

RCVD JUN 3 '08

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OIL CONS. DIV.

DIST. 3

Form 3160-3  
(April 2004)

APR 02 2008

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

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF 079003
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Company, L.P.		7. If Unit or CA Agreement, Name and No Northeast Blanco Unit NMNM-78402A-MV
3a. Address 20 N. Broadway Oklahoma City, OK 73102	3b. Phone No. (include area code) 405-552-7917	8. Lease Name and Well No. NEBU 68N
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 2,375' FNL & 1,260' FWL, Unit E, SW NW At proposed prod zone 1,840' FSL & 1,840' FEL, Unit J, NW SE		9. API Well No. 30-045-34677
14. Distance in miles and direction from nearest town or post office* Approximately 15.7 miles		10. Field and Pool, or Exploratory Blanco Mesaverde/S L P F/S PC
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1,260'		11. Sec., T. R. M. or Blk and Survey or Area E Sec. 35, T31N, R7W
16. No. of acres in lease 2560 Acres	17. Spacing Unit dedicated to this well 320 Acres E2	12. County or Parish San Juan Rio Arriba
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 968'	19. Proposed Depth 7,005'	13. State NM
20. BLM/BIA Bond No. on file CO 1104	21. Elevations (Show whether DF, KDB, RT, GL, etc.) GR 6,207'	22. Approximate date work will start* 04/26/2008
23. Estimated duration Unknown		

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer

25. Signature 	Name (Printed/Typed) Melisa Castro	Date 3-27-08
Title Senior Staff Operations Technician		
Approved by (Signature) 	Name (Printed/Typed) AFM	Date 6/2/08
Title Office FFO		

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.

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)

NOTIFY AZTEC OCD 24 HRS  
PRIOR TO CASING & CEMENT

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

Hold C104

for Directional Survey  
and "As Drilled" plat

JUN 16 2008

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NMOCD

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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

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APR 02 2008

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION  
Bureau of Land Management  
Santa Fe, NM 87504-2088

<sup>1</sup> API Number 30-045-34677	<sup>2</sup> Pool Code 72319/80690	<sup>3</sup> Pool Name Blanco Mesaverte / S Los Pinos F/S Pictured Cliffs
<sup>4</sup> Property Code 19641	<sup>5</sup> Property Name NEBU	<sup>6</sup> Well Number # 68N
<sup>7</sup> OGRID No 6137	<sup>8</sup> Operator Name Devon Energy Production Company, L.P.	<sup>9</sup> Elevation 6207

<sup>10</sup> Surface Location

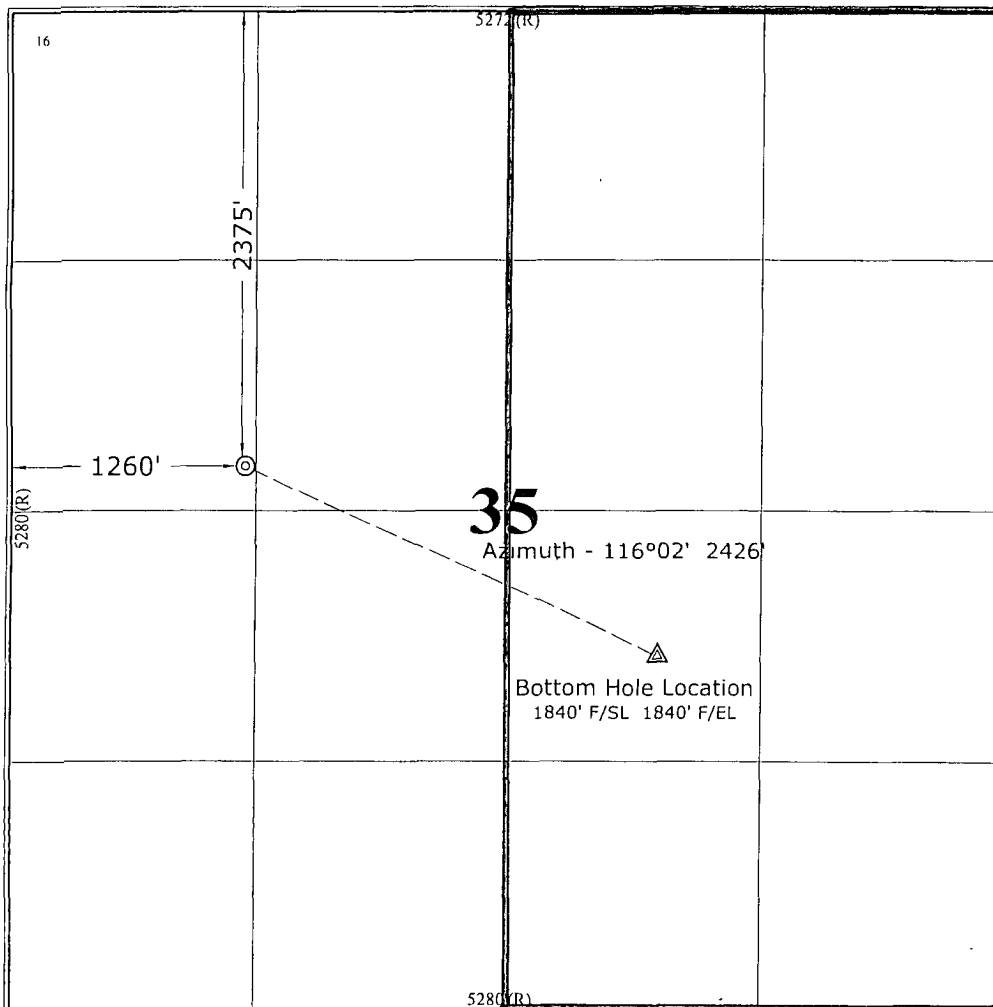
UL or Lot No E	Section 35	Township 31 N	Range 7 W	Lot Idn	Feet from the 2375	North/South line NORTH	Feet from the 1260	East/West line WEST	County SAN JUAN
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<sup>11</sup> Bottom Hole Location If Different From Surface

<sup>7</sup> UL or lot no J	Section 35	Township 31 N	Range 7 W	Lot Idn	Feet from the 1840	North/South line SOUTH	Feet from the 1840	East/West line EAST	County Rio Arriba
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<sup>12</sup> Dedicated Acres 6 1/2 - 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  
Melvin Castro  
Printed Name  
S. Staff Operations Technician  
Title  
Date  
March 20, 2008

<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 26, 2007  
Date of Survey

Signature and Seal of Professional Surveyor

GARY D. VANN  
NEW MEXICO  
REGISTERED PROFESSIONAL LAND SURVEYOR  
7016  
7016  
Certificate Number

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-144  
June 1, 2004

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

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 <u>Devon Energy Production Company, L.P.</u> Telephone <u>(405) 552-7917</u> e-mail address: <u>melisa.castro@dev.com</u>		
Address <u>20 N Broadway, Oklahoma City, OK 73102</u>		
Facility or well name. <u>NEBU 68N</u> API #: <u>30-045-34167</u> U/L or Qtr/Qtr <u>E</u> Sec <u>35</u> T <u>31N</u> R <u>7W</u>		
County: <u>San Juan</u> Latitude <u>36.85667</u> Longitude <u>107.54536</u> NAD 1927 <input type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner. Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b> Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>      </u> bbl	<b>Below-grade tank</b> Volume: <u>      </u> bbl Type of fluid: <u>      </u> Construction material: <u>      </u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not <u>      </u>	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet <input checked="" type="checkbox"/> 100 feet or more	(20 points) (10 points) ( 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 <input checked="" type="checkbox"/> No	(20 points) ( 0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses )	Less than 200 feet <u>200 feet or more, but less than 1000 feet</u> <del>1000 feet or more</del>	(20 points) (10 points) ( 0 points)
Ranking Score (Total Points)		<u>10</u>

**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 your 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: 3-27-08

Printed Name/Title Melisa Castro, Senior Staff Operations Technician 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: JUN 16 2008

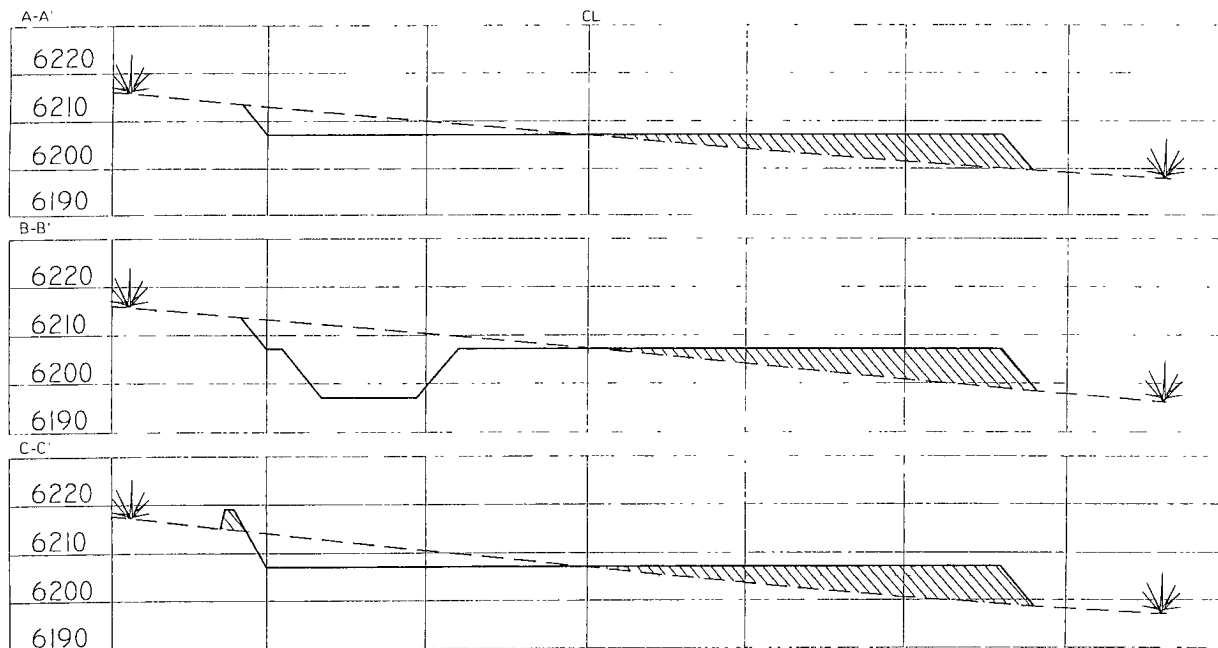
Nebu # 68N  
2375' F/NL 1260' F/WL  
SEC. 35, T31N, R7W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO

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

Scale 1"=60'-HOR

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

Scale 1"=60'-HOR



*NOTE Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction*

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS  
P O Box 1306  
Farmington, NM

**NEBU 68N**  
**SL: 2,375' FNL & 1,260' FWL, Unit E 35-31N-7W**  
**BHL: 1,840' FSL & 1,840' FEL, Unit J 35-31N-7W**  
**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>TVD (FT)</b>	<b>Hydrocarbon/Water Bearing Zones</b>
San Jose	Surface	Surface	
Ojo Alamo	3079	2088	Aquifer
Kirtland	3251	2205	
Fruitland	3778	2645	Gas
Fruitland 1 <sup>st</sup> Coal	3955	2812	Gas
Pictured Cliffs Upper	4160	3013	Gas
Pictured Cliffs Main	4265	3117	Gas
Lewis	4339	3192	Gas
<b>Intermediate TD</b>	4602	3454	
Huerfano Bentonite	5248	4100	Gas
Chacra \ Otera	5523	4375	Gas
Cliff House	6176	5028	Gas
Menefee	6254	5106	Gas
Point Lookout	6511	5363	Gas
Mancos	6905	5757	Gas
<b>TD</b>	7005	5857	

\*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	TVD	Hole Size	Size	Grade	Weight	Thread	Condition
0-285'	0-285'	12-1/4"	9-5/8"	H-40	32#	STC	New
0-4602	0-3454	8-3/4"	7"	K-55	23#	LTC	New
0- TD	0- TD	6-1/4"	4-1/2"	J-55	11.6 #	LTC	New

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 3400' (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 sks Class "B" with 100% Standard Cement, 2.00% CaCl<sub>2</sub>, .25 #/sk Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sk; Water: 5.24 gal/sk \*

*\* 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/ N<sub>2</sub> 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:** 4-1/2" Production casing cemented in an 6-1/4" hole  
11.6# J-55 LT&C 8 Rnd  
Float collar  
Joint  
Float Shoe  
Cement with 500 sacks Class B 50/50 POZ, 3% gel, 5# gilsonite, 1/4"# Flocele, .1% CFR 3, .2% Halad 344, yield 1.47 ft<sup>3</sup>/sx.  
Cement designed to circulate to surface.  
Pending hole conditions, cement baskets may be installed above TD

*\* Minor variations possible due to existing conditions*

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

If hole conditions dictate an alternate cement design will be used.

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

**Tail:** 75 Sx50/50/Std/ 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*

#### **4. DRILLING FLUIDS PROGRAM:**

TMD Interval	TVD Interval	Type	Weight (ppg)	Viscosity	pH	Water Loss	Remarks
0-285'	0-285'	Spud-foam	8.4-9.0	29-70	8.0	NC	FW gel, LSND or stiff foam
285'-4,602'	285'-3,454'	Air				NC	
4,602' - TD	3,454' - 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 from

**Survey:** Deviation surveys will be taken every 500' of the 8 3/4" hole, or first succeeding bit change. The hole will be air drilled from intermediate TD – well TD. The equipment used in this type of operation will not allow for single shot suveys without considerable operational delays. 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.

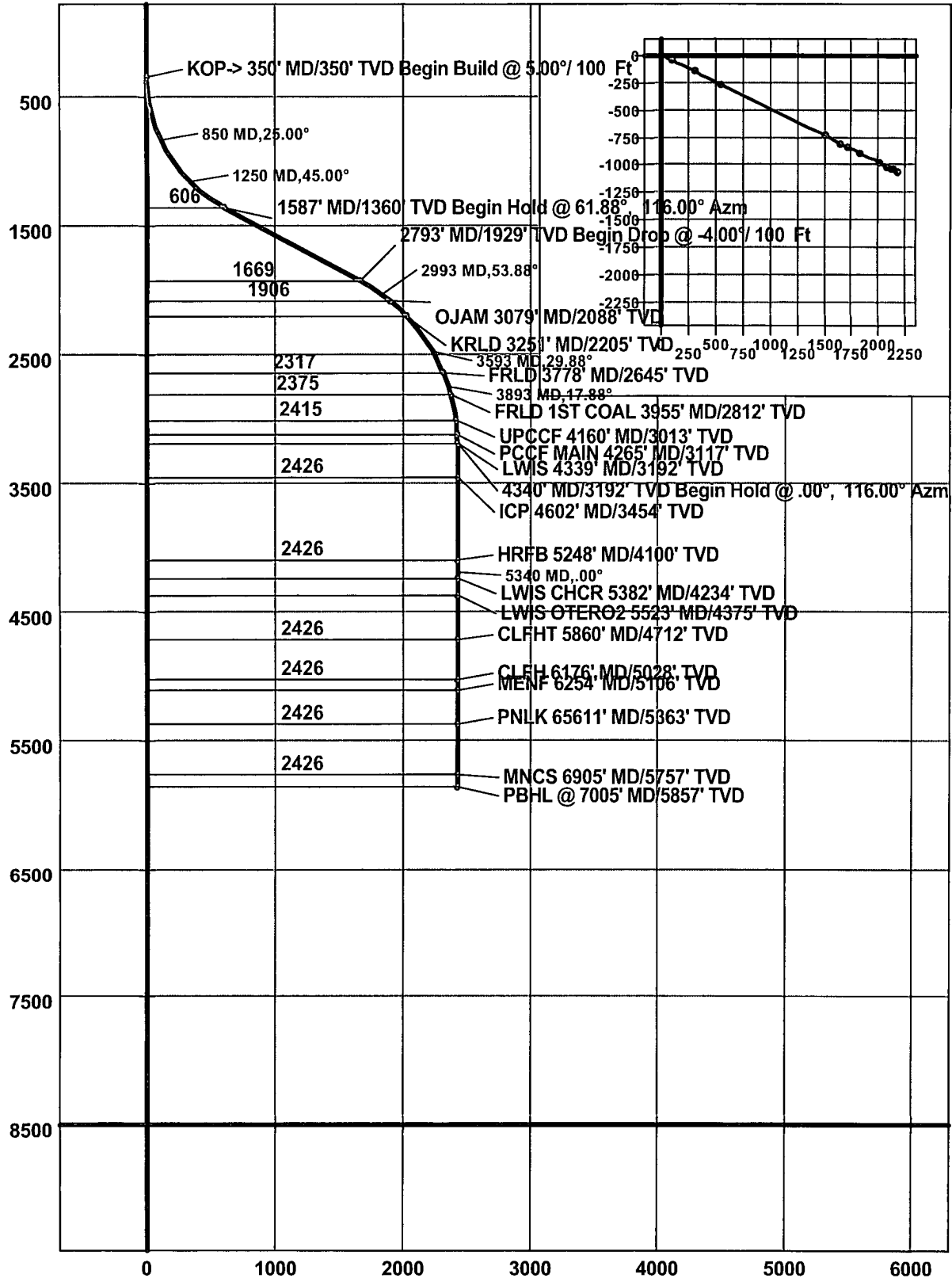
**DST's:** None anticipated.

#### **6. ABNORMAL CONDITIONS:**

The Fruitland Coal will be encountered within 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.



Company: DEVON ENERGY  
 Lease/Well: NEBU 68N  
 Location: SAN JUAN/RIO ARRIBA  
 State/Country: NM



**NEBU 68N**  
**SL: 2,375' FNL & 1,260' FWL, Unit E 35-31N-7W**  
**BHL: 1,840' FSL & 1,840' FEL, Unit J 35-31N-7W**  
**San Juan Co., NM**

**SURFACE USE PLAN**

**Devon Energy Production Company, L.P. requests that this APD serve as the application for right-of-way for the access and well pad on federal lands.**

The access right-of-way on Federal acreage necessary is approximately .03 miles long with a 40' width. Refer to attached *Topo Map*.

**1. EXISTING ROADS:**

Refer to attached *Topo Map* for location of existing access roads.

Refer to the attached narrative for specific directions to the proposed location.

The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations.

**2. ACCESS ROADS TO BE CONSTRUCTED:**

No new access road will be required to access the proposed location.

**3. LOCATION OF EXISTING WELLS WITHIN A ONE-MILE RADIUS:**

Refer to attached *Exhibit D*.

Water wells – 0  
Abandoned wells – 0  
Temporarily Abandoned wells – 0  
Disposal wells – 0  
Drilling/Proposed wells – 1  
Producing wells – 37  
Shut-in wells – 0  
Injection wells – 0  
Monitoring wells - 0

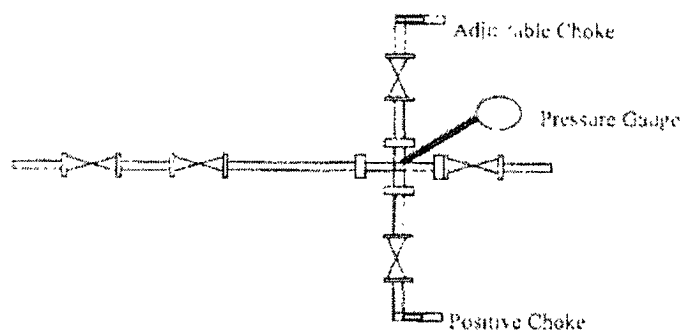
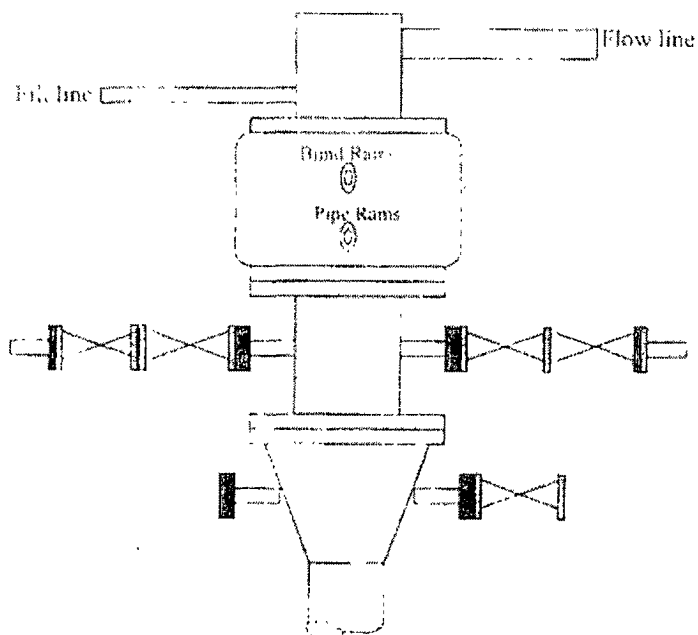
**4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:**

Attached is a typical production facility layout diagram for the new production facilities to be utilized.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope.

Containment berms will be constructed completely around production facilities designed to hold fluids (i.e., production tanks, produced water tanks, and/or heater/treater). The

## 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.