

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

JUN 06 2008

Form C-101
May 27, 2004

Submit to appropriate District Office
HOBBS OCD
OIL CONSERVATION DIVISION REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| | | |
|---|--|--|
| ¹ Operator Name and Address XTO Energy Inc. 200 N. Lorraine St., St. 800 Midland, TX 79701 | | ² OGRID Number 5380- |
| ³ Property Code 301587 | ⁵ Property Name North Vacuum ABO Unit | ⁴ API Number 30-025-28604 |
| ⁹ Proposed Pool 1 North Vacuum Abo | | ⁶ Well No. 245 |
| ¹⁰ Proposed Pool 2 | | |

⁷ Surface Location

| | | | | | | | | | |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|------------------------------|-------------------------------|----------------------|
| UL or lot no. K | Section 23 | Township 17S | Range 34E | Lot Idn | Feet from the 1932 | North/South line South | Feet from the 2155 | East/West line West | County Lea |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|------------------------------|-------------------------------|----------------------|

⁸ Proposed Bottom Hole Location If Different From Surface

| | | | | | | | | | |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|-----------------------------|-------------------------------|----------------------|
| UL or lot no. M | Section 23 | Township 17S | Range 34E | Lot Idn | Feet from the 1079 | North/South line South | Feet from the 552 | East/West line West | County Lea |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|-----------------------------|-------------------------------|----------------------|

Additional Well Information

| | | | | |
|--|--|---|--|--|
| ¹¹ Work Type Code P | ¹² Well Type Code O | ¹³ Cable/Rotary R | ¹⁴ Lease Type Code S | ¹⁵ Ground Level Elevation 4032 |
| ¹⁶ Multiple | ¹⁷ Proposed Depth 10450 | ¹⁸ Formation ABO | ¹⁹ Contractor C.C. Forbes | ²⁰ Spud Date ASAP |
| Depth to Groundwater 85' | | Distance from nearest fresh water well >1000 | | Distance from nearest surface water >1000 |
| Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 20000 bbls Drilling Method: _____ Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> | | | | |

²¹ Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|----------------|----------------|------------------------|---------------|-----------------|---------------|
| 17-1/2" | 13-3/8" | 48# H40 STC | 402 | 400 | Surf |
| 12-1/4" | 8-5/8" | 32# S80/32# K55 | 5000 | 3000 | Surf |
| 7-7/8" | 5-1/2" | 17# 15.5# K55 | 8710 | 1050 | 4185 |
| | 2-7/8" | | 8686 | | |

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

* Please see attached procedure for adding lateral.

MUD PROGRAM : 8.4- 8.9 Fresh water f/kickoff point 8428'- 8436' to 10450.

BOP : Case III ; 7-1/16" 3000# w/ hydriil single pipe ram, blind ram + manifold.

Permit Expires 2 Years From Approval
Date Unless Drilling Underway

** HORIZONTAL

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒ a general permit ☐, or an (attached) alternative OCD-approved plan ☐

Printed name: **Sorina L. Flores**

Title: **Drilling Tech**

E-mail Address: **sorina_flores@xtoenergy.com**

Date: **6/5/08**

Phone: **432-620-6749**

OIL CONSERVATION DIVISION

Approved by:

Title: **PETROLEUM ENGINEER**

Approval Date: **JUN 11 2008**

Expiration Date:

Conditions of Approval Attached ☐

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State of New Mexico
Energy, Minerals and Natural Resources Department

REC'D/MIDLAND
FEB 11 2008

OIL 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 30-025-28604 | Pool Code | Pool Name North Vacuum ABO |
| Property Code | Property Name NVAU | Well Number 245H |
| OGRID No. 5380 | Operator Name XTO ENERGY | Elevation 4033' |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| K | 23 | 17-S | 34-E | | 1932 | SOUTH | 2155 | WEST | LEA |

Bottom Hole Location If Different From Surface

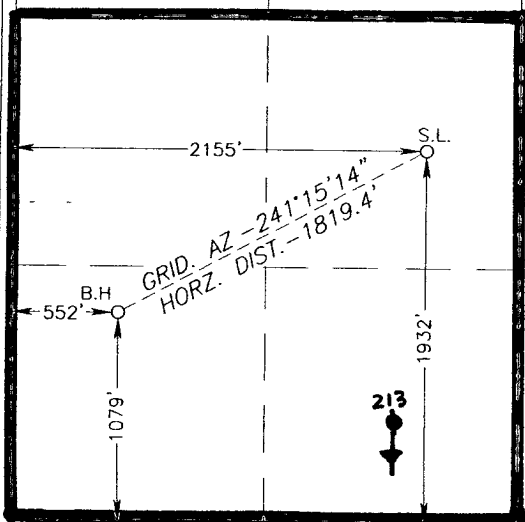
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M | 23 | 17-S | 34-E | | 1079 | SOUTH | 552 | WEST | LEA |

| | | | |
|-------------------------------|-----------------|--------------------|-----------|
| Dedicated Acres 160 | 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

GEODETIC COORDINATES
NAD 27 NME
SURFACE HOLE LOCATION
Y=662373.5 N
X=746084.5 E

LAT.=32.818389° N
LONG.=103.532314° W



BOTTOM HOLE LOCATION
Y=661498.7 N
X=744489.6 E

This well being drilled under provisions
of Rule 2 of North Vacuum ABO rules.

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.

Sorina L Flores 6/5/08
Signature Date

Sorina L Flores
Printed Name

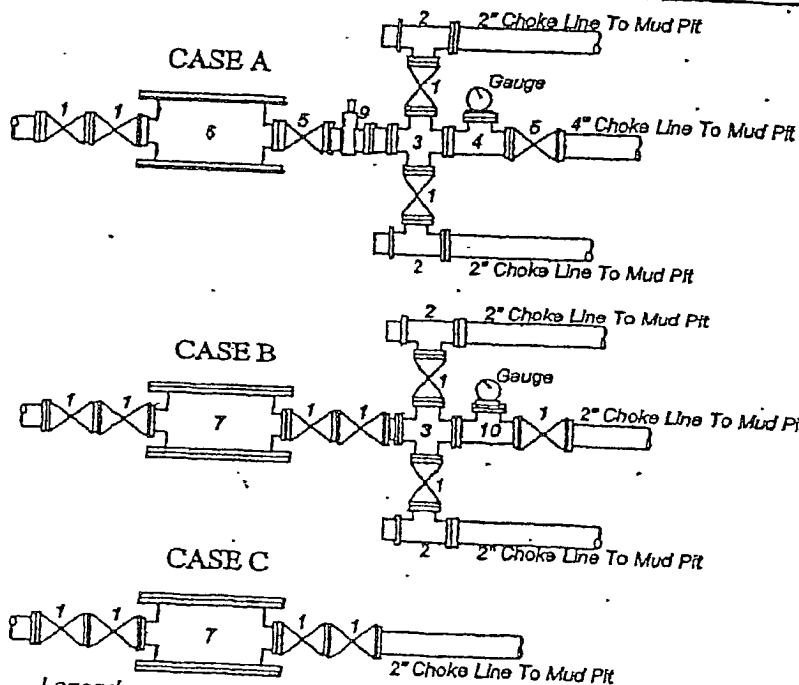
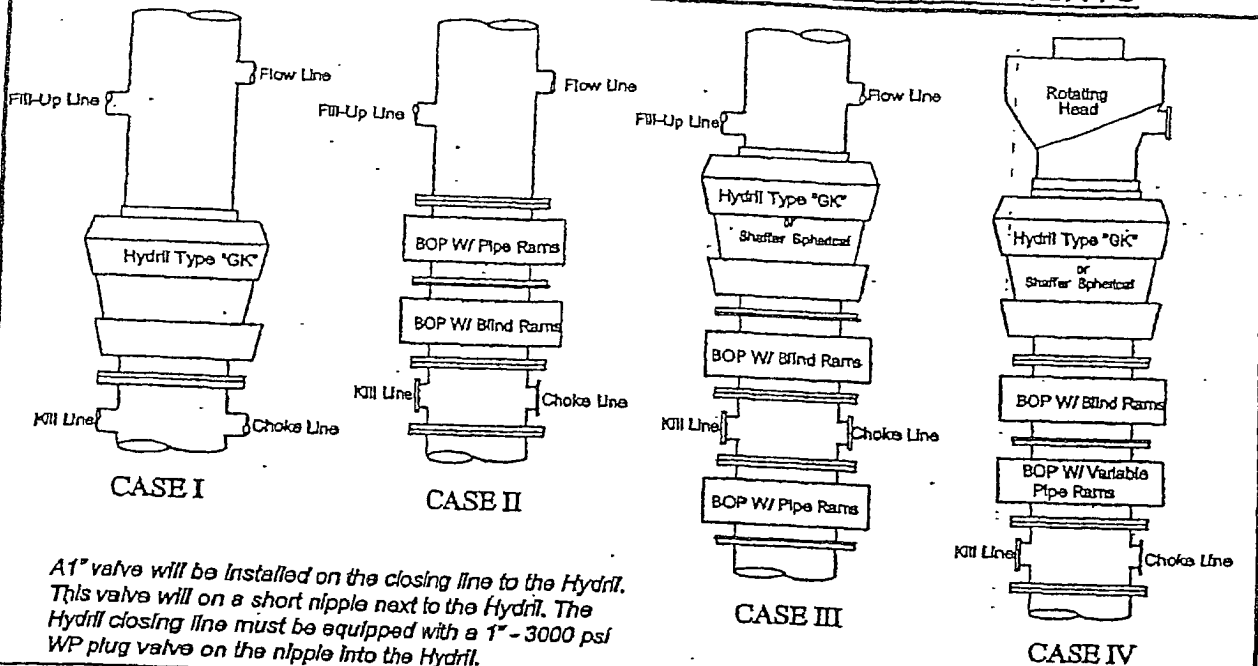
SURVEYOR CERTIFICATION

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 J. Eidson 02/06/08
Date Surveyed Signature & Seal of Professional Surveyor
3239
07.11.1900

Certificate No. GARY EIDSON 12641
RONALD EIDSON 3239

MINIMUM BLOWOUT PREVENTER REQUIREMENTS



| BOP SIZE | BOP CASE | WORKING PRESSURE | CHOKE CASE |
|----------|----------|------------------|------------|
| 13-5/8" | IV | 5000 | A |
| | | | |

*Rotating head required

Bradenhead furnished by Conoco will be:
Mfr: Wood Group
Description: 13-3/8" x 13-5/8" 3M
Type: SOW

Legend

- 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
- 2" flanged adjustable chokes, min. 1" full opening & equipped with hard trim.
- 4" x 2" flanged steel cross.
- 4" flanged steel tee.
- 4" flanged all steel valve (Type as in no. 1).
- Drilling Spool with 2" x 4" flanged outlet.
- Drilling Spool with 2" x 2" flanged outlet.
- 2" x 2" flanged steel cross.
- 4" pressure operated gate valve.
- 2" flanged steel tee.

Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

NVAC #245H
Horizontal Sidetrack Procedure
North Vacuum Abo Field
Lea County, New Mexico
AFE #717270
XTO WELL ID #61516

TD: 8711'
PBSD: 8705'
8-5/8" Casing: 5000'
5-1/2" Liner: 8711 – 4185' TOL, 5-1/2" 15.5# & 17# J-55
see wellbore diagram for all details

Surface Location: 1932' FNL & 2155' FWL, Sec 23, T17S, R34E
Target BHL: 1079' FSL & 552' FWL, Sec 23, T17S, R34E
Drilled Date:
Abo Perfs: 8549-8688' OA
Ground Elev: 40'
Original KB Elev: 40'
Key Energy #36: 40' (12'AGL)

1. MIRU Key Rig #36. Install BOP. Test to 250# & 1000#. Notify NMOGB – permit attached.
2. **Unload and tally ±6800' 2-7/8" 10.40# AOH & 4000' 3-1/2" 13.30# IF workstring.**
3. R/U WSI WL. Run gauge ring and junk basket for 5-1/2" 17# (drift ID – 4.767") to 8560'. Log up and tie into csg collars @ 8541', 8497', 8453', 8410', 8366' (see attached log). P/U Weatherford Oil Tools wireline set 5-1/2" 17# RBP. Set RBP so that the top will be at 8440' RD WL.
4. PU 4-3/4" dummy milling assbly or 4-3/4" flat bottom mill with the 2-7/8" AOH & 3-1/2" IF drill pipe and TIH. Tag up on the RBP @ 8440', set down 20,000# of weight on the RBP. Circulate the hole with fresh water. TOOH with assbly.
5. PU Oil Tools Whipstock System (3° face) with metal muncher mills. **Note: Make sure all mills will gauge to 4.75". Minimum DD is 4.767".** Total length of the whipstock assembly in the set position is approximately 12'. Orient the UBHO sub and whipstock face on the surface. Insert the gyro stinger (Scientific Drilling) to ensure compatibility and to check orientation.
6. TIH with the whipstock assembly slowly, being careful when picking the string up off of the slips and when setting the slips. Fill DP every 2000'. Tag the RBP at 8440' with 2000# of weight. PU to first tool joint and RU Scientific Drilling gyro truck. Orient the whipstock to the desired azimuth and work the torque out of the drill string.
7. When desired orientation is achieved, tag the RBP with 2000# of weight, take a final check shot with gyro, then apply weight and set the anchor with 20,000# compression to shear the running bolt. RD WL truck.
8. Obtain values for free torque, PU & SO weights. Install ditch magnets at the surface. Lower milling assembly and make the starting cut through the casing wall at approximately 8428'.

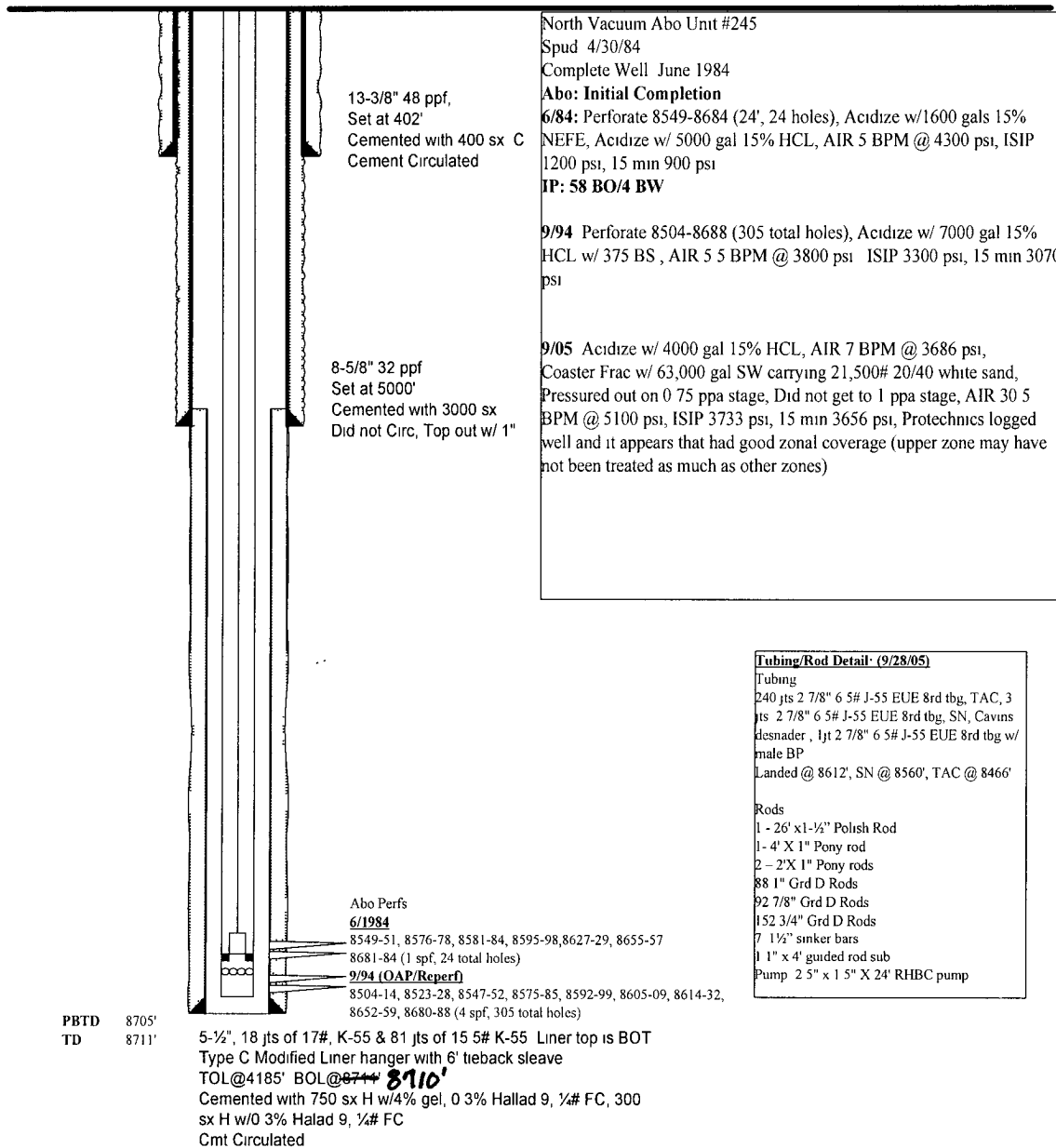
9. Mill the remainder of the window, 8428-36', making the necessary rat hole (8440') to ensure that the string mill has fully opened the window, and that the window exit is smooth. Work the mills through the window. When the window is "clean", circulate the hole clean, TOO H and LD the window mills.
10. PU 4-3/4" bit ("47-type" – the Abo has 'chert' in it), PU 3-1/2" dir assbly w Non-Mag DC & GammaRay, run surface tests, and TIH. ***Mud loggers should be rigged up after cutting the window and prior to commencing the curve.*** Use Gyro for first few surveys. Follow well plan from Baker. Open hole lateral length is +/- 1800'. Be prepared to drill with an XCD/Xanthum fluid system to keep 'YP' higher for hole cleaning in the 8-5/8" area. **For trips out of the hole, circ hole clean with sweep(s). TOH slowly in the curve and lateral, if necessary consider pumping out.**
11. At TD, circulate the hole clean with polymer sweeps.
12. TOO H and LD directional tools.
13. TIH with 4-3/4" (4-1/2") swaging tool, single reamer about 7-8 jts behind swaging tool, wash and ream to TD. POH and place 2nd reamer 1 jt behind 1st, wash and ream to TD, pull back up through the window, RIH for push pull test to btm, circ hole clean.
14. TOO H & LDDP. RD Re-entry Rig. Prepare to move to the next location.

Chip
4/29/08

XTO ENERGY

Well: North Vacuum Abo Unit #245
Area: Buckeye
Location: Section 23, T17S, R34E
County: Lea
Elevation: 4027 GL

WI: 92.67%
NRI: 81.09%
Spud: 4/30/1984
State: New Mexico



North Vacuum Abo Unit #245
 Spud 4/30/84
 Complete Well June 1984
Abo: Initial Completion
6/84: Perforate 8549-8684 (24', 24 holes), Acidize w/1600 gals 15% NEFE, Acidize w/ 5000 gal 15% HCL, AIR 5 BPM @ 4300 psi, ISIP 1200 psi, 15 min 900 psi
IP: 58 BO/4 BW
9/94 Perforate 8504-8688 (305 total holes), Acidize w/ 7000 gal 15% HCL w/ 375 BS, AIR 5.5 BPM @ 3800 psi ISIP 3300 psi, 15 min 3070 psi
9/05 Acidize w/ 4000 gal 15% HCL, AIR 7 BPM @ 3686 psi, Coaster Frac w/ 63,000 gal SW carrying 21,500# 20/40 white sand, Pressured out on 0.75 ppa stage, Did not get to 1 ppa stage, AIR 30.5 BPM @ 5100 psi, ISIP 3733 psi, 15 min 3656 psi, Protechnics logged well and it appears that had good zonal coverage (upper zone may have not been treated as much as other zones)

Tubing/Rod Detail (9/28/05)
 Tubing
 240 jts 2 7/8" 6.5# J-55 EUE 8rd thg, TAC, 3
 jts 2 7/8" 6.5# J-55 EUE 8rd thg, SN, Cavins
 desnader, 1jt 2 7/8" 6.5# J-55 EUE 8rd thg w/
 male BP
 Landed @ 8612', SN @ 8560', TAC @ 8466'
 Rods
 1 - 26' x 1-1/2" Polish Rod
 1 - 4' X 1" Pony rod
 2 - 2' X 1" Pony rods
 88 1" Grd D Rods
 92 7/8" Grd D Rods
 152 3/4" Grd D Rods
 7 1 1/2" sinker bars
 1 1" x 4' guided rod sub
 Pump 2.5" x 1.5" X 24' RHBC pump