

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 3-19-13

Well information:

Operator BIYA, Well Name and Number Horseshoe Gully #401

API# 30045-35485 Section 35 Township 31N S, Range 16E W

Conditions of Approval:

(See the below checked and handwritten conditions)

✓ Hold C-104 for 5.9 compliance - Inactive wells

✓ Notify Aztec OCD 24hrs prior to casing & cement.

- Hold C-104 for directional survey & "As Drilled" Plat
- Hold C-104 for NSL, NSP, DHC
- Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ✓ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils

NMOCD Approved by Signature

7-15-2013  
Date

ca

RCVD JUN 24 '13

## OIL CONS. DIV.

FORM APPROVED

OMB No. 1050-0136

Expires November 30, 2000

Form 3160-3  
(August 1999)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator  
**BIYA OPERATORS, INC.** NM OGRID # 224717

3a. Address c/o Mike Pippin, LLC 3b. Phone Number  
3104 N. Sullivan Ave., Farmington, NM 87401 (505) 327-4573

4. Location of Well (Footage, Sec, T. R., M, or Survey Description)  
At surface: Unit Letter O, 845' FSL, 1775' FEL  
At proposed prod. Zone:

14. Distance in miles and direction from nearest town or post office\*  
~14 Miles Northwest of Kirtland, NM

15. Distance from proposed\*  
location to nearest 845'  
property or lease line, ft.  
(Also to nearest drlg. Unit line, if any)

16. No of Acres in lease  
40

18. Distance from proposed\*  
location to nearest well 1135'

19. Proposed Depth  
1650'

20. BLM/BIA Bond No. on file  
RLB0011899

21. Elevation (Show whether DF, KDB, RT, GL, etc.)  
5575' Ground Level

22. Approximate date work will start\*  
6/10/13

23. Estimated duration  
6 days

## 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

Size of Hole	Grade, Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8" H-40	24#	300'	177 Sxs, 248 ft3 - 100% Excess
7-7/8"	4-1/2" J-55	10.5#	1650'	270 Sxs, 526 ft3 - 40% Excess

**This well was formerly named Horseshoe Gallup Unit #301**

- On site inspection with Dave Swanson (BLM), Scott Clow (Ute Tribe), Bernice Clayton (BIA) - 12/15/10
- Archy by LaPlata
- EA & TE by Nelson.

SEE ATTACHED APD INFORMATION

Latitude: 36.85262 N  
Longitude: -108.49140 W

25. Signature <i>Mike Pippin</i>	Name (Printed/Typed) Mike Pippin	Date 3/19/2013
Title Agent - Petroleum Engineer		
Approved by (Signature) <i>/S/ BRAD DODD</i>	Name (Printed/Typed) /S/ BRAD DODD	Date JUN 19 2013
Title TRES RIOS FIELD OFFICE		Office ASSOCIATE FIELD MANAGER

Application approval does not warrant or certify 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.

Venting / Flaring approved for 30 days

per BTL 4A

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 reverse)

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject lease which are committed hereto...

RECEIVED  
JUN 21 2013  
Bureau of Land Management

SEE ATTACHED 2013  
CONDITIONS OF APPROVAL

Bureau of Land Management

Durango, Colorado

RCVD JUN 27 '13  
OIL CONS. DIV.  
DIST. 3

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to  
appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-35485	<sup>2</sup> Pool Code 32870	<sup>3</sup> Pool Name HORSESHOE GALLUP
<sup>4</sup> Property Code 30525039986	<sup>5</sup> Property Name HORSESHOE GALLUP	<sup>6</sup> Well Number 401
<sup>7</sup> OGRID No. 224717	<sup>8</sup> Operator Name BIYA OPERATORS, INC.	<sup>9</sup> Elevation 5574'

<sup>10</sup> Surface Location

UL or lot no. O	Section 35	Township 31-N	Range 16-W	Lot Idn 3400	Feet from the 845	North/South line SOUTH	Feet from the 1775	East/West line EAST	County SAN JUAN
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 39.13		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

				<p><b>17 OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><u>Mike Pippin</u> 6/25/13 Signature Date <u>MIKE PIPPIN</u> Printed Name <u>MIKE@PIPPINLLC.COM</u> E-mail Address</p>	
<p><b>18 SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>DEPT OF MINERALS NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 1994 17-13 Certificate Number</p>					

**BIYA OPERATORS INC.**  
**HORSESHOE GALLUP #401**  
845' FSL, 1775' FEL  
Unit O Sec. 35 T31N R16W  
San Juan County, NM

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**MAR 21 2013**

Bureau of Land Management  
Durango, Colorado

**Drilling Program**

1. **ESTIMATED FORMATION TOPS**

<u>Formation Name</u>	<u>Depth</u>
Point Lookout	0'
Mancos Shale	25'
Gallup	1446'
Gallup Pay	1476'
TD (4-1/2")	1650'

2. **NOTABLE ZONES**

<u>Oil Zones</u>	<u>Gas Zones</u>	<u>Water Zones</u>
Gallup	None	None

There are no known water zones in the area of this new well. Any fresh water found while drilling will be recorded and protected with casing, cement, and weighted mud. Oil or gas shows will be tested for commercial potential based on the engineer's recommendations.

3. **PRESSURE CONTROL**

Maximum expected pressure is ~75 psi. The virgin Horseshoe Gallup reservoir pressure is 215 psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 2000 psi blowout preventer system schematic is on PAGE #5.

BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 2000 psi system. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill, kill, and choke manifold lines will be 2". Accessories will include a stabbing valve to fit drill pipe on floor at all times, string float at bit, 2000 psi choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge. BOPs will be tested every 24 hours. Tests will be recorded on IADC log.

**BIYA OPERATORS INC.**  
**HORSESHOE GALLUP #401**  
 845' FSL, 1775' FEL  
 Unit O Sec. 35 T31N R16W  
 San Juan County, NM

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 Durango, Colorado

**4. CASING & CEMENT**

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connection</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	24#	H-40	New	ST&C	300'
7-7/8"	4-1/2"	10.5#	J-55	New	ST&C	1600'

**Surface Casing** will be cemented to the surface with ~248 cu. ft. (~177 sx) Type III cmt or equivalent (1.40 ft<sup>3</sup>/sx yield, 14.6 ppg, & 6.7 gps) with 2% CaCl<sub>2</sub> and 1/4#/sx celloflake. Volume based on 100% excess. We plan to run centralizers on the bottom 3 joints. A wooden wiper plug will be displaced to within 40' of the shoe. WOC = 12 hours. Surface casing will be tested to 600 psi for 30 minutes.

**Production Casing** will be cemented to surface with a single stage. Total cement = ~526 cu. ft. (~270 sx). Volumes are calculated at 40% excess. If cement does not circulate to surface, then a temperature survey or CBL will be run to determine the actual cement top as needed. WOC = 12 hours. Casing will be tested to 3000 psi for 30 minutes during completion operations.

Lead cement will be ~446 cu. ft. (~225 sx) Premium Lite High Strength FM cmt or equivalent w/1/4#/sx cello flake, 0.3% DC-32 (cmt dispersant), 6.25#/sx LCM-1, & 1% FL-52 (fluid loss) mixed at 9.8 gps, 12.5 ppg for a yield of 1.98 cu. ft. per sx.

Tail cement will be ~80 cu. ft. (~45 sx) Premium Lite High Strength FM or equivalent w/1/4#/sx cello flake, 0.3% CD-32, 6.25#/sx LCM-1, 1% FL-52 mixed at 8.21 gps, 13 ppg for a yield of 1.77 cf. ft per sx.

Cementing equipment will include a bull nosed guide shoe, and flapper type float collar will be run 20' off bottom. We plan on running at least 10 centralizers.

**5. MUD PROGRAM**

<u>Depth</u>	<u>Type</u>	<u>Wt./ppg.</u>	<u>Vis.</u>	<u>Fluid Loss</u>	<u>PH</u>
0'-300'	FW gel/lime spud mud	8.4-8.7	30-50	NC	10
300'-1600'	FW gel/Polymer	8.3-8.6	30-35	<20cc's	9.5

Lost circulation and absorption material will be on location.

**BIYA OPERATORS INC.  
HORSESHOE GALLUP #401  
845' FSL, 1775' FEL  
Unit O Sec. 35 T31N R16W  
San Juan County, NM**

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Bureau of Land Management  
Durango, Colorado

6. CORING, TESTING, & LOGGING

An open hole Induction log will be run at TD from TD to the surface casing shoe. No cores, mud logs, or drill stem tests are planned.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected pressure is ~75 psi.

8. OTHER INFORMATION

The anticipated spud date is June 10, 2012. It is expected it will take ~6 days to drill and ~6 days to complete the well. Completion will start about one week after the spud and will include hydraulic fracturing.

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Directions from stoplight at Kirtland, New Mexico to Biya Operators Inc. of Land Management  
Durango, Colorado

**Horseshoe Gallup #401**

**845' FSL, 1775' FEL  
Section 35, T31N R16W, NMPM  
San Juan County, New Mexico**

From the stoplight at Kirtland, New Mexico (Lat. 36.74328° N, Long. 108.35998° W)  
Travel west on Highway 64 5.2 miles to the intersection of Highway 64 and County Road  
6800 (Lat. 36.75974° N, Long. 108.44948° W)  
Turn right on County Road 6800 and travel North 2.7 miles to intersection before the  
Guard Shack for San Juan Generating Station (Lat. 36.79396° N, Long. 108.43148° W)  
Turn left on dirt road travel westerly then 0.3 mile around the storage yard to the  
intersection of another dirt road (Lat. 36.79837° N, Long. 108.44345° W)  
Turn left at intersection and travel westerly 1.0 mile to cattle guard (Lat. 36.80694° N,  
Long. 108.45819° W)  
Continue traveling westerly/northwesterly 1.7 miles to a Y-intersection (Lat. 36.82461°  
N, Long. 108.47949° W)  
Turn right northerly then west over rocky ridge as the road winds down and around 0.5  
mile to a cattle guard (Lat. 36.82979° N, Long. 108.47859° W)  
Continue westerly 0.9 mile to a Y-intersection (Lat. 36.83720° N, Long. 108.48972° W)  
Turn right on main traveled road and travel northerly and northwesterly 1.0 mile to a  
cattle guard (Lat. 36.85030° N, Long. 108.48773° W)  
Continue northwesterly 0.3 mile to the proposed access for Horseshoe Gallup #401 well  
location (Lat. 36.85215° N, Long. 108.49163° W)

**BIYA Opertors, INC.**

**3160**

**Tribal IMDA: 751-08-1035**

**Well: Horseshoe Gallup # 401**

**Surface Location: 845' FSL & 1775' FEL**

**Sec. 35, T. 31 N., R. 16 W.**

**San Juan County, New Mexico**

**Conditions of Approval - Drilling Plan:**

1. Notify this office at least **3 days** prior to:

- a. spudding the well
- b. running casing strings and cementing
- c. BOP tests
- d. Drill Stem Testing

**For the above procedures, Operators must talk to BLM personnel directly. Do not leave messages on answering machines.**

- 2. All BOP tests will be performed with a test plug in place. BOP will be tested to full stack working pressure and annular preventer to 50% maximum stack working pressure. All accumulators will be function tested as per Onshore Order #2. All 2M or greater systems require **adjustable** chokes as per Onshore Order #2.
- 3. No additional zones will be commingled without UMU Tribal and BLM approval.
- 4. If a BLM Inspector is not present during the initial BOP test, please provide chart record.
- 5. Submit copies of all logs to this office both paper and in Log ASCII Standard (LAS) format.

Continued on Page 2.



**6. If any operations are to start over the weekend, notify this office by noon Friday. If any problems arise after hours or on weekends, call BLM personnel using the home phone numbers listed on the following 'INFORMATIONAL NOTICE - APD's'. Do not leave messages on answering machines.**

7. The BLM must witness the topping-off of the Surface Casing Cement

8. A CBL is required if cement is not circulated to the surface on either casing string. BLM verbal approval will be required prior to squeezing.

9. The tops of all major identifiable geologic units (formations) from surface to TD will be logged and recorded.

10. Stabilized bottomhole pressure measurements and flowrates must be collected.

11. Please provide the following information if possible. All tests and operations on any well on subject lands shall be conducted at Operator's sole discretion.

All Wire Line Logs - Fields & Final Print (Electrical, Radioactive, Sonic, Velocity, Cement Bond, Temperature, etc with digitized and log analysis).

Drill Stem Tests - Field and Final Reports.

Core Analysis - Field and Final Reports.

Mud Log - Final Report.

Structure and Isopach Maps.

Location (Surveyors) Plat.

Application to Drill (Drilling Permit).

Daily Drilling Reports, Daily Work Over Reports and Final Drilling Report Summary.

Directional Survey.

Continued on page 3.

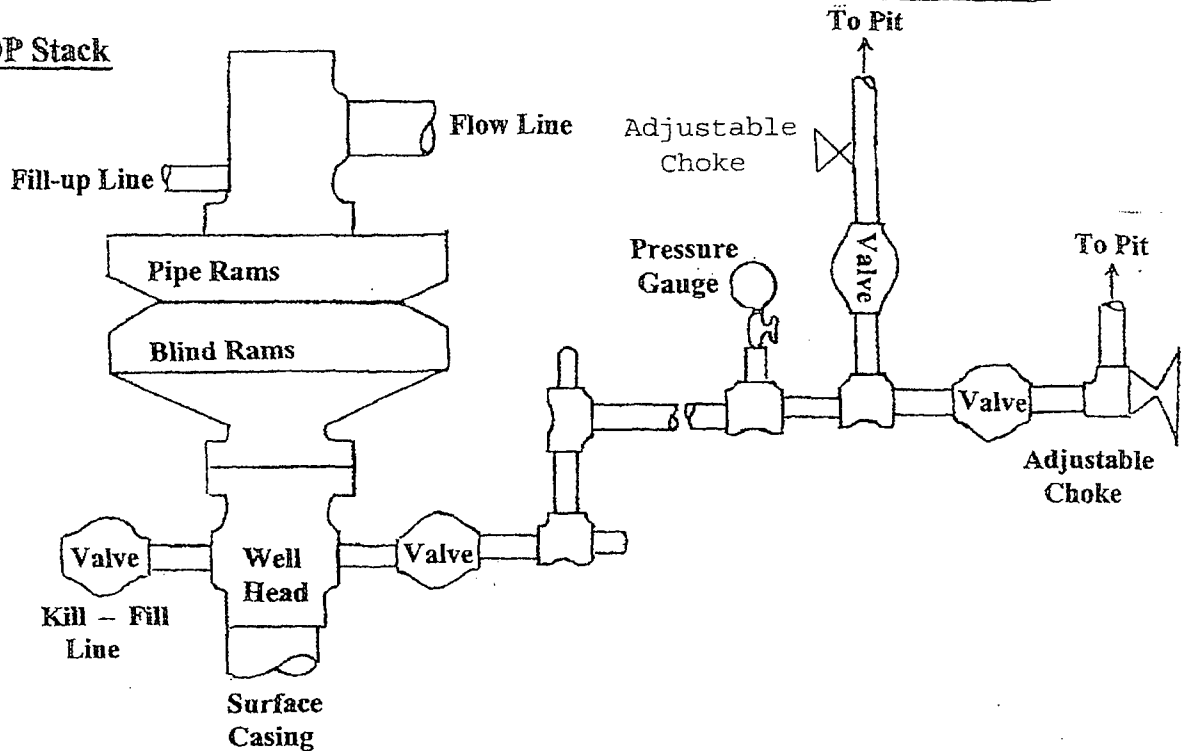
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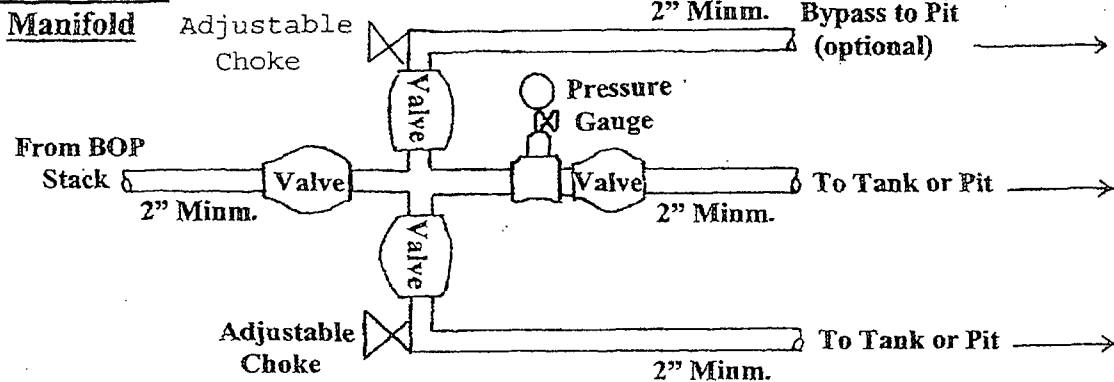
**Well Control Equipment Schematic for 2,000 psi BOP**

Bureau of Land Management  
Boulder, Colorado

**BOP Stack**



**Choke & Kill**



Working Pressure for all equipment is 2,000 psi or greater

BIYA OPERATORS, INC.  
HORSESHOE GALLUP #400 & #401