

Form 3160-3  
(March 2012)

SECRETARY'S POTASH OCD Hobbs

AMENDED

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SECRETARY'S POTASH

## APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                 |                                                                    |                                                                                           |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                    |                                                                    | 7. If Unit or CA Agreement, Name and No.                                                  |                 |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone     |                                                                    | 8. Lease Name and Well No.<br>Bevo 11 Federal No. 4H <b>(313140)</b>                      |                 |
| 2. Name of Operator Adventure Exploration Partners II LLC <b>291024</b>                                                                                                                                         |                                                                    | 9. API Well No.<br>30-25- <b>41804</b>                                                    |                 |
| 3a. Address 500 W. Texas Avenue Suite 1000<br>Midland Tx 79701                                                                                                                                                  | 3b. Phone No. (include area code)<br>432-684-8006 <b>HOBBS OCD</b> | 10. Field and Pool, or Exploratory<br>[28432]Gama Ridge; Bone Springs <b>(28432) WEST</b> |                 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface <b>Joe</b> 330' FSL & 890' FEL<br>At proposed prod. zone 330' FNL & 660' FEL<br><b>APR 30 2014</b> |                                                                    | 11. Sec., T. R. M. or Blk. and Survey or Area<br>11-22S-33E                               |                 |
| 14. Distance in miles and direction from nearest town or post office*<br>2 miles South and 22 miles West of Eunice, NM                                                                                          |                                                                    | 12. County or Parish<br>Lea                                                               | 13. State<br>NM |
| 15. Distance from proposed* location to nearest property or lease line, ft.<br>(Also to nearest drig. unit line, if any) 330' FSL                                                                               | 16. No. of acres in lease<br><del>800</del> acres <b>40</b>        | 17. Spacing Unit dedicated to this well<br>160 acres                                      |                 |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A                                                                                                  | 19. Proposed Depth<br>PHTD: 12,250' TVD 10950'<br>MDTD 15,570'     | 20. BLM/BIA Bond No. on file<br>NMB001018                                                 |                 |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3531' GL                                                                                                                                                 | 22. Approximate date work will start*<br>12/01/2013                | 23. Estimated duration<br>30 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:

- 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 must 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 BLM.

|                                                    |                                              |                         |
|----------------------------------------------------|----------------------------------------------|-------------------------|
| 25. Signature <b>Heaton Waters</b>                 | Name (Printed/Typed)<br><b>Heaton Waters</b> | Date<br><b>10-1-13</b>  |
| Title<br><b>Geologist</b>                          |                                              |                         |
| Approved by (Signature) <b>/s/George MacDoneli</b> | Name (Printed/Typed)                         | Date <b>APR 29 2014</b> |
| Title<br><b>FIELD MANAGER</b>                      | Office<br><b>CARLSBAD FIELD OFFICE</b>       |                         |

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)

Capitan Controlled Water Basin **(Instructions on page 2)**Approval Subject to General Requirements  
& Special Stipulations AttachedSEE ATTACHED FOR  
CONDITIONS OF APPROVAL

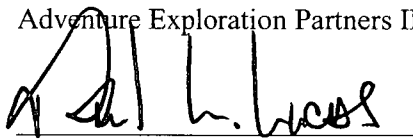
APR 30 2014

13. OPERATORS CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route and that I am familiar with the conditions that presently exist; that the statements made in the APD package are to the best of my knowledge true and correct; and that the work associated with operations herein will be performed by Adventure Exploration Partners II, LLC and its contractors and subcontractors in conformity with the terms and conditions of this APD package. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application with bond coverage being provided under a BLM nationwide bond.

This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Adventure Exploration Partners II, LLC



Paul Lucas

President

10/2/13  
Date

.....  
.....

**Onshore Oil & Gas Order No. 1**  
**Approval of Operations on Onshore**  
**Federal and Indian Oil and Gas Leases**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (CFR43, Part 3160) and the approved Application for Permit to Drill. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling and completion operations.

Approval of this application 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.

**Bevo 11 Federal 4H**

Surface Location: Section 11, T-22-S, R-33-E, 330' FSL & 890' FWL

Bottomhole Location: Section 11, T-22-S, R-33-E, 330' FSL & 660' FWL

Field: [28432] Grama Ridge; Bone Springs, West

Lea Co., NM

**1. Formation Tops**

The estimated tops of important geologic markers are as follow:

| Formation                        | KB TVD  | MD      |
|----------------------------------|---------|---------|
| Fresh Water                      | 600'*   |         |
| Rustler                          | 1,743'  |         |
| Top of Salt                      | 1,815'  |         |
| Base of Salt                     | 3,360'  |         |
| Yates                            | 3810'   |         |
| Seven rivers                     | 3974    |         |
| Capitan reef                     | 4,050'  |         |
| Delaware                         | 5,174'  |         |
| Bone Spring                      | 8,794'  |         |
| 1 <sup>st</sup> Bone Spring Sand | 9,906'  |         |
| 2 <sup>nd</sup> Bone Spring Sand | 10,486' |         |
| 3 <sup>rd</sup> Bone Spring Sand | 11,585' |         |
| Wolfcamp                         | 12,011' |         |
| PH TD                            | 12,200' |         |
| EOC                              | 10,980' | 11,250' |
| Lateral TD                       | 11,000' | 15,385' |
|                                  |         |         |

*operator did  
not provide  
as requested  
MM  
2/26/19*

\*Fresh Water depth per NM State Engineer

## 2. Estimated Depth of Water, Oil, Gas & Other Mineral Bearing Formations

The estimated depths at which the top and bottom of the anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

| Substance | Formation                        | Depth   |
|-----------|----------------------------------|---------|
| Water     | Rustler                          | 1,743   |
| Oil/Gas   | Brushy Canyon                    | 7,952'  |
| Oil/Gas   | Bone Spring                      | 8,794'  |
| Oil/Gas   | 1st Bone Spring Sand             | 9,906'  |
| Oil/Gas   | 2 <sup>nd</sup> Bone Spring Sand | 10,486' |
| Oil/Gas   | 3 <sup>rd</sup> Bone Spring Sand | 11,585' |
| Oil/Gas   | Wolfcamp                         | 12,011' |

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

## 3. BOP Equipment

The well control equipment to be employed during the drilling of this well is illustrated on attached EXHIBIT A. This equipment includes a 13-5/8" Double ram BOP, annular BOP and choke manifold of comparable pressure rating. Equipment will be rated for 5000 PSI and will be tested to 5000 psi (except Annular which will be tested to 2500 psi) using an independent tester prior to drilling out of the 9-5/8" intermediate casing. Prior to drilling out of the 13-3/8" surface casing the same equipment and casing shall be tested to 2000 PSI or 73% of the burst rating of the casing utilizing an independent tester. A master and remote hydraulic closing unit will be a part of this equipment and will be function tested daily.

## 4. Casing Program

*See COA*

| Purpose      | From  | To                     | Hole Size | Csg Size | Weight   | Grade  | Thread | Condition |
|--------------|-------|------------------------|-----------|----------|----------|--------|--------|-----------|
| Surface      | 0'    | <del>1800'</del> 1550' | 17.50"    | 13.375"  | 54.5 ppf | J55    | STC    | New       |
| Intermediate | 0'    | 3500'                  | 12.25"    | 9.625"   | 36 ppf   | J55    | LTC    | New       |
|              | 3500' | 5200'                  |           | 9.625"   | 36 ppf   | HCK-55 | LTC    | New       |
| Production   | 0'    | 15,385                 | 8.75"     | 5.5"     | 17 ppf   | P110   | LTC    | New       |
|              |       |                        |           |          |          |        |        |           |

Minimum Casing Design Factors: Collapse 1.125, Burst 1.125, and Tensile Strength 1.6

**5. Cementing Program****13-3/8" Surface @ 1800':****Lead Slurry:** 1120 sks Class C + 4% Gel + 2% CaCl<sub>2</sub>(13.5 ppg / 1.75 ft<sup>3</sup>/sk / ~9.2 gal/sk wtr)**Tail Slurry:** 250 sks Class C + 2% CaCl<sub>2</sub>(14.8 ppg / 1.34 ft<sup>3</sup>/sk / ~6.39 gal/sk wtr)

*The above volume represents 80% excess over calculated hole volume, and will be adjusted to actual setting depth of casing. The slurries will be preceded by a fresh water spacer, and displaced with fresh water.*

**9-5/8" Intermediate @ 5200':****Lead Slurry:** 1050 sks 35-65 Poz Class C + 6% Gel + Salt + gilsonite + CFR-3 + HR601 (12.7 ppg / 1.89 ft<sup>3</sup>/sk / ~9.5 gal/sk wtr)**Tail Slurry:** 250 sks Class C (14.8 ppg / 1.43 ft<sup>3</sup>/sk / ~6.35 gal/sk wtr)

*The above volume represents 50% excess over calculated hole volume and is designed to circulate cement to surface- actual volumes will be adjusted to a fluid caliper run at TD of this hole section with 20% excess added. The cement slurries will be preceded by 20 bbls cement wash for mud removal and displaced with fresh water.*

Should losses occur in the Capitan Reef a DV/ECP tool will be placed in the casing string and positioned above the losses +/- 4050' and the cement job will be amended to a 2stage job pumping the same Intermediate slurries with volumes adjusted accordingly to circulate cement above the DV/ECP tool on stage 1 and to surface on stage 2.

**5-1/2" Production @ 15385' MD:****Lead Slurry:** 740 sks 50/50/10 Poz Class H + Salt + Gilsonite + CFR 3 + HR601 (11.9 ppg / 2.5 ft<sup>3</sup>/sk yld / ~12 gal/sk wtr)**Tail Slurry:** 1350 sks 50/50/2 Poz Class H + Salt + GasStop + CFR 3 + HR601 (14.4 ppg / 1.2 ft<sup>3</sup>/sk yld / ~5.5 gal/sk wtr)

*The above volume represents 35% excess over calculated hole volume and actual volumes will be calculated using the vertical caliper to tie back a minimum of 500' into previous shoe.*

**Pilot hole will be plugged back as follows:**

Plug 1 PHTD and Wolfcamp plug -12,200' TD to 11,275' (925') 320 sks Class H (17.2 ppg / 0.98 ft<sup>3</sup>/sk)

Plug 2 KO plug 11,125' to 10,200' (925') 320 sks Class H (17.2 ppg / 0.98 ft<sup>3</sup>/sk)

See  
COA

50' above Capitan Reef  
estimated @ 8400'

**6. Mud Program**See  
COA

| From            | To                       | Type        | Weight  | F. Vis | Filtrate |
|-----------------|--------------------------|-------------|---------|--------|----------|
| 0               | <del>1800</del><br>1550' | FW Spud Mud | 8.4-9.4 | 32-36  | NC       |
| <del>1800</del> | 5200                     | Brine Wtr   | 9.6-10  | 28-29  | NC       |
| 5200            | 12,200PH                 | Cut Brine   | 8.8-9.2 | 28-29  | NC       |
| 10,500'KOP      | 15,385'MD                | Cut Brine   | 8.8-9.2 | 28-29  | NC       |
|                 |                          |             |         |        |          |
|                 |                          |             |         |        |          |

It is anticipated that this well will be drilled to TD utilizing the fluids shown above and closed loop system utilized per NMOCD guidelines. All fluids and cuttings will be disposed of in accordance with the NMOCD rules and regulations:

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration and pH.

Visual and electronic mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. Electronic system consists of: a pit volume totalizer (PVT), stroke counter and flow sensor.

A weighting agent and lost circulation material (LCM) will be onsite to mitigate pressure and lost circulation as hole conditions dictate.

**7. Auxiliary equipment**

- Will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges.
- Hydrogen sulfide detection equipment will be in operation after cementing the 13-3/8" casing and until 5-1/2" casing is cemented. Breathing equipment will be on location during the same time period.

See  
COA**8. Testing, Logging and Coring Program**

- No drill stem testing or coring is planned for this well.
- Mudlogging will commence at 6000' and conclude at lateral TD.
- Triple Combo electric log will be run at Pilot hole TD 12,200'. Dual laterolog-Micro laterolog and gamma ray, compensated neutron -Z density with gamma ray and caliper will be ran 12,200' to ICP 5,200' and Compensated Neutron with Gamma Ray will be ran 12,200' to surface.
- Gyro electric log will be run 12,200 to surface and mud pulse MWD utilized from KOP to lateral TD. A directional plan for the proposed horizontal section is attached as Exhibit B.

**9. Potential Hazards:**

See  
COA

- No Abnormal pressures or temperatures are expected. The estimated BHP at TD is not expected to exceed 5282 psi, and a BHT of 167 F is anticipated.
- Possible H<sub>2</sub>S in the salt formation within the Potash area. Company H<sub>2</sub>S contingency plan attached.

**10. Anticipated starting date and Duration of Operations:**

Road and location construction will begin after the BLM approval of the APD. Spud date will follow as soon as possible depending on rig availability. Drilling operations expected to take 32 days.

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**5D Plan Report**

**Adventure Exploration Partners II**

**Field Name:** *Adventure Exploration Partners II Lea Co., NM (Nad 83 NME)*

**Site Name:** *Bevo 11 Federal #4H*

**Well Name:** *Bevo 11 Federal #4H*

**Plan:** *P1:V3*

31 March 2014



**Weatherford®**



Adventure Exploration Partners II

Bevo 11 Federal #4H  
Lea Co., New Mexico

Plan Data for Bevo 11 Federal #4H  
Site: Bevo 11 Federal #4H  
Unit: USFeet TVD Reference:  
Company Name: Adventure Exploration LLC  
Position: Northing: 510514.50USft Latitude: 32°24'3.5"  
Easting: 786947.70USft Longitude: -103°32'15.1"  
North Reference: Grid Grid Convergence: 0.43°  
Elevation Above VRD: 3531.00USft

Plan Data for Bevo 11 Federal #4H

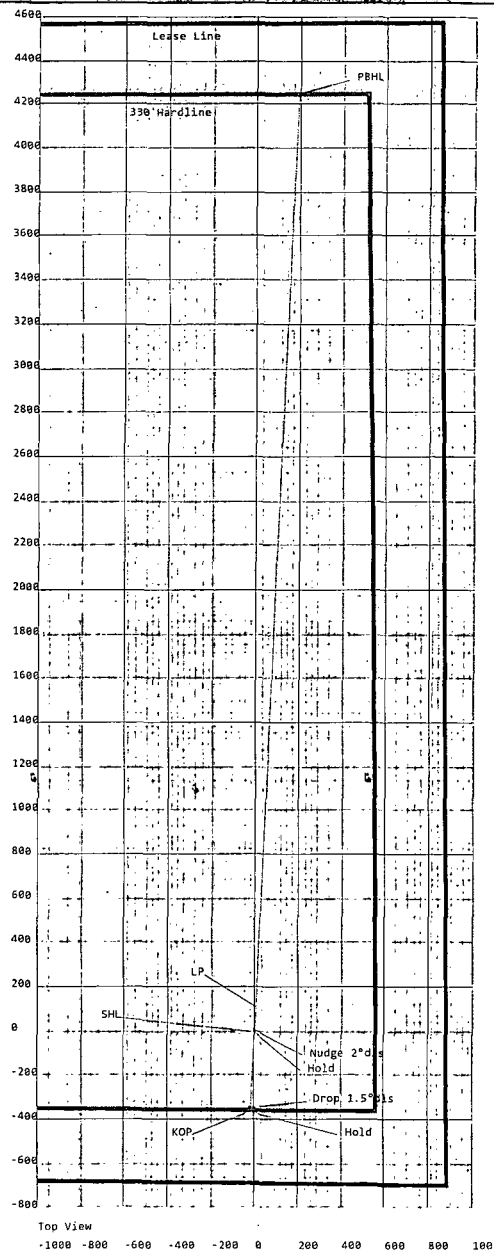
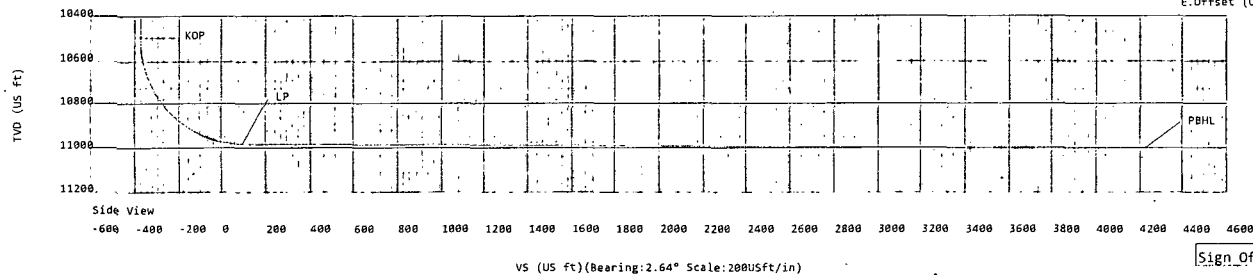
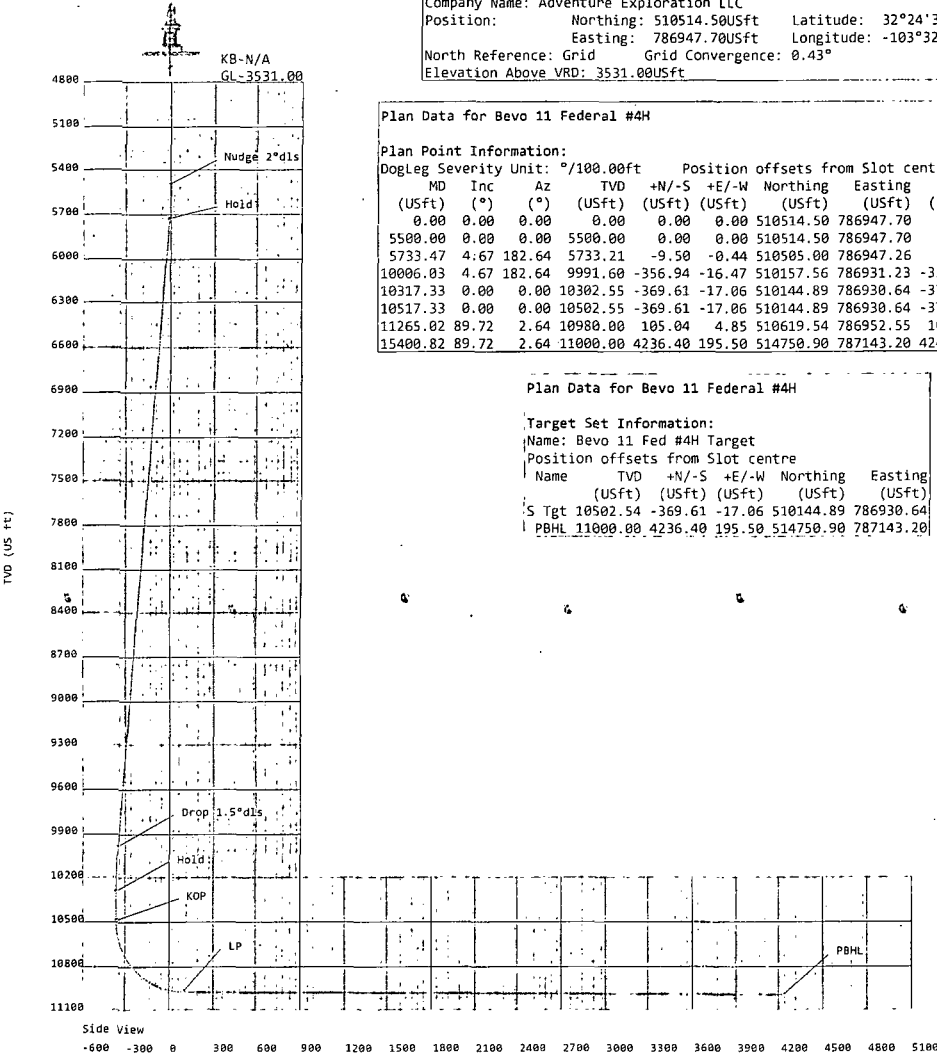
Plan Point Information:  
Dogleg Severity Unit: %/100.00ft Position offsets from Slot centre

| MD       | Inc   | Az     | TVD      | +N/-S   | +E/-W  | Northing  | Easting   | VSec    | DLS    |
|----------|-------|--------|----------|---------|--------|-----------|-----------|---------|--------|
| (USft)   | (°)   | (°)    | (USft)   | (USft)  | (USft) | (USft)    | (USft)    | (USft)  | (DLSU) |
| 0.00     | 0.00  | 0.00   | 0.00     | 0.00    | 0.00   | 510514.50 | 786947.70 | 0.00    | 0.00   |
| 5500.00  | 0.00  | 0.00   | 5500.00  | 0.00    | 0.00   | 510514.50 | 786947.70 | 0.00    | 0.00   |
| 5733.47  | 4.67  | 182.64 | 5733.21  | -9.50   | -0.44  | 510505.00 | 786947.26 | -9.51   | 2.00   |
| 10006.03 | 4.67  | 182.64 | 9991.60  | -356.94 | -16.47 | 510157.56 | 786931.23 | -357.32 | 0.00   |
| 10317.33 | 0.00  | 0.00   | 10302.55 | -369.61 | -17.06 | 510144.89 | 786930.64 | -370.00 | 1.50   |
| 10517.33 | 0.00  | 0.00   | 10502.55 | -369.61 | -17.06 | 510144.89 | 786930.64 | -370.00 | 0.00   |
| 11265.02 | 89.72 | 2.64   | 10980.00 | 105.04  | 4.85   | 510619.54 | 786952.55 | 105.16  | 12.00  |
| 15400.82 | 89.72 | 2.64   | 11000.00 | 4236.40 | 195.50 | 514750.90 | 787143.20 | 4240.91 | 0.00   |

Plan Data for Bevo 11 Federal #4H

Target Set Information:  
Name: Bevo 11 Fed #4H Target  
Position offsets from Slot centre

| Name   | TVD      | +N/-S   | +E/-W  | Northing  | Easting   |
|--------|----------|---------|--------|-----------|-----------|
| (USft) | (USft)   | (USft)  | (USft) | (USft)    | (USft)    |
| S Tgt  | 10502.54 | -369.61 | -17.06 | 510144.89 | 786930.64 |
| PBHL   | 11000.00 | 4236.40 | 195.50 | 514750.90 | 787143.20 |



Sign Off: Patrick Rudolph

## Bevo 11 Federal #4H

|                                                                                             |                                                                     |                                   |                                                            |                                     |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------|-------------------------------------|
| <b>Field Name</b><br>Adventure<br>Exploration<br>Partners II Lea<br>Co., NM (Nad 83<br>NME) | <b>Map Units :</b> US ft                                            |                                   | <b>Company Name :</b> Adventure Exploration<br>Partners II |                                     |
|                                                                                             | <b>Vertical Reference Datum (VRD) :</b> Mean Sea Level              |                                   |                                                            |                                     |
|                                                                                             | <b>Projected Coordinate System :</b> NAD83 / New Mexico East (ftUS) |                                   |                                                            |                                     |
| <b>Comment :</b>                                                                            |                                                                     |                                   |                                                            |                                     |
| <b>Site Name</b><br>Bevo 11 Federal<br>#4H                                                  | <b>Units :</b> US ft                                                | <b>North Reference :</b> Grid     | <b>Convergence Angle :</b> 0.43                            |                                     |
|                                                                                             | <b>Position</b>                                                     | <b>Northing :</b> 510514.50 US ft | <b>Latitude :</b> 32° 24' 3.45"                            |                                     |
|                                                                                             |                                                                     | <b>Easting :</b> 786947.70 US ft  | <b>Longitude :</b> -103° 32' 15.14"                        |                                     |
| <b>Elevation above Mean Sea Level:</b> 3531.00 US ft                                        |                                                                     |                                   |                                                            |                                     |
| <b>Comment :</b>                                                                            |                                                                     |                                   |                                                            |                                     |
| <b>Slot Name</b><br>Bevo 11 Federal<br>#4H                                                  | <b>Position (Offsets relative to Site Centre)</b>                   |                                   |                                                            |                                     |
|                                                                                             | <b>+N / -S :</b> 0.00 US ft                                         |                                   | <b>Northing :</b> 510514.50 US ft                          | <b>Latitude :</b> 32° 24' 3.45"     |
|                                                                                             | <b>+E / -W :</b> 0.00 US ft                                         |                                   | <b>Easting :</b> 786947.70 US ft                           | <b>Longitude :</b> -103° 32' 15.14" |
| <b>Elevation above Mean Sea Level :</b> 3531.00 US ft                                       |                                                                     |                                   |                                                            |                                     |
| <b>Comment :</b>                                                                            |                                                                     |                                   |                                                            |                                     |
| <b>Well Name</b><br>Bevo 11 Federal<br>#4H                                                  | <b>Type :</b> Main well                                             |                                   | <b>UWI :</b>                                               | <b>Plan :</b> P1:V3                 |
|                                                                                             | <b>Rig Height Well TVD Reference :</b> 0.00 US ft                   |                                   | <b>Comment :</b>                                           |                                     |
|                                                                                             | <b>Relative to Mean Sea Level:</b> 3531.00 US ft                    |                                   |                                                            |                                     |
|                                                                                             | <b>Closure Distance :</b> 4240.91 US ft                             |                                   | <b>Closure Azimuth :</b> 2.64219°                          |                                     |
|                                                                                             | <b>Vertical Section (Position of Origin Relative to Slot )</b>      |                                   |                                                            |                                     |
|                                                                                             | <b>+N / -S :</b> 0.00 US ft                                         |                                   | <b>+E / -W :</b> 0.00 US ft                                | <b>Az :</b> 2.64°                   |
|                                                                                             | <b>Magnetic Parameters</b>                                          |                                   |                                                            |                                     |
|                                                                                             | <b>Model :</b> BGGM                                                 | <b>Field Strength :</b> 48443.8nT | <b>Dec :</b> 7.34°                                         | <b>Dip :</b> 60.27°                 |
| <b>Date :</b> 01/May/2014                                                                   |                                                                     |                                   |                                                            |                                     |

### Target Set

**Name :** Bevo 11 Fed #4H    **Number of Targets :** 2

Target

### Comment :

|                                                                      |                                                  |                             |                                   |                                     |
|----------------------------------------------------------------------|--------------------------------------------------|-----------------------------|-----------------------------------|-------------------------------------|
| <b>Target Name:</b><br><b>STgt</b><br><b>Shape:</b><br><b>Cuboid</b> | <b>Position (Relative to Slot centre)</b>        |                             |                                   |                                     |
|                                                                      | <b>+N / -S :</b> -369.61US ft                    |                             | <b>Northing :</b> 510144.89 US ft | <b>Latitude :</b> 32° 23' 59.80"    |
|                                                                      | <b>+E / -W :</b> -17.06 US ft                    |                             | <b>Easting :</b> 786930.64US ft   | <b>Longitude :</b> -103° 32' 15.38" |
|                                                                      | <b>TVD (Well TVD Reference) :</b> 10502.54 US ft |                             |                                   |                                     |
|                                                                      | <b>Orientation Azimuth :</b> 0.00°               |                             | <b>Inclination :</b> 0.00°        |                                     |
| <b>Dimensions Length :</b> 0.00 US ft                                |                                                  | <b>Breadth :</b> 0.00 US ft | <b>Height :</b> 0.00 US ft        |                                     |

## 5D Plan Report

|                     |                                                  |                                   |                                   |
|---------------------|--------------------------------------------------|-----------------------------------|-----------------------------------|
| <b>Target Name:</b> | <b>Position (Relative to Slot centre)</b>        |                                   |                                   |
| <b>PBHL</b>         | <b>+N / -S : 4236.40US ft</b>                    | <b>Northing : 514750.90 US ft</b> | <b>Latitude : 32°24'45.36"</b>    |
| <b>Shape:</b>       | <b>+E / -W : 195.50 US ft</b>                    | <b>Easting : 787143.20US ft</b>   | <b>Longitude : -103°32'12.50"</b> |
| <b>Cuboid</b>       | <b>TVD (Well TVD Reference) : 11000.00 US ft</b> |                                   |                                   |
|                     | <b>Orientation Azimuth : 0.00°</b>               | <b>Inclination : 0.00°</b>        |                                   |
|                     | <b>Dimensions Length : 0.00 US ft</b>            | <b>Breadth : 0.00 US ft</b>       | <b>Height : 0.00 US ft</b>        |

Well path created using minimum curvature

| Salient Points (Relative to Slot centre, TVD relative to Well TVD Reference) |         |        |             |                  |                  |                   |            |                      |                      |            |              |
|------------------------------------------------------------------------------|---------|--------|-------------|------------------|------------------|-------------------|------------|----------------------|----------------------|------------|--------------|
| MD (US ft)                                                                   | Inc (°) | Az (°) | TVD (US ft) | N.Offset (US ft) | E.Offset (US ft) | DLS (°/100 US ft) | VS (US ft) | B.Rate (°/100 US ft) | T.Rate (°/100 US ft) | T.Face (°) | Comment      |
| 0.00                                                                         | 0.00    | 0.00   | 0.00        | 0.00             | 0.00             | 0.00              | 0.00       | 0.00                 | 0.00                 | 0.00       |              |
| 5500.00                                                                      | 0.00    | 0.00   | 5500.00     | 0.00             | 0.00             | 0.00              | 0.00       | 0.00                 | 0.00                 | 0.00       | Nudge 2°dls  |
| 5733.47                                                                      | 4.67    | 182.64 | 5733.21     | -9.50            | -0.44            | 2.00              | -9.51      | 2.00                 | 0.00                 | 182.64     | Hold         |
| 10006.03                                                                     | 4.67    | 182.64 | 9991.60     | -356.94          | -16.47           | 0.00              | -357.32    | 0.00                 | 0.00                 | 0.00       | Drop 1.5°dls |
| 10317.33                                                                     | 0.00    | 0.00   | 10302.55    | -369.61          | -17.06           | 1.50              | -370.00    | -1.50                | 0.00                 | 180.00     | Hold         |
| 10517.33                                                                     | 0.00    | 0.00   | 10502.55    | -369.61          | -17.06           | 0.00              | -370.00    | 0.00                 | 0.00                 | 0.00       | KOP          |
| 11265.02                                                                     | 89.72   | 2.64   | 10980.00    | 105.04           | 4.85             | 12.00             | 105.16     | 12.00                | 0.00                 | 2.64       | LP           |
| 15400.82                                                                     | 89.72   | 2.64   | 11000.00    | 4236.40          | 195.50           | 0.00              | 4240.91    | 0.00                 | 0.00                 | 0.00       | PBHL         |

| Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference) |         |        |             |                  |                  |            |                   |                  |                 |  |         |
|-----------------------------------------------------------------------------------|---------|--------|-------------|------------------|------------------|------------|-------------------|------------------|-----------------|--|---------|
| MD (US ft)                                                                        | Inc (°) | Az (°) | TVD (US ft) | N.Offset (US ft) | E.Offset (US ft) | VS (US ft) | DLS (°/100 US ft) | Northing (US ft) | Easting (US ft) |  | Comment |
| 0.00                                                                              | 0.00    | 0.00   | 0.00        | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 100.00                                                                            | 0.00    | 0.00   | 100.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 200.00                                                                            | 0.00    | 0.00   | 200.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 300.00                                                                            | 0.00    | 0.00   | 300.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 400.00                                                                            | 0.00    | 0.00   | 400.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 500.00                                                                            | 0.00    | 0.00   | 500.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 600.00                                                                            | 0.00    | 0.00   | 600.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 700.00                                                                            | 0.00    | 0.00   | 700.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 800.00                                                                            | 0.00    | 0.00   | 800.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 900.00                                                                            | 0.00    | 0.00   | 900.00      | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1000.00                                                                           | 0.00    | 0.00   | 1000.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1100.00                                                                           | 0.00    | 0.00   | 1100.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1200.00                                                                           | 0.00    | 0.00   | 1200.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1300.00                                                                           | 0.00    | 0.00   | 1300.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1400.00                                                                           | 0.00    | 0.00   | 1400.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1500.00                                                                           | 0.00    | 0.00   | 1500.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1600.00                                                                           | 0.00    | 0.00   | 1600.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1700.00                                                                           | 0.00    | 0.00   | 1700.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1800.00                                                                           | 0.00    | 0.00   | 1800.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 1900.00                                                                           | 0.00    | 0.00   | 1900.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2000.00                                                                           | 0.00    | 0.00   | 2000.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2100.00                                                                           | 0.00    | 0.00   | 2100.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2200.00                                                                           | 0.00    | 0.00   | 2200.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2300.00                                                                           | 0.00    | 0.00   | 2300.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2400.00                                                                           | 0.00    | 0.00   | 2400.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2500.00                                                                           | 0.00    | 0.00   | 2500.00     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2599.99                                                                           | 0.00    | 0.00   | 2599.99     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2699.99                                                                           | 0.00    | 0.00   | 2699.99     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2799.99                                                                           | 0.00    | 0.00   | 2799.99     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2899.99                                                                           | 0.00    | 0.00   | 2899.99     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |
| 2999.99                                                                           | 0.00    | 0.00   | 2999.99     | 0.00             | 0.00             | 0.00       | 0.00              | 510514.50        | 786947.70       |  |         |

## 5D Plan Report

| Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference) |            |           |                |                     |                     |               |                      |                     |                    |             |
|-----------------------------------------------------------------------------------|------------|-----------|----------------|---------------------|---------------------|---------------|----------------------|---------------------|--------------------|-------------|
| MD<br>(US ft)                                                                     | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | VS<br>(US ft) | DLS<br>(%/100 US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment     |
| 3099.99                                                                           | 0.00       | 0.00      | 3099.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3199.99                                                                           | 0.00       | 0.00      | 3199.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3299.99                                                                           | 0.00       | 0.00      | 3299.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3399.99                                                                           | 0.00       | 0.00      | 3399.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3499.99                                                                           | 0.00       | 0.00      | 3499.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3599.99                                                                           | 0.00       | 0.00      | 3599.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3699.99                                                                           | 0.00       | 0.00      | 3699.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3799.99                                                                           | 0.00       | 0.00      | 3799.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3899.99                                                                           | 0.00       | 0.00      | 3899.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 3999.99                                                                           | 0.00       | 0.00      | 3999.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4099.99                                                                           | 0.00       | 0.00      | 4099.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4199.99                                                                           | 0.00       | 0.00      | 4199.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4299.99                                                                           | 0.00       | 0.00      | 4299.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4399.99                                                                           | 0.00       | 0.00      | 4399.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4499.99                                                                           | 0.00       | 0.00      | 4499.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4599.99                                                                           | 0.00       | 0.00      | 4599.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4699.99                                                                           | 0.00       | 0.00      | 4699.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4799.99                                                                           | 0.00       | 0.00      | 4799.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4899.99                                                                           | 0.00       | 0.00      | 4899.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 4999.99                                                                           | 0.00       | 0.00      | 4999.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 5099.99                                                                           | 0.00       | 0.00      | 5099.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 5199.99                                                                           | 0.00       | 0.00      | 5199.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 5299.99                                                                           | 0.00       | 0.00      | 5299.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 5399.99                                                                           | 0.00       | 0.00      | 5399.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 5499.99                                                                           | 0.00       | 0.00      | 5499.99        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          |             |
| 5500.00                                                                           | 0.00       | 0.00      | 5500.00        | 0.00                | 0.00                | 0.00          | 0.00                 | 510514.50           | 786947.70          | Nudge 2°dls |
| 5599.99                                                                           | 2.00       | 182.64    | 5599.97        | -1.74               | -0.08               | -1.74         | 2.00                 | 510512.76           | 786947.62          |             |
| 5699.99                                                                           | 4.00       | 182.64    | 5699.83        | -6.97               | -0.32               | -6.98         | 2.00                 | 510507.53           | 786947.38          |             |
| 5733.47                                                                           | 4.67       | 182.64    | 5733.21        | -9.50               | -0.44               | -9.51         | 2.00                 | 510505.00           | 786947.26          | Hold        |
| 5799.99                                                                           | 4.67       | 182.64    | 5799.51        | -14.91              | -0.69               | -14.92        | 0.00                 | 510499.59           | 786947.01          |             |
| 5899.99                                                                           | 4.67       | 182.64    | 5899.18        | -23.04              | -1.06               | -23.06        | 0.00                 | 510491.46           | 786946.64          |             |
| 5999.99                                                                           | 4.67       | 182.64    | 5998.85        | -31.17              | -1.44               | -31.20        | 0.00                 | 510483.33           | 786946.26          |             |
| 6099.99                                                                           | 4.67       | 182.64    | 6098.51        | -39.30              | -1.81               | -39.35        | 0.00                 | 510475.20           | 786945.89          |             |
| 6199.99                                                                           | 4.67       | 182.64    | 6198.18        | -47.44              | -2.19               | -47.49        | 0.00                 | 510467.06           | 786945.51          |             |
| 6299.99                                                                           | 4.67       | 182.64    | 6297.85        | -55.57              | -2.56               | -55.63        | 0.00                 | 510458.93           | 786945.14          |             |
| 6399.99                                                                           | 4.67       | 182.64    | 6397.52        | -63.70              | -2.94               | -63.77        | 0.00                 | 510450.80           | 786944.76          |             |
| 6499.99                                                                           | 4.67       | 182.64    | 6497.18        | -71.83              | -3.31               | -71.91        | 0.00                 | 510442.67           | 786944.39          |             |
| 6599.99                                                                           | 4.67       | 182.64    | 6596.85        | -79.96              | -3.69               | -80.05        | 0.00                 | 510434.54           | 786944.01          |             |
| 6699.99                                                                           | 4.67       | 182.64    | 6696.52        | -88.10              | -4.07               | -88.19        | 0.00                 | 510426.40           | 786943.63          |             |
| 6799.99                                                                           | 4.67       | 182.64    | 6796.19        | -96.23              | -4.44               | -96.33        | 0.00                 | 510418.27           | 786943.26          |             |
| 6899.99                                                                           | 4.67       | 182.64    | 6895.86        | -104.36             | -4.82               | -104.47       | 0.00                 | 510410.14           | 786942.88          |             |
| 6999.99                                                                           | 4.67       | 182.64    | 6995.52        | -112.49             | -5.19               | -112.61       | 0.00                 | 510402.01           | 786942.51          |             |
| 7099.99                                                                           | 4.67       | 182.64    | 7095.19        | -120.62             | -5.57               | -120.75       | 0.00                 | 510393.88           | 786942.13          |             |
| 7199.99                                                                           | 4.67       | 182.64    | 7194.86        | -128.76             | -5.94               | -128.89       | 0.00                 | 510385.74           | 786941.76          |             |
| 7299.99                                                                           | 4.67       | 182.64    | 7294.53        | -136.89             | -6.32               | -137.03       | 0.00                 | 510377.61           | 786941.38          |             |
| 7399.99                                                                           | 4.67       | 182.64    | 7394.20        | -145.02             | -6.69               | -145.17       | 0.00                 | 510369.48           | 786941.01          |             |
| 7499.99                                                                           | 4.67       | 182.64    | 7493.86        | -153.15             | -7.07               | -153.31       | 0.00                 | 510361.35           | 786940.63          |             |
| 7599.98                                                                           | 4.67       | 182.64    | 7593.53        | -161.28             | -7.44               | -161.45       | 0.00                 | 510353.22           | 786940.26          |             |
| 7699.98                                                                           | 4.67       | 182.64    | 7693.20        | -169.41             | -7.82               | -169.60       | 0.00                 | 510345.09           | 786939.88          |             |
| 7799.98                                                                           | 4.67       | 182.64    | 7792.87        | -177.55             | -8.19               | -177.74       | 0.00                 | 510336.95           | 786939.51          |             |
| 7899.98                                                                           | 4.67       | 182.64    | 7892.54        | -185.68             | -8.57               | -185.88       | 0.00                 | 510328.82           | 786939.13          |             |
| 7999.98                                                                           | 4.67       | 182.64    | 7992.20        | -193.81             | -8.94               | -194.02       | 0.00                 | 510320.69           | 786938.76          |             |
| 8099.98                                                                           | 4.67       | 182.64    | 8091.87        | -201.94             | -9.32               | -202.16       | 0.00                 | 510312.56           | 786938.38          |             |
| 8199.98                                                                           | 4.67       | 182.64    | 8191.54        | -210.07             | -9.69               | -210.30       | 0.00                 | 510304.43           | 786938.01          |             |
| 8299.98                                                                           | 4.67       | 182.64    | 8291.21        | -218.21             | -10.07              | -218.44       | 0.00                 | 510296.29           | 786937.63          |             |
| 8399.98                                                                           | 4.67       | 182.64    | 8390.87        | -226.34             | -10.45              | -226.58       | 0.00                 | 510288.16           | 786937.25          |             |
| 8499.98                                                                           | 4.67       | 182.64    | 8490.54        | -234.47             | -10.82              | -234.72       | 0.00                 | 510280.03           | 786936.88          |             |
| 8599.98                                                                           | 4.67       | 182.64    | 8590.21        | -242.60             | -11.20              | -242.86       | 0.00                 | 510271.90           | 786936.50          |             |
| 8699.98                                                                           | 4.67       | 182.64    | 8689.88        | -250.73             | -11.57              | -251.00       | 0.00                 | 510263.77           | 786936.13          |             |

## 5D Plan Report

| Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference) |            |           |                |                     |                     |               |                      |                     |                    |              |
|-----------------------------------------------------------------------------------|------------|-----------|----------------|---------------------|---------------------|---------------|----------------------|---------------------|--------------------|--------------|
| MD<br>(US ft)                                                                     | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | R.Offset<br>(US ft) | E.Offset<br>(US ft) | VS<br>(US ft) | DLS<br>(%/100 US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment      |
| 8799.98                                                                           | 4.67       | 182.64    | 8789.55        | -258.87             | -11.95              | -259.14       | 0.00                 | 510255.63           | 786935.75          |              |
| 8899.98                                                                           | 4.67       | 182.64    | 8889.21        | -267.00             | -12.32              | -267.28       | 0.00                 | 510247.50           | 786935.38          |              |
| 8999.98                                                                           | 4.67       | 182.64    | 8988.88        | -275.13             | -12.70              | -275.42       | 0.00                 | 510239.37           | 786935.00          |              |
| 9099.98                                                                           | 4.67       | 182.64    | 9088.55        | -283.26             | -13.07              | -283.56       | 0.00                 | 510231.24           | 786934.63          |              |
| 9199.98                                                                           | 4.67       | 182.64    | 9188.22        | -291.39             | -13.45              | -291.70       | 0.00                 | 510223.11           | 786934.25          |              |
| 9299.98                                                                           | 4.67       | 182.64    | 9287.89        | -299.53             | -13.82              | -299.85       | 0.00                 | 510214.97           | 786933.88          |              |
| 9399.98                                                                           | 4.67       | 182.64    | 9387.55        | -307.66             | -14.20              | -307.99       | 0.00                 | 510206.84           | 786933.50          |              |
| 9499.98                                                                           | 4.67       | 182.64    | 9487.22        | -315.79             | -14.57              | -316.13       | 0.00                 | 510198.71           | 786933.13          |              |
| 9599.98                                                                           | 4.67       | 182.64    | 9586.89        | -323.92             | -14.95              | -324.27       | 0.00                 | 510190.58           | 786932.75          |              |
| 9699.98                                                                           | 4.67       | 182.64    | 9686.56        | -332.05             | -15.32              | -332.41       | 0.00                 | 510182.45           | 786932.38          |              |
| 9799.98                                                                           | 4.67       | 182.64    | 9786.23        | -340.19             | -15.70              | -340.55       | 0.00                 | 510174.31           | 786932.00          |              |
| 9899.98                                                                           | 4.67       | 182.64    | 9885.89        | -348.32             | -16.07              | -348.69       | 0.00                 | 510166.18           | 786931.63          |              |
| 9999.98                                                                           | 4.67       | 182.64    | 9985.56        | -356.45             | -16.45              | -356.83       | 0.00                 | 510158.05           | 786931.25          |              |
| 10006.03                                                                          | 4.67       | 182.64    | 9991.60        | -356.94             | -16.47              | -357.32       | 0.00                 | 510157.56           | 786931.23          | Drop 1.5°dls |
| 10099.98                                                                          | 3.26       | 182.64    | 10085.31       | -363.43             | -16.77              | -363.82       | 1.50                 | 510151.07           | 786930.93          |              |
| 10199.98                                                                          | 1.76       | 182.64    | 10185.21       | -367.81             | -16.97              | -368.20       | 1.50                 | 510146.69           | 786930.73          |              |
| 10299.98                                                                          | 0.26       | 182.64    | 10285.20       | -369.57             | -17.06              | -369.96       | 1.50                 | 510144.93           | 786930.64          |              |
| 10317.33                                                                          | 0.00       | 0.00      | 10302.55       | -369.61             | -17.06              | -370.00       | 1.50                 | 510144.89           | 786930.64          | Hold         |
| 10399.98                                                                          | 0.00       | 0.00      | 10385.20       | -369.61             | -17.06              | -370.00       | 0.00                 | 510144.89           | 786930.64          |              |
| 10499.98                                                                          | 0.00       | 0.00      | 10485.20       | -369.61             | -17.06              | -370.00       | 0.00                 | 510144.89           | 786930.64          |              |
| 10517.33                                                                          | 0.00       | 0.00      | 10502.55       | -369.61             | -17.06              | -370.00       | 0.00                 | 510144.89           | 786930.64          | KOP          |
| 10599.98                                                                          | 9.92       | 2.64      | 10584.78       | -362.48             | -16.73              | -362.86       | 12.00                | 510152.02           | 786930.97          |              |
| 10699.98                                                                          | 21.92      | 2.64      | 10680.77       | -335.13             | -15.47              | -335.49       | 12.00                | 510179.37           | 786932.23          |              |
| 10799.98                                                                          | 33.92      | 2.64      | 10768.97       | -288.45             | -13.31              | -288.75       | 12.00                | 510226.05           | 786934.39          |              |
| 10899.98                                                                          | 45.92      | 2.64      | 10845.53       | -224.46             | -10.36              | -224.70       | 12.00                | 510290.04           | 786937.34          |              |
| 10999.98                                                                          | 57.92      | 2.64      | 10907.10       | -145.98             | -6.74               | -146.13       | 12.00                | 510368.52           | 786940.96          |              |
| 11099.98                                                                          | 69.92      | 2.64      | 10950.98       | -56.42              | -2.60               | -56.48        | 12.00                | 510458.08           | 786945.10          |              |
| 11199.98                                                                          | 81.92      | 2.64      | 10975.27       | 40.29               | 1.86                | 40.34         | 12.00                | 510554.79           | 786949.56          |              |
| 11265.02                                                                          | 89.72      | 2.64      | 10980.00       | 105.04              | 4.85                | 105.16        | 12.00                | 510619.54           | 786952.55          | LP           |
| 11299.98                                                                          | 89.72      | 2.64      | 10980.17       | 139.96              | 6.46                | 140.11        | 0.00                 | 510654.46           | 786954.16          |              |
| 11399.98                                                                          | 89.72      | 2.64      | 10980.66       | 239.86              | 11.07               | 240.11        | 0.00                 | 510754.36           | 786958.77          |              |
| 11499.98                                                                          | 89.72      | 2.64      | 10981.14       | 339.75              | 15.68               | 340.11        | 0.00                 | 510854.25           | 786963.38          |              |
| 11599.98                                                                          | 89.72      | 2.64      | 10981.62       | 439.64              | 20.29               | 440.11        | 0.00                 | 510954.14           | 786967.99          |              |
| 11699.98                                                                          | 89.72      | 2.64      | 10982.11       | 539.53              | 24.90               | 540.11        | 0.00                 | 511054.03           | 786972.60          |              |
| 11799.98                                                                          | 89.72      | 2.64      | 10982.59       | 639.42              | 29.51               | 640.11        | 0.00                 | 511153.92           | 786977.21          |              |
| 11899.98                                                                          | 89.72      | 2.64      | 10983.07       | 739.32              | 34.12               | 740.10        | 0.00                 | 511253.82           | 786981.82          |              |
| 11999.98                                                                          | 89.72      | 2.64      | 10983.56       | 839.21              | 38.73               | 840.10        | 0.00                 | 511353.71           | 786986.43          |              |
| 12099.98                                                                          | 89.72      | 2.64      | 10984.04       | 939.10              | 43.34               | 940.10        | 0.00                 | 511453.60           | 786991.04          |              |
| 12199.98                                                                          | 89.72      | 2.64      | 10984.53       | 1038.99             | 47.95               | 1040.10       | 0.00                 | 511553.49           | 786995.65          |              |
| 12299.98                                                                          | 89.72      | 2.64      | 10985.01       | 1138.89             | 52.56               | 1140.10       | 0.00                 | 511653.39           | 787000.26          |              |
| 12399.98                                                                          | 89.72      | 2.64      | 10985.49       | 1238.78             | 57.17               | 1240.10       | 0.00                 | 511753.28           | 787004.87          |              |
| 12499.98                                                                          | 89.72      | 2.64      | 10985.98       | 1338.67             | 61.78               | 1340.10       | 0.00                 | 511853.17           | 787009.48          |              |
| 12599.97                                                                          | 89.72      | 2.64      | 10986.46       | 1438.56             | 66.39               | 1440.09       | 0.00                 | 511953.06           | 787014.09          |              |
| 12699.97                                                                          | 89.72      | 2.64      | 10986.94       | 1538.46             | 71.00               | 1540.09       | 0.00                 | 512052.96           | 787018.70          |              |
| 12799.97                                                                          | 89.72      | 2.64      | 10987.43       | 1638.35             | 75.61               | 1640.09       | 0.00                 | 512152.85           | 787023.31          |              |
| 12899.97                                                                          | 89.72      | 2.64      | 10987.91       | 1738.24             | 80.22               | 1740.09       | 0.00                 | 512252.74           | 787027.92          |              |
| 12999.97                                                                          | 89.72      | 2.64      | 10988.39       | 1838.13             | 84.83               | 1840.09       | 0.00                 | 512352.63           | 787032.53          |              |
| 13099.97                                                                          | 89.72      | 2.64      | 10988.88       | 1938.03             | 89.44               | 1940.09       | 0.00                 | 512452.53           | 787037.14          |              |
| 13199.97                                                                          | 89.72      | 2.64      | 10989.36       | 2037.92             | 94.04               | 2040.09       | 0.00                 | 512552.42           | 787041.74          |              |
| 13299.97                                                                          | 89.72      | 2.64      | 10989.84       | 2137.81             | 98.65               | 2140.08       | 0.00                 | 512652.31           | 787046.35          |              |
| 13399.97                                                                          | 89.72      | 2.64      | 10990.33       | 2237.70             | 103.26              | 2240.08       | 0.00                 | 512752.20           | 787050.96          |              |
| 13499.97                                                                          | 89.72      | 2.64      | 10990.81       | 2337.59             | 107.87              | 2340.08       | 0.00                 | 512852.09           | 787055.57          |              |
| 13599.97                                                                          | 89.72      | 2.64      | 10991.29       | 2437.49             | 112.48              | 2440.08       | 0.00                 | 512951.99           | 787060.18          |              |
| 13699.97                                                                          | 89.72      | 2.64      | 10991.78       | 2537.38             | 117.09              | 2540.08       | 0.00                 | 513051.88           | 787064.79          |              |
| 13799.97                                                                          | 89.72      | 2.64      | 10992.26       | 2637.27             | 121.70              | 2640.08       | 0.00                 | 513151.77           | 787069.40          |              |
| 13899.97                                                                          | 89.72      | 2.64      | 10992.74       | 2737.16             | 126.31              | 2740.08       | 0.00                 | 513251.66           | 787074.01          |              |
| 13999.97                                                                          | 89.72      | 2.64      | 10993.23       | 2837.06             | 130.92              | 2840.08       | 0.00                 | 513351.56           | 787078.62          |              |
| 14099.97                                                                          | 89.72      | 2.64      | 10993.71       | 2936.95             | 135.53              | 2940.07       | 0.00                 | 513451.45           | 787083.23          |              |
| 14199.97                                                                          | 89.72      | 2.64      | 10994.19       | 3036.84             | 140.14              | 3040.07       | 0.00                 | 513551.34           | 787087.84          |              |

## 5D Plan Report

| Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference) |            |           |                |                     |                     |               |                      |                     |                    |         |
|-----------------------------------------------------------------------------------|------------|-----------|----------------|---------------------|---------------------|---------------|----------------------|---------------------|--------------------|---------|
| MD<br>(US ft)                                                                     | Inc<br>(°) | Az<br>(°) | TVD<br>(US ft) | N.Offset<br>(US ft) | E.Offset<br>(US ft) | VS<br>(US ft) | DLS<br>(%/100 US ft) | Northing<br>(US ft) | Easting<br>(US ft) | Comment |
| 14299.97                                                                          | 89.72      | 2.64      | 10994.68       | 3136.73             | 144.75              | 3140.07       | 0.00                 | 513651.23           | 787092.45          |         |
| 14399.97                                                                          | 89.72      | 2.64      | 10995.16       | 3236.63             | 149.36              | 3240.07       | 0.00                 | 513751.13           | 787097.06          |         |
| 14499.97                                                                          | 89.72      | 2.64      | 10995.64       | 3336.52             | 153.97              | 3340.07       | 0.00                 | 513851.02           | 787101.67          |         |
| 14599.97                                                                          | 89.72      | 2.64      | 10996.13       | 3436.41             | 158.58              | 3440.07       | 0.00                 | 513950.91           | 787106.28          |         |
| 14699.97                                                                          | 89.72      | 2.64      | 10996.61       | 3536.30             | 163.19              | 3540.07       | 0.00                 | 514050.80           | 787110.89          |         |
| 14799.97                                                                          | 89.72      | 2.64      | 10997.10       | 3636.19             | 167.80              | 3640.06       | 0.00                 | 514150.69           | 787115.50          |         |
| 14899.97                                                                          | 89.72      | 2.64      | 10997.58       | 3736.09             | 172.41              | 3740.06       | 0.00                 | 514250.59           | 787120.11          |         |
| 14999.97                                                                          | 89.72      | 2.64      | 10998.06       | 3835.98             | 177.02              | 3840.06       | 0.00                 | 514350.48           | 787124.72          |         |
| 15099.97                                                                          | 89.72      | 2.64      | 10998.55       | 3935.87             | 181.63              | 3940.06       | 0.00                 | 514450.37           | 787129.33          |         |
| 15199.97                                                                          | 89.72      | 2.64      | 10999.03       | 4035.76             | 186.24              | 4040.06       | 0.00                 | 514550.26           | 787133.94          |         |
| 15299.97                                                                          | 89.72      | 2.64      | 10999.51       | 4135.66             | 190.85              | 4140.06       | 0.00                 | 514650.16           | 787138.55          |         |
| 15399.97                                                                          | 89.72      | 2.64      | 11000.00       | 4235.55             | 195.46              | 4240.06       | 0.00                 | 514750.05           | 787143.16          |         |
| 15400.82                                                                          | 89.72      | 2.64      | 11000.00       | 4236.40             | 195.50              | 4240.91       | 0.00                 | 514750.90           | 787143.20          | PBHL    |

**Weatherford**

## Weatherford Drilling Services

GeoDec4 v2.0.0.3

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Report Date: March 31, 2014  
Job Number: \_\_\_\_\_  
Customer: Adventure Exploration Partners II  
Well Name: Bevo 11 Fed #4H  
API Number: \_\_\_\_\_  
Rig Name: \_\_\_\_\_  
Location: \_\_\_\_\_  
Block: \_\_\_\_\_  
Engineer: Patrick Rudolph

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|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| NAD83 / New Mexico East (ftUS)          | NAD83 (1986)                            |
| Projected Coordinate System             | Geodetic Coordinate System              |
| Datum: North American Datum 1983 (1986) | Datum: North American Datum 1983 (1986) |
| Ellipsoid: GRS 1980                     | Ellipsoid: GRS 1980                     |
| EPSG: 2257                              | EPSG: 4269                              |
| North: 510514.5 US Survey Foot          | Latitude: 32.40096 Degree               |
| East: 786947.7 US Survey Foot           | Longitude: -103.53754 Degree            |
| Convergence: 0.43°                      |                                         |
| Declination: 7.34°                      |                                         |
| Total Correction: 6.91°                 |                                         |
| Datum Transformation: none              |                                         |

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### Geodetic Location WGS84

MSL Elevation = 3531 usft  
Latitude = 32° 24' 03.45" N  
Longitude = 103° 32' 15.14" W

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|                                 |                              |
|---------------------------------|------------------------------|
| Magnetic Declination = 7.34 deg | [True North Offset]          |
| Local Gravity = .9988 g         | Checksum = 6630              |
| Local Field Strength = 48417 nT | Magnetic Vector X = 23813 nT |
| Magnetic Dip = 60.27 deg        | Magnetic Vector Y = 3068 nT  |
| Magnetic Model = bggm2013.bgs   | Magnetic Vector Z = 42045 nT |
| Run Date = May 01, 2014         | Magnetic Vector H = 24010 nT |

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Signed: \_\_\_\_\_ Date: \_\_\_\_\_

# 5,000 psi BOP Schematic

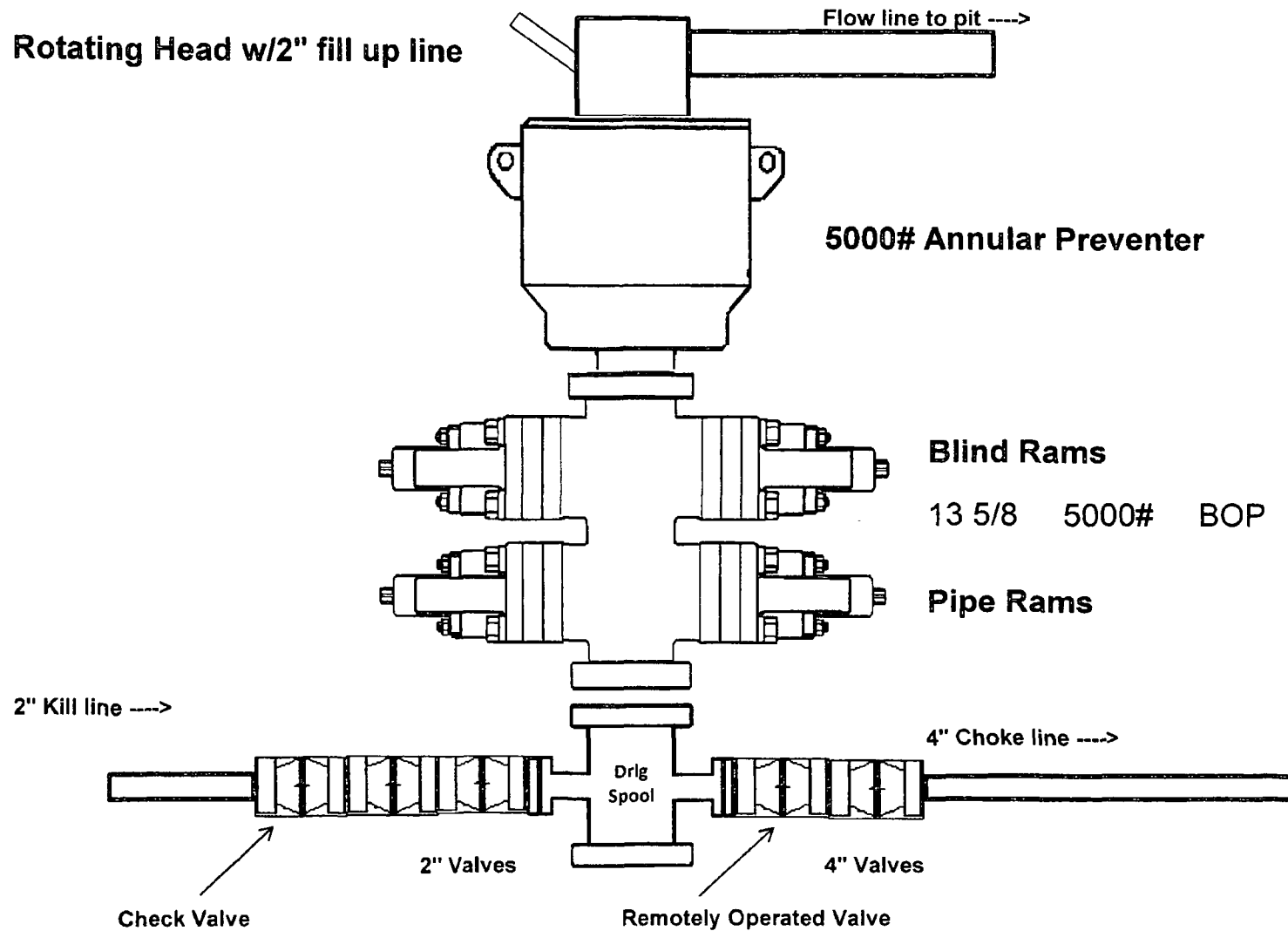
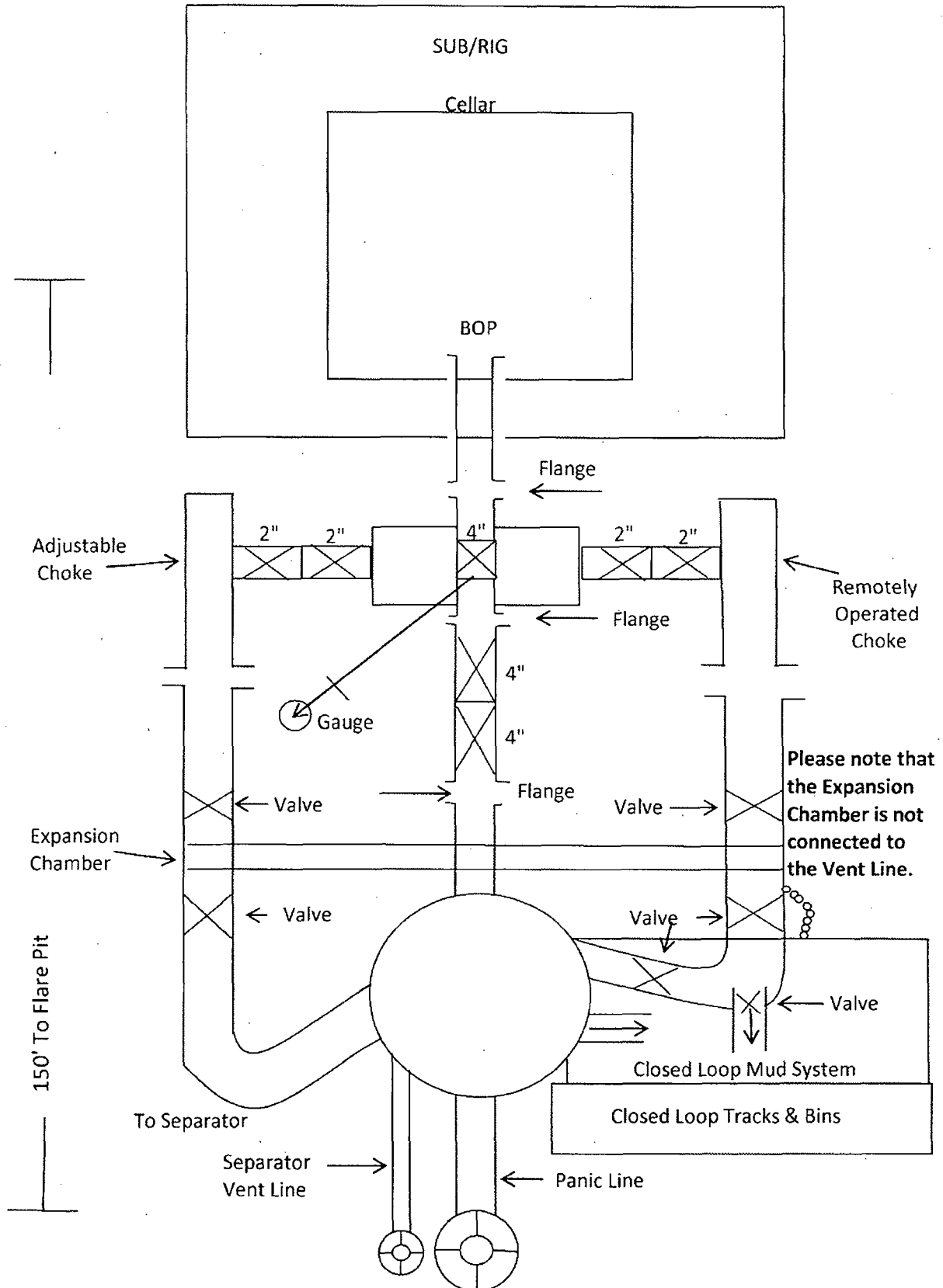


Exhibit A-1

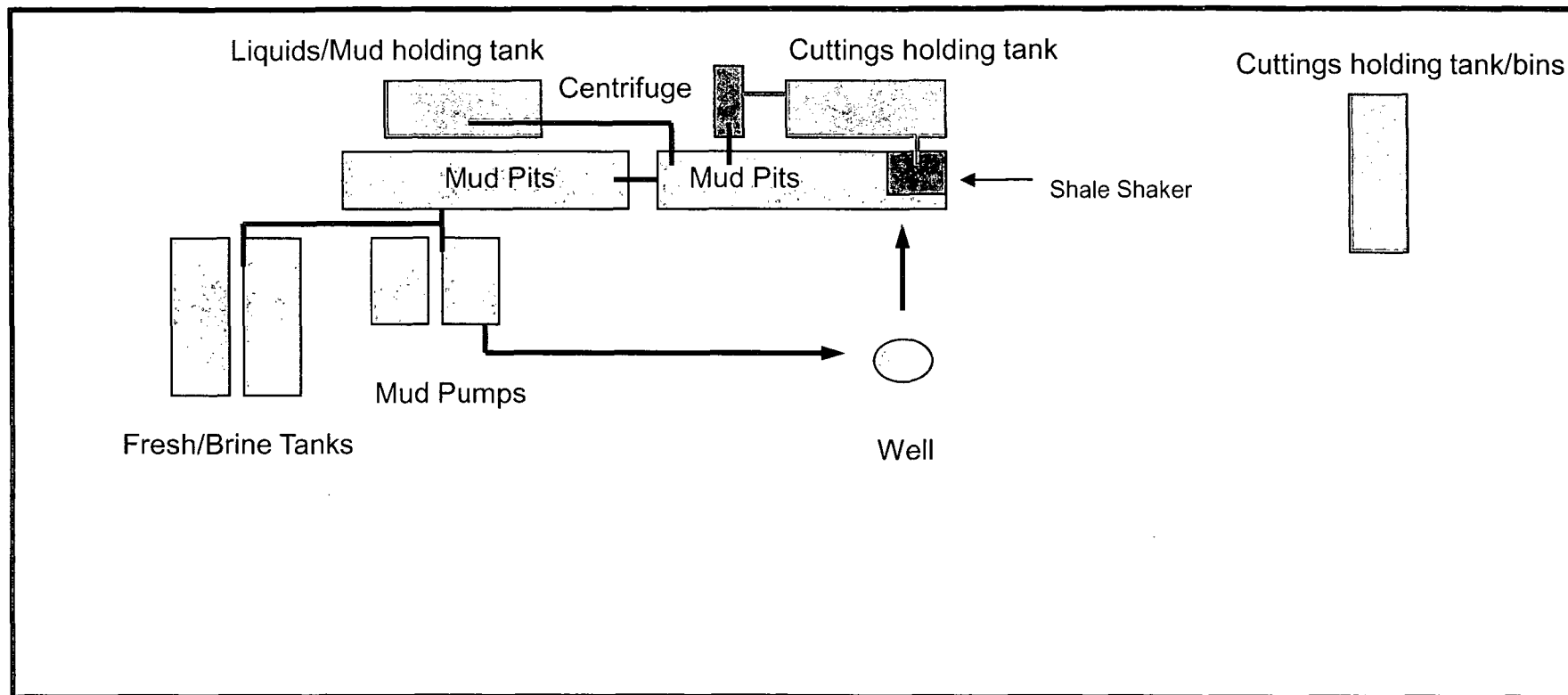


# 5M Choke Manifold Equipment



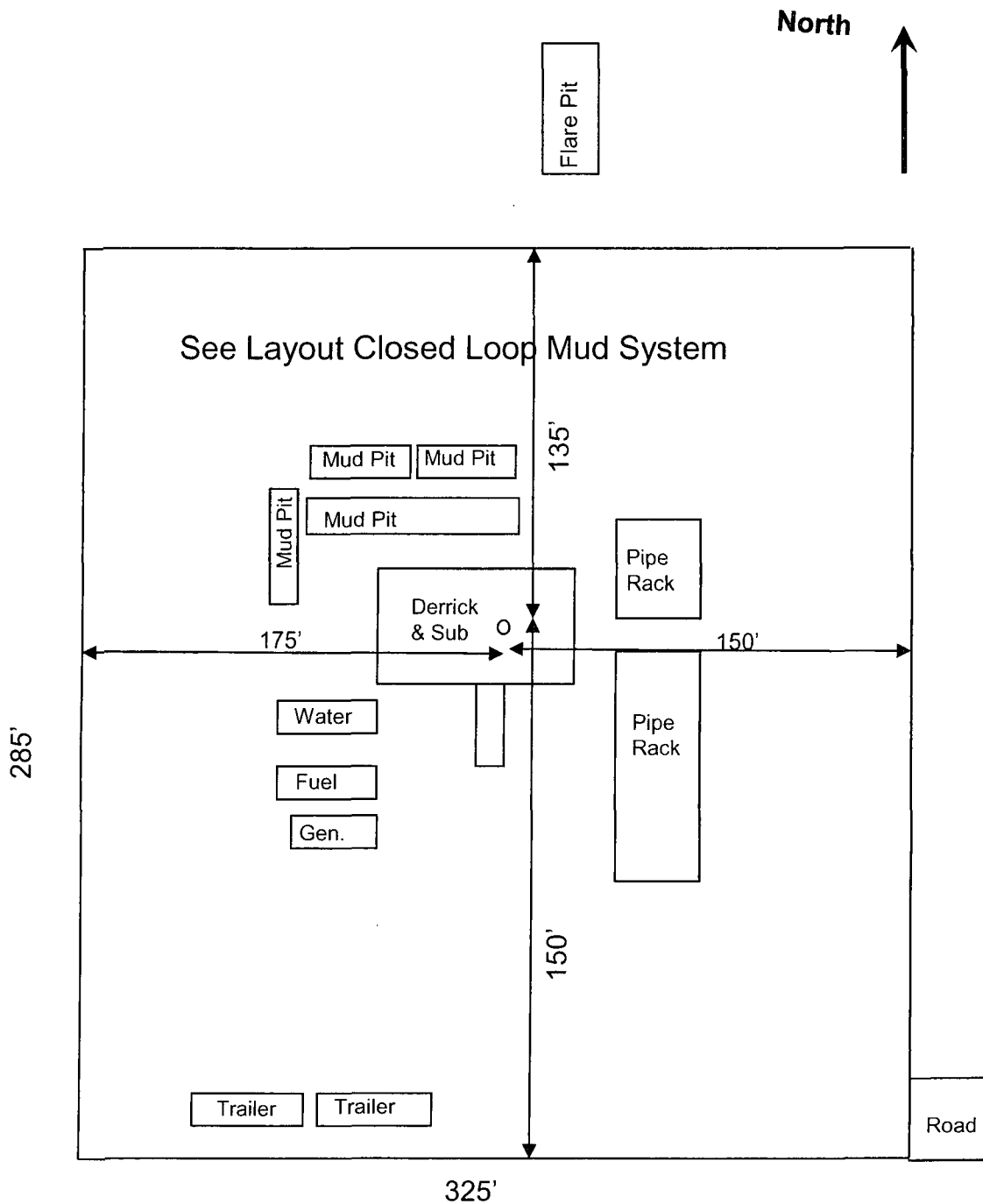
Adventure Exploration Partners II LLC.  
Bevo 11 Federal #4H  
330 FSL & 890' FEL  
11-22S-33E  
Lea County, NM

## Closed Loop System – Design and Construction Equipment Layout



### Operating and Maintenance Plan

1. All liquids and solids contained in closed loop system
2. All equipment will be monitored continuously by Solids control personnel while drilling
3. All solids and contaminated fluid hauled to an approved facility as required.



Rig & Well Site Plat  
 Adventure Exploration Partners II LLC  
 Bevo 11 Fed #4H  
 P-11-22S-33E  
 Lea Co., NM

Exhibit D