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MAR 23 2011
HOBBSDForm 3160-3
(April 2004)

8ed copy

ATS-10-818

Split Estate

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL <u>Horizontal</u> ☒ REENTER		5. Lease Serial No. NMLC031740B	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator XTO Energy Inc.		7. If Unit or CA Agreement, Name and No. NM70948A	
3a. Address 200 Loraine, Ste. 800 Midland, Texas 79701		8. Lease Name and Well No. <u><300717></u> Eunice Monument S. Unit 200H	
3b. Phone No. (include area code) <u><5380></u> 432-620-6749		9. API Well No. 30-025-04492	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1940' FNL & 661' FWL (E) Section 4 <u>Lot 5</u> At proposed prod. zone 3270' FSL & 2618' FWL (N) Section 4 <u>Lot 14</u>		10. Field and Pool, or Exploratory Eunice Monument; Grayburg-SA	
11. Sec., T. R. M. or Blk. and Survey or Area Section 4, T-21S, R-36E		12. County or Parish Lea	
13. State NM		14. Distance in miles and direction from nearest town or post office* 7 1/2 miles NW of Eunice	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 661' (SHL)	16. No. of acres in lease 14468.55	17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1280'	19. Proposed Depth MD: 7021' TVD: 3900'	20. BLM/BIA Bond No. on file UTB000138	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3556' GL	22. Approximate date work will start* 11/10/2010	23. Estimated duration 11/30/2010	

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <u>Chip Amrock</u>	Name (Printed/Typed) Chip Amrock	Date 10/07/2010
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Title
Senior Drilling Engineer

Approved by (Signature) <u>/s/ Don Peterson</u>	Name (Printed/Typed)	Date MAR 18 2011
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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)

K2 03/28/11

Capitan Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL 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

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MAR 23 2011
HOBBS

State of New Mexico
Energy, Minerals and Natural Resources Department

CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-04492	Pool Code 23000	Pool Name Eunice Monument, Grayburg-San Andre
Property Code 300717	Property Name Eunice Monument South Unit-EMSU	Well Number 200H
GRID No. 005380	Operator Name XTO ENERGY	Elevation 3556'

Surface Location

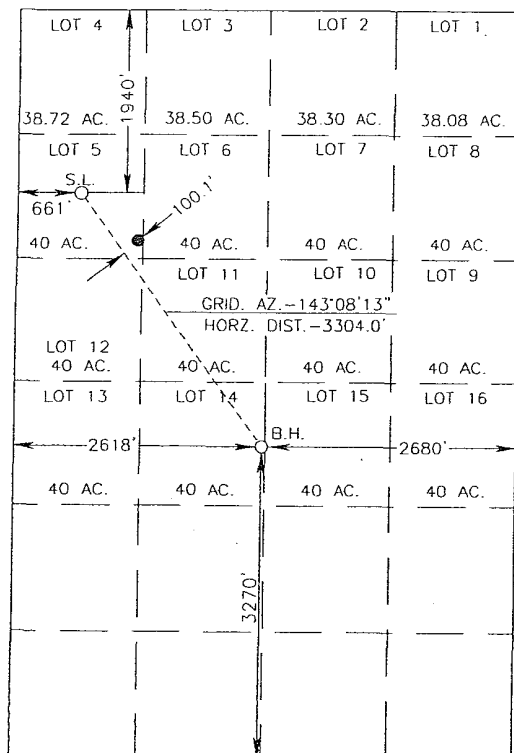
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D5 LOT 5	4	21-S	36-E		1940	NORTH	661	WEST	LEA

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
F	4	21-S	36-E		3270	SOUTH	2618	WEST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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



SCALE - 1"=2000'

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y=553359.9 N
X=825829.5 E

LAT.=32.516854° N
LONG.=103.276306° W

BOTTOM HOLE LOCATION
Y=550716.8 N
X=827811.1 E

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kendall Chance 10/7/2010
Signature Date
Kendall Chance
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.

RONALD EIDSON
MAY 4 2010
Date Surveyed
Signature & Seal of Professional Surveyor
Ronald Eidson 8/30/2010

Certificate No. RONALD EIDSON 3239

RECEIVED**MAR 23 2011
HOBBSOCD****DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)**

XTO Energy Inc.
 Eunice Monument South Unit #200H
 Projected TD: 7021 MD / TVD: 3783'
 SHL: 1940' FNL & 661' FWL , SECTION 4, T21S, R36E (D5)
 BHL: 3270' FSL & 2618' FWL, SECTION 4, T21S, R36E (F)
 Lea County, NM
 Lease #: NMLC #031740 B

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Salido

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

Formation	Subsea Depth	Well Depth	Water / Oil / Gas
Rustler		1176'	Water
Tansill		2177'	Water
Yates		2510'	Water/Oil/Gas
Seven Rivers		2777'	Water/Oil/Gas
Queen		3316'	Water/Oil/Gas
Penrose		3453'	Water/Oil/Gas
Grayburg		3628'	Water/Oil/Gas
Target/Land Curve		3760'	Water/Oil/Gas
TD/MD		7021'	Water/Oil/Gas

*** Hydrocarbons @ Grayburg

This project will involve sidetracking (whipstock assembly) the existing 5-1/2' casing at approximately 3630' and drilling a 4-3/4' hole with 37.5 deg per 100' build rates and land the curve at 3783' TVD/3870' MD. The lateral hole will be extended to a MD of 7021'. The well will be completed as an open hole lateral.

3. CASING PROGRAM: EXISTING IN WELL

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
14-3/4"	0' - 328'	10-3/4"	32#	NA	NA	NA	NA	NA	NA
9-7/8"	0' - 1269'	7-5/8"	26#	NA	NA	NA	NA	NA	NA
6-3/4"	0' - 3728'	5-1/2"	17#	NA	NA	NA	NA	NA	NA

WELLHEAD: EXISTING

- A. Lower casing head: 1" 3000 psi top flange x 7-5/8" SOW bottom
 B. B Section / Tubing spool: 6" 900 Series 3M psi top flange, SOW to the 5-1/2' casing

9/30/2010

4. CEMENT PROGRAM: EXISTING

- A. Surface Casing: Existing 10-3/4", 32#, @ 328' cmtnd w 250 sx, circ to surface.
- B. 1st Interm. Casing: Existing 7-5/8", 26.4#, @ 1269' cmtnd w 300 sx circ to surface.
- C. Production Casing: Existing 5-1/2", 17#, @ 3728' cmtnd w 300 sx, TOC 409'.

* See COA

5. PRESSURE CONTROL EQUIPMENT: Consistent with a workover/re-entry rig.

* See COA

The blow out preventer equipment (BOP) for this well consists of an 7-1/16" 5M double ram BOP with choke manifold. Formation BHP is estimated at 80 psi (very depleted). The fresh water drilling fluid system has sufficient hydrostatic (1625 psi) to control the formation pressure. Due to the pressure rating of the tubing flange (3M), the BOP will only be tested to 3000 psi.

6. PROPOSED MUD CIRCULATION SYSTEM: In lateral hole

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
3630' to 7021'	4-3/4"	FW/Native	8.5-8.8	30-32	NC

If needed, the necessary mud products for weight addition 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 appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling the 4-3/4" hole.

* See COA

8. LOGGING, CORING AND TESTING PROGRAM:

- A. Mud Logger: Patriot Mud Logging Unit (2 man) on @ 3630' - KOP.
Catch 10' samples from to 7021' (TD/MD).
Send 1 set of dry samples to Midland Sample Library.

* CBL To be run per email from Chip Amrock 2/24/2011

9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

* See COA

None anticipated. Max bottom hole pressure should not exceed 80psi. The field area is severely depleted. BHT of 145 F is anticipated. H2S can be present from 3630 (KOP)-TD. With the low BHP, the drilling fluid has sufficient overburden to control the wellbore. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

A. Road and location construction will begin after Santa Fe & BLM has approved APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take 10 - 12 days. 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.

11. SPECIAL INSTRUCTIONS:

- A. Reports should be filled out on the XTO Drilling Report form, and the Casing/Cementing Detail Forms provided.
- B. Deviation: Surveys will be taken with MWD/steering tool directional assembly.
- C. Check BOP blind rams each trip and pipe rams each day. Strap out of hole for logging and/or casing jobs.
- D. A trash trailer will be provided on each location. Keep trash picked up and the location as clean as possible. All drilling line, oil filters, etc. should be hauled away at the Drilling Contractor's expense. At the conclusion of drilling operations, the contents of the trash trailer will be disposed of into a commercial sanitary landfill.
- E. The reserve pits should be lined with a plastic liner in order to contain the drill cuttings and drilling fluids. At the conclusion of the drilling operations, all re-usable drilling fluid should be moved to the next well in the drilling order.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

Hydrogen Sulfide Training:

All regularly assigned personnel, contracted or employed by XTO Energy, Inc. will receive training from qualified instructor(s) in the following areas prior to commencing drilling possible hydrogen sulfide bearing formations in this well:

The hazards and characteristics of hydrogen sulfide (H₂S)

The proper use and maintenance of personal protective equipment and life support systems.

The proper use of H₂S detectors, alarms, warning systems, briefing area, evacuation procedures & prevailing winds.

The proper techniques for first aid and rescue procedures.

Supervisory personnel will be trained in the following areas:

The effects of H₂S on metal components. If high tensile tubulars are to be utilized, personnel will be trained in their special maintenance requirements.

Corrective action & shut-in procedures when drilling or reworking a well & blowout prevention / well control procedures.

The contents and requirements of the H₂S Drilling Operations Plan

H2S SAFETY EQUIPMENT AND SYSTEMS:

Well Control Equipment:

Flare Line w/continuous pilot. Choke manifold with a minimum of one remote choke.

Blind rams and pipe rams to accommodate all pipe sizes w/properly sized closing unit.

Auxiliary equipment to include: annular preventer, ude-gas separator, rotating head & flare.

Protective Equipment for Essential Personnel:

Mark II Survive-air 30 minute units located in dog house & at briefing areas, as indicated on wellsite diagram.

H2S Detection and Monitoring Equipment:

Two portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

One portable H2S monitor positioned near flare line.

H2S Visual Warning Systems:

Wind direction indicators are shown on wellsite diagram.

Caution / Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

Mud Program:

The Mud Program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weights, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones. A mud-gas separator will be utilized as needed.

Metallurgy:

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and line and valves will be suitable for H2S service.

Communication:

Cellular telephone communications in company vehicles, rig floor and mud logging trailer.



XTO
Lea County
EMSU
#200H
OH

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Plan: Plan #1

Pathfinder X & Y Planning Report

26 August, 2010

PATHFINDER



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Lea County
Site: EMSU
Well: #200H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #200H
TVD Reference: WELL @ 3574.00ft (Original Well Elev)
MD Reference: WELL @ 3574.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project	Lea County		
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	EMSU		
Site Position:		Northing:	553,359.900 ft
From:	Map	Easting:	825,829.500 ft
Position Uncertainty:	0.00 ft	Slot Radius:	
		Latitude:	32° 31' 0.676 N
		Longitude:	103° 16' 34.700 W
		Grid Convergence:	0.57 °

Well	#200H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	08/26/2010	7.55
			Dip Angle
			(°)
			60.55
			Field Strength
			(nT)
			48,937

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			143.14

Survey Tool Program Date 08/26/2010

From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
0.00	7,020.78	Plan #1 (OH)	MWD	MWD - Standard



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Lea County
Site: EMSU
Well: #200H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #200H
TVD Reference: WELL @ 3574.00ft (Original Well Elev)
MD Reference: WELL @ 3574.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	145.00	0.00	-3,574.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
100.00	0.00	145.00	100.00	-3,474.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
200.00	0.00	145.00	200.00	-3,374.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
300.00	0.00	145.00	300.00	-3,274.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
400.00	0.00	145.00	400.00	-3,174.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
500.00	0.00	145.00	500.00	-3,074.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
600.00	0.00	145.00	600.00	-2,974.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
700.00	0.00	145.00	700.00	-2,874.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
800.00	0.00	145.00	800.00	-2,774.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
900.00	0.00	145.00	900.00	-2,674.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,000.00	0.00	145.00	1,000.00	-2,574.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,100.00	0.00	145.00	1,100.00	-2,474.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,200.00	0.00	145.00	1,200.00	-2,374.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,300.00	0.00	145.00	1,300.00	-2,274.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,400.00	0.00	145.00	1,400.00	-2,174.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,500.00	0.00	145.00	1,500.00	-2,074.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,600.00	0.00	145.00	1,600.00	-1,974.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,700.00	0.00	145.00	1,700.00	-1,874.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,800.00	0.00	145.00	1,800.00	-1,774.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
1,900.00	0.00	145.00	1,900.00	-1,674.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,000.00	0.00	145.00	2,000.00	-1,574.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,100.00	0.00	145.00	2,100.00	-1,474.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,200.00	0.00	145.00	2,200.00	-1,374.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,300.00	0.00	145.00	2,300.00	-1,274.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,400.00	0.00	145.00	2,400.00	-1,174.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,500.00	0.00	145.00	2,500.00	-1,074.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,600.00	0.00	145.00	2,600.00	-974.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
Project: Lea County
Site: EMSU
Well: #200H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #200H
TVD Reference: WELL @ 3574.00ft (Original Well Elev)
MD Reference: WELL @ 3574.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	145.00	2,700.00	-874.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,800.00	0.00	145.00	2,800.00	-774.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
2,900.00	0.00	145.00	2,900.00	-674.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,000.00	0.00	145.00	3,000.00	-574.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,100.00	0.00	145.00	3,100.00	-474.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,200.00	0.00	145.00	3,200.00	-374.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,300.00	0.00	145.00	3,300.00	-274.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,400.00	0.00	145.00	3,400.00	-174.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,500.00	0.00	145.00	3,500.00	-74.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,600.00	0.00	145.00	3,600.00	26.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
3,630.00	0.00	145.00	3,630.00	56.00	0.00	0.00	0.00	0.00	553,359.90	825,829.50
KOP-3630.00'MD,0.00°INC,145.00°AZI,3630.00'TVD										
3,640.00	3.74	143.14	3,639.99	65.99	-0.26	0.20	0.33	37.45	553,359.64	825,829.70
3,650.00	7.49	143.14	3,649.94	75.94	-1.04	0.78	1.31	37.45	553,358.86	825,830.28
3,660.00	11.23	143.14	3,659.81	85.81	-2.35	1.76	2.93	37.45	553,357.55	825,831.26
3,670.00	14.98	143.14	3,669.55	95.55	-4.16	3.12	5.20	37.45	553,355.74	825,832.62
3,680.00	18.72	143.14	3,679.11	105.11	-6.48	4.86	8.10	37.45	553,353.42	825,834.36
3,690.00	22.47	143.14	3,688.47	114.47	-9.29	6.97	11.61	37.45	553,350.61	825,836.47
3,700.00	26.21	143.14	3,697.58	123.58	-12.59	9.44	15.74	37.45	553,347.31	825,838.94
3,710.00	29.96	143.14	3,706.40	132.40	-16.36	12.26	20.44	37.45	553,343.54	825,841.76
3,720.00	33.70	143.14	3,714.90	140.90	-20.58	15.43	25.72	37.45	553,339.32	825,844.93
3,730.00	37.45	143.14	3,723.03	149.03	-25.23	18.92	31.53	37.45	553,334.67	825,848.42
3,740.00	41.19	143.14	3,730.77	156.77	-30.30	22.72	37.87	37.45	553,329.60	825,852.22
3,750.00	44.94	143.14	3,738.07	164.07	-35.76	26.81	44.70	37.45	553,324.14	825,856.31
3,760.00	48.68	143.14	3,744.91	170.91	-41.59	31.18	51.98	37.45	553,318.31	825,860.68
3,770.00	52.43	143.14	3,751.27	177.27	-47.77	35.82	59.71	37.45	553,312.13	825,865.32
3,780.00	56.17	143.14	3,757.10	183.10	-54.27	40.69	67.83	37.45	553,305.63	825,870.19



Pathfinder
Pathfinder X & Y Planning Report



Company: XTO
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Site: EMSU
Well: #200H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #200H
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MD Reference: WELL @ 3574.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
3,790.00	59.92	143.14	3,762.39	188.39	-61.05	45.77	76.31	37.45	553,298.85	825,875.27
3,800.00	63.66	143.14	3,767.12	193.12	-68.10	51.06	85.12	37.45	553,291.80	825,880.56
3,810.00	67.41	143.14	3,771.26	197.26	-75.39	56.52	94.22	37.45	553,284.51	825,886.02
3,820.00	71.15	143.14	3,774.80	200.80	-82.87	62.13	103.57	37.45	553,277.03	825,891.63
3,830.00	74.90	143.14	3,777.72	203.72	-90.52	67.86	113.13	37.45	553,269.38	825,897.36
3,840.00	78.64	143.14	3,780.00	206.00	-98.31	73.70	122.87	37.45	553,261.59	825,903.20
3,850.00	82.39	143.14	3,781.65	207.65	-106.20	79.62	132.73	37.45	553,253.70	825,909.12
3,860.00	86.13	143.14	3,782.65	208.65	-114.16	85.59	142.68	37.45	553,245.74	825,915.09
3,870.71	90.14	143.14	3,783.00	209.00	-122.72	92.00	153.37	37.45	553,237.18	825,921.50
EOC-3870.71°MD,90.14°INC,143.14°AZI,3783.00°TVD,37.45°DLS, 153.38°VS, -122.72°N, 92.01°E										
3,900.00	90.14	143.14	3,782.93	208.93	-146.15	109.58	182.67	0.00	553,213.75	825,939.08
4,000.00	90.14	143.14	3,782.68	208.68	-226.16	169.56	282.67	0.00	553,133.74	825,999.06
4,100.00	90.14	143.14	3,782.44	208.44	-306.17	229.55	382.67	0.00	553,053.73	826,059.05
4,200.00	90.14	143.14	3,782.20	208.20	-386.18	289.53	482.67	0.00	552,973.72	826,119.03
4,300.00	90.14	143.14	3,781.95	207.95	-466.19	349.52	582.67	0.00	552,893.71	826,179.02
4,400.00	90.14	143.14	3,781.71	207.71	-546.20	409.51	682.67	0.00	552,813.70	826,239.01
4,500.00	90.14	143.14	3,781.46	207.46	-626.21	469.49	782.67	0.00	552,733.69	826,298.99
4,600.00	90.14	143.14	3,781.22	207.22	-706.22	529.48	882.67	0.00	552,653.68	826,358.98
4,700.00	90.14	143.14	3,780.97	206.97	-786.23	589.46	982.67	0.00	552,573.67	826,418.96
4,800.00	90.14	143.14	3,780.73	206.73	-866.24	649.45	1,082.67	0.00	552,493.66	826,478.95
4,900.00	90.14	143.14	3,780.48	206.48	-946.25	709.44	1,182.66	0.00	552,413.65	826,538.94
5,000.00	90.14	143.14	3,780.24	206.24	-1,026.26	769.42	1,282.66	0.00	552,333.64	826,598.92
5,100.00	90.14	143.14	3,780.00	206.00	-1,106.27	829.41	1,382.66	0.00	552,253.63	826,658.91
5,200.00	90.14	143.14	3,779.75	205.75	-1,186.28	889.39	1,482.66	0.00	552,173.62	826,718.89
5,300.00	90.14	143.14	3,779.51	205.51	-1,266.29	949.38	1,582.66	0.00	552,093.61	826,778.88
5,400.00	90.14	143.14	3,779.26	205.26	-1,346.31	1,009.37	1,682.66	0.00	552,013.59	826,838.87
5,500.00	90.14	143.14	3,779.02	205.02	-1,426.32	1,069.35	1,782.66	0.00	551,933.58	826,898.85



Pathfinder
Pathfinder X & Y Planning Report



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Site: EMSU
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Wellbore: OH
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Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,600.00	90.14	143.14	3,778.77	204.77	-1,506.33	1,129.34	1,882.66	0.00	551,853.57	826,958.84
5,700.00	90.14	143.14	3,778.53	204.53	-1,586.34	1,189.32	1,982.66	0.00	551,773.56	827,018.82
5,800.00	90.14	143.14	3,778.29	204.29	-1,666.35	1,249.31	2,082.66	0.00	551,693.55	827,078.81
5,900.00	90.14	143.14	3,778.04	204.04	-1,746.36	1,309.30	2,182.66	0.00	551,613.54	827,138.80
6,000.00	90.14	143.14	3,777.80	203.80	-1,826.37	1,369.28	2,282.66	0.00	551,533.53	827,198.78
6,100.00	90.14	143.14	3,777.55	203.55	-1,906.38	1,429.27	2,382.66	0.00	551,453.52	827,258.77
6,200.00	90.14	143.14	3,777.31	203.31	-1,986.39	1,489.25	2,482.66	0.00	551,373.51	827,318.75
6,300.00	90.14	143.14	3,777.06	203.06	-2,066.40	1,549.24	2,582.66	0.00	551,293.50	827,378.74
6,400.00	90.14	143.14	3,776.82	202.82	-2,146.41	1,609.23	2,682.66	0.00	551,213.49	827,438.73
6,500.00	90.14	143.14	3,776.58	202.58	-2,226.42	1,669.21	2,782.66	0.00	551,133.48	827,498.71
6,600.00	90.14	143.14	3,776.33	202.33	-2,306.43	1,729.20	2,882.66	0.00	551,053.47	827,558.70
6,700.00	90.14	143.14	3,776.09	202.09	-2,386.44	1,789.18	2,982.66	0.00	550,973.46	827,618.68
6,800.00	90.14	143.14	3,775.84	201.84	-2,466.45	1,849.17	3,082.66	0.00	550,893.45	827,678.67
6,900.00	90.14	143.14	3,775.60	201.60	-2,546.46	1,909.16	3,182.66	0.00	550,813.44	827,738.66
7,000.00	90.14	143.14	3,775.35	201.35	-2,626.47	1,969.14	3,282.66	0.00	550,733.43	827,798.64
7,020.78	90.14	143.14	3,775.30	201.30	-2,643.09	1,981.61	3,303.44	0.00	550,716.81	827,811.11

TD at 7020.78 - PBHL(#200h)

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(#200h) - plan hits target center - Point	0.00	0.00	3,775.00	-2,643.10	1,981.60	550,716.800	827,811.100	32° 30' 34.329 N	103° 16' 11.869 W



Pathfinder
Pathfinder X & Y Planning Report



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MD Reference: WELL @ 3574.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,630.00	3,630.00	0.00	0.00	KOP-3630.00'MD,0.00'INC,145.00°AZI,3630.00'TVD
3,870.71	3,783.00	-122.72	92.00	EOC-3870.71'MD,90.14'INC,143.14°AZI,3783.00'TVD,37.45°DLS, 153
7,020.78	3,775.30	-2,643.09	1,981.61	TD at 7020.78

Checked By: _____	Approved By: _____	Date: _____
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Project: Lea County
Site: EMSU
Well: #200H
Wellbore: OH
Plan: Plan #1 (#200H/OH)

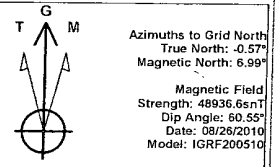
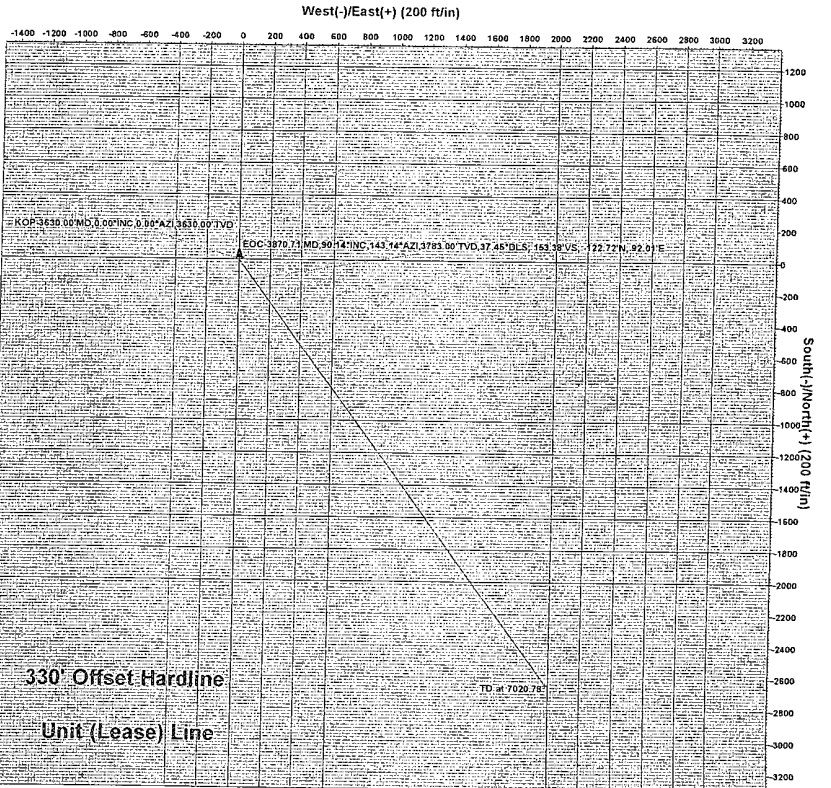
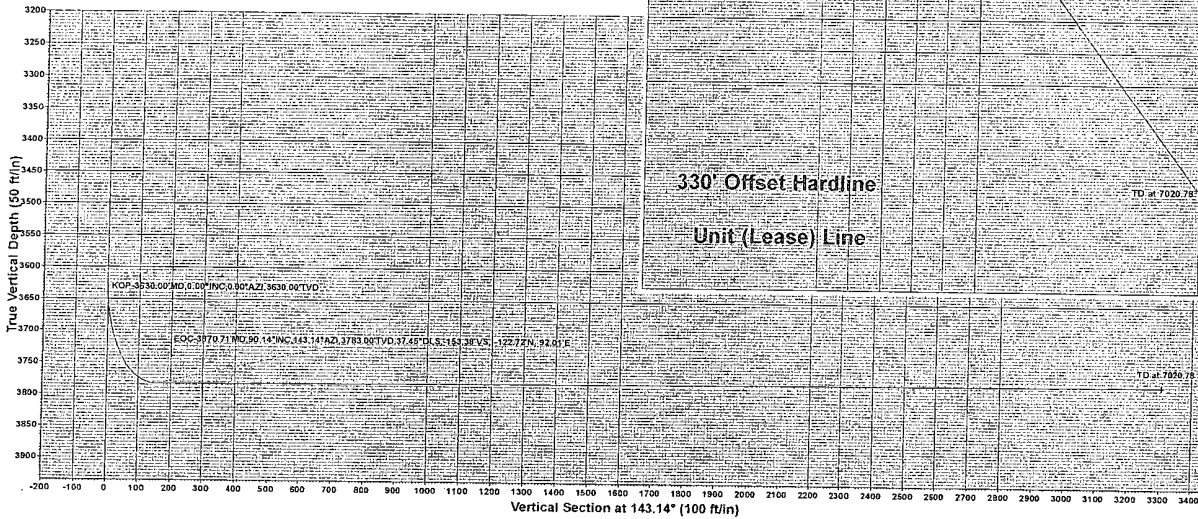
PATHFINDER

SECTION DETAILS										
Sec	MD	Inc	Az	TVD	+N-S	+E-W	Clas	Tfasc	V-Sec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	3630.00	0.00	0.00	3630.00	0.00	0.00	0.00	0.00	0.00	
3	3870.71	90.14	143.14	3783.00	-122.72	97.00	37.45	143.14	153.37	
4	7020.78	90.14	143.14	3775.30	-2643.09	1981.61	0.00	0.00	3300.44	PBH-L(#200H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N-S	+E-W	Northing	Eastings	Shape
PBH-L(#200H)	3775.00	-2643.10	1981.60	550716.900	827811.100	Point

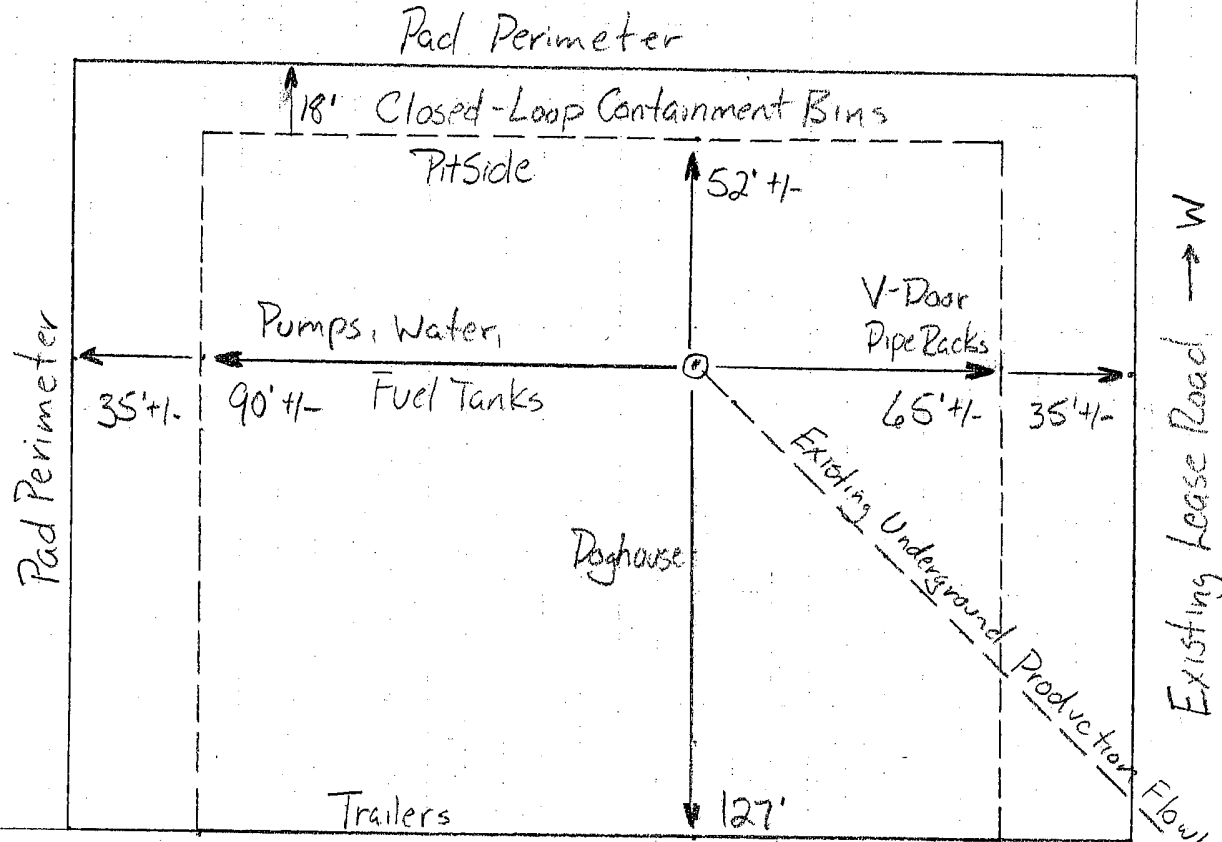
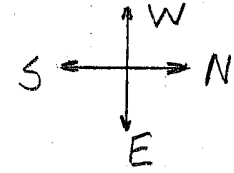
WELL DETAILS: #200H						
Ground Elevation: 3554.90						
RKB Elevation: WELL @ 3574.00H (Original Well Elev)						
Rig Name: Original Well Elev						
+N-S	+E-W	Northing	Eastings	Latitude	Longitude	Shot
0.00	0.00	553355.900	825825.500	32° 31' 8.676" N	103° 16' 34.700" W	

PROJECT DETAILS: Lea County
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
Local North: Grid



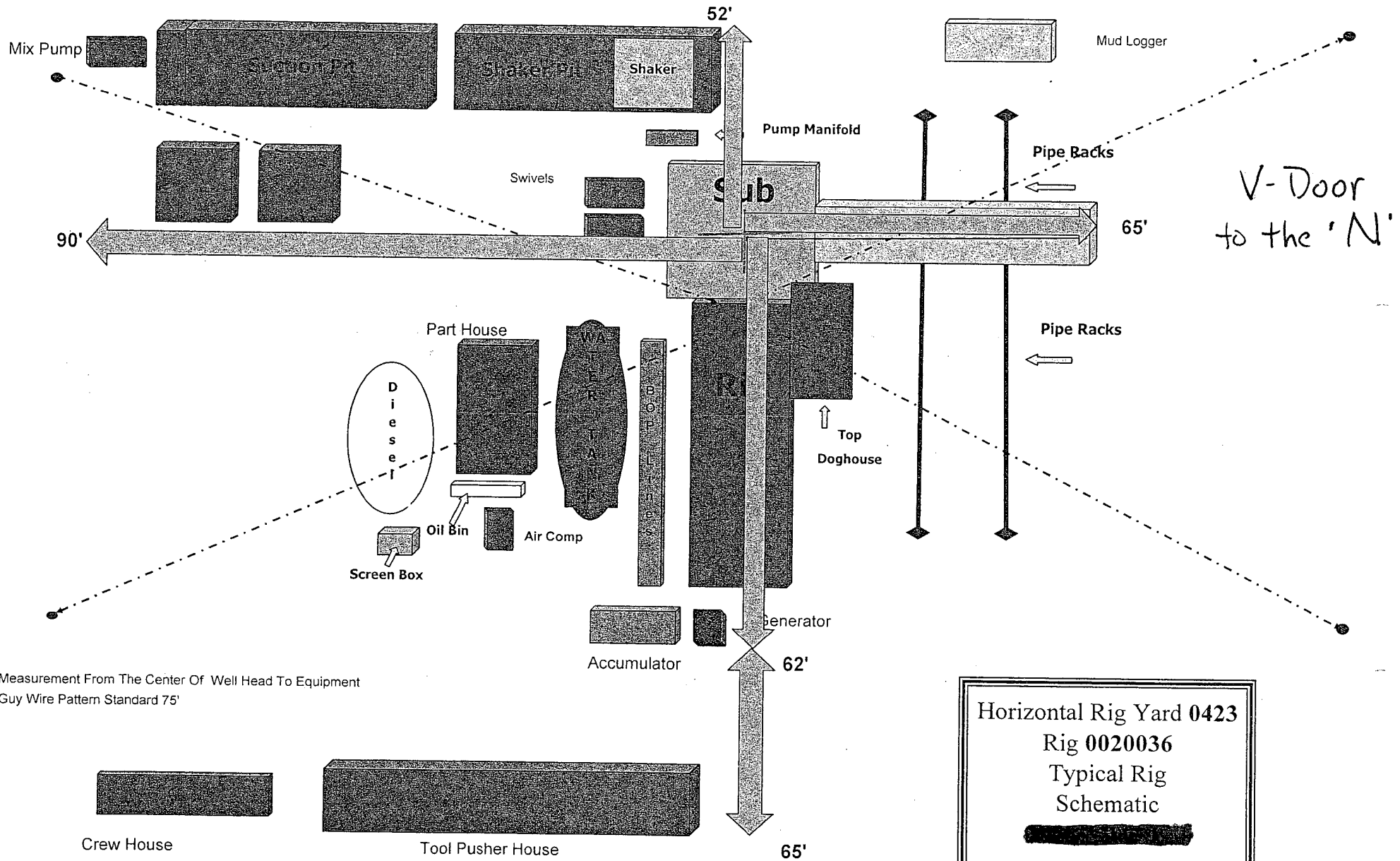
Plan: Plan #1 (#200H/OH)
Created By: Nate Bingham Date: 10/30, August 26 2010

EMSU #200 H



Access — Existing Lease Road (North-South)

Flowline - NE 3 mi



Measurement From The Center Of Well Head To Equipment
Guy Wire Pattern Standard 75'

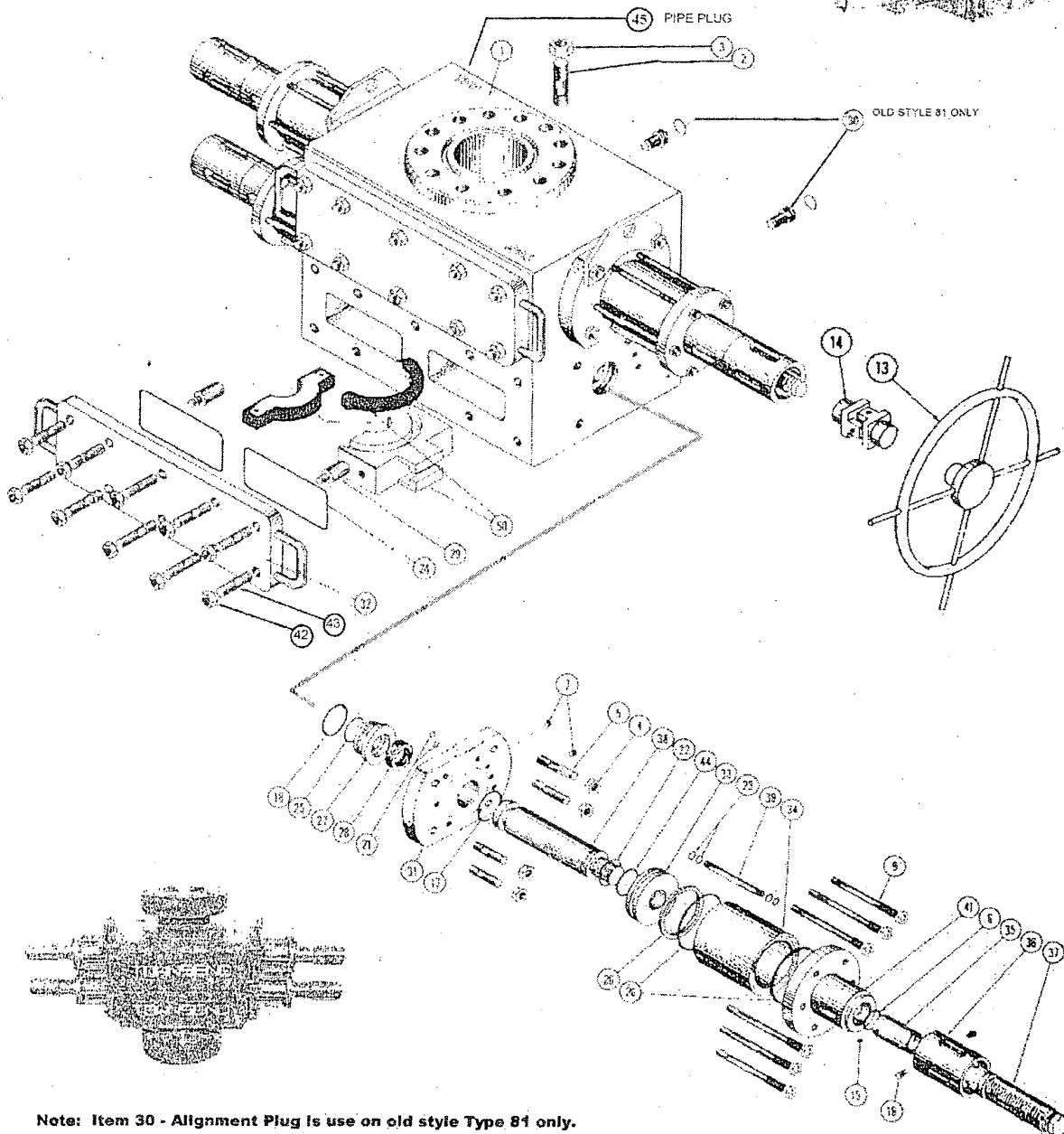
Key Rig #36

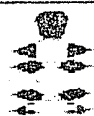
M-27



5381 W. 42ND STREET • P.O. BOX 14170
ODESSA, TX 79768
OFFICE 432/381-8750 • FAX 432/381-6324

TOWNSEND TYPE 81 HYDRAULIC BOP
7-1/16 X 3M - 7-1/16 X 5M
9 X 3M - 9 X 5M





TOWNSEND

INTERNATIONAL BOP'S, INC.

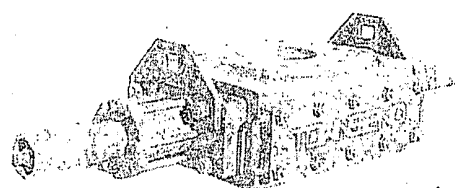
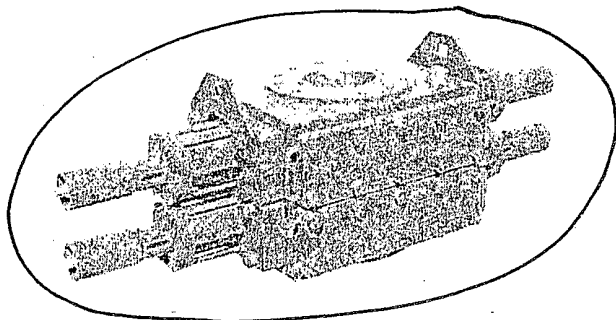
DIVISION OF KB2 INDUSTRIES, INC.

5381 W. 42ND STREET • P.O. BOX 14170
ODESSA, TX 79768
OFFICE 432/381-8750 • FAX 432/381-6324

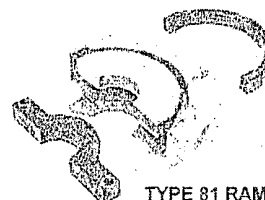
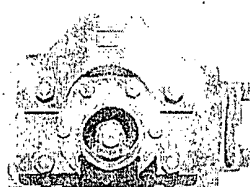
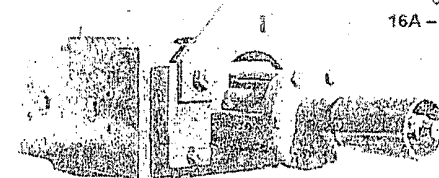
"The B.O.P. People"

TYPE 81 HYDRAULIC RAM TYPE BOP

HYDRAULIC DIMENSIONS & SPECIFICATION DATA



16A - 0051



TYPE 81 RAM BLOCK

DIMENSIONS					
SIZE	STYLE	7-1/16 X 3M	7-1/16 X 5M	9 X 3M	9 X 5M
OVERALL HEIGHT STUDDED (LESS STUDS)	SINGLE	13"	13-1/4"	13-1/4"	13-1/4"
	DOUBLE	20-1/2"	20-1/2"	22-1/2"	22-1/2"
	TRIPLE	30"	31"	31"	31"
OVERALL HEIGHT FLANGED	SINGLE	21-3/8"	25-1/2"	23-3/4"	23-3/4"
	DOUBLE	30-3/8"	35-3/4"	33"	33"
	TRIPLE	38-3/8"	45-1/4"	41-1/2"	41-1/2"
OVERALL LENGTH		63"	65"	70"	70"
OVERALL WIDTH		22"	25"	25"	25"
OPENING THROUGH PREVENTER		7-1/16"	7-1/16"	9"	9"
WORKING PRESSURE (LBS.)		3,000	5,000	3,000	5,000
TEST PRESSURE (LBS.)		6,000	10,000	6,000	10,000

WEIGHTS					
SIZE		7-1/16 X 3M	7-1/16 X 5M	9 X 3M	9 X 5M
SINGLE	STUDDED	1,250	1,600	1,550	1,650
	FLANGED	1,520	1,800	1,810	1,910
DOUBLE	STUDDED	2,100	2,800	2,750	2,850
	FLANGED	2,370	3,000	3,010	3,110
TRIPLE	STUDDED	2,750	3,600	3,550	3,660
	FLANGED	3,145	3,800	3,810	3,910

BOP CAPACITIES				
SIZE	7-1/16 X 3M	7-1/16 X 5M	9 X 3M	9 X 5M
MAXIMUM OPERATING PRESSURE (TO OPEN & CLOSE) (PSI)	1,500	1,500	1,500	1,500
RECOMMENDED OPERATING PSI (TO OPEN & CLOSE) (PSI)	1,500	1,500	1,500	1,500
RATIO TO CLOSE	4:1:1	4.5:1	4.5:1	4.5:1
VOLUME OF FLUID TO OPEN (U.S. GALLONS)	.55	.60	.62	.62
VOLUME OF FLUID TO CLOSE	.68	.73	.75	.75
PISTON STROKE (TO OPEN & CLOSE) (INCHES)	4-1/16"	4-1/14"	5-1/8"	5-1/8"

For inquiries and a complete listing of Blowout Preventers and Accumulators, visit our website at <http://www.townsend-bop.com>

BTI Oil Tools 3M Choke Manifold

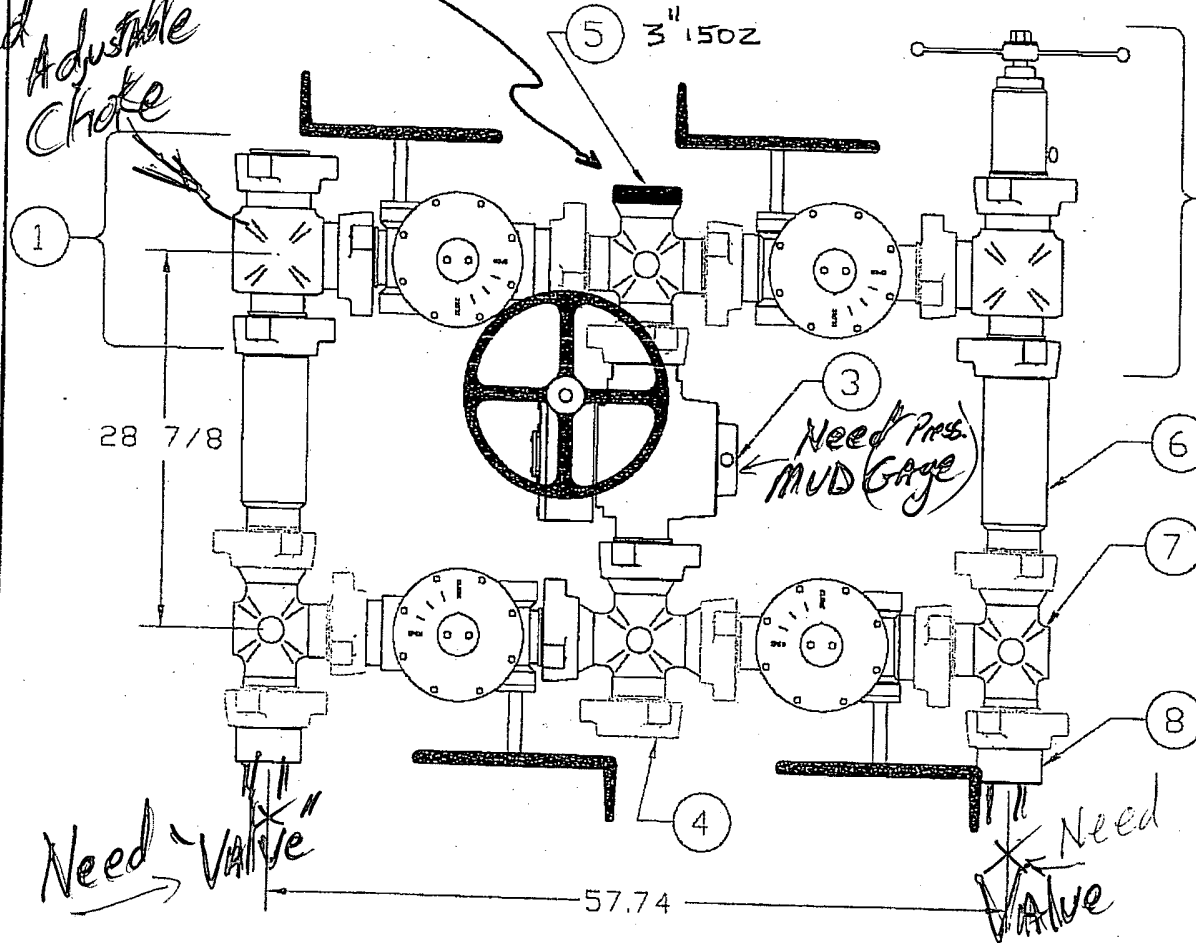
To be used on Key 36 Rig

MUST comply w/ Onshore Order #2

Inlet from BOP

Need Adjustable Choke

Like #2 →



2 CHOKE 3" 1502 WITH 2" TRIM

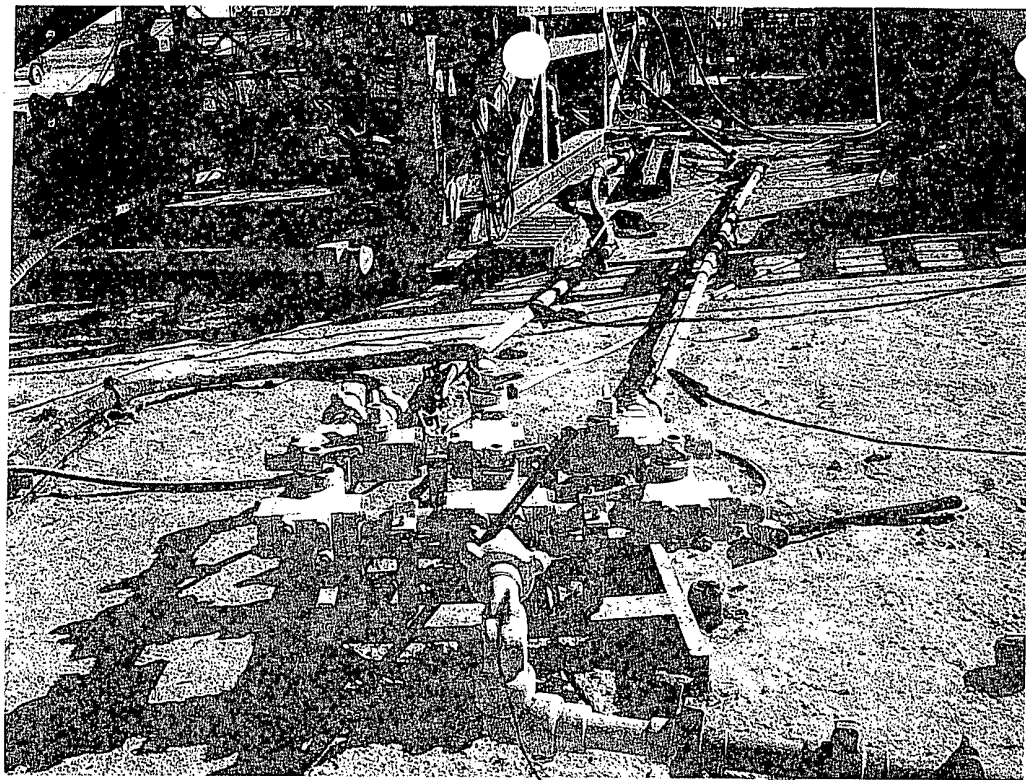
VALVES HAVE A 2 5/8 ID 3" 1502 CONNECTION

ITEM	QTY	PART#	DESCRIPTION
8	2	CAG005	BLANK PLUG, 3" 1502 FEMALE H2S
7	2	TAG001	TEE, 3" 1502 FEM H2S
6	2	GA0047	SPACER, 3" 1502 FEM x 17" H2S
5	1	GA0014	CROSS, 3" 1502 FEM H2S
4	1	GA0013	CROSS, 3" 1502 FEM H2S
3	5	VA0016	VALVE, 2" x 3" 1502 FEM H2S (REAR)
2	1	CAG035	ADJUSTABLE CHOKE, 3" 1502 H2S
1	1	CAG036	POSITIVE CHOKE, 3" 1502 H2S

TITLE:
MANIFOLD ASSEMBLY
DUAL CHOKE POSITIVE - ADJUSTABLE
3" 1502 - (5) 3" x 2" VALVES
FLUID SERVICE/WORKING PRESSURE
H2S SERVICE
15,000 W/P

DRAWN: HAN1 APPROVED: DATE: 2/2/00 DRAWING NO: 100-200-100-6-001 REV: 6

3 OUTLETS



EMSU #200 H
XTO Energy

Reverse line
tied to annulus

Line to rig
floor & power swivel
for normal circulating
while drilling

Line to main
circulating pump

CHOKE MANIFOLD FOR KEY RIG 36

3 M Manifold w/ 6 - 2" 3M
Block Valves &
Circulating Lines

Must comply w/ Onshore Order #2