

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

Form C-101  
May 27, 2004

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

Submit to appropriate District Office

☐ AMENDED REPORT

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

<sup>1</sup> Operator Name and Address Devon Energy Production Company, L.P. 20 N. Broadway Oklahoma City, OK 73102		<sup>2</sup> OGRID Number 6137
		<sup>3</sup> API Number 30-045-246006
<sup>4</sup> Property Code 19641	<sup>5</sup> Property Name Northeast Blanco Unit	<sup>6</sup> Well No. 347M
<sup>9</sup> Proposed Pool 1 Basin Dakota		<sup>10</sup> Proposed Pool 2 Blanco Mesaverde

**7 Surface Location**

UL or lot no. E	Section 36	Township 31N	Range 8W	Lot Idn	Feet from the 2,425	North/South line North	Feet from the 780	East/West line West	County San Juan
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**8 Proposed 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
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**Additional Well Information**

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code G	<sup>13</sup> Cable/Rotary Rotary	<sup>14</sup> Lease Type Code State	<sup>15</sup> Ground Level Elevation 6,434'
<sup>16</sup> Multiple Y	<sup>17</sup> Proposed Depth 8,071'	<sup>18</sup> Formation Dakota/Mesaverde	<sup>19</sup> Contractor	<sup>20</sup> Spud Date Unknown
Depth to Groundwater >100'		Distance from nearest fresh water well >1,000'		Distance from nearest surface water >1,000'
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12_mils thick Clay <input type="checkbox"/> Pit Volume: _____ 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 checked="" type="checkbox"/>				

**21 Proposed Casing and Cement Program**

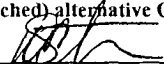
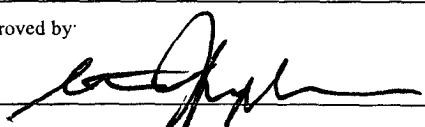
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	32#	0-285'	200	Surface
8 3/4"	7"	23#	0-3 545'	575	Surface
6 1/4"	4 1/2"	11.6#	0-TD	700	Surface

<sup>22</sup> 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.

RCVD FEB 25 '08

OIL CONS. DIV.

DIST. 3

<sup>23</sup> 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 <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		<b>OIL CONSERVATION DIVISION</b>	
Sign: 		Approved by: 	
Printed name: Melisa Castro		Title: DEPUTY OIL & GAS INSPECTOR, DIST. 3	
Title: Senior Staff Operations Technician		Approval Date: FEB 26 2008 Expiration Date: FEB 26 2010	
E-mail Address: Melisa.castro@dv.com			
Date: 2-21-08	Phone: 405-552-7917	Conditions of Approval Attached <input type="checkbox"/>	

District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies  
RCVD FEB 25 '08  
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT OIL CONS. DIV.  
DIST. 3

<sup>1</sup> API Number 30-045-34600	<sup>2</sup> Pool Code 71599/72319	<sup>3</sup> Pool Name Basin Dakota / Blanco Mesavende
<sup>4</sup> Property Code 19641	<sup>5</sup> Property Name NEBU	<sup>6</sup> Well Number # 347M
<sup>7</sup> OGRID No. 6137	<sup>8</sup> Operator Name Devon Energy Production Company, L.P.	<sup>9</sup> Elevation 6434

<sup>10</sup> Surface Location

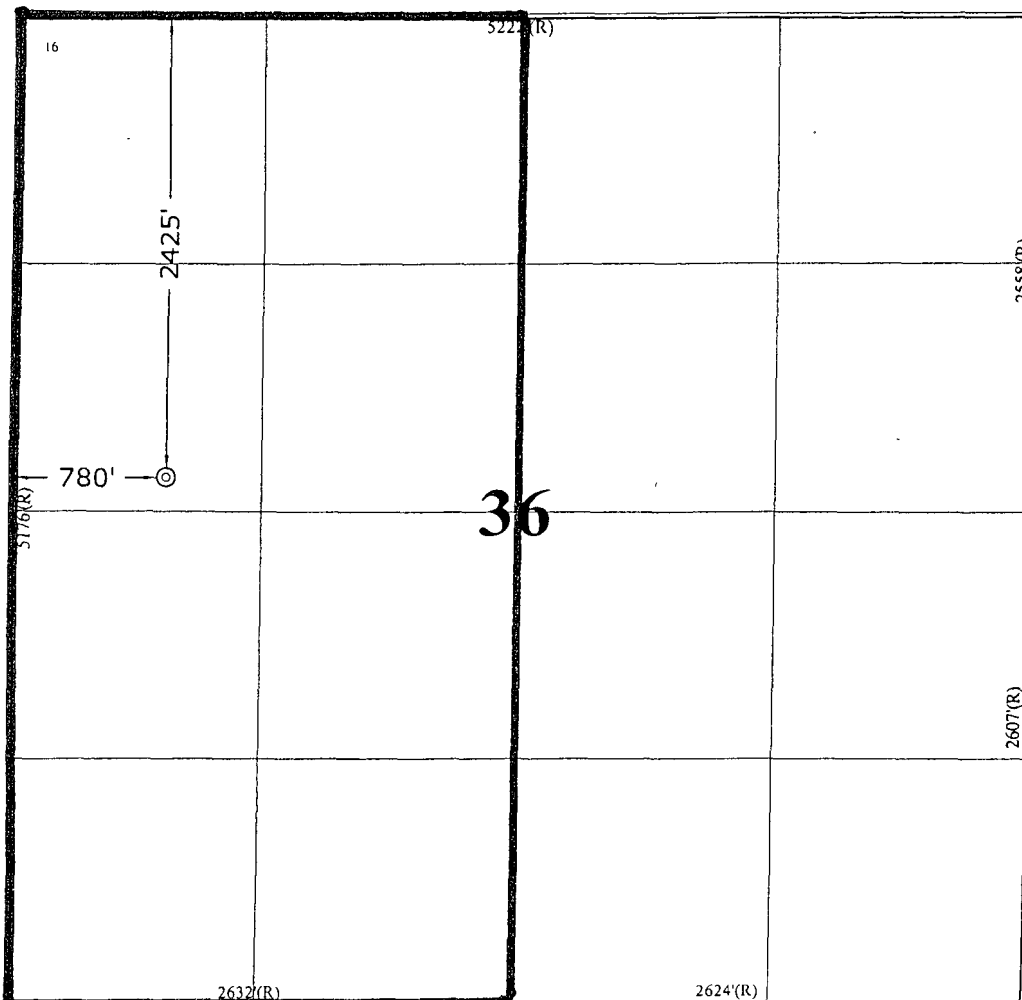
UL or Lot No E	Section 36	Township 31 N	Range 8 W	Lot Idn	Feet from the 2425	North/South line NORTH	Feet from the 780	East/West line WEST	County SAN JUAN
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<sup>11</sup> Bottom Hole Location If Different From Surface

<sup>7</sup> UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres w/2 320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



<sup>17</sup> OPERATOR CERTIFICATION

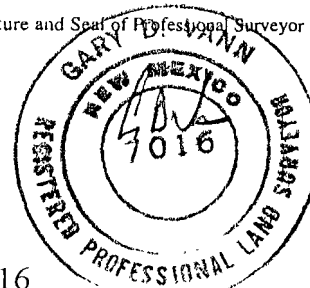
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature  
Melisa Castro  
Printed Name  
Senior Operations Technician  
Title  
February 21, 2008  
Date

<sup>18</sup> 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 4, 2007  
Date of Survey  
Signature and Seal of Professional Surveyor



7016  
Certificate Number

District I  
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State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-14  
June 1, 200

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Devon Energy Production Company, L.P. Telephone: (405) 552-7917 e-mail address: melisa.castro@dvn.com  
Address: 20 N. Broadway, Oklahoma City, OK 73102  
Facility or well name: NEBU 347M API #: 30-045-34606 U/L or Qtr/Qtr E Sec 36 T 31N R 8W  
County: San Juan Latitude 36.85494 Longitude 107.63319 NAD: 1927 ☐ 1983 ☐  
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

RCVD FEB 25 '08

**Pit**  
Type: Drilling ☒ Production ☐ Disposal ☐  
Workover ☐ Emergency ☐  
Lined ☒ Unlined ☐  
Liner type: Synthetic ☒ Thickness 12 mil Clay ☐  
Pit Volume        bbl

**Below-grade tank**  
Volume:        bbl Type of fluid:         
Construction material:         
Double-walled, with leak detection? Yes ☐ If not, explain why not. DIST. 3

OIL CONS. DIV.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
✓ 100 feet or more	( 0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes	(20 points)
✓ No	( 0 points).

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet	(20 points)
200 feet or more, but less than 1000 feet	(10 points)
✓ 1000 feet or more	( 0 points)

Ranking Score (Total Points)

10 pts

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility       . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface        ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date 2-21-08

Printed Name/Title Melisa Castro, Senior Staff Operations Technician Signature [Signature]

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Deputy Oil & Gas Inspector,  
District #3

Printed Name/Title

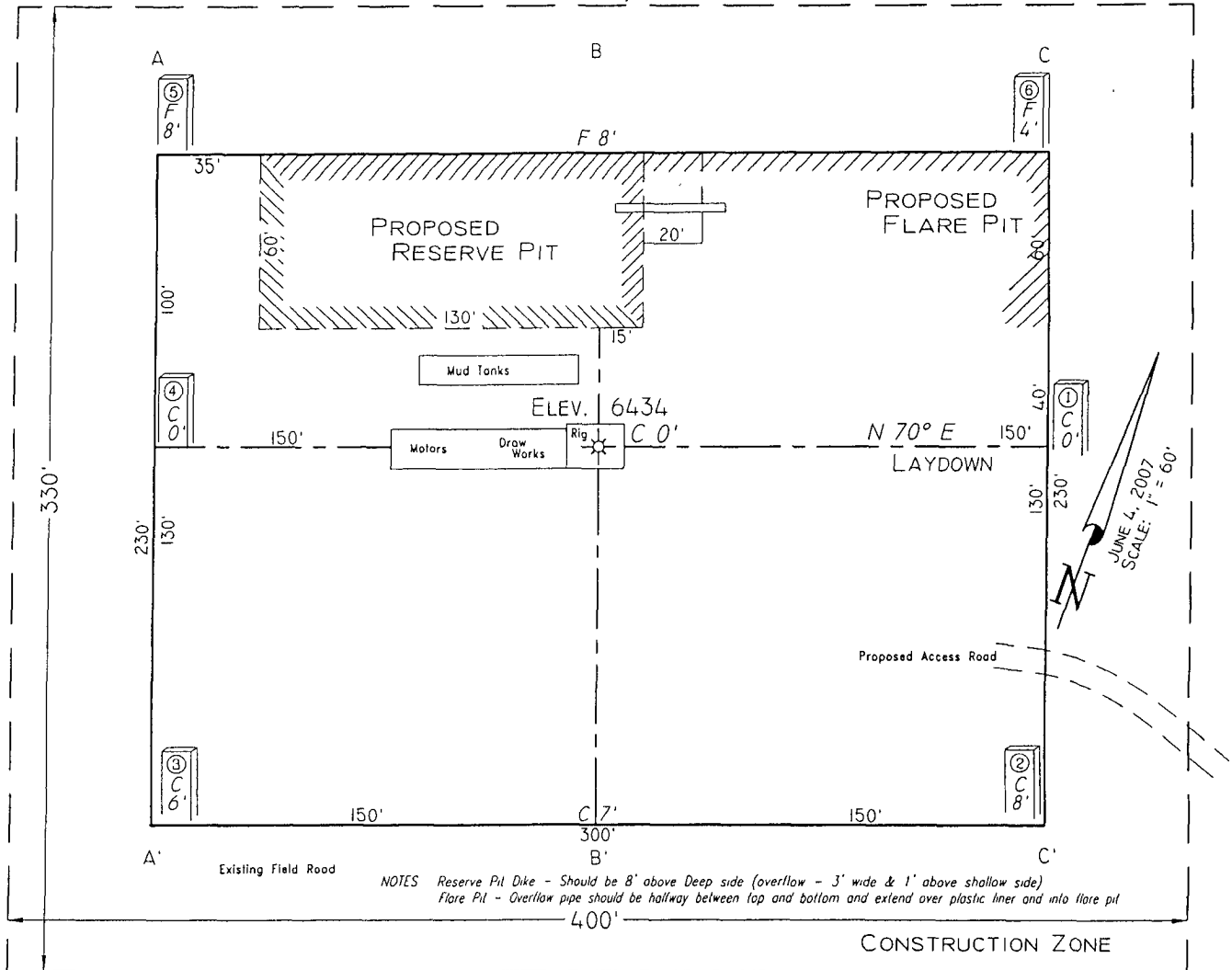
Signature

Date FEB 26 2008

PAD LAYOUT PLAN & PROFILE  
 DEVON ENERGY PRODUCTION COMPANY, L.P.

Nebu # 347M  
 2425' F/NL 780' F/WL  
 SEC. 36, T31N, R8W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36.85494° (83)  
 Long: 107.63319°

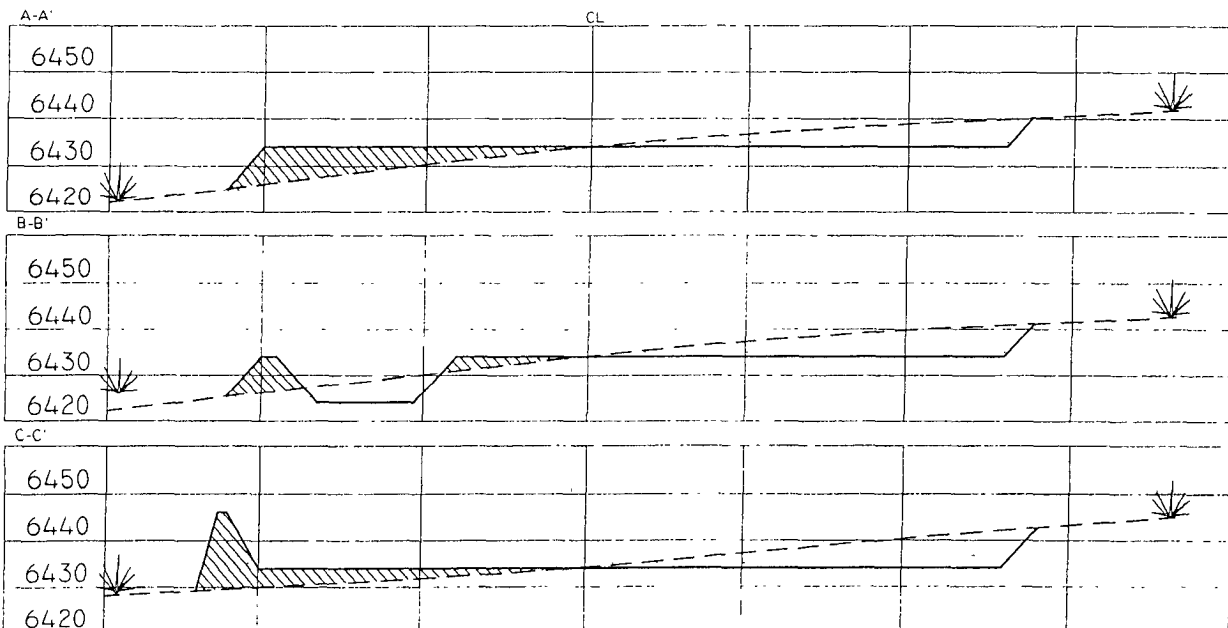


NOTES Reserve Pit Dike - Should be 8' above Deep side (overflow - 3' wide & 1' above shallow side)  
 Flare Pit - Overflow pipe should be halfway between top and bottom and extend over plastic liner and into flare pit

CONSTRUCTION ZONE

Area of Construction Zone - 330'x400' or 3.03 acres, more or less

SCALE 1"=60'-HORIZ.  
 1"=40'-VERT



VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

**NEBU 347M**  
**SL: 2,425' FNL & 780' FWL, Unit E 36-31N-8W**  
**BHL: Same**  
**San Juan Co., NM**

**DRILLING PLAN**

**1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS & ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:**

<b>Formation</b>	<b>TMD (ft)</b>	<b>Hydrocarbon/Water Bearing Zones</b>
San Jose	Surface	
Ojo Alamo	2226	Aquifer
Kirtland	2323	
Fruitland	2864	Gas
Fruitland 1 <sup>st</sup> Coal	3071	Gas
Pictured Cliffs Main	3323	Gas
Lewis	3444	Gas
<b>Intermediate TD</b>	3545	
Huefanito Bentonite	4057	Gas
Chacra / Otera	4421	Gas
Cliff House	5220	Gas
Menefee	5305	Gas
Point Lookout	5556	Gas
Mancos	5980	Gas
Gallup	6916	Gas
Greenhorn	7616	
Graneros	7679	Gas
Paguate	7820	
Cubero	7831	
Oak Canyon	7898	
Encinal Canyon	7916	

Lower Encinal Canyon	7972	
Burro Canyon	7991	
Morrison	8011	
TD	8071	

\*All shows of fresh water and minerals will be adequately protected and reported.

## **2. PRESSURE CONTROL EQUIPMENT:**

All well control equipment shall be in accordance with Onshore Order #1 for 2M systems.

The minimum specifications for pressure control equipment that will be provided are included on the attached schematic diagram, with a size of 2", and pressure ratings.

- 2000# BOP With Pipe Rams and 2000# BOP With Blind Rams

Auxiliary equipment to be used:

- Upper kelly cock with handle available.

The manifold includes appropriate valves and adjustable chokes. The kill line will have one check valve. Ram type preventers will be pressure tested to full working pressure (utilizing a test plug) or 70% of the internal yield pressure (without a test plug) at:

- Initial installation
- Whenever any seal subject to test pressure is broken
- Following related repairs
- At 30 day intervals

Pipe and blind rams shall be activated each trip.

A BOPE pit level drill will be conducted weekly for each drilling crew.

All tests and drills will be recorded in the drilling log.

The accumulator will have sufficient capacity to close all rams and retain 200 psi above pre-charge pressure without the use of closing unit pumps.

Master controls will be at the accumulator. Anticipated bottom hole pressure is 3400 psi.

## **3. CASING & CEMENTING PROGRAM:**

A. The proposed casing program will be as follows:

TMD	Hole Size	Size	Grade	Weight	Thread	Condition
0-285'	12-1/4"	9-5/8"	H-40	32#	STC	New
0-3545	8-3/4"	7"	K-55	23#	LTC	New

0- TD	6-1/4"	4-1/2"	J-55	11.6 #	LTC	New
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Casing Size	Collapse Resistance	Internal Yield	Body Yield
9 5/8"	1400 psi	2270 psi	254K psi
7"	3270 psi	4360 psi	366K psi
4 1/2"	4960 psi	5350 psi	184K psi

The 9-5/8" surface pipe will be tested to 750 psi. All casing strings below the surface shoe shall be pressure tested to 0.22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% minimum internal yield.

**Surface:** The bottom three joints of the surface casing will have a minimum of one centralizer per joint and one centralizer every joint thereafter (Total 5 centralizers estimated)

**Intermediate:** The bottom three joints of the 7" casing will have a minimum of one centralizer per joint and one centralizer every fifth joint thereafter to above Ojo Alamo with turbolizers below and throughout the Ojo Alamo. (Total 12 centralizers, 3 turbolizers estimated). In some situations an ACP and DV tool may be run.

**Production:** The bottom three joints will have a minimum of one centralizer per joint and one centralizer every fifth joint to 3500' (estimated 25 centralizers used). Centralizers will be open bow spring or basket bow spring type. In some situations an ACP and DV tool may be run.

B. The proposed cementing program will be as follows:

**Surface String:** Cement will be circulated to surface.

**Lead:** 200 sx Class "B" with 100% Standard Cement, 2.00% CaCl<sub>2</sub>, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.24 gal/sx

*\* Minor variations possible due to existing conditions*

**Intermediate String:** Cement will be circulated to surface.

**Lead:** 500 sx 50/50 Poz, Yd-1.45, Water Gal/sx 6.8, Mixed @ 13ppg Foamed W/ N2 Down To 9.0# Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.

**Tail:** 75 sx 50/50 Poz, Yd-1.45, Water Gal/Sk 6.8, Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.

*\* Minor variations possible due to existing conditions*

**If hole conditions dictate, an alternate, cement design will be used:**

**Lead:** 575 sx 50/50 Poz with 50% Class B Cement, 50% San Juan Poz, .4% Halad-344, .1% CFR-3, 3% Bentonite, 5#/sx Gilsonite, .25#/sx Flocele. Density: 13.0 lb/gal; Yield: 1.46 cuft/sx; Water: 6.42 gal/sx

**Tail:** 75 sx 50/50 Poz with 94#/sx Standard Cement, 0.3%

Halad-344, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.23 gal/sx

**\* Minor variations possible due to existing conditions**

**Production String:**

**TOC designed to circulate 1000' into intermediate string, cement will tie into the intermediate casing as a minimum. Volumes may vary with actual well characteristics.**

**Lead:** 250 sx 50/50 Poz with 2% Gel, 0.2% Halad, 0.1% CFR-3, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Mixed at 13 ppg, 1.47 ft 3/sx foamed to 9 ppg, 2.18 ft 3/sx.

**Tail:** 450 sx 50/50 Poz with 50% Standard Cement, 50% San Juan Poz, 3% Bentonite, 1.40% Halad-9, .10% CFR-3, .10% HR-5, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Density: 13.0 lb/gal; Yield: 1.47 cuft/sx; Water: 6.35 gal/sx \*

**\* Minor variations possible due to existing conditions**

**Actual volumes will be calculated and adjusted with caliper log prior to cementing.**

**4. DRILLING FLUIDS PROGRAM:**

TMD Interval	Type	Weight (ppg)	Viscosity	pH	Water Loss	Remarks
0-285'	Spud-foam	8.4-9.0	29-70	8.0	NC	FW gel, LSND or stiff foam
285'-3,545'	Water/Mud	8.4-9.0	29-70	8.0	NC	
3,545' - TD	Air/N2 or Mud	8.5-9.0*	30-50	8.0-10.0	8-810cc @ TD	Low solids-non-dispersed. * min Wt. to control formation pressure

NC = no control

Sufficient quantities of mud material will be maintained on site or be readily accessible for the purpose of assuring well control. SPR will be recorded on daily drilling report after mudding up. Visual mud monitoring will be conducted during operations.

**5. EVALUATION PROGRAM:**

**Logs:** Density  
Neutron  
Induction

In the event open hole logs are not run in the well, a cased hole evaluation log will Be run.

**Survey:** Deviation surveys will be taken every 500' from 0-TD or first succeeding bit change. The hole will be air drilled from intermediate casing point to TD. The



equipment used in this type of operation will not allow for single shot surveys without considerable operational delays therefore a survey will be taken at TD. Similar wells in this area have not shown significant deviation in this section of the hole.

**Cores:** None anticipated.

**DST's:** None anticipated.

**6. ABNORMAL CONDITIONS:**

The Fruitland Coal will be encountered in the 8-3/4" hole. Estimated formation pressure is 300 psi. No other abnormal pressures and/or temperatures are expected. No hydrogen sulfide should be present.

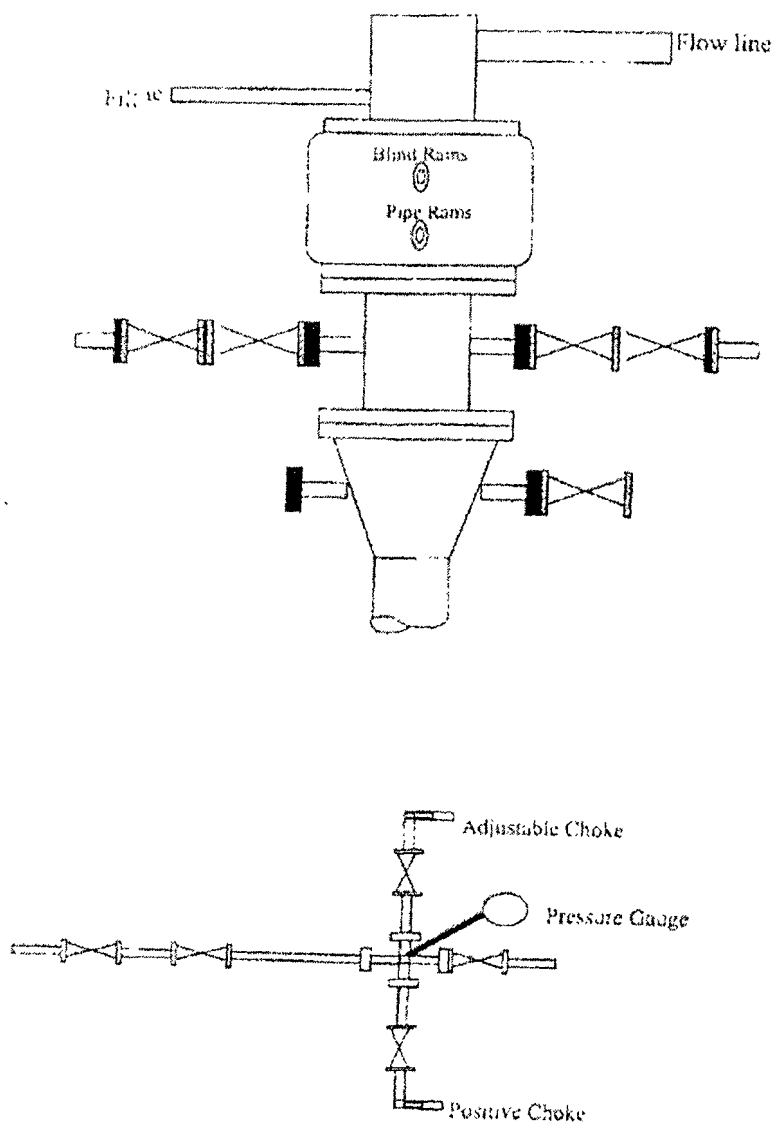
**7. OTHER INFORMATION:**

The anticipated starting date and duration of the operation will be as follows:

Starting Date:	Upon Approval
Duration:	20 days

If the well is completed as a dry hole or as a producer, Well Completion or Recompletion Report and Log (Form 3160-4) will be submitted within 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3160. Copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, daily drilling reports, daily completion reports, and all other surveys or data obtained and compiled during the drilling, completion, and/or workover operations, will be submitted directly to the Authorized Officer or filed with Form 3160-4.

# Well Control Equipment 2,000 psi Configuration



All well control equipment designed to meet or exceed the Onshore Oil and Gas Order No. 2, BLM 43 CFR 3160 requirements for 2M systems