12-803

Split Estate

Form 3160-3
(March 2012)

HIGH CAVEKARST

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5 Lease Serial No. NMNM 99016 JCS 10/1/2012
1b. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allotee or Tribe Name
2 Name of Operator OXY USA INC <16696>	7 If Unit or CA Agreement, Name and No
3a Address P.O. BOX 4294 HOUSTON, TX 77210	8 Lease Name and Well No. OSAGE "18" FEE B COM #1H <39484>
3b Phone No. *(include area code)* 713-513-6640	9 API Well No. 30-015-40760
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface 480' FSL & 2160' FWL At proposed prod. zone 330' FNL & 2260' FWL	10 Field and Pool, or Exploratory North Seven Rivers; Gloneta-Yeso <97565>
	11 Sec, T R M or Blk and Survey or Area N, SEC 18, T20S, R25E
14 Distance in miles and direction from nearest town or post office* 20 miles Northwes of Carlsbad, NM	12 County or Parish EDDY / 13. State NM
15 Distance from proposed* 480' location to nearest property or lease line, ft (Also to nearest drig. unit line, if any)	16 No. of acres in lease 198.8 / 17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* 1201' to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth 6816' MD / 2600' TVD / 20. BLM/BIA Bond No on file ESB000226
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3567.8'	22. Approximate date work will start* 12/05/2012 / 23 Estimated duration 10 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, must 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 must 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 BLM.

25 Signature	Name *(Printed/Typed)* JENNIFER DUARTE (jennifer_duarte@oxy.com)	Date 05/31/2012
Title REGULATORY ANALYST		
Approved by *(Signature)* /s/ Don Peterson	Name *(Printed/Typed)* /s/ Don Peterson	Date SEP 26 2012
Title FIELD MANAGER	Office CARLSBAD FIELD 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.

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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
30-015-40760	97565	North Seven Rivers; Glorieta-Yeso

Property Code	Property Name	Well Number
39484	OSAGE "18" FEE B COM	1H

OGRID No.	Operator Name	Elevation
166696	OXY USA INC.	3567.8'

Surface Location

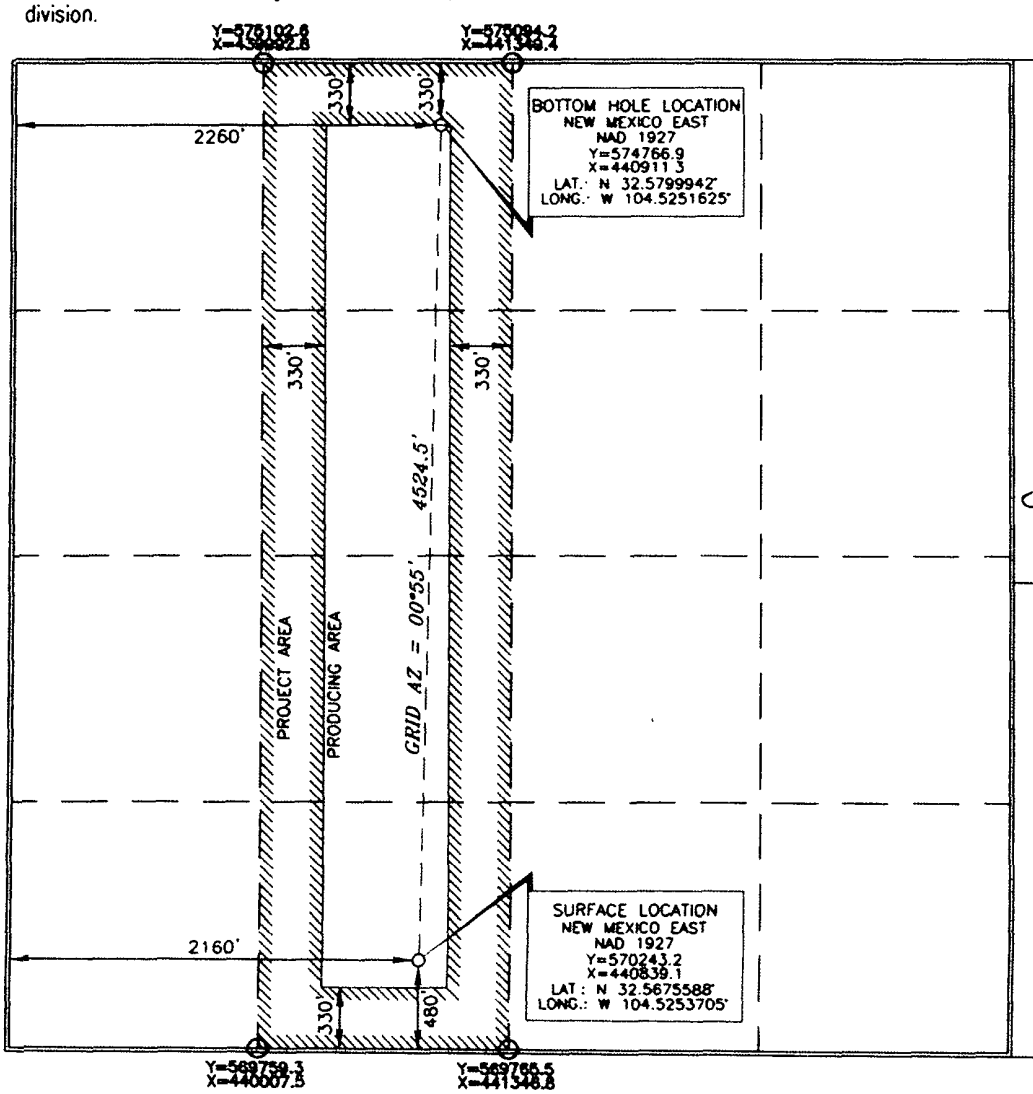
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	18	20 SOUTH	25 EAST, N.M.P.M.		480'	SOUTH	2160'	WEST	EDDY

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
C	18	20 SOUTH	25 EAST, N.M.P.M.		330'	NORTH	2260'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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 5/31/12
Date

Jennifer Duarte
Printed Name

SURVEYOR CERTIFICATION

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

15079
SEPTEMBER 21, 2011
Date of Survey

Signature and Seal of Professional Surveyor

10/11/2011

Certificate Number 15079

WO# 110921WL-b-XY (KA)

OXY USA Inc.
Box 4294, Houston, TX 77210-4294

Taylor Cann, RPL
Land Negotiator

Phone (713) 366-5119
Cell (832) 291-9168
Fax (713) 985-1859
Taylor_Cann@oxy.com

United States Department of the Interior
Bureau of Land Management
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220

Attention: Linda Denniston

RE: Osage 18 Fee B Com 1H

Eddy County, New Mexico

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

OPERATOR NAME: OXY USA Inc.
ADDRESS: P.O. Box 4294
Houston, Texas 77210-4294

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

LEASE NO.: **NMNM 99016**
LEGAL DESCRIPTION:
Surface Location: 480' FSL & 2160' FWL
Bottom Hole Location: 330' FNL & 2260' FWL
Section 18-T20S-R25E
Eddy County, New Mexico

FORMATIONS: None

BOND COVERAGE: Nationwide

BLM BOND FILE NO.: ES 0136

AUTHORIZED SIGNATURE: OXY USA Inc.
Taylor Cann

TITLE: Land Negotiator

DATE: February 7, 2012

cc: David Stewart

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 30th day of May, 2012.

Name: David Schellstede

Position: Reservoir Management Team Leader

Address: 5 Greenway Plaza, Suite 110, Houston, TX 77046

Telephone: 713-366-5013

E-mail: (optional): david_schellstede@oxy.com

Company: OXY USA Inc.

Field Representative (if not above signatory): Dusty Weaver

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

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

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

OXY USA Inc

Osage 18 Fee B Com # 1H
APD Data

OPERATOR NAME / NUMBER: OXY USA Inc 16696

LEASE NAME / NUMBER: **Osage 18 Fee B Com # 1H** **Federal Lease No:**

STATE: **NM** **COUNTY:** **Eddy**

SURFACE LOCATION: **480' FSL & 2160' FWL, Sec 18, T20S, R25E**

BOTTOM HOLE LOCATION: **330' FNL & 2260' FWL, Sec. 18, T20S, R25E**

C-102 PLAT APPROX GR ELEV: 3567.8'

EST KB ELEV: 3584.3' (16.5' KB)

1. **GEOLOGIC NAME OF SURFACE FORMATION**
   a. Permian

2. **ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS**

Formation	TVD	(SS) ft	Margin of Error	Expected Fluids
T. Grayburg	0	3560	50	Form Water
T. San Andres	265	3295	50	Form Water
T. Glorietta	2270	1292	50	Oil
T. Yeso Target Depth	2600	962	50	Oil
T. BSPG Sands (Base Yeso)	3250	313	50	Oil

A. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

B. There is no indication of the presence of fresh water.

LATERAL GREATEST PROJECTED TD 6816' MD/ 2600' TVD **OBJECTIVE:** Yeso

3. CASING PROGRAM

Surface Casing: 9.625" casing set at ± ~~400~~ 680' MD/ ~~400~~ TVD in a 12.25" hole filled with 8.40 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-~~400~~ 680'	~~400~~ 680'	36	J-55	ST&C	2020	3520	394	8 921	8.765	14.99	3.09	27.36

Production Casing: 5.5" casing set at ± 6816'MD / 2600'TVD in a 8.75" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- 6816'	6816'	17	J-55	LT-C	4910	5320	247	4.89	4 77	3.48	4.81	2.23

Collapse and burst loads calculated using Stress Check with actual anticipated loads.
All tubulars are new.

4. CEMENT PROGRAM:

Surface Interval

See COA

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Surface (TOC: 0' ~~400'~~)							
Tail: 0' ~~400'~~ (100% Excess)	200	400	Premium Plus cement with 2% Calcium Chloride	6.39	14 80	1.35	1408 psi

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Production (TOC: 0-6817')							
Lead: 0' – 1500' (100 % Excess)	200	1500'	Interfill C with 0.5% LAP-1(Fluid Loss Control) and 0.25% D-AIR 5000 (Defoamer)	14.31	11.90	2.47	262 psi
Tail: 1500' – 6817' (100% Excess)	1490	5317'	50/50 Poz Premium Plus with 0.4% CFR-3 (Dispersant), 0.4% LAP-1 (LFLC), 0.25 lb/sk D-AIR 5000, 0.125 lbm/sk Poly-E-Flake	5.67	14.2	1.26	1317 psi

5. DIRECTIONAL PLAN

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT

Surface: 0 – 400' None.

Pilot and Production: 0 - 6817' . The minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi . Operator will be using a 11" 5M two ram stack w/ 3M annular preventer, & 5M Choke Manifold.

a. The 11" 5000 psi blowout prevention equipment will be installed and operational after setting the 9 5/8" surface casing and the 9.625" SOW x 11" 3K conventional wellhead; the rotating head body will be installed but the rubber will be installed when it becomes operationally necessary.

b. The BOP and ancillary BOPE will be tested by a third party upon installation of the 9 5/8 ", J-55, 36ppf surface casing. All equipment will be tested to 250/3000 psi for 10 minutes and charted, except the annular, which will be tested to 70% of working pressure. This is to be in compliance with the Onshore Order # 2 which states the BOPE shall be tested to full working pressure when isolated from casing (except the annular.)

c. The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3 " choke line having a 5000 psi WP rating. Oxy requests that the system be tested at 5,000 psi WP.

d. Oxy requests a variance if H&P 344 is used to drill this well to use a co-flex line between the BOP and choke manifold. See attached schematic.
Manufacturer: ContiTech Beattie Co.
Serial Number: 60220
Length: 25' Size: 3" Ends: flanges
WP rating: 5000 psi Anchors required by manufacturer: No

e. See attached BOP & Choke manifold diagrams.

7. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 – ~~400'~~ to 80	8.4 – 8.8	32 – 38	NC	Fresh Water /Spud Mud
~~400'~~ – 6817'	9.0 – 9.2	28 – 29	NC	Salt Gel

Remarks: 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.

8. 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 unobstructed and readily accessible 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**

9. POTENTIAL HAZARDS:

A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
B. No abnormal temperatures or pressures are anticipated. The highest anticipated pressure gradient is 0.459 psi/ft. Maximum anticipated bottom hole pressure is 1195 psi.
C. 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 35 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.

See COA

10. WIRELINE LOGGING

Run Gamma/Neutron/Density/Resistivity from TD to Surface casing, with Gamma/Neutron to surface.

COMPANY PERSONNEL:

Name	Title	Office Phone	Mobile Phone
Carlos Mercado	Drilling Engineer	(713)366-5418	(713) 455-3481
Victor Guerra	Drilling Engineer Supervisor	(713)215-7256	(832) 659-3911
Sergio Abauat	Drilling Superintendent	(713)366-5689	(832) 531-5636
Douglas Chester	Drilling Manager	(713)366-5194	(713) 918-9124

Scientific Drilling

OXY

Eddy County, New Mexico: Osage
Osage
Osage 18 Fee B Com 1H

Original Wellbore

Plan: Design #1

Standard Planning Report

06 January, 2012

OXY

Scientific Drilling

Project: Eddy County, New Mexico: Osage
Site: Osage
Well: Osage 18 Fee B Com 1H
Wellbore: Original Wellbore
Design: Design #1

OXY

PROJECT DETAILS: Eddy County, New Mexico Osage

Geodetic System	US State Plane 1927 (Exact solution)
Datum	NAD 1927 (NADCON CONUS)
Ellipsoid	Clarke 1866
Zone	New Mexico East 3001
System Datum	Mean Sea Level

SITE DETAILS: Osage

Northing	570099.80
Easting	442226.80
Elevation	3567.80
KB	KB @ 3584.30usft (H&P 345)

CASING DETAILS

TVD	MD	Size
400.00	400.00	9-5/8
2600.00	6816.88	5-1/2

SECTION DETAILS

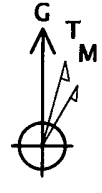
MD	*Inc*	*Azi*	*TVD*	*+N/-S*	*+E/-W*	*Dleg*	*VSect*	*Target*
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1883.80	0.00	0.00	1883.80	0.00	0.00	0.00	0.00	
3008.80	90.00	0.91	2600.00	716.11	11.43	8.00	716.20	
6816.88	90.00	0.91	2600.00	4523.70	72.20	0.00	4524.28	BHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
350.00	350.00	T. Grayburg
650.00	650.00	T. San Andres
2190.00	2200.19	T. Glorieta
2330.00	2365.51	T. Yeso
2600.00	3008.80	Lateral TGT Window
2600.00	3008.80	T. Yeso Target Depth

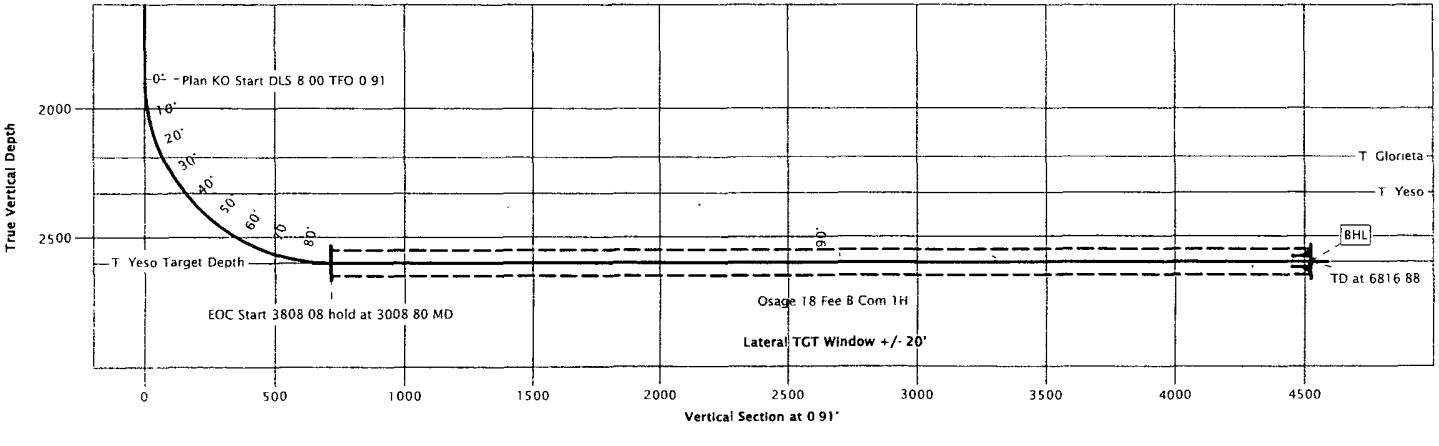
DESIGN TARGET DETAILS

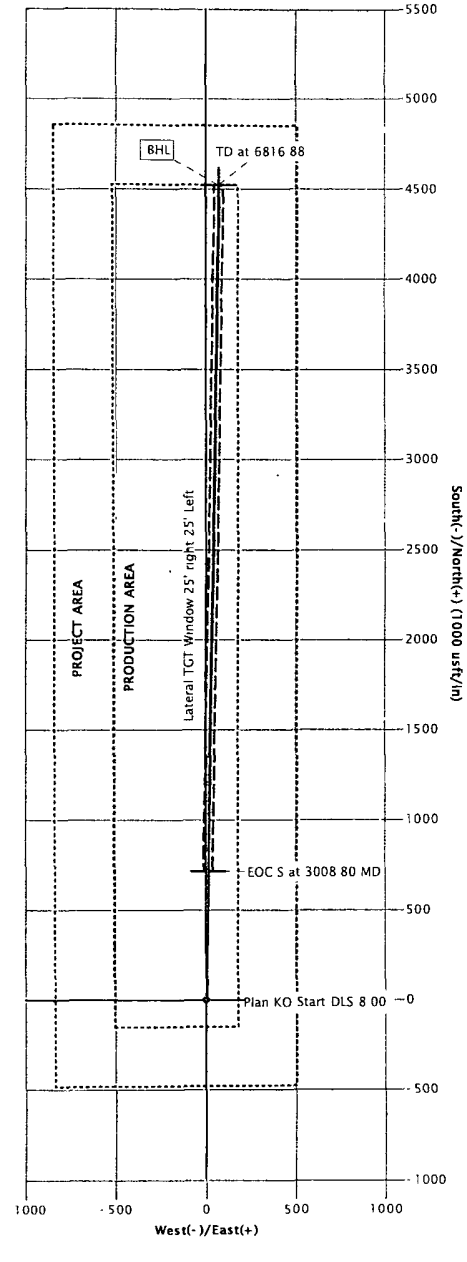
Name	*TVD*	*+N/-S*	*+E/-W*	*Northing*	*Easting*	*Shape*
Lateral TGT Window - plan hits target center	2600.00	716.11	11.43	570959.31	440850.53	Rectangle
Osage 18 Fee B Com 1H BHL - plan hits target center	2600.00	4523.70	72.20	574766.90	440911.30	Point



Azimuths to Grid North
True North 0.10°
Magnetic North 8.08°

Magnetic Field
Strength 48658.0snT
Dip Angle 60.32°
Date 01/06/2012
Model IGRF2010





Database:	EDM-OXY-DB	**Local Co-ordinate Reference:**	Well Osage 18 Fee B Com 1H
Company:	OXY	**TVD Reference:**	KB @ 3584 30usft (H&P 345)
Project:	Eddy County, New Mexico Osage	**MD Reference:**	KB @ 3584 30usft (H&P 345)
Site:	Osage	**North Reference:**	Grid
Well:	Osage 18 Fee B Com 1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Project Eddy County, New Mexico Osage, New Mexico, Osage 18

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Osage

Site Position:		**Northing:**	570,099.80 usft	**Latitude:**	32° 34' 1.817 N
From:	Map	**Easting:**	442,226 80 usft	**Longitude:**	104° 31' 15 114 W
Position Uncertainty:	0 00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0 10 °

Well Osage 18 Fee B Com 1H

Well Position	**+N/-S**	143 40 usft	**Northing:**	570,243.20 usft	**Latitude:**	32° 34' 3.212 N
	+E/-W	-1,387 70 usft	**Easting:**	440,839 10 usft	**Longitude:**	104° 31' 31 333 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,567.80 usft

Wellbore Original Wellbore

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/06/12	7.98	60.32	48,658

Design Design #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	2,600.00	0.00	0.00	0 91	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0 00	0 00	0.00	0 00	0.00	0.00	0.00	0 00	0 00	
1,883 80	0.00	0 00	1,883 80	0 00	0.00	0 00	0.00	0.00	0 00	
3,008.80	90 00	0 91	2,600.00	716 11	11 43	8.00	8 00	0.08	0.91	
6,816.88	90 00	0.91	2,600.00	4,523 70	72 20	0.00	0 00	0.00	0.00	Osage 18 Fee B Com

Database:	EDM-OXY-DB	Local Co-ordinate Reference:	Well Osage 18 Fee B Com 1H
Company:	OXY	TVD Reference:	KB @ 3584 30usft (H&P 345)
Project:	Eddy County, New Mexico· Osage	MD Reference:	KB @ 3584 30usft (H&P 345)
Site:	Osage	North Reference:	Grid
Well:	Osage 18 Fee B Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 00	0 00	0 00	0.00	0 00	0.00	0 00	0 00	0 00	0 00
100.00	0.00	0 00	100.00	0 00	0.00	0 00	0 00	0 00	0 00
200.00	0.00	0 00	200.00	0 00	0 00	0 00	0 00	0 00	0 00
300 00	0 00	0.00	300 00	0 00	0.00	0 00	0 00	0 00	0 00
350.00	0.00	0 00	350 00	0 00	0.00	0.00	0.00	0 00	0 00
T. Grayburg									
400 00	0 00	0.00	400.00	0 00	0.00	0 00	0 00	0 00	0 00
9 5/8"									
500.00	0.00	0.00	500 00	0 00	0 00	0.00	0.00	0.00	0.00
600.00	0 00	0.00	600.00	0 00	0 00	0.00	0.00	0.00	0 00
650 00	0.00	0.00	650.00	0.00	0.00	0.00	0 00	0 00	0 00
T. San Andres									
700 00	0.00	0 00	700.00	0 00	0.00	0 00	0 00	0.00	0.00
800.00	0 00	0.00	800.00	0.00	0.00	0.00	0 00	0.00	0 00
900.00	0 00	0 00	900 00	0 00	0 00	0.00	0.00	0 00	0.00
1,000.00	0.00	0.00	1,000.00	0 00	0.00	0 00	0 00	0.00	0.00
1,100 00	0.00	0 00	1,100.00	0.00	0 00	0 00	0 00	0.00	0 00
1,200 00	0.00	0.00	1,200 00	0 00	0.00	0.00	0 00	0 00	0 00
1,300.00	0 00	0.00	1,300.00	0 00	0 00	0.00	0.00	0.00	0 00
1,400.00	0.00	0 00	1,400.00	0.00	0 00	0.00	0 00	0 00	0.00
1,500 00	0.00	0 00	1,500 00	0 00	0.00	0 00	0 00	0 00	0 00
1,600 00	0 00	0 00	1,600.00	0 00	0.00	0 00	0 00	0.00	0 00
1,700 00	0 00	0 00	1,700 00	0.00	0 00	0 00	0.00	0.00	0 00
1,800 00	0 00	0.00	1,800 00	0 00	0.00	0 00	0 00	0.00	0 00
1,883.80	0 00	0.00	1,883.80	0 00	0.00	0.00	0 00	0 00	0.00
Plan KO Start DLS 8.00 TFO 0.91									
1,900 00	1 30	0 91	1,900 00	0 18	0 00	0 18	8 00	8 00	0 00
1,950.00	5.30	0 91	1,949.91	3 06	0.05	3 06	8 00	8 00	0 00
2,000 00	9 30	0 91	1,999.49	9 40	0 15	9 41	8 00	8 00	0 00
2,050.00	13.30	0.91	2,048 51	19.20	0 31	19.20	8 00	8 00	0.00
2,100 00	17.30	0 91	2,096 73	32.38	0 52	32 39	8 00	8 00	0.00
2,150.00	21 30	0 91	2,143 91	48.90	0 78	48.90	8 00	8.00	0.00
2,200 00	25.30	0 91	2,189.83	68 67	1.10	68.67	8 00	8 00	0 00
2,200.19	25 30	0 91	2,190.00	68 75	1 10	68 76	0 00	0 00	0 00
T. Glorieta									
2,250 00	29.30	0 91	2,234 25	91 59	1 46	91.60	8 03	8 03	0.00
2,300 00	33.30	0 91	2,276 97	117 55	1 88	117 57	8 00	8 00	0 00
2,350 00	37 30	0 91	2,317 77	146 43	2 34	146 45	8.00	8.00	0.00
2,365.51	38 54	0 91	2,330 00	155 96	2 49	155.98	8 00	8 00	0 00
T. Yeso									
2,400.00	41 30	0.91	2,356 45	178.09	2.84	178 11	8 00	8 00	0 00
2,450 00	45 30	0.91	2,392.84	212 37	3 39	212 39	8 00	8 00	0 00
2,500.00	49.30	0 91	2,426 74	249.10	3.98	249 13	8 00	8 00	0.00
2,550.00	53 30	0 91	2,458.00	288 10	4 60	288 14	8 00	8 00	0.00
2,600 00	57 30	0.91	2,486 46	329 19	5.25	329.24	8 00	8 00	0 00
2,650 00	61 30	0 91	2,511 99	372 17	5.94	372 22	8 00	8 00	0 00
2,700.00	65.30	0 91	2,534 45	416.82	6 65	416 88	8 00	8.00	0 00
2,750 00	69.30	0 91	2,553 74	462.93	7 39	462.99	8.00	8.00	0 00
2,800.00	73.30	0.91	2,569.78	510.28	8.14	510.34	8.00	8 00	0 00
2,850.00	77 30	0 91	2,582 46	558.62	8 92	558 70	8.00	8 00	0 00
2,900.00	81 30	0 91	2,591 75	607 74	9 70	607 82	8 00	8.00	0.00
2,950.00	85 30	0 91	2,597 58	657 38	10 49	657 46	8 00	8 00	0 00
3,000 00	89.30	0 91	2,599 94	707 31	11.29	707 40	8 00	8.00	0 00

Database:	EDM-OXY-DB	Local Co-ordinate Reference:	Well Osage 18 Fee B Com 1H
Company:	OXY	TVD Reference:	KB @ 3584 30usft (H&P 345)
Project:	Eddy County, New Mexico: Osage	MD Reference:	KB @ 3584 30usft (H&P 345)
Site:	Osage	North Reference:	Grid
Well:	Osage 18 Fee B Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,008.80	90.00	0.91	2,600.00	716 11	11 43	716.20	8.00	8.00	0 00
EOC Start 3808.08 hold at 3008.80 MD - T. Yeso Target Depth - Lateral TGT Window - Lateral TGT Window (Osage 18 Fee B Com 1H Origi									
3,100 00	90.00	0 91	2,600.00	807 29	12.88	807 40	0 00	0 00	0 00
3,200 00	90.00	0 91	2,600.00	907 28	14.48	907.40	0 00	0 00	0 00
3,300.00	90.00	0.91	2,600.00	1,007 27	16 08	1,007.40	0.00	0 00	0 00
3,400.00	90.00	0 91	2,600 00	1,107.26	17.67	1,107.40	0 00	0 00	0.00
3,500.00	90 00	0.91	2,600 00	1,207 24	19.27	1,207.40	0 00	0.00	0 00
3,600.00	90 00	0.91	2,600 00	1,307 23	20 86	1,307.40	0.00	0.00	0 00
3,700.00	90.00	0 91	2,600.00	1,407 22	22.46	1,407 40	0 00	0 00	0.00
3,800 00	90.00	0.91	2,600 00	1,507.21	24.06	1,507.40	0.00	0 00	0 00
3,900.00	90 00	0.91	2,600 00	1,607 19	25 65	1,607.40	0.00	0.00	0 00
4,000.00	90.00	0 91	2,600.00	1,707 18	27.25	1,707 40	0 00	0 00	0.00
4,100 00	90 00	0 91	2,600 00	1,807 17	28.84	1,807 40	0 00	0 00	0.00
4,200 00	90 00	0 91	2,600.00	1,907.15	30 44	1,907.40	0.00	0.00	0 00
4,300 00	90.00	0 91	2,600.00	2,007 14	32 03	2,007.40	0 00	0.00	0 00
4,400 00	90.00	0.91	2,600.00	2,107 13	33.63	2,107 40	0 00	0 00	0 00
4,500.00	90.00	0.91	2,600 00	2,207 12	35.23	2,207 40	0 00	0 00	0.00
4,600.00	90.00	0 91	2,600.00	2,307.10	36 82	2,307.40	0.00	0.00	0.00
4,700.00	90 00	0.91	2,600.00	2,407 09	38.42	2,407 40	0 00	0.00	0 00
4,800 00	90.00	0.91	2,600.00	2,507.08	40 01	2,507.40	0 00	0.00	0.00
4,900 00	90.00	0 91	2,600.00	2,607.07	41 61	2,607.40	0 00	0.00	0 00
5,000 00	90 00	0.91	2,600 00	2,707 05	43.21	2,707 40	0 00	0 00	0.00
5,100 00	90.00	0 91	2,600.00	2,807.04	44 80	2,807.40	0.00	0 00	0.00
5,200 00	90.00	0 91	2,600 00	2,907 03	46.40	2,907.40	0.00	0.00	0 00
5,300 00	90.00	0 91	2,600.00	3,007.01	47 99	3,007.40	0.00	0 00	0 00
5,400 00	90.00	0.91	2,600.00	3,107.00	49 59	3,107 40	0.00	0.00	0 00
5,500 00	90 00	0 91	2,600 00	3,206.99	51.18	3,207 40	0.00	0.00	0 00
5,600 00	90.00	0 91	2,600.00	3,306.98	52.78	3,307.40	0.00	0.00	0 00
5,700.00	90 00	0 91	2,600 00	3,406.96	54 38	3,407 40	0 00	0 00	0 00
5,800.00	90 00	0 91	2,600.00	3,506 95	55 97	3,507 40	0 00	0 00	0.00
5,900.00	90.00	0 91	2,600.00	3,606.94	57.57	3,607 40	0 00	0 00	0 00
6,000.00	90.00	0 91	2,600.00	3,706.93	59.16	3,707 40	0 00	0 00	0.00
6,100 00	90.00	0.91	2,600.00	3,806 91	60 76	3,807.40	0 00	0 00	0 00
6,200 00	90.00	0 91	2,600 00	3,906.90	62 36	3,907 40	0 00	0 00	0 00
6,300 00	90.00	0.91	2,600.00	4,006 89	63.95	4,007 40	0 00	0 00	0.00
6,400.00	90.00	0 91	2,600.00	4,106.87	65 55	4,107.40	0.00	0 00	0.00
6,500 00	90.00	0 91	2,600.00	4,206 86	67.14	4,207.40	0 00	0 00	0 00
6,600.00	90.00	0 91	2,600.00	4,306.85	68 74	4,307.40	0 00	0.00	0 00
6,700 00	90.00	0.91	2,600 00	4,406.84	70.33	4,407 40	0 00	0.00	0 00
6,800.00	90 00	0.91	2,600 00	4,506 82	71 93	4,507 40	0 00	0 00	0.00
6,816 88	90 00	0 91	2,600 00	4,523 70	72 20	4,524.28	0.00	0.00	0 00
TD at 6816.88 - Osage 18 Fee B Com 1H BHL									

Database:	EDM-OXY-DB	Local Co-ordinate Reference:	Well Osage 18 Fee B Com 1H
Company:	OXY	TVD Reference:	KB @ 3584.30usft (H&P 345)
Project:	Eddy County, New Mexico. Osage	MD Reference:	KB @ 3584.30usft (H&P 345)
Site:	Osage	North Reference:	Grid
Well:	Osage 18 Fee B Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Osage 18 Fee B Com 1I - plan hits target center - Point	0 00	0 00	2,600 00	4,523 70	72.20	574,766.90	440,911 30	32° 34' 47 979 N	104° 31' 30 585 W
Lateral TGT Window (O - plan hits target center - Rectangle (sides W50 00 H3,806 08 D100.00)	0 00	0.91	2,600.00	716 11	11.43	570,959 31	440,850 53	32° 34' 10.299 N	104° 31' 31 215 W

Casing Points

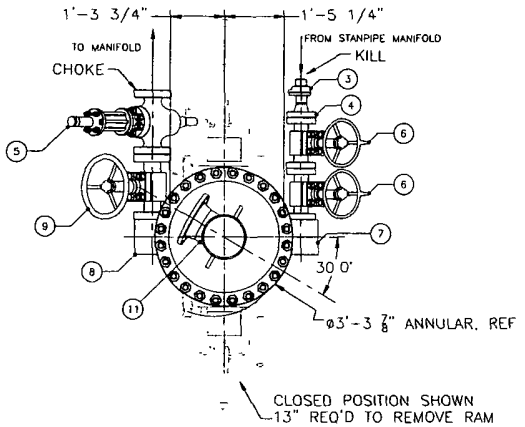
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
400.00	400.00	9 5/8"	9-5/8	12-1/4
6,816.88	2,600 00	5 1/2"	5-1/2	6

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
350.00	350 00	T Grayburg		0.00	
650 00	650.00	T San Andres		0 00	
2,200.19	2,190.00	T Glorieta		0.00	
2,365.51	2,330 00	T. Yeso		0 00	
3,008.80	2,600 00	T Yeso Target Depth		0 00	
3,008 80	2,600.00	Lateral TGT Window		0 00	0.91

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,883.80	1,883 80	0.00	0.00	Plan KO Start DLS 8.00 TFO 0 91
3,008 80	2,600.00	716 11	11.43	EOC Start 3808.08 hold at 3008.80 MD
6,816.88	2,600 00	4,523 70	72.20	TD at 6816.88



PROPER TORQUE FOR BOLTS

COMPONENT	FLANGE SIZE & RATING	BOLT SIZE	TORQUE (FT/LBS) CF=0.07	TORQUE (FT/LBS) CF=0.13
SPOOLS, ANNULAR & RAMS	11"x5M	1 7/8" DIA	1890	3330
BLOCKS	3 1/8x5M	1 1/8" DIA	401	686
CHOKE VALVES	3 1/8x5M	1 1/8" DIA	401	686
KILL VALVES	2 1/16x5M	7/8" DIA	188	319

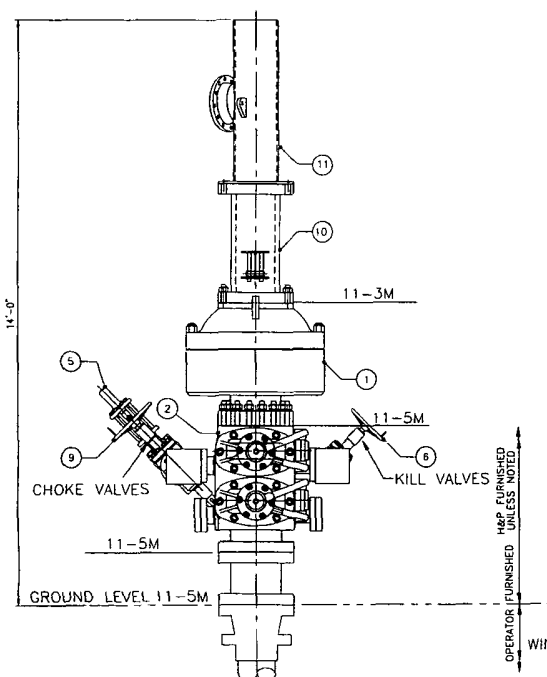
BILL OF MATERIAL

ITEM NO.	QUAN	DESCRIPTION	PART NUMBER	WEIGHT
		11-5M BOP ASSEMBLY		
1	1	ANNULAR, 11x3M BOLTED TYPE		6005
2	1	BOP DOUBLE RAM		7600
	4	RAM ELEMENTS		444
3	1	HAMMER UNION, 2-1502# XXH (BW)		5
4	1	FLANGE, WN 2 1/16-5M API		42
5	1	VALVE, GATE FLS-HCR 3 1/8-5M		396
6	2	VALVE, GATE 2 1/16-5M		350
7	1	90° STUDDED BLOCK, 3 1/8-5M X 2 1/16-5M		240
8	1	90° STUDDED BLOCK, 3 1/8-5M X 3 1/8-5M		250
9	2	VALVE, GATE 3 1/8-5M		720
10	1	BELL NIPPLE BOP LIFTING SECTION	MK F4M-H-318.01A	780
11	1	BELL NIPPLE EXTENSION	MK F4M-H-319.01A	396
12	1	11"-5M x 11"-5M x 1'-3" LONG SPACER		600
		SPOOL- WORKING PRESSURE 5000 PSI		

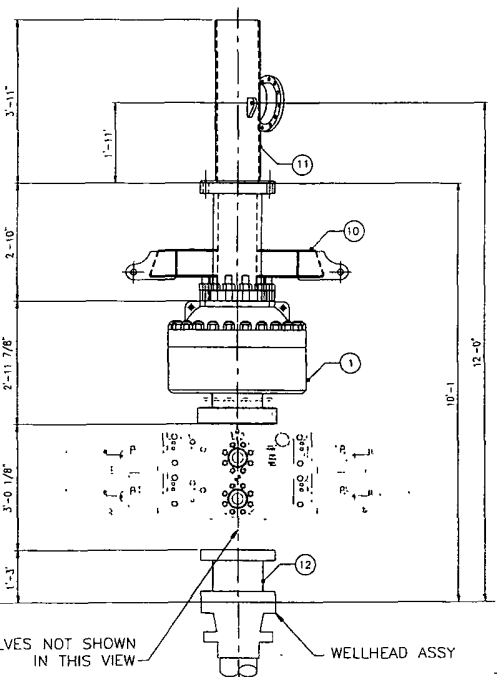
HARDWARE

ITEM NO.	QUAN	DESCRIPTION	PART NUMBER	WEIGHT
		RINGS AND BOLTS		400

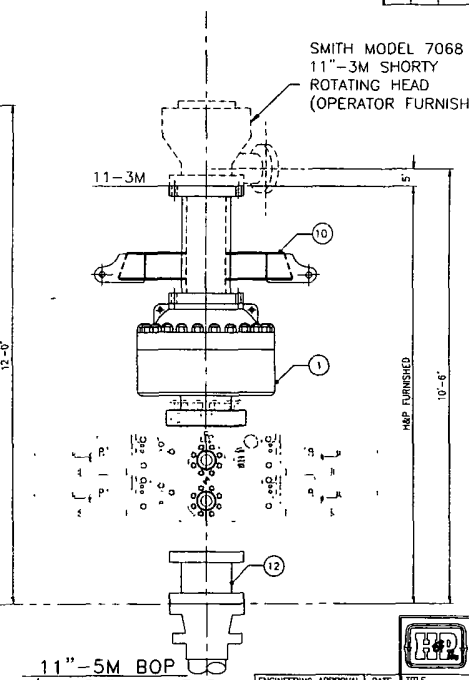
APPROX TOTAL WEIGHT = 18,226 LBS.



11"-5M BOP
W/ BELL NIPPLE



11"-5M BOP
W/ BELL NIPPLE



11"-5M BOP
W/ ROTATING HEAD

ISSUED FOR FABRICATION
August-08-2008
DRAFTSMAN
ENGINEER

NOTES:
1 ALL BOP RAMS SHOWN ARE SHAFFER MODEL LXT
11-5M PSI WP - FLANGED BOTTOM AND STUDDED TOP

REV	DATE	DESCRIPTION	BY
B	08/08/08	ADDED 1 OF 4 SHTS WAS 1 OF 3	DRJ
A	07/29/08	SHEET 1 OF 3 WAS 1 OF 5	DRJ

ENGINEERING APPROVAL | DATE

HELMERICH & PAYNE
INTERNATIONAL DRILLING CO.

TITLE: 11-5M BOP EQUIPMENT GENERAL ARRANGEMENT

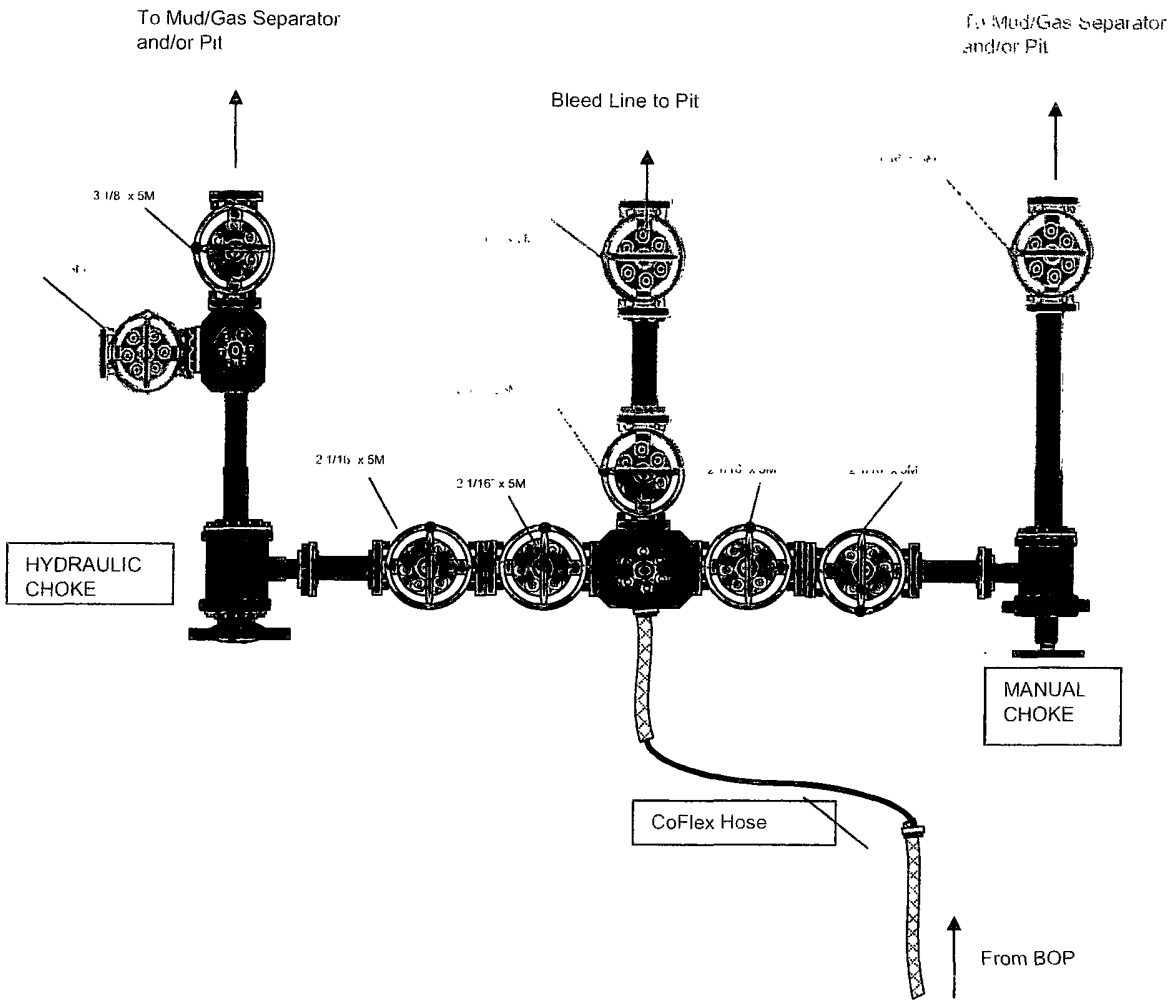
CUSTOMER: OXY-PERMIAN

PROJECT: F4M

DRAWN: DJOHNSON | DATE: 07/14/08 | DWG NO: F4M-H-320 | REV: B

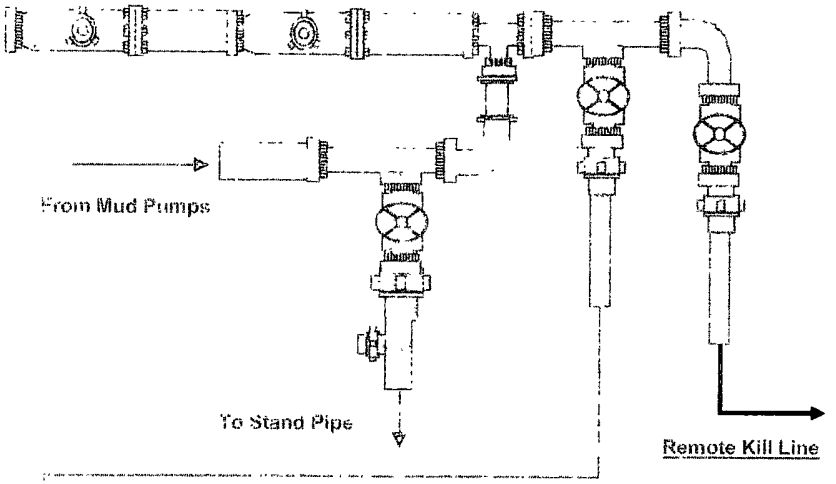
SCALE: NTS | SHEET 1 OF 4

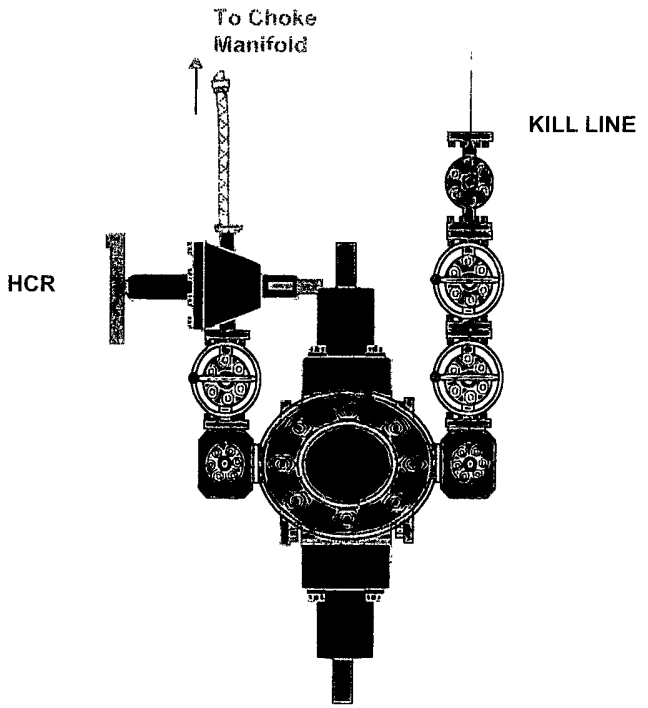
5M CHOKE MANIFOLD CONFIGURATION

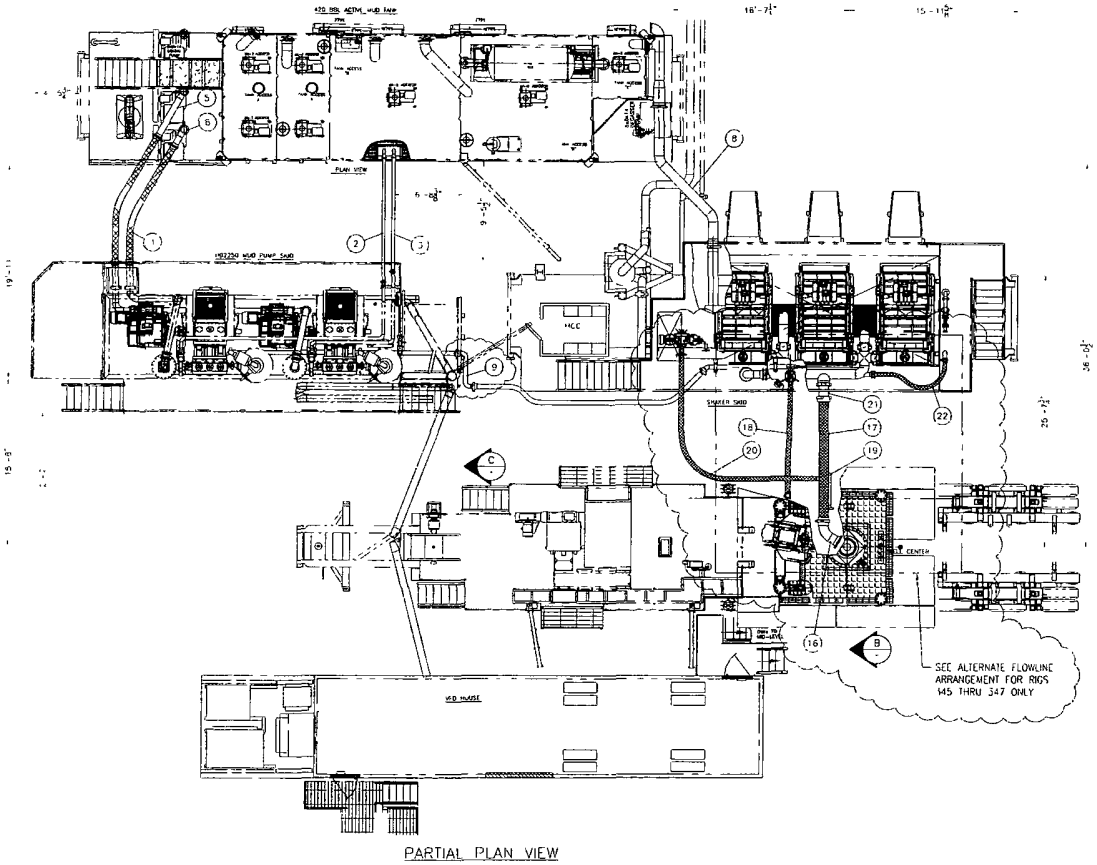


5M REMOTE

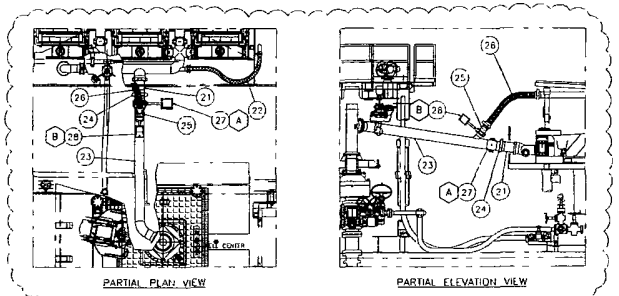
KILL LINE SCHEMATIC



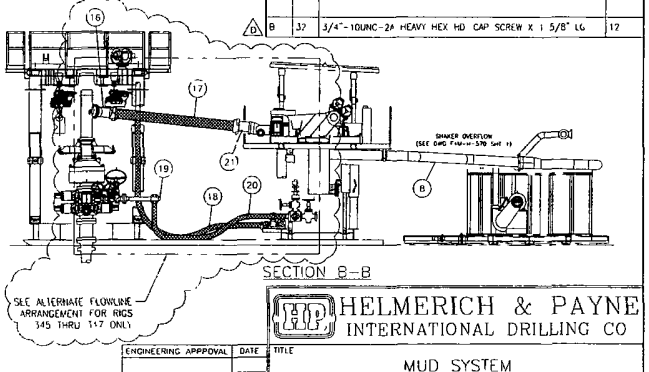




PARTIAL PLAN VIEW



ALTERNATE FLOWLINE ARRANGEMENT
(FOR RIGS 345 THRU 347 ONLY)



SECTION B-B

BILL OF MATERIAL

ITEM NO.	QUAN	DESCRIPTION	PART NUMBER	WT
D 1	2	LOW PRESSURE SPOOL #1	MK F4M-H-570.01F	239
D 2	1	POP-OFF/BLEED SPOOL #1	MK F4M-H-570.01A	157
D 3	1	POP-OFF/BLEED SPOOL #2	MK F4M-H-570.01B	140
D 4	-	DELETED		
D 5	1	LOW PRESSURE SUCTION SPOOL #1	MK F4M-H-570.01D	199
D 6	1	LOW PRESSURE SUCTION SPOOL #2	MK F4M-H-570.01H	101
D 7	1	HOSE-HIGH PRESSURE	MK F4M-H-570.01C	276
D 8	1	OVERFLOW RETURN SPOOL	MK F4M-H-563.08A	678
D 9	1	MUD PUMP/SHAKER SKID SPOOL	MK F4M-H-570.01E	181
10	22FT	TS 1 1/2x1 1/2x3/16 (A500)		150
D 11	1	POP-OFF PIPE HANGER SUPPORT	MK F4M-H-570.01C	30
12	1	L3x3x1/4 (1'-6" LG) (A36)		7
13	1	L3x3x1/4 (1'-6" LG) (A36)		7
14	1	PLATE 1/4" THK 4x2 -3 1/4" (A36)		6
15	1	L3x3x1/4 (4'-11 3/4" LG) (A36)		25
D 16	1	SHAKER FLOWLINE	MK F4M-H-562.02A	230
D 17	1	SHAKER FLOWLINE	MK F4M-H-562.02B	281
D 18	1	HOSE	MK F4M-H-563.03E	
D 19	1	SPOOL #1	MK F4M-H-564.02A	182
D 20	1	HIGH PRESSURE HOSE 3" ID x 29'-0" LG	PHOENIX BEATTY	
		WITH 3 1/8" - 5M FLANGED ENDS		
D 21	1	SHAKER FLOWLINE	MK F4M-H-562.02C	73
D 22	1	SHAKER SPOOL	MK F4M-H-562.03B	177

RIGS 345 - 347 ONLY
BILL OF MATERIAL

THESE ITEMS REPLACE ITEMS 16 & 17

ITEM NO.	QUAN	DESCRIPTION	PART NUMBER	WT
D 23	1	SHAKER FLOWLINE	MK F4M-H-569-04A	656
D 24	1	SHAKER FLOWLINE	MK F4M-H-569-04B	118
D 25	1	SHAKER FLOWLINE	MK F4M-H-569-04C	67
D 26	1	SHAKER FLOWLINE HOSE	MK F4M-H-569-04D	77
D 27	1	FABRI - 10" AIR ACTUATED KNIFE GATE VALVE		66
D 28	1	FABRI - 6" AIR ACTUATED KNIFE GATE VALVE		52
D		HARDWARE		
D A	24	7/8"-9UNC-2A HEAVY HEX HD CAP SCREW X 2 1/8" LG		18
D B	32	3/4"-10UNC-2A HEAVY HEX HD CAP SCREW X 1 5/8" LG		12

ISSUED FOR FABRICATION
October-23-2008
DRAFTSMAN
ENGINEER

REV	DATE	DESCRIPTION	BY
A	10/23/08	MOVE ITEM 8 WT FOR BOM 345-347 AND ALT FLOWLINE, ADD ITEMS 16 THRU 28 & HARDWARE & B.O.M. CORRECT WT. OF ITEM DETAIL 1 THRU 7 & 9 TO 11	CC/VML
C	09/04/08	MOVE HOSE FROM OVERFLOW TO SHAKER UPDATED PIPING	DRJ
B	08/05/08	ADDED SHT 2 & BOM	DRJ
A	07/17/08	ADDED 4X HVY PIPING TO POP-OFF	DRJ

ENGINEERING APPROVAL	DATE

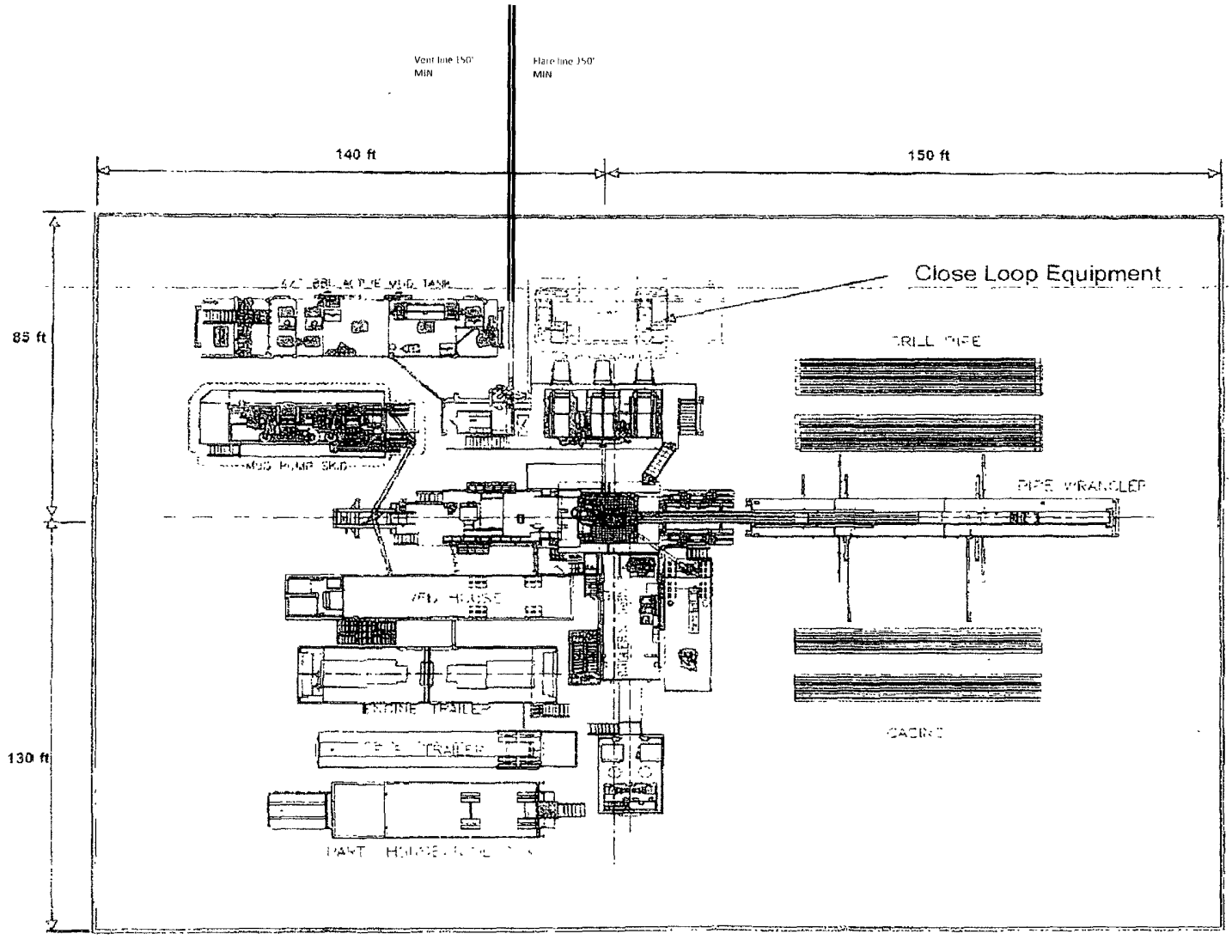
HELMERICH & PAYNE
INTERNATIONAL DRILLING CO

TITLE
MUD SYSTEM
INTERCONNECT PIPING ASSEMBLY

CUSTOMER OXY PERMIAN
PROJECT F4M
DRAWN DJOHNSON | DATE 07/08/08 | DWG NO F4M-H-568 | REV 0
SCALE 3/16"=1'-0" | SHEET 1 OF 2

OXY FLEX IV PAD (Closed Loop System)

Revised 05/14/2008



Continental CONTITECH

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

CERT. N°: 128

PURCHASER:	ContiTech Beattie Co.	P.O. N°:	004721
CONTITECH ORDER N°:	490278	HOSE TYPE:	3" ID Choke and Kill Hose
HOSE SERIAL N°:	60220	NOMINAL / ACTUAL LENGTH:	7,62 m / 7,64 m

W.P.	34,48	MPa	5000	psi	T.P.	68,9	MPa	10000	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	160 159	AISI 4130	Y0515A
4 1/16" Flange end		AISI 4130	31694

ASSET NO. : 66-0606

API Spec 16 C

Temperature rate:"B"

All metal parts are flawless

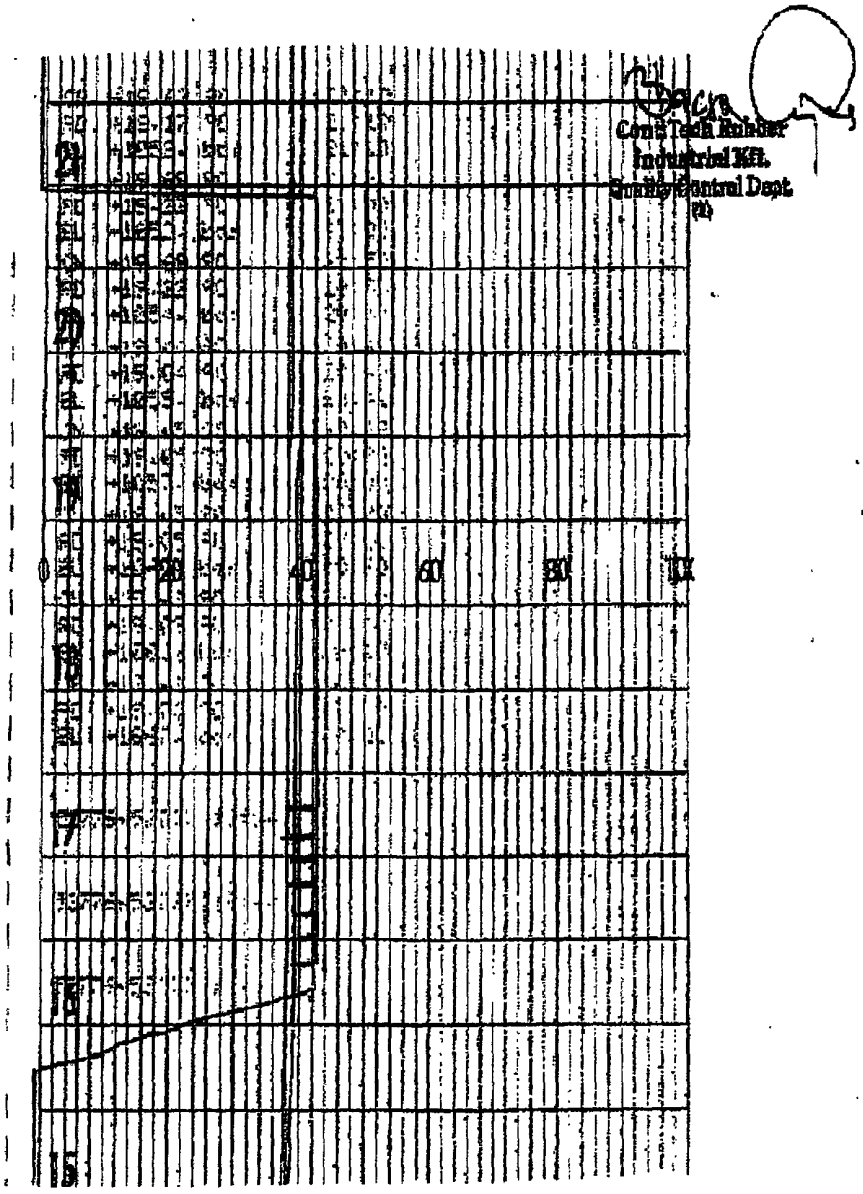
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

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.

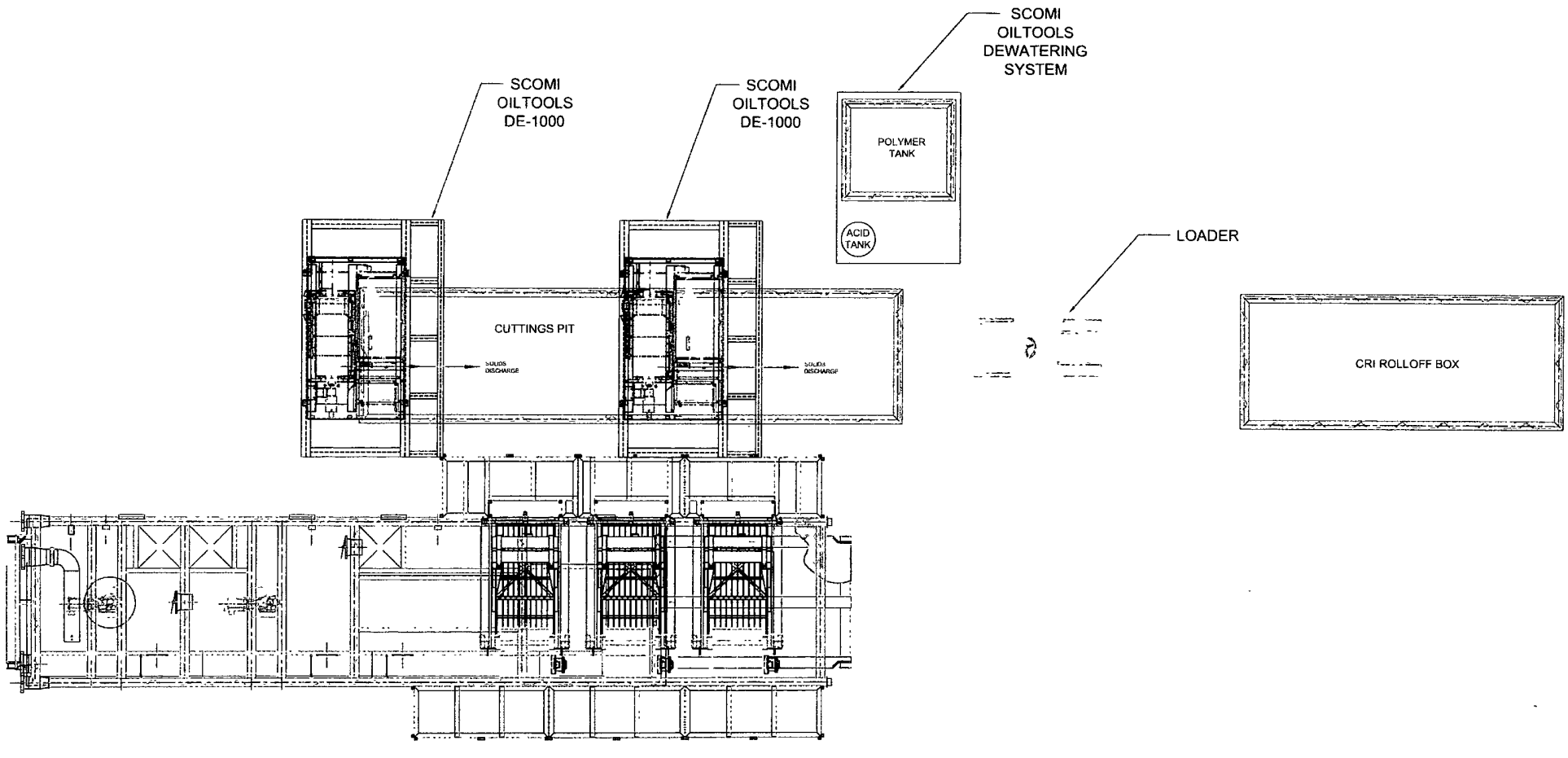
COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
07. February 2011.		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

Coflex Hose Certification



BILL OF MATERIAL				
ITEM	QTY	DESCRIPTION	LENGTH	WEIGHT



NO.	REVISIONS	BY	CHK'D	APP'D	DATE

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

TITLE
CLOSED LOOP SYSTEM
BASIC LAYOUT
OXY - H&P - FLEX 4 M

DRAWN BY	DATE	CHECKED BY	DATE
PDL	3/30/09		
APPROVED	DATE	SCALE	ACAD DWG:
		NTS	D

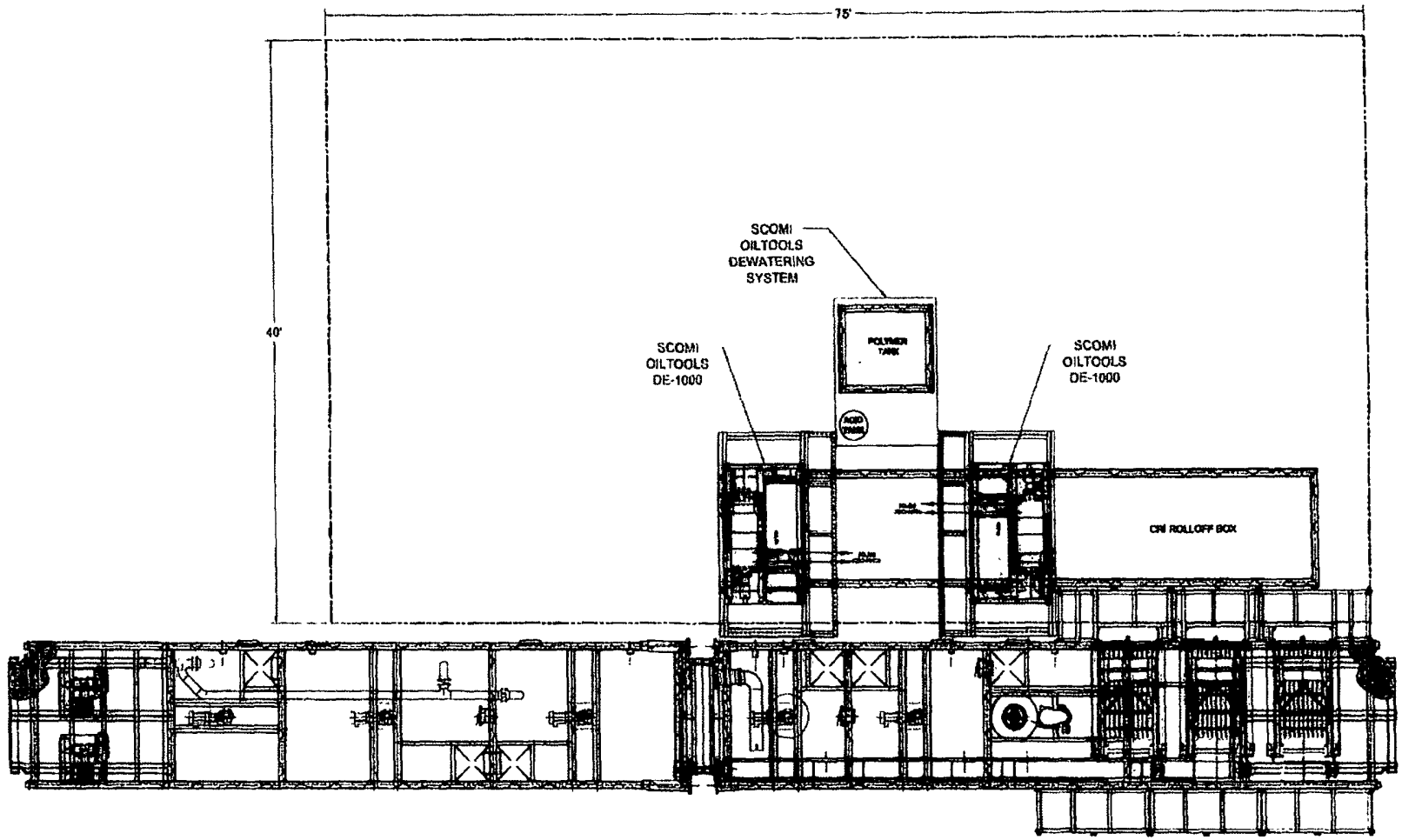
Scomi

521 N. Sam Houston Parkway East, Suite 900,
Houston, Texas 77060
PHONE: (281)-260-0010, FAX: (281)-260-0000

JOB NO.	DRAWING NO.	REV
	521S-027	

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	LENGTH	WEIGHT



1. ALL DIMENSIONS, UNLESS OTHERWISE NOTED, ARE IN FEET - AND INCHES.
2. ALL PIPE SIZES, AND MATERIAL TO BE AS NOTED.
3. ALL FLANGES SHALL BE 300#, UNLESS OTHERWISE NOTED.
4. ALL WELDING SHALL BE PERFORMED BY WELDERS QUALIFIED IN ACCORDANCE WITH ASME SECTION IX.
5. ALL FABRICATION SHALL BE IN ACCORDANCE WITH ASME B31.3.

THE DESIGNS, PROCESSES AND DIMENSIONS OF THIS DRAWING ARE THE PROPERTY OF SCOMI OILTOOLS AND ARE NOT TO BE REPRODUCED OR ALTERED IN ANY MANNER, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF SCOMI OILTOOLS. IN CASE OF PUBLICATION BY NOTICE OF COPYRIGHT OR OTHER RESERVATION SHALL BE PLACED ON ANY REPRODUCTION OF WORK USED IN PART OR WHOLE. SCOMI OILTOOLS SHALL NOT BE HELD LIABLE FOR ANY DAMAGES RESULTING FROM THE USE OF THIS DRAWING, EXCEPT FOR THE PURPOSE AS AGREED TO BY SCOMI OILTOOLS.

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

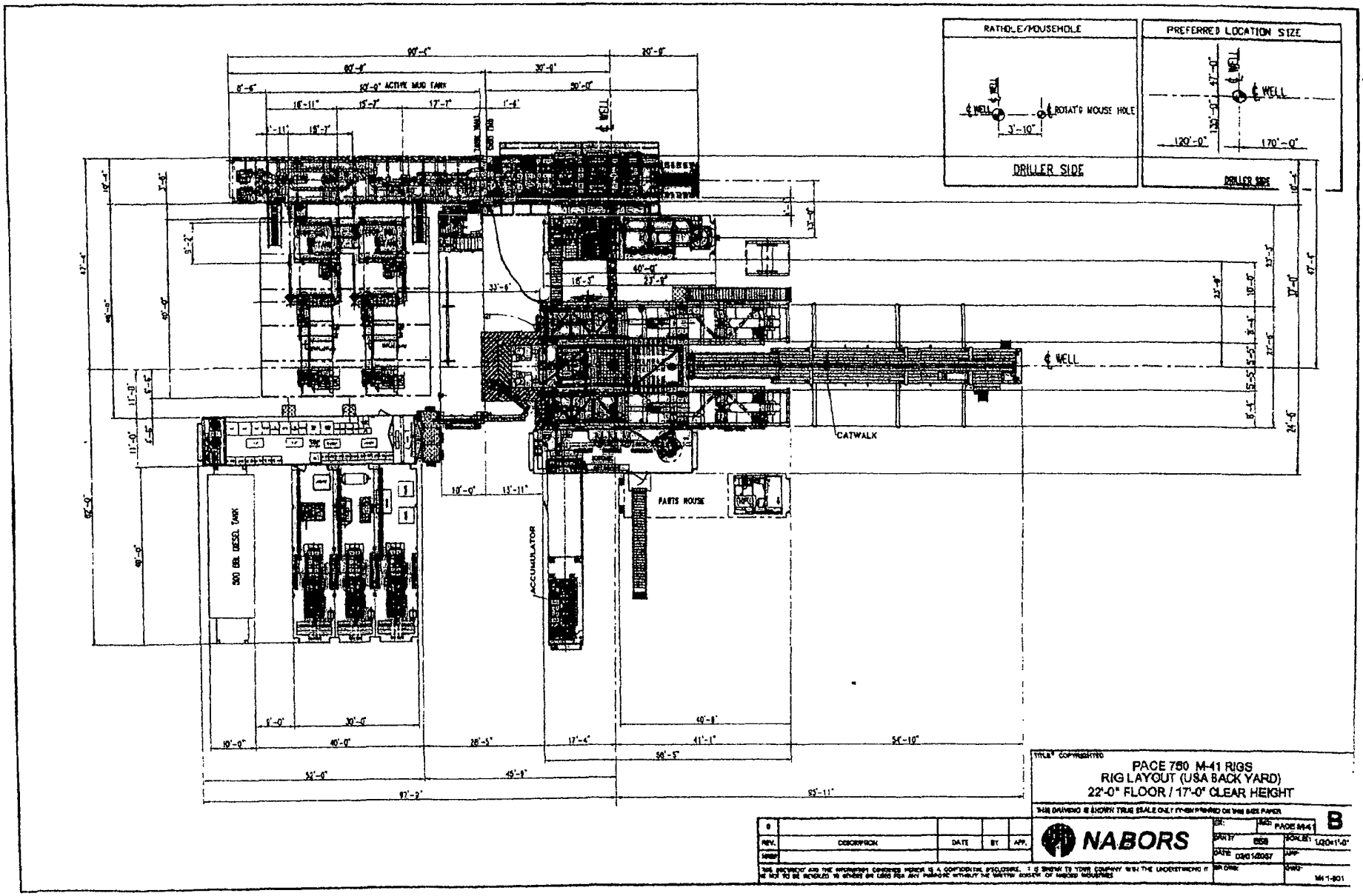
DRAWN BY	DATE	CHECKED BY	DATE
TKS	10/2/08		
APPROVED	DATE	SCALE	NTS

SIZE: D

Scomi

521S-014

REV: A



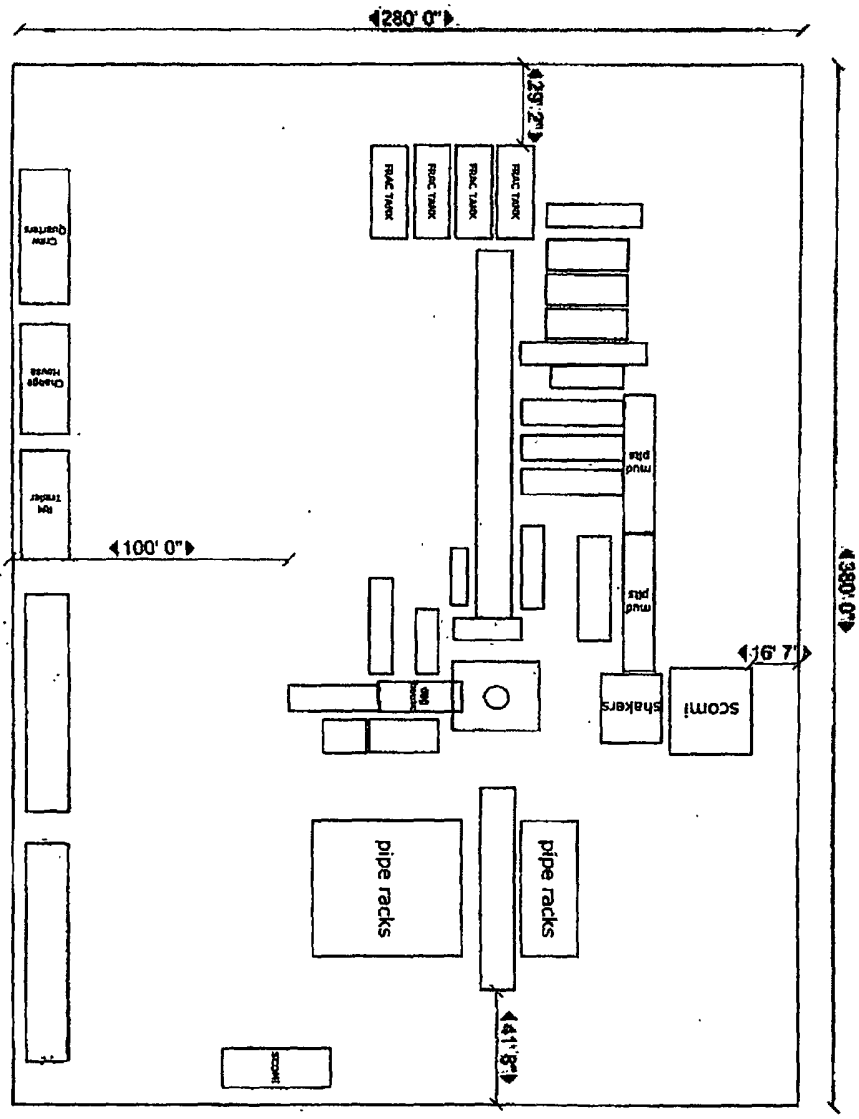
PACE 750 M-41 RIGS
RIG LAYOUT (USA BACK YARD)
22'-0" FLOOR / 17'-0" CLEAR HEIGHT

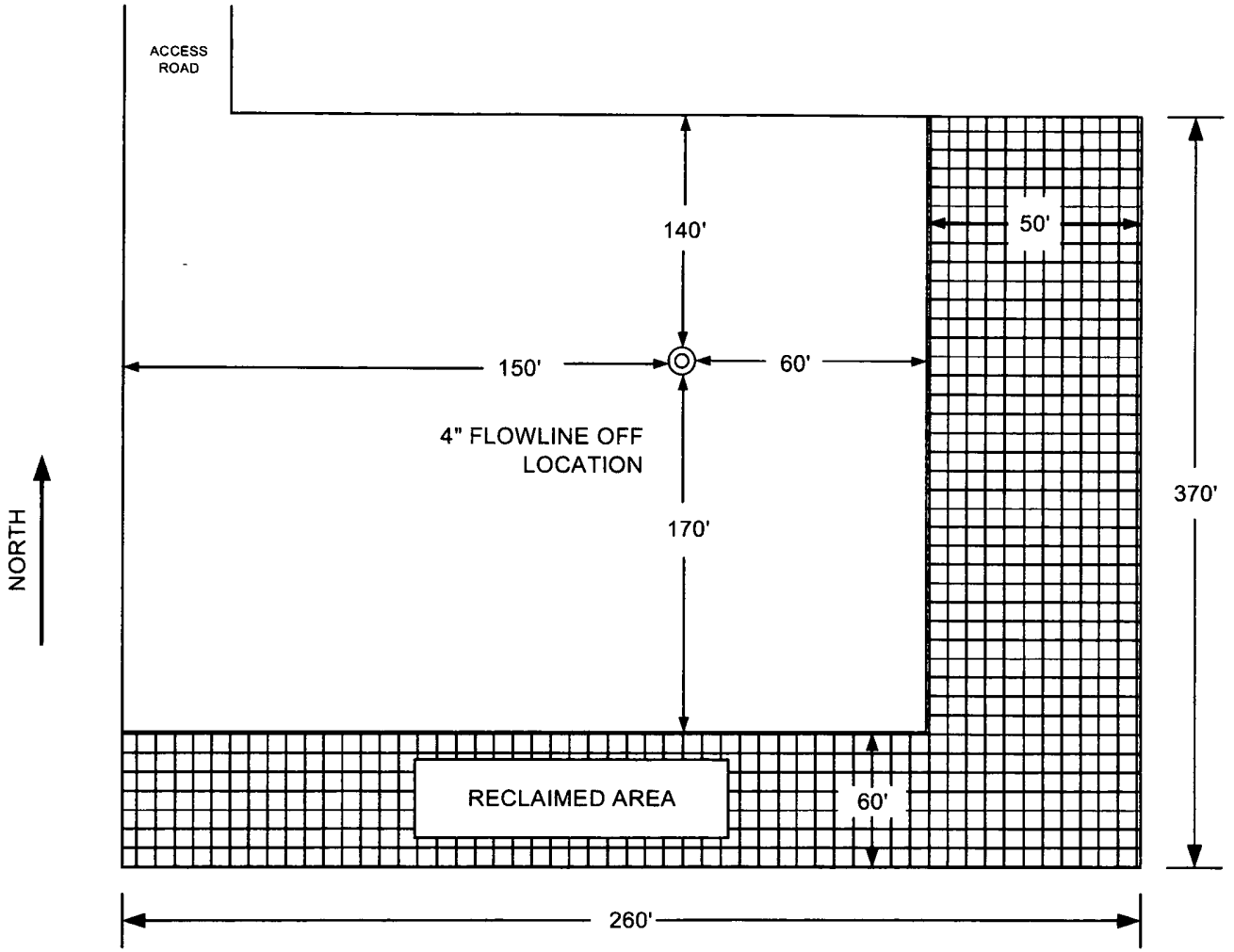
NABORS

B

PACE M-41

M41-801


280' 0"
129' 2"
FRAC TANK
FRAC TANK
FRAC TANK
FRAC TANK
Crew Quarters
Change House
RM Trailer
100' 0"
mud pits
mud pits
16' 7"
Shakers
Scomi
pipe racks
pipe racks
41' 8"
390' 0"



REVISION BLOCK						ENGINEERING RECORD	
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE
1	7/26/12	Facility Layout for Permiting				DRN: MEE	7/26/12
						DES:	
						CHK:	
						APP:	
						AFE:	

FACILITY LAYOUT
Osage 18 Fee B Com #1H

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA Inc
LEASE NO.:	NM99016
WELL NAME & NO.:	1H Osage 18 Fee B Com
SURFACE HOLE FOOTAGE:	480' FSL & 2160' FWL
BOTTOM HOLE FOOTAGE	330' FNL & 2260' FWL
LOCATION:	Section 18, T.20 S., R.25 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.

☐ **General Provisions**
☐ **Permit Expiration**
☐ **Archaeology, Paleontology, and Historical Sites**
☐ **Noxious Weeds**
☒ **Special Requirements**
- Cave/Karst
- Communitization Agreement

☐ **Construction**
- Notification
- Topsoil
- Closed Loop System
- Federal Mineral Material Pits
- Well Pads
- Roads

☐ **Road Section Diagram**
☒ **Drilling**
- Waste Material and Fluids
- Logging Requirements
- High Cave/Karst

☐ **Production (Post Drilling)**
- Well Structures & Facilities
- Pipelines
- Electric Lines

☐ **Interim Reclamation**
☐ **Final Abandonment & Reclamation**