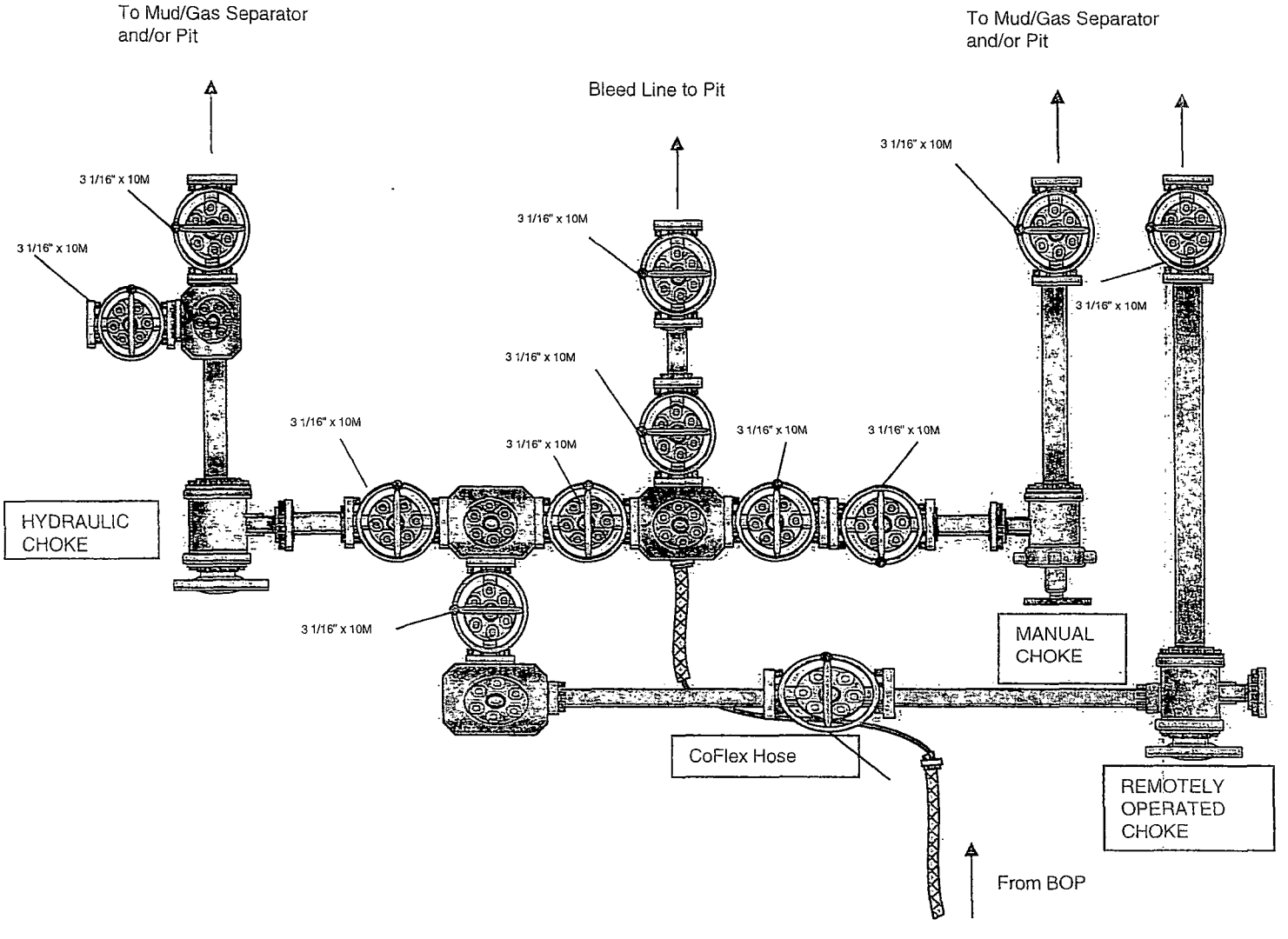
HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: CHOKE MANIFOLD

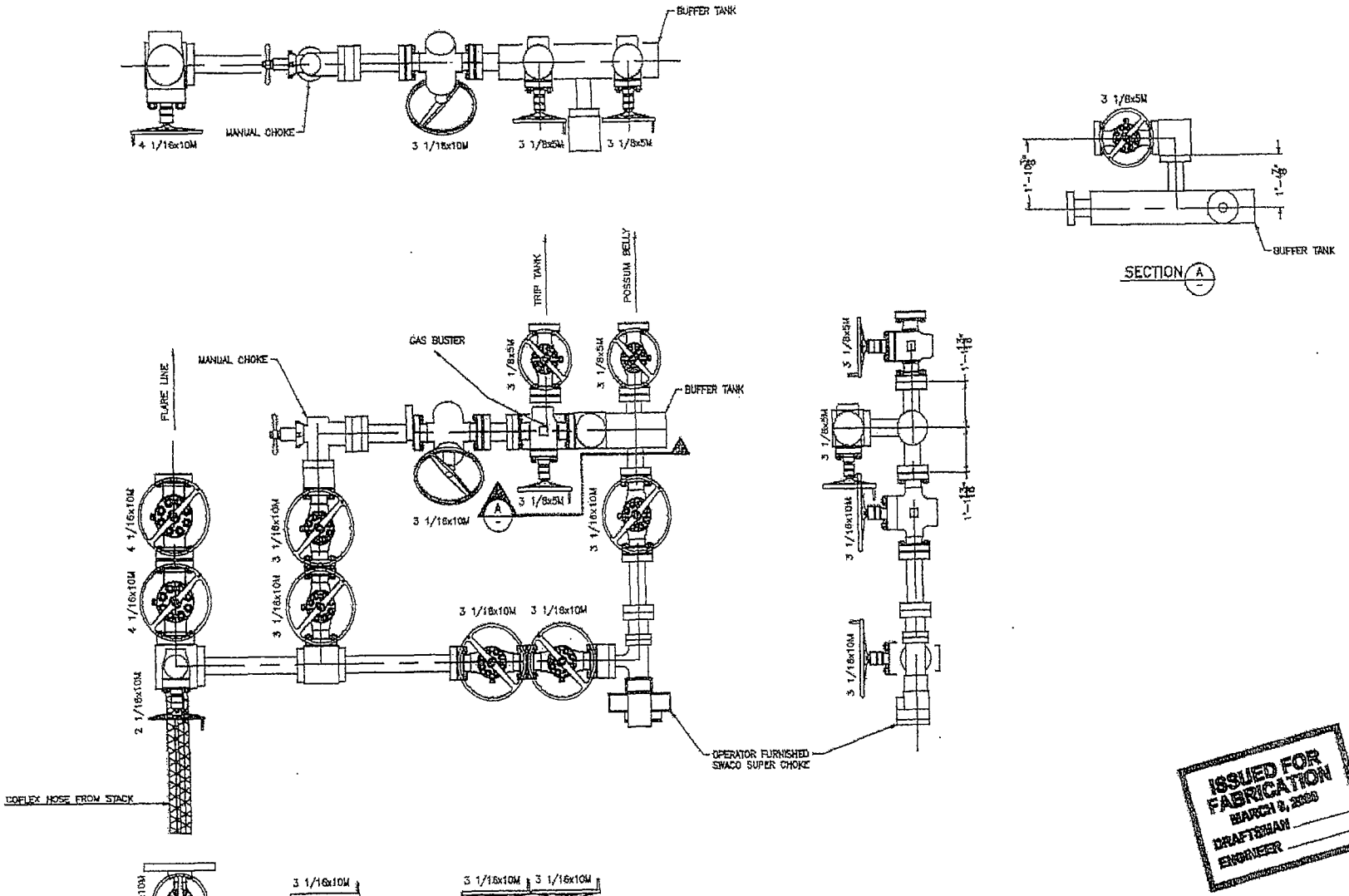
CUSTOMER: H&P
PROJECT: FLEXRIG3
DRAWN: MTS
DATE: 2-28-02
SCALE: 3/4"=1'
SHEET: 1 OF 1
DWG. NO.: 216-P1-05
REV: A

Choke Manifold-1

10M CHOKE MANIFOLD CONFIGURATION



Chk Manifd-2



ISSUED FOR FABRICATION
MARCH 8, 2002
DRAFTSMAN
ENGINEER

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

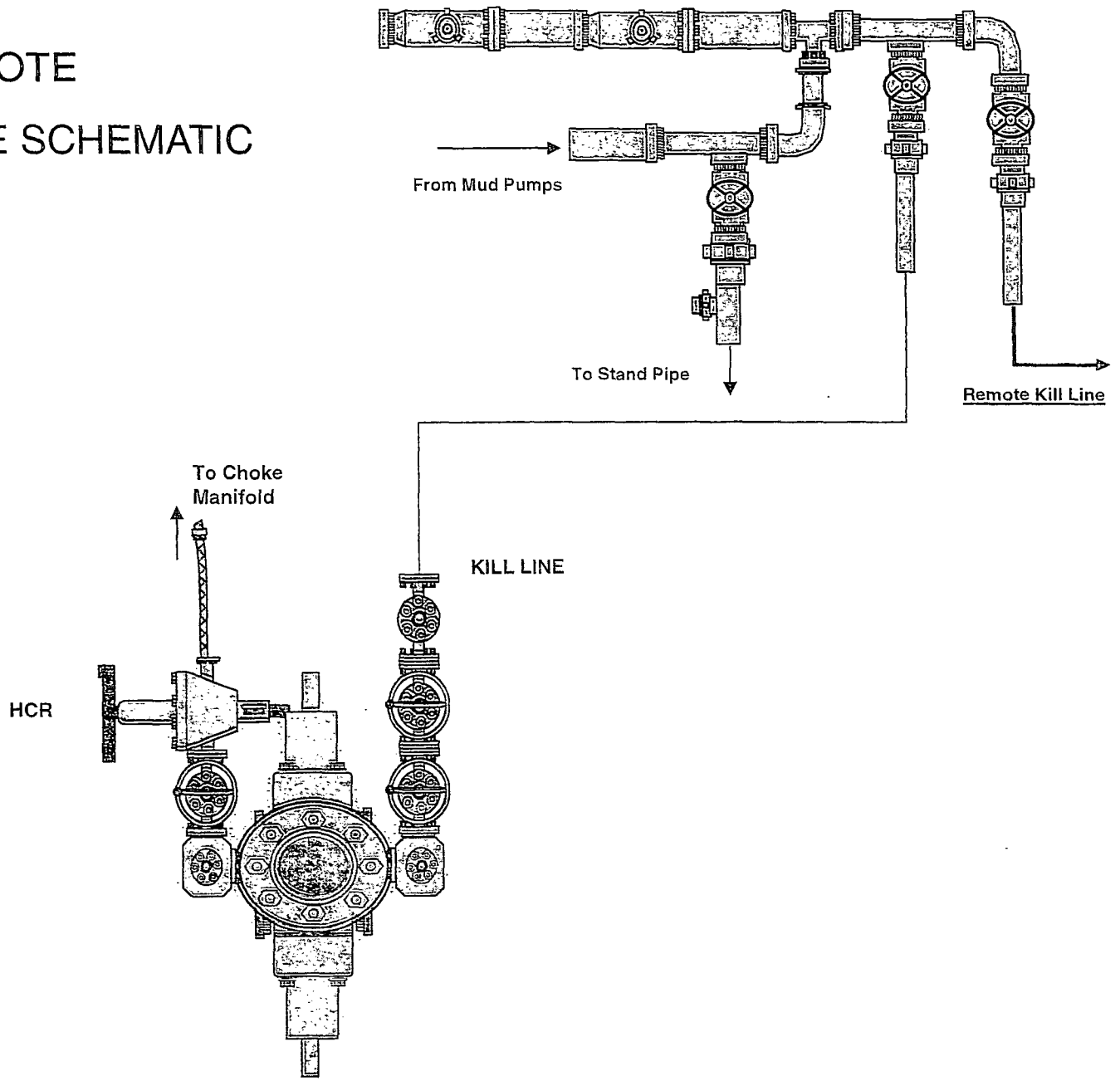
HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: CHOKE MANIFOLD

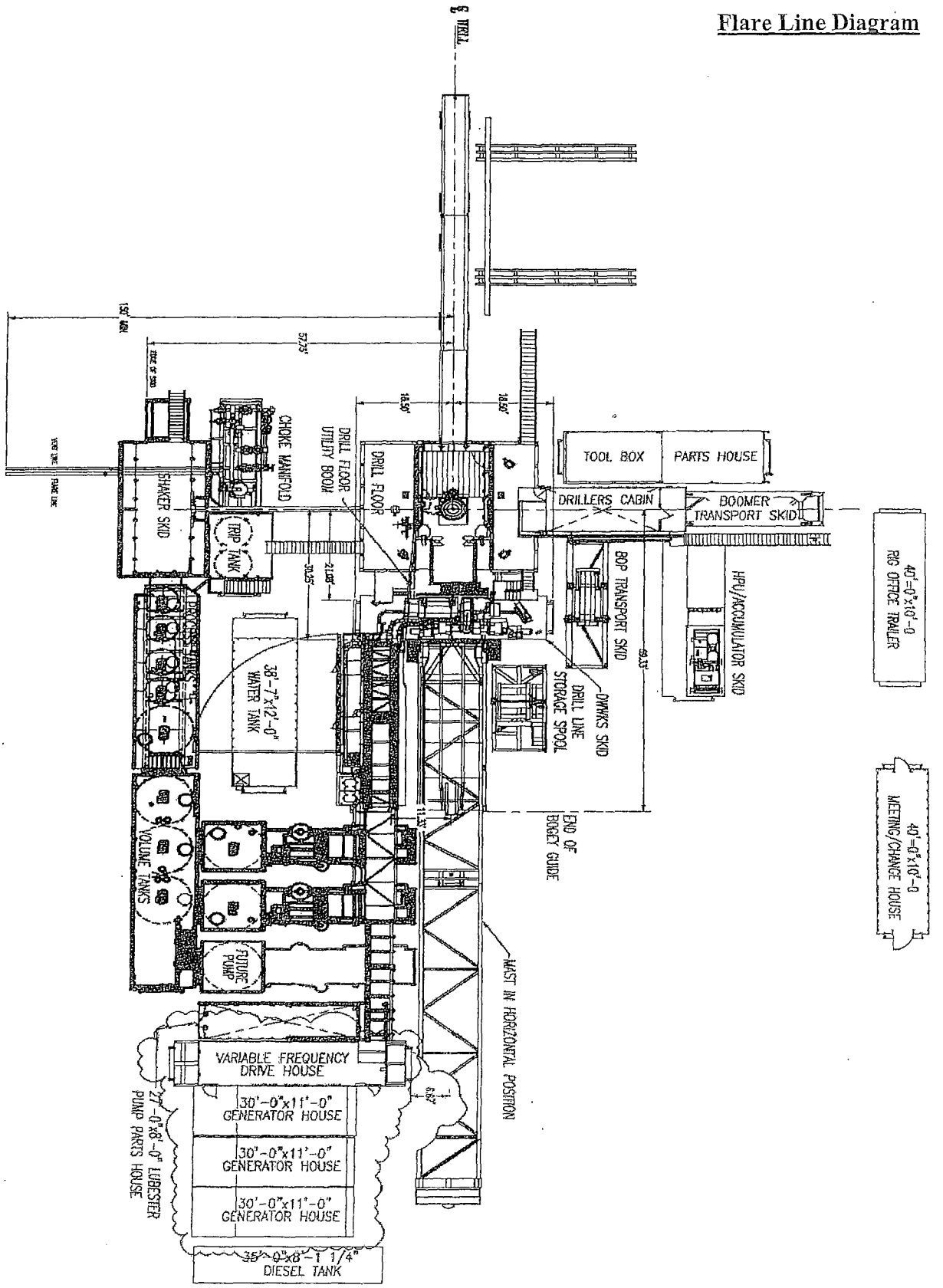
CUSTOMER: H&P
PROJECT: FLEXRIG3
DRAWN: MTS | DATE: 2-28-02 | DWG. NO.: 216-P1-05 | REV: A
SCALE: 3/4"=1' | SHEET: 1 OF 1

Clk Manifold-3

10M REMOTE KILL LINE SCHEMATIC



Flare Line Diagram



Continental CONTITECH

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE						CERT. N°:	1121
PURCHASER:	ContiTech Beattie Co.					P.O. N°:	005123
CONTITECH ORDER N°:	505591		HOSE TYPE:	3"	ID	Choke and Kill Hose	
HOSE SERIAL N°:	60890		NOMINAL / ACTUAL LENGTH:			10,67 m / 10,72 m	
W.P. 68,9 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 = 20 MPa

COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	9409 9414	AISI 4130	B3018A H2205
4 1/16" Flange end		AISI 4130	144004

NOT DESIGNED FOR WELL TESTING

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 INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

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.

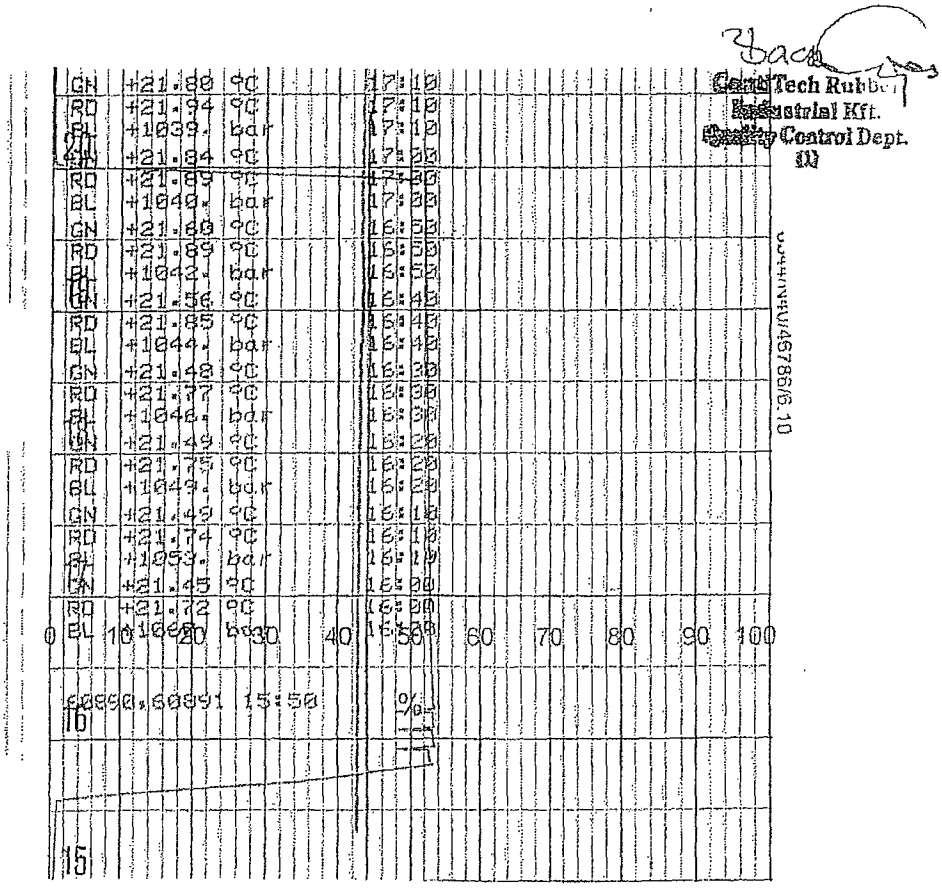
COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
05. November 2011.		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

FH-2

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE *No: 1121, 1122*

Page: 1 / 1



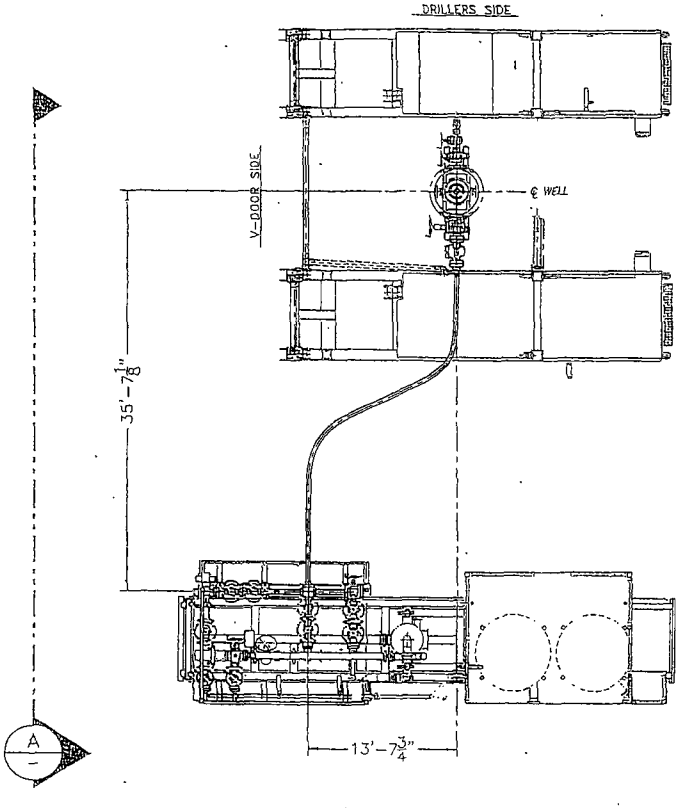
FH-3

Continental CONTITECH

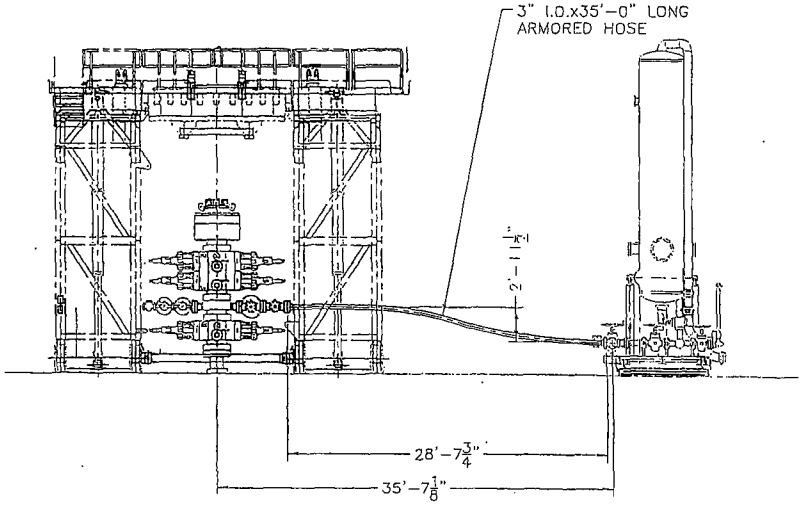
Hose Data Sheet

CRI Order No.	505591
Customer	ContiTech Beattie Co.
Customer Order No	PO5123 STOCK
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C**
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4 1/16" API SPEC 6A TYPE 6BX FOR 10000 PSIBX155 RING GROOVE
Type of coupling other end	FLANGE 4 1/16" API SPEC 6A TYPE 6BX FOR 10000 PSI BX155 RING GROOVE
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL RESISTANT
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
MBR operating [m]	1,60
MBR storage [m]	1,40
Type of packing	WOODEN CRATE ISPM-15

Flex Hose-4



PLAN VIEW



SECTION "A"

ISSUED FOR FABRICATION
December-19-2007
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY
3	12/16/07	REMOVED SHEET TOTAL CALLOUT	JAV

ENGINEERING APPROVAL | DATE

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: CHOKE LINE SYSTEM FLEXRIG3

CUSTOMER:

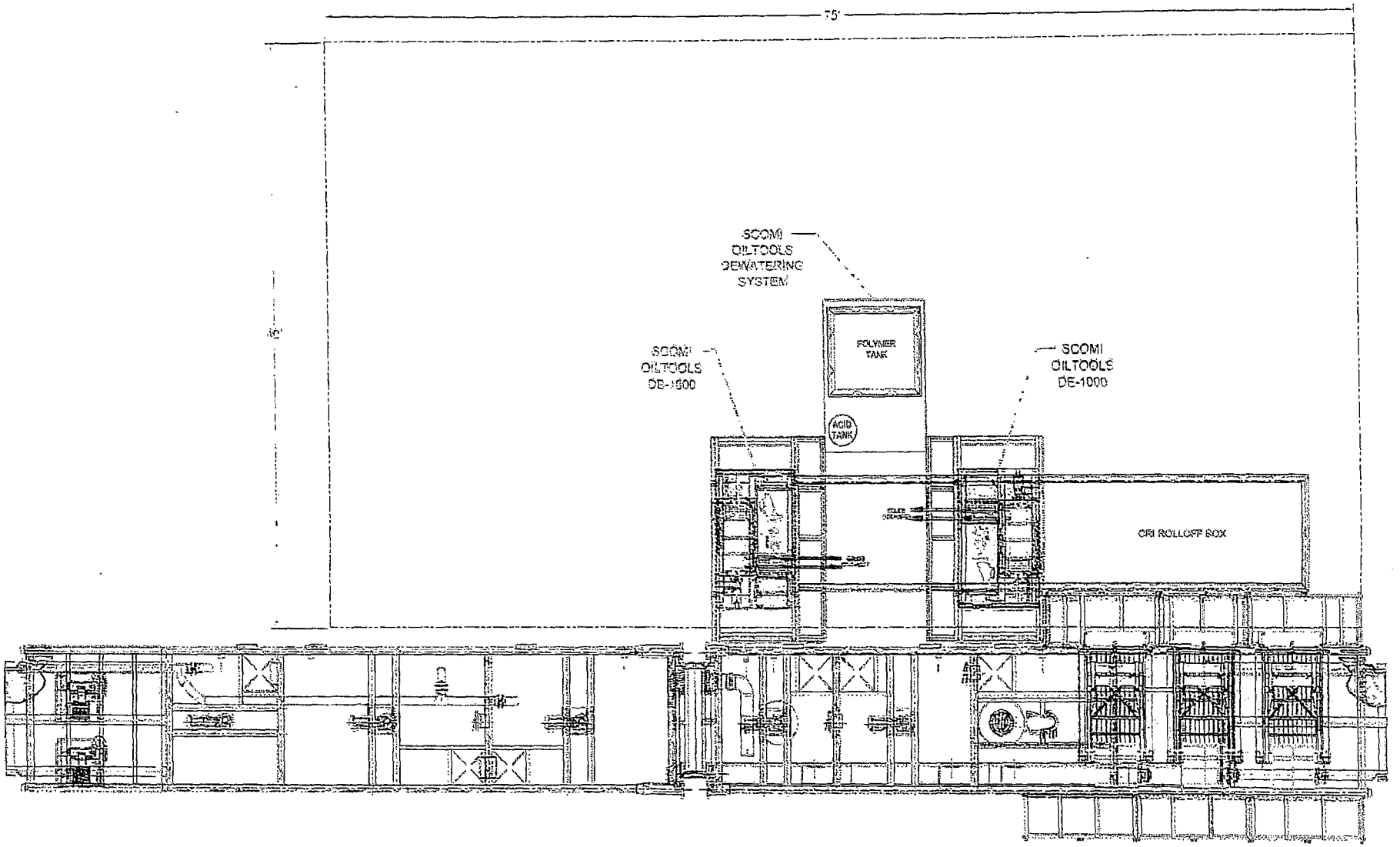
PROJECT:

DRAWN: JBG | DATE: 4-10-07 | DWG. NO.: 210-P1-07 | REV: A

SCALE: 3/16"=1' | SHEET: 2 OF 3

Cu-1

ITEM	QTY.	BILL OF MATERIAL DESCRIPTION	LENGTH	WEIGHT



1. ALL STRUCTURAL MATERIAL SHALL BE ASTM - A36.
2. ALL PIPE SCH 40 MATERIAL SA 106 Gr. B
3. ALL FLANGES SHALL BE SCH. 150# W 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

NO.	REVISION / ISSUE RECORD	BY	CHKD	APVD	DATE
	ISSUED FOR APPROVAL	SJ			

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	10/2/2008		
APPROVED	DATE	SCALE: NTS	SIZE: D

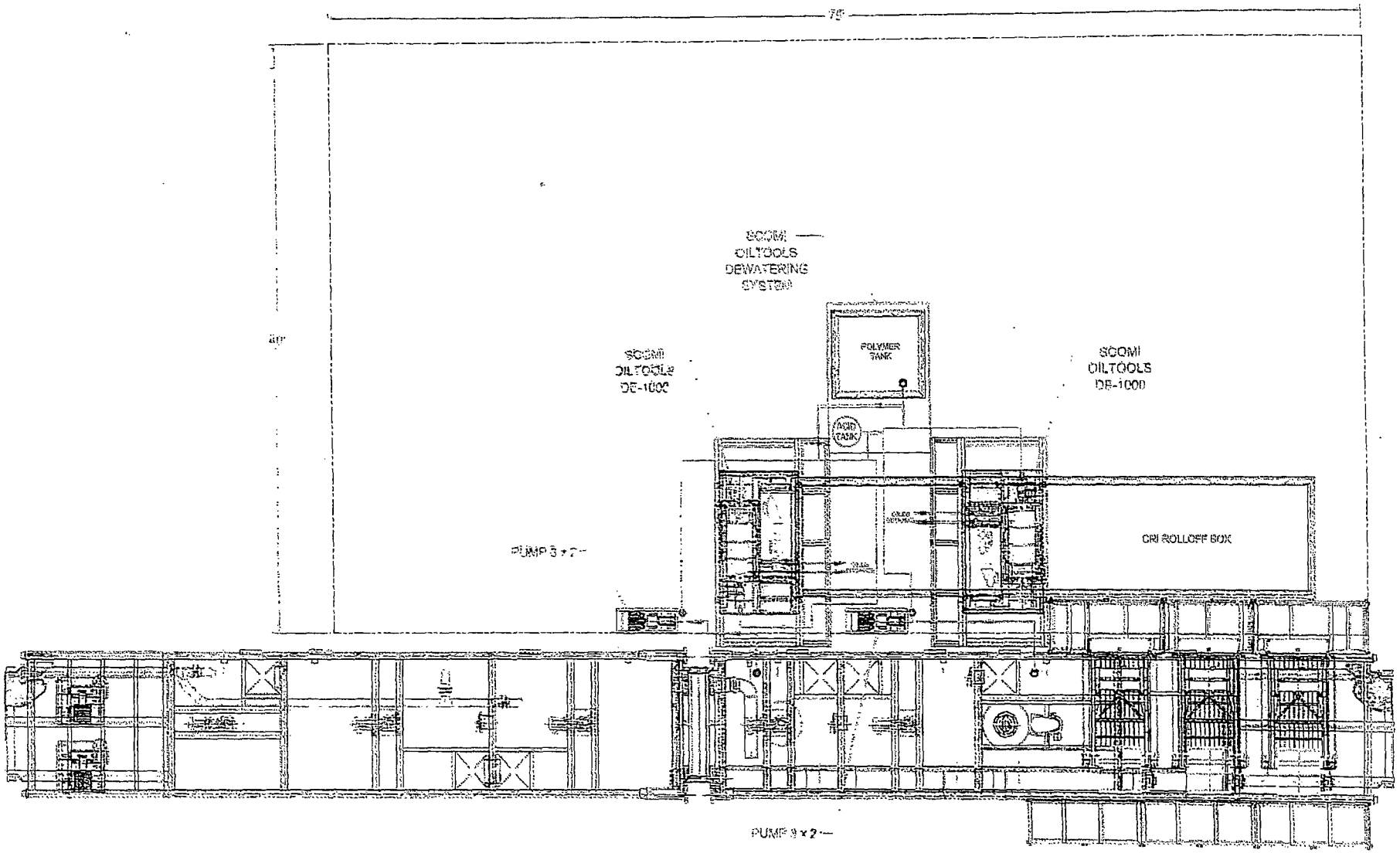
Scomi

901 N. Eldridge Parkway East, Suite 700,
Houston, Texas 77079
PHONE: (281)-558-8318, FAX: (281)-558-8808

JOB NO.	DRAWING NO.	REV.
	521S-014	A

CL-2

BILL OF MATERIAL			
ITEM	QTY.	DESCRIPTION	LENGTH / WEIGHT



1. ALL STRUCTURAL MATERIAL SHALL BE ASME – A36.
2. ALL PIPE SHALL BE MATERIAL SA 106 Gr. B
3. ALL FLANGES SHALL BE SCHED. 150# & MATERIAL SA 105.
4. ALL BOLTING SHALL BE MATERIAL SHALL BE SA 194 Gr. 2H.
5. TANK FABRICATION SHALL BE IN ACCORDANCE WITH API-650

NO.	STATUS	BY	CHKD	APPD	DATE

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

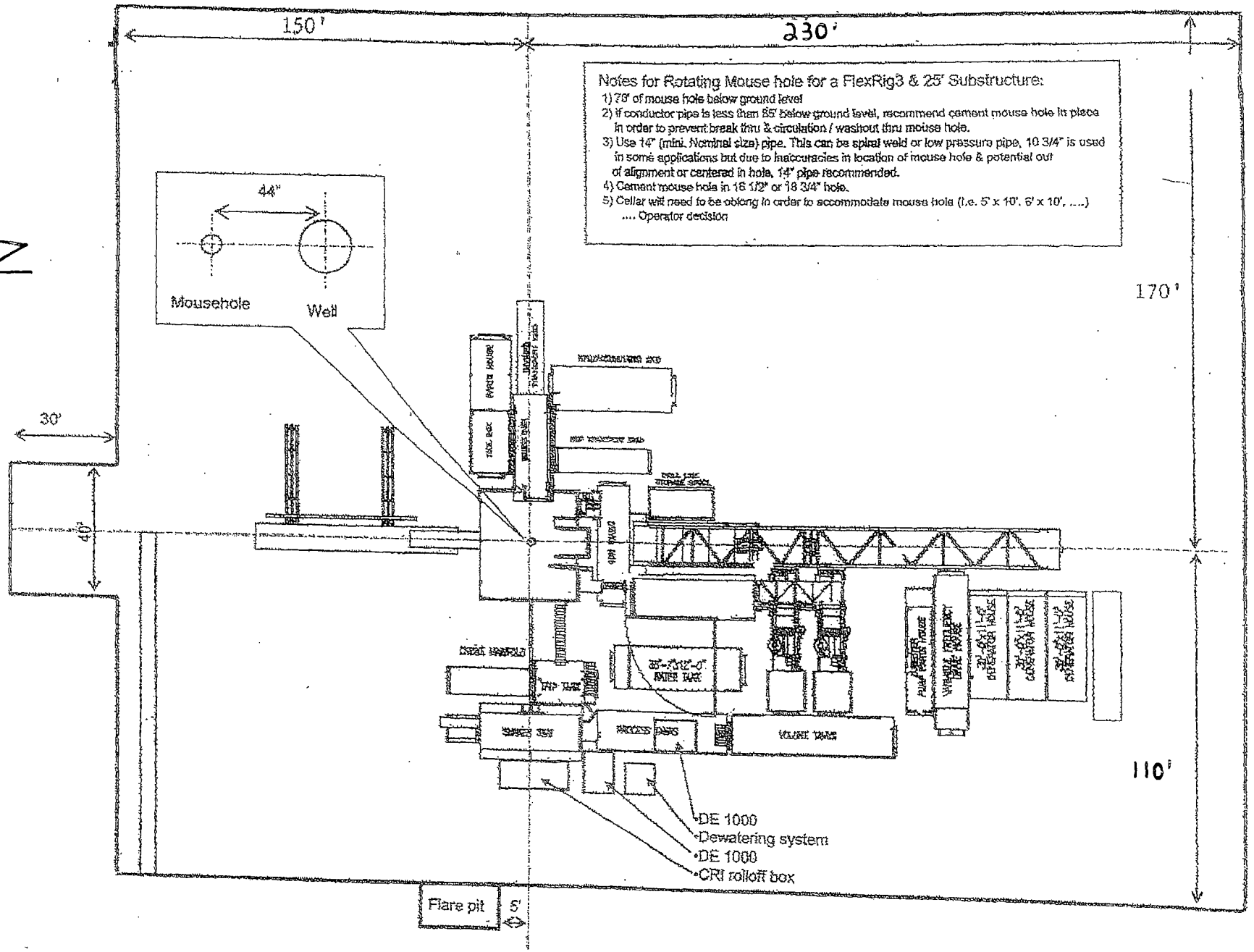
DRAWN BY	DATE	CHECKED BY	DATE
CSH	10/30/08		
APPROVED	DATE	SCALE	SIZE
		NTS	D

Scomi
001 N. Sam Houston Parkway East, Suite 000,
Houston, Texas 77060
PHONE: (281) 000-0000, FAX: (281) 000-0000

JOB NO.	DRAWING NO.	REV.
	521S-014	A

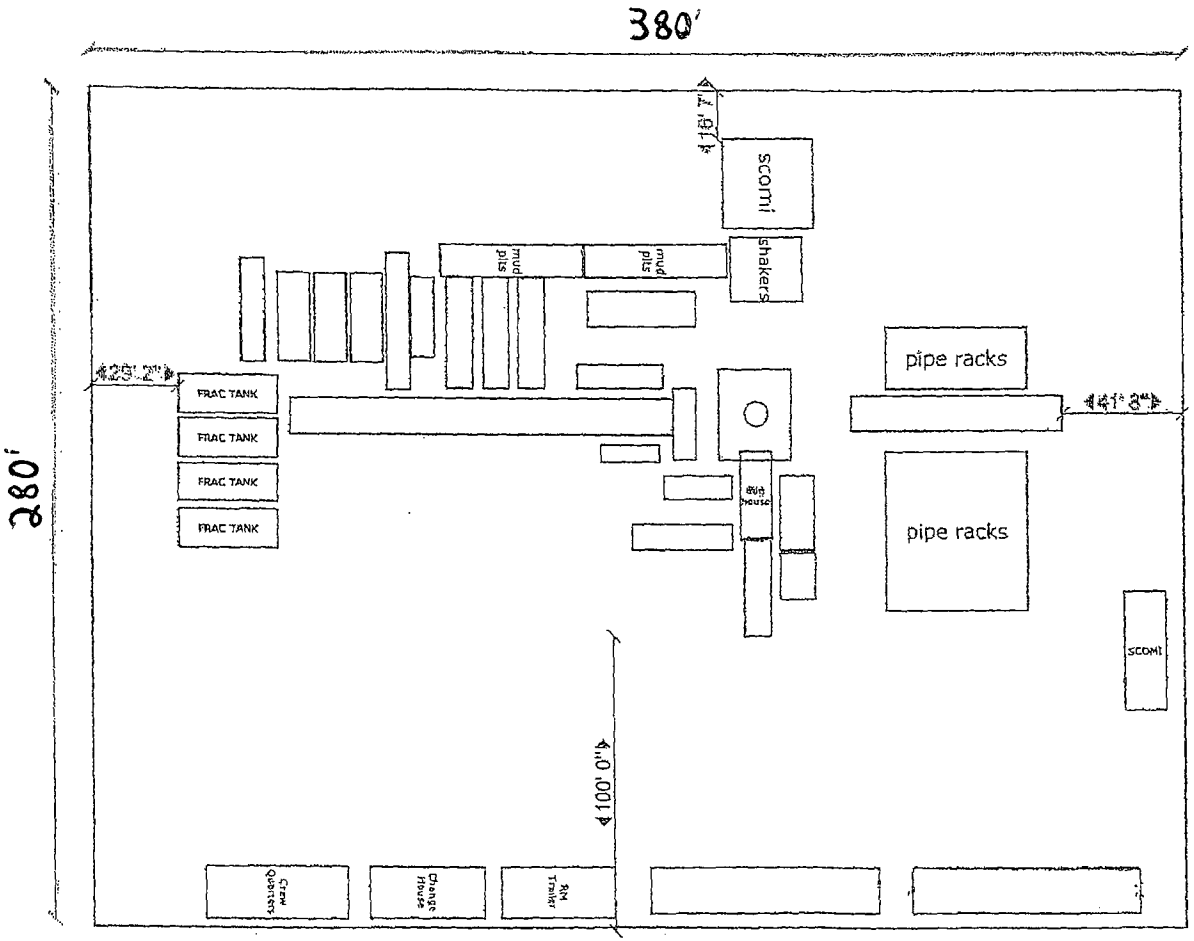
RL-CL-

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

RL-4-4



Two wells willbe Drilled from this location

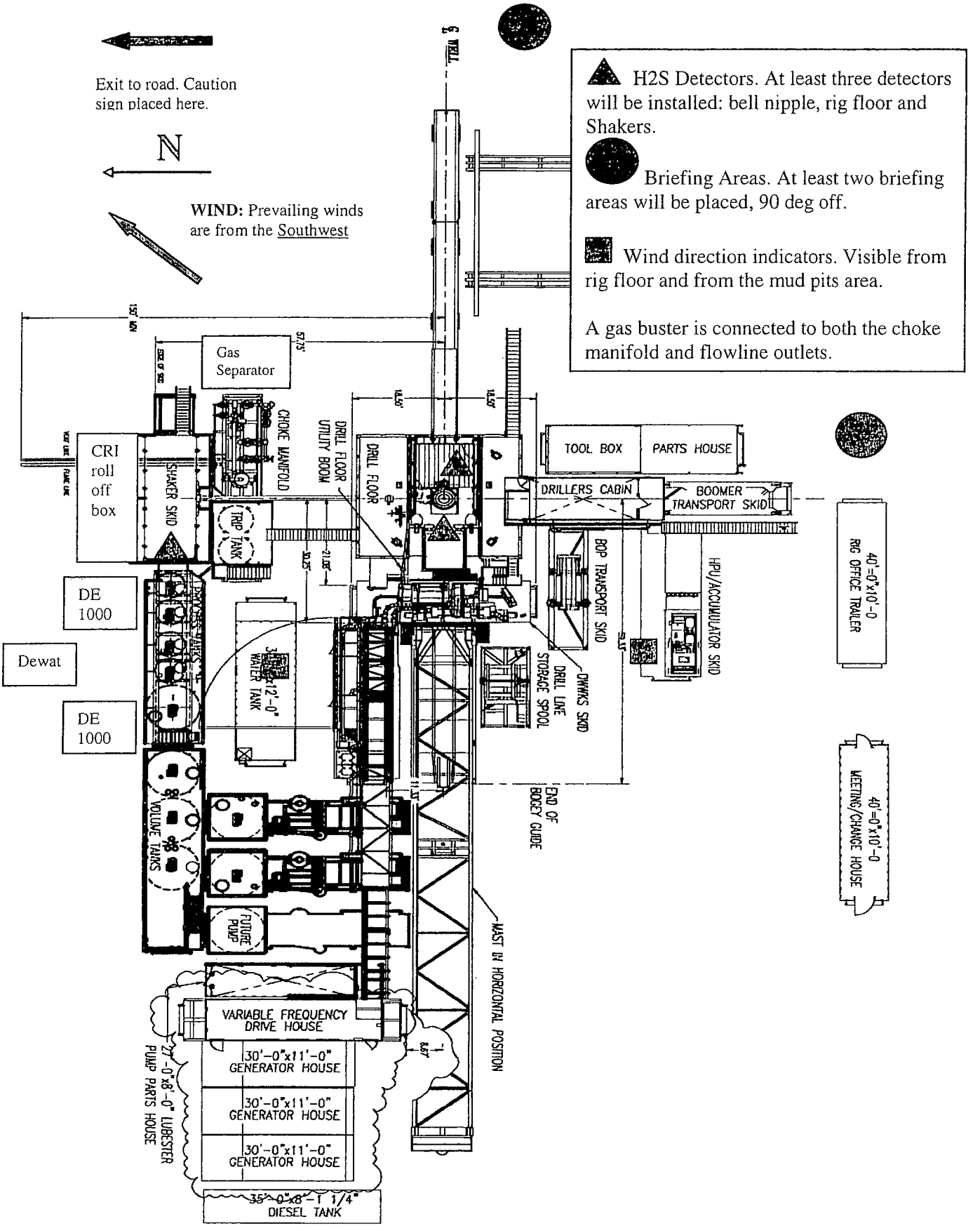
Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
Federal 12 #1H

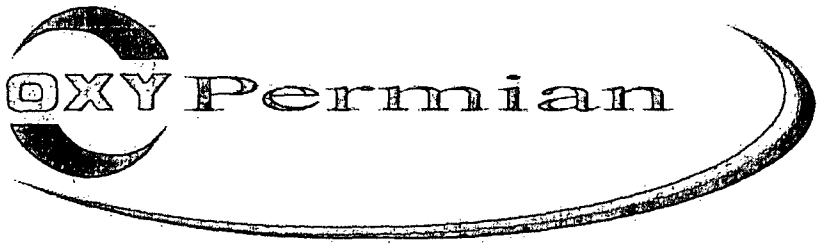
Open drill site. No homes or buildings are near the proposed location.

1. Escape

   In the event of a H2S gas release, personnel shall escape upwind of wellbore and to a safe distance away with the entrance to location blocked. The primary escape route is the lease road entrance/exit on the Northeast side of the location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken which will be determined by the current wind direction at the time of the release.

Rig Layout


Exit to road. Caution sign placed here.
N
WIND: Prevailing winds are from the Southwest
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.
Gas Separator
CRI roll off box
SHAKER SKID
TRIP TANK
CHOKE MANIFOLD
DRILL FLOOR UTILITY BOOM
DRILL FLOOR
TOOL BOX
PARTS HOUSE
DRILLERS CABIN
BOOMER TRANSPORT SKID
BOP TRANSPORT SKID
HPU/ACCUMULATOR SKID
DRILL LINE STORAGE SPOOL
DWKKS SKID
40'-0"x10'-0 RIG OFFICE TRAILER
40'-0"x10'-0 MEETING/CHANGE HOUSE
DE 1000
Dewat
DE 1000
12'-0" WATER TANK
VOLUME TANKS
FUTURE PUMP
END OF BOGEY GUIDE
MAST IN HORIZONTAL POSITION
VARIABLE FREQUENCY DRIVE HOUSE
30'-0"x11'-0" GENERATOR HOUSE
30'-0"x11'-0" GENERATOR HOUSE
30'-0"x11'-0" GENERATOR HOUSE
27'-0"x8'-0" LUBESTER PUMP PARTS HOUSE
35'-0"x8'-1 1/4" DIESEL TANK



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.

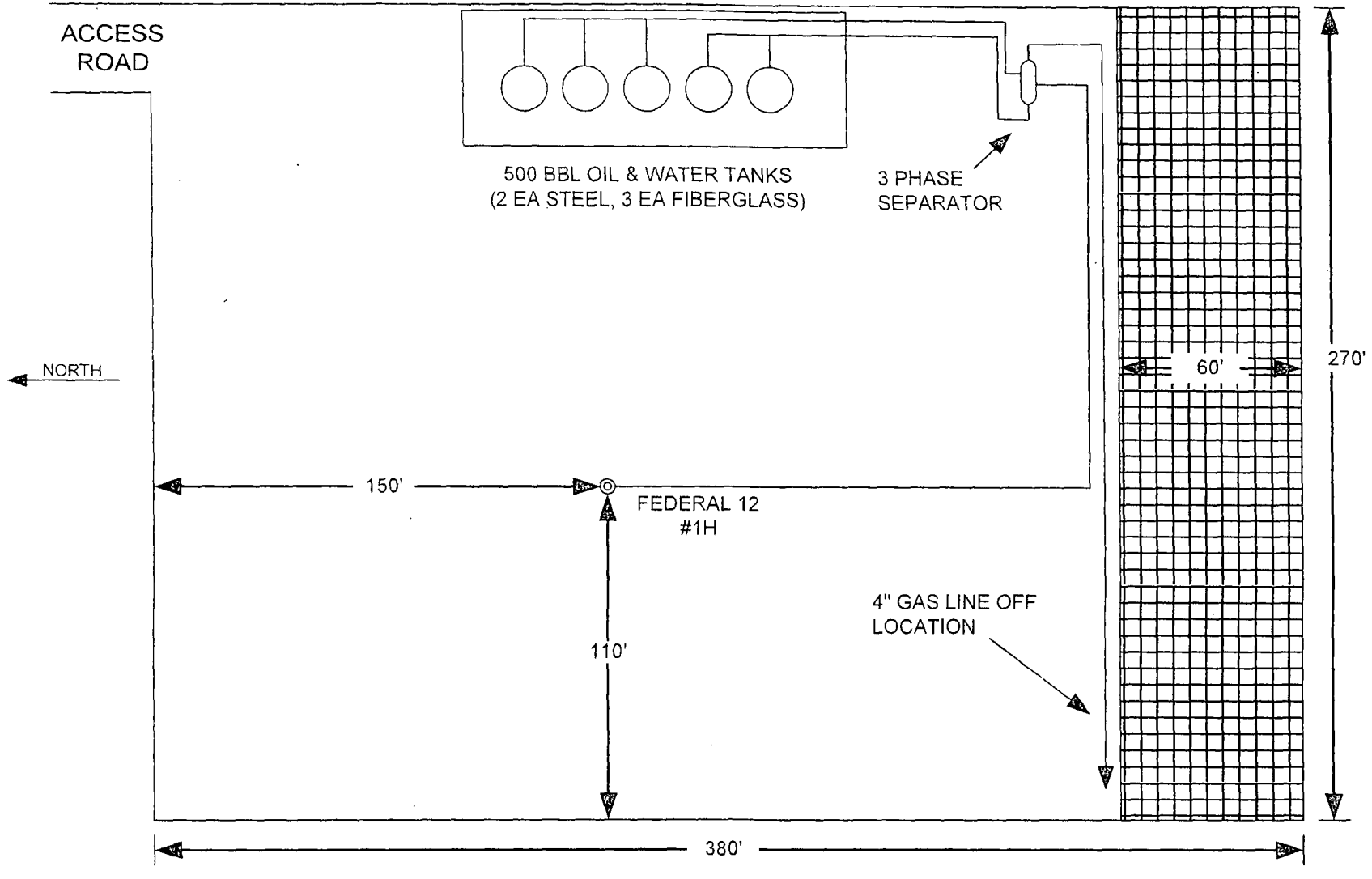
4. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.

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.

Revised CM 6/27/2012

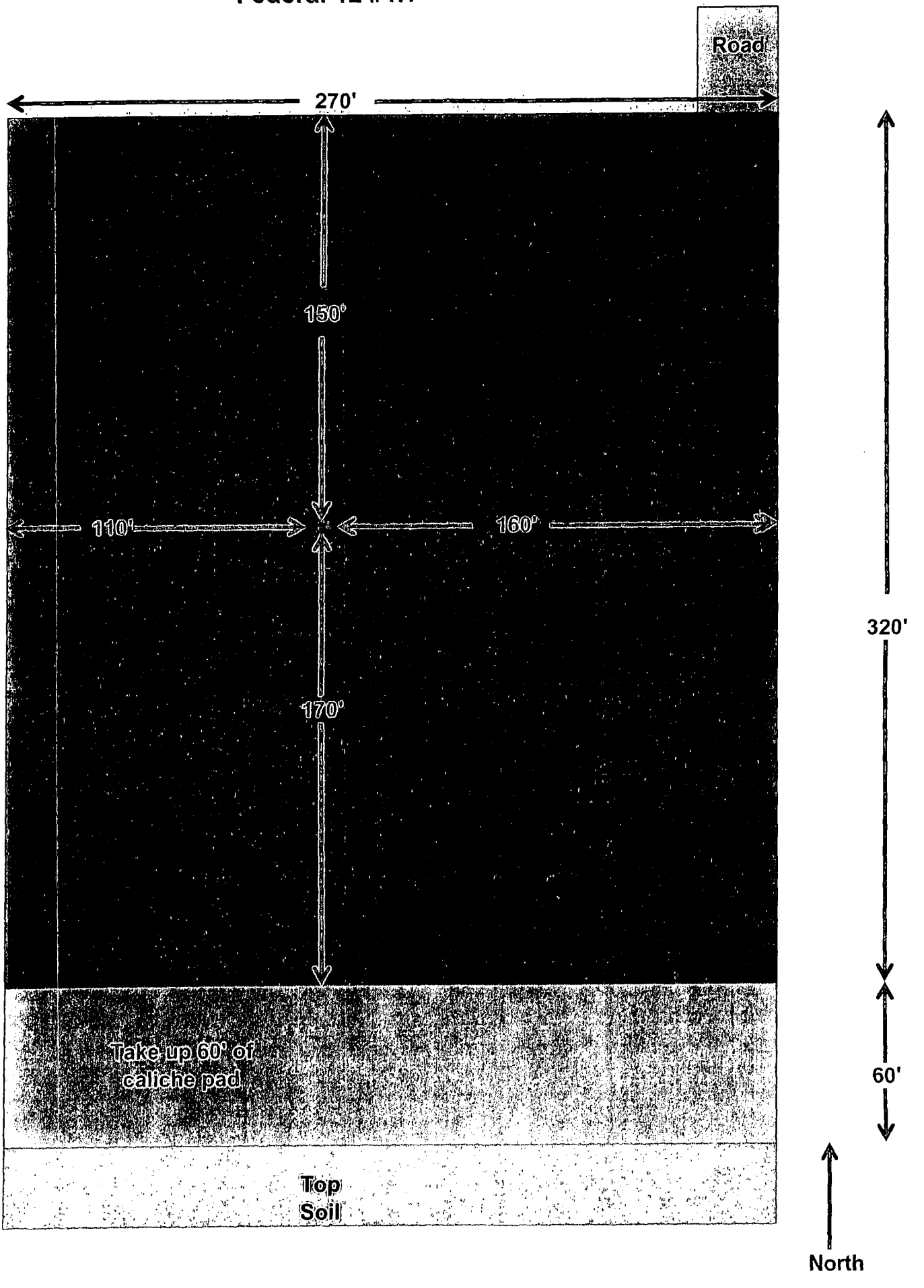


REVISION BLOCK						ENGINEERING RECORD	
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE
0	7/23/12	PRELIMINARY DRAFT	JMR			DRN: JMR	8/13/2012
1	8/13/12	REVISED WELL PAD DIAGRAM	JMR			DES:	
						CHK:	
						APP:	
						AFE:	

PRODUCTION FACILITY LAYOUT
FEDERAL 12 #1H

EDDY COUNTY, NEW MEXICO

H&P 474 - V-Door North
Federal 12 #1H



SURFACE USE PLAN OF OPERATIONS

Operator Name/Number:	**Occidental Permian Ltd.**	**157984**
Lease Name/Number:	**Federal 12 #1H**	
Pool Name/Number:	**Quahada Ridge Delaware, Southeast**	**50443**
Surface Location:	**1159 FSL 1343 FEL SWSE(O) Sec 1 T23S R30E**	**Federal Lse No. NMNM0546732**
Bottom Hole Location:	**350 FSL 678 FEL SESE(P) Sec 12 T23S R30E**	

1. Existing Roads

a. A copy of a USGS "Los Medanos, 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 6/28/11, certified 7/19/12.

c. Directions to Location: At the intersection of Hwy 128 and WIPP Rd, go northeast on WIPP Rd. for .5 miles. Turn left on caliche road and go .2 miles. Turn left on proposed new road and go south for 401.1' to location.

2. New or Reconstructed Access Roads:

a. A new access road will be built. The access road will run approximately 401.1' south 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 - North Tanks/Pits- West Pad Size - ~~370'~~ 280 X ~~460'~~ 380 JDF

Two wells will be drilled from this location

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: Slash 46 Inc., C/O Stacey Mills, P.O. Box 1358, Loving, NM 88256
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

e. Notice of this application will also be mailed to the following:
Mosiac Potash Carlsbad Inc., Attn: Dan Morehouse, P.O. Box 71, Carlsbad NM 88220
Western Ag-Minerals Co., P.O. Box 71, Carlsbad, NM 88221

13. Bond Coverage:

Bond Coverage is Nationwide Bond No. NMB000819.

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

Roger Allen
Drilling Superintendent
P.O. Box 4294
Houston, TX 77210
Office Phone: 713-215-7617
Cellular: 281-682-3919

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

Sebastian Millan
Drilling Engineering Supervisor
P.O. Box 4294
Houston, TX 77210
Office Phone: 713-985-8750
Cellular: 713-528-3268

Brad Brown
Drilling Engineer
P.O. Box 4294
Houston, TX 77210
Office Phone: 713-985-6950
Cellular: 713-376-8417

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Occidental Permian LP
LEASE NO.:	NM0546732
WELL NAME & NO.:	1H Federal 12
SURFACE HOLE FOOTAGE:	1159' FSL & 1343' FEL
BOTTOM HOLE FOOTAGE	350' FSL & 678' FEL, Sec.12
LOCATION:	Section 1, T.23 S., R.30 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)

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.

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Tank Battery Liners and Berms:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing

electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

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.

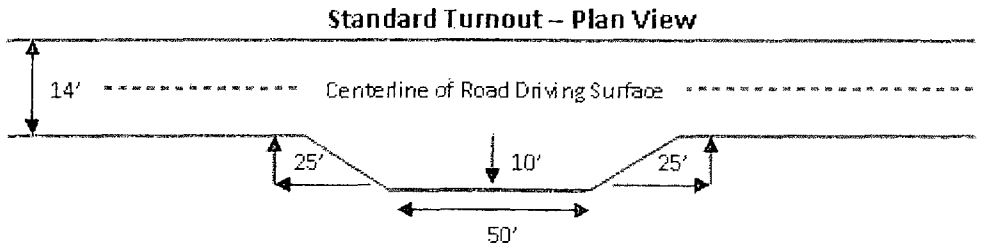
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing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

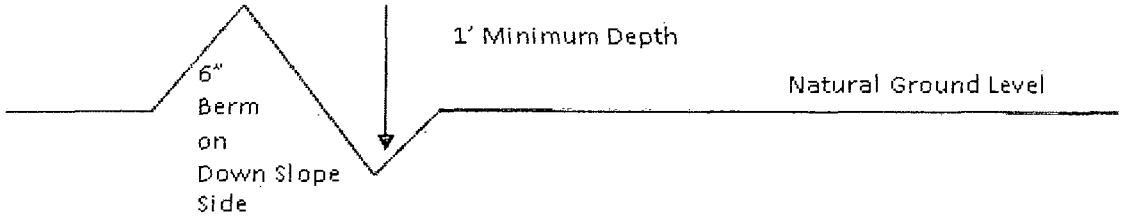
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



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

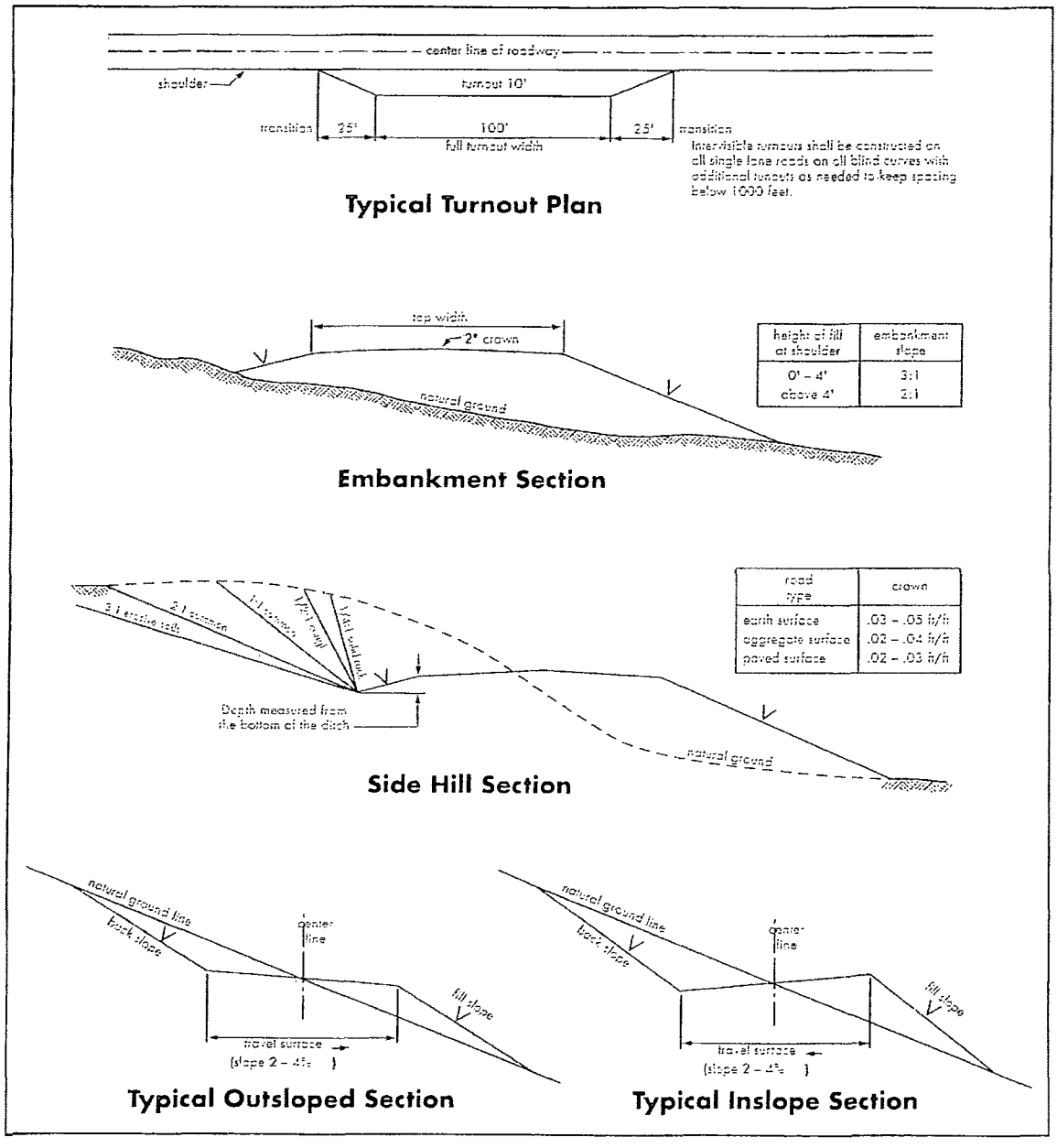
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, provide measured values 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.

HIGH CAVE/KARST
WIPP/ R-111-P Potash
Possible lost circulation in the Delaware Mountain Group.

1. The **13-3/8** inch surface casing shall be set at approximately **350** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encounter set casing at least 25 feet above the salt.**

    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 is: **(Ensure casing is set in the base of the Castile or the Lamar at approximately 3900')**

   ☒ 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 and cave/karst.**

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.

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 -53%.**

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.**

    a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

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**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    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.

D. DRILL STEM TEST

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

E. 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.

F. WIPP Requirements

The proposed well is located within a mile but outside of 330' of the WIPP Land Withdrawal Area boundary. As a result, Occidental Permian Limited Partnership is requested to submit daily drilling reports, logs and deviation survey information to the Bureau of Land Management and the Department of Energy per requirements of the Joint Powers Agreement until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum the rate of penetration and a clearly marked section showing the deviation for each 500 foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures. Information from this well will be included in the Quarterly Drilling Report. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Upon completion of the well, the operator shall submit a complete directional survey. Any future entry into the well for purposes of completing additional drilling will require supplemental information.
Occidental Permian Limited Partnership can email the required information to Mr. Melvin Balderrama at Melvin.Balderama@wipp.ws or Mr. J. Neatherlin at Jimmy.Neatherlin@wipp.ws fax to his attention at 575-234-6062.

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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 2, for Sandy 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
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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