

Form 3160-3
(February 2005)

2007 FEB 12 AM 9 15

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NO-G-0651-1133
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Navajo Allottee Cles-nies-Pah
2. Name of Operator Patina Oil and Gas Corporation		7. If Unit or CA Agreement, Name and No. NA
3a. Address 5802 US Highway 64, Farmington, NM 87401	3b. Phone No. (include area code) 505-632-8056	8. Lease Name and Well No. Linda 31 27
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 2030 FSL and 1457 FWL At proposed prod. zone SAME		9. API Well No. 30-045-34166
14. Distance in miles and direction from nearest town or post office* Approx. 14 miles SE of Blanco, NM		10. Field and Pool, or Exploratory Blanco Mesa Verde
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1147 feet	16. No. of acres in lease 320 acres	11. Sec., T. R. M. or Blk. and Survey or Area K Sec. 31 T27N R8W NMPM
17. Spacing Unit dedicated to this well 322.4 W/2 320 acres	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 660'	12. County or Parish San Juan
19. Proposed Depth 4581 6268'	20. BLM/BIA Bond No. on file LMP8720503-CO1291	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6071' GL	22. Approximate date work will start* 07/01/2007	23. Estimated duration 12 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 <i>Billie Maez</i>	Name (Printed/Typed) Billie Maez	Date 1-12-07
Title District Manager		

Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) Acting AFM Minerals	Date 5/12/08
Title Acting AFM Minerals		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

GENERAL REQUIREMENTS

ARE
TACHED

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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

AUG 11 2008 *cur*

NMOCD

District I

1625 N. French Dr. Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazo Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

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 June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34166	² Pool Code 72319	³ Pool Name BLANCO MESA VERDE
⁴ Property Code 304639	⁵ Property Name LINDA 31	⁶ Well Number 27
⁷ GRID No. 234550	⁸ Operator Name Noble Energy, Inc.	⁹ Elevation 6071'

¹⁰ Surface Location

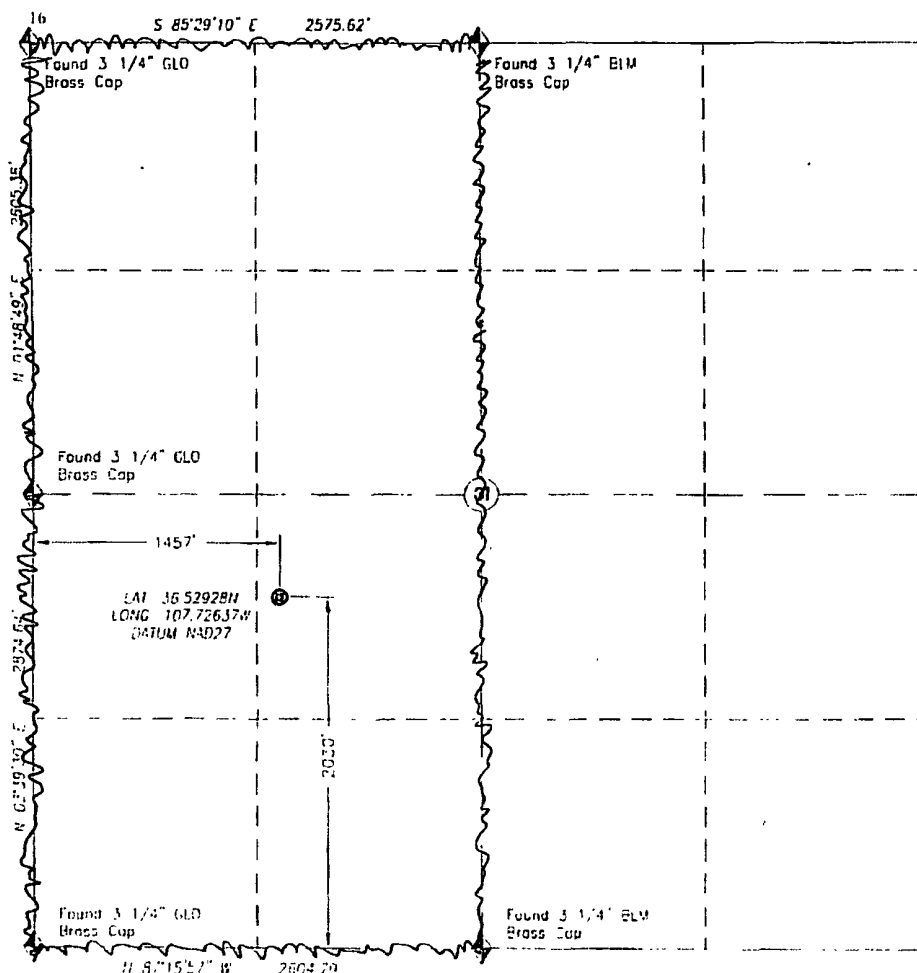
UL or lot no.	Section	Township	Range	1 of 16	Feet from the	North-South line	Feet from the	East-West line	County
K	31	27N	8W		2030	SOUTH	1457	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	1 of 16	Feet from the	North-South line	Feet from the	East-West line	County

¹² Dedicated Acres 3224 ACRES W 1/2 = MV	¹³ Joint or In fill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁷ OPERATOR CERTIFICATION

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 unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

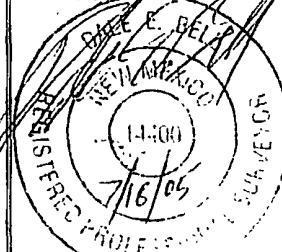
Signature: **J. MUSE** Date: **7-22-05**
 Printed Name: **JEAN M. MUSE**

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

June 21, 2005

Date of Survey



Dale E. Bell
 New Mexico Reg. PS No. 14400
 For and on behalf of Irigan Epc
 150 Tech Center Dr., Suite E
 Durango, CO 81301
 (970) 395-9100

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS 2008

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

Farmington Field Office

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1 Type of Well ☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator NOBLEENERGY, INC.

3a Address
5802 US HIGHWAY 64 FARMINGTON, NM 874023b Phone No. (include area code)
505-632-80564 Location of Well (Footage, Sec., T., R., M., or Survey Description)
2030' FSL, 1457' FWL
K Sec 31 - T27N - R8W

5 Lease Serial No.

~~1-19-IND-8469~~ No-G-0651-1133

6 If Indian, Allottee or Tribe Name

7 If Unit or CA/Agreement, Name and/or No.

8 Well Name and No.
LINDA 31 #279. API Well No.
30-045-3416610. Field and Pool, or Exploratory Area
BLANCO MV11 County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other CHANGE
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	DRILLING PLAN
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

PATINA SAN JUAN REQUESTS A CHANGE TO THE DRILLING PLAN FOR THE SUBJECT WELL.

ATTACHED IS THE UPDATED SURVEY WITH THE SIGNED CERTIFICATION AND CORRECTED ACREAGE AND THE DRILLING PLAN.

THE TARGETED TOTAL DEPTH WILL NOW BE 4581' TO INCLUDE THE BLANCO MESA VERDE FORMATION ONLY.

THE WELL WILL BE CONNECTED TO WILLIAMS FIELD SERVICES FOR THE SALE OF GAS.

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

RCVD AUG 7 '08

OIL CONS. DIV.
DIST. 3

14 I hereby certify that the foregoing is true and correct	
Name (Printed/Typed) BILLIE MAEZ	Title DISTRICT MANAGER
Signature <i>Billie Maez</i>	Date 08/04/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Troy L. Salyers	Title PE	Date 8-6-2008
Conditions of approval, if any, are attached. Approval of this notice 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.	Office FFO	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOC

Linda 31 #27
General Drilling Plan
Patina San Juan, Inc.
San Juan County, New Mexico

1. LOCATION:

Est. elevation: 6070'
NESW Section 31-T27N-R8W
2030' FSL 1457' FWL
San Juan, New Mexico

Field: **Navajo Nation**
Surface: ~~United States of America~~
Minerals: United States of America

2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):

Surface formation – Nacimiento

Formation	drilling depth
Ojo Alamo	933
Kirtland	1240
Fruitland	1642
Pictured Cliffs**	1915
Lewis	2021
Cliff House**	3499
Menefee	3588
Point Lookout**	4207
Mancos Shale	4331
TD	4581 ✓

Legend: * Freshwater bearing formation
 ** Possible hydrocarbon bearing formation
 *** Probable hydrocarbon bearing formation
 # Possible H2S bearing formation

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

3. PRESSURE CONTROL EQUIPMENT:

BOP equipment will be tested to its rated working pressure or 70-percent of the internal yield of the surface casing, but not to exceed 1,000 psi. See attachments for BOP and choke manifold diagrams.

Production Hole BOP Requirements and Test Plan

11" – 2,000 psi single ram (blind)

11" – 2,000 psi single ram (pipe)

Test as follows:

a) Pipe rams:	1,000 psi (High)	250 psi (low)
b) Choke manifold:	1,000 psi (High)	250 psi (low)
c) Choke lines:	1,000 psi (High)	250 psi (low)

All ram type preventers and related equipment will be hydraulically tested at nipple-up. They will also be retested in either of the following events:

- A pressure seal is broken.
- 30 days have elapsed since the last successful test of the equipment.

Furthermore, BOP's will be checked daily as to mechanical operating condition. All ram type preventers will have hand wheels, which will be operative and accessible at the time the preventers are installed. See attached Exhibit for details on the BOP equipment.

AUXILIARY EQUIPMENT:

- a) Manually operated kelly cock (upper and lower)
- b) Full opening manually operated safety valves in the full open position, capable of fitting all drill stem connections.

4. CASING DESIGN:

Hole Data				
Interval	Bit Size (Inches)	Casing Size (Inches)	Top (Ft)	Bottom (Ft)
Surface	12.25	9.625	0	300
Production	7 7/8	4.5	0	4581

Casing Data							
OD (Inches)	ID (Inches)	Weight (Lbs/Ft)	Grade	Thread	Collapse (psi)	Burst (psi)	Min. Tensile (Lbs)
9.625	8.921	36.0	J55	STC	2,020	3,520	394,000
4.5	4.276	11.6	N80	LTC	6,350	7,780	223,000

MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125
BURST: 1.00
TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot
Maximum anticipated reservoir pressure: 1,500 psi
Maximum anticipated mud weight: 9.0 ppg
Maximum surface treating pressure: 2,000 psi

Float Equipment:

Surface Casing: Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

Production Casing: Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and centralizers over potential hydrocarbon bearing zones. Stage tool above the Cliffhouse formation. One centralizer below stage tool and one centralizer above stage tool.

CEMENTING PROGRAMS:

9-5/8" Surface casing:

200 sx Type III cement with 3% CaCl₂, 1/4#/sx cellofakes. 100% excess to circulate cement to surface. WOC ~~4 hrs.~~ 8 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg
Slurry yield: 1.28 ft³/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 12-1/4" x 9-5/8" annulus	100 cu ft
	<u>100% excess (annulus)</u>	<u>100 cu ft</u>
	Total	217 cu ft ✓

Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl₂ for top out purposes.

4 1/2" Production casing:

1st Stage:

Cement Slurry: 275 sx Halliburton's Vericem cement plus additives

Slurry weight: 13.1 ppg

Slurry yield: 1.57 ft³/sx

2nd Stage:

Cement Slurry: 295 sx Halliburton's Vericem cement plus additives

Slurry weight: 12.0 ppg

Slurry yield: 2.03 ft³/sx

Volume basis:	1 st Stage:	
	40' of 4 1/2" shoe joint	5 cu ft
	1581' of 4 1/2" x 7 7/8" hole	360 cu ft
	2 nd Stage:	
	3000' of 4 1/2" x 7 7/8" hole	683 cu ft
	<u>20% excess (annulus)</u>	<u>210 cu ft</u>
	Total	1253 cu ft ✓

Note:

1. Design 1st stage top of cement is ±3000' (500' above the top of the Cliff House formation).
2. DV tool is +/- 700' below the top of the Lewis Shale formation.
3. Actual cement volumes to be based on caliper log plus 20%.

5. MUD PROGRAM:

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The production hole will be drilled with water until mud up at about 3100 ft. From mud up point to total depth, it will be drilled with a LSND mud. Anticipated mud weight ranges from 8.5 – 9.2 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

No chrome-based additives will be used in the mud system.

6. EVALUATION PROGRAM:

Mud logger: From base of surface casing to TD.

Testing: No DST is planned

Coring: None Planned

Electric logs: Production Hole:

1) GR-Neutron: TD to surface.

2) SP-LDT-DIL-CAL-PE: TD to base of surface casing

7. ABNORMAL PRESSURE AND TEMPERATURE:

H ₂ S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	125° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

8. ANTICIPATED STARTING DATE: Q3, 2008

Anticipated duration: 6 days



United States Department of the Interior

Bureau of Indian Affairs

Navajo Region

P. O. Box 1060

Gallup, New Mexico 87305



MC 620: Division of Environmental, Cultural & Safety Management

JAN 10 2008

MEMORANDUM

To: Mr. James Stockbridge, Director, FMO

From: Regional Director, Navajo

Subject: FONSI-Linda 31 # 27 Well Pads, Access Road and Well-Tie Pipeline EA-07-145

The Environmental Assessment (EA), EA-07-145, for the Patina San Juan, Inc., proposed Linda 31 # 27 Well Pad, Access Road and Well-Tie Pipeline on 1.52 acres of Indian Allotment No. 211420 located approximately 30 miles southeast of Bloomfield, San Juan County, New Mexico, has been reviewed in the Division of Environmental, Cultural and Safety Management, Navajo Regional Office. A Finding of No Significant Impact (FONSI) has been determined for the proposed action. It will not have a significant impact on the quality of the natural and human environment. An environmental impact statement for the proposed project is not required.

If you have questions, you may contact Ms. Harriene J. Yazzie, Regional NEPA Coordinator, at (505) 863-8287.

Attachment

OPTIONAL FORM 90 (7-90)		# of pages
FAX TRANSMITTAL		4
To: Ms Dickert	From: JENYDEC	
Dept/Agency: TIA60N	Phone #: 505.863.8415	
Fax #: 505.9107	Fax #: 505.863.8369	

NSN 7540-01-317-7580 5025-101 GENERAL SERVICES ADMINISTRATION

COPY FOR YOUR
INFORMATION

**FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT DOCUMENT, EA-07-145
LINDA 31 # 27 WELL PAD, ACCESS ROAD AND WELL-TIE PIPELINE**

PATINA SAN JUAN, INC.

**Location: Fresno Canyon, NM, Quadrangle, USGS 7.5 Minute Series Map
Section 31, T27N, R8W, NMPM
Southeast of Bloomfield, San Juan County, New Mexico**

The proposed action is approval, by the Bureau of Indian Affairs, for a right-of-way (ROW) grant for construction of: a 250-foot by 225-foot well pad; a new 330-foot access road and the tie-in pipeline will be buried within the same 30-foot corridor and the proposed well pad, which will total 670.2-foot tie-in pipeline. The project will affect 1.52 acres of Indian Allotment No. 211420 located approximately 30 miles southeast of Bloomfield, San Juan County, New Mexico. The project is sponsored by Patina San Juan, Inc., 5802 U.S. Highway 64, Farmington, New Mexico 87401.

The project environmental assessment (EA) was reviewed in the Division of Environmental, Cultural and Safety Management, Navajo Regional Office. Based on the environmental assessment and the mitigation measures specified in the document, it is determined that the proposed action will not have a significant impact on the natural and human environment. Therefore, in accordance with the National Environmental Policy Act, Section 102 (2) (C), an environmental impact statement will not be required.

The following references, incorporated in the environmental assessment, serve as the bases for this decision:

1. Agency and public involvement was solicited. Environmental issues relative to right-of-way approval for the proposed project were identified. Alternative courses of action and mitigation measures were developed in response to environmental concerns and issues.
2. The EA disclosed the environmental consequences of the proposed and "no action" alternatives.
3. In compliance with the Endangered Species Act, informal consultation was held with the Navajo Nation Department of Fish and Wildlife (NNDFW) and the Natural Heritage Program (NNHP). Although the NNDFW has no record of species of concern occurring on or near the project site at this time, it provided a list of species of concern having the potential to occur on the *Fresno Canyon, NM, USGS 7.5-Minute Quadrangle* containing the project boundaries. An on-site pedestrian survey of the proposed project site was conducted on February 23, 2007. Of the seven species identified by the NNDFW, only Rocky Mountain elk and Mule deer were determined to have potential habitat on the proposed project site. No elk or elk sign were observed on the project site during the survey. Mule deer scat was observed on the proposed well pad. The NNDFW issued Biological Resources Compliance Form (BRCF), NNDF & WL Review No. 05/21/07C indicating compliance with Tribal and Federal laws protecting biological resources (BRCF).

**COPY FOR YOUR
INFORMATION**

**FEDERAL INDIAN MINERALS OFFICE
CONDITIONS OF APPROVAL**

Operator: Patina Oil & Gas Corporation
Legal Location: Sec. 31, T. 27 N., R. 8 W
Lease Number NOG-0651-1133

Well Name Linda 31-#27
Footage: 2030 FSL, 1457 FWL
Field Inspection Date: 06/08/2005

The following conditions of approval will apply to this well unless a particular surface owner has supplied to FIMO and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 25DFR Part 212. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activities.

1. This approval is provided only within the valid lease, communitized or unit area.
2. Lessee shall carry on all operations in a good and workmanlike manner in accordance with approved methods and practices.
3. The lessee shall not use or permit to be used any part of said leased land for any unlawful conduct or purpose whatsoever. Lessee will not use or permit to be used any part of said leased land for the manufacture, sale, gift, transportation, or storage of intoxicating liquors, beverages, or drugs.
4. All applicable Federal and Tribal antiquities laws and regulations will be complied with, including the following additional conditions: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices.
5. the Lessee shall at all times during the term of the permit and at the Lessee's sole cost and expense, maintain the access road, well site, and all improvements thereon and make all necessary and reasonable repairs.
6. The Lessee shall obtain permission to cross existing rights-of-way from the appropriate parties before constructing the proposed project.
7. The Lessee shall be responsible for and promptly pay in advance all proposed surface damages based upon the surveyed acreages. The Lessee agrees that surface damages greater than the surveyed acreages will be billed upon completion and paid promptly. Surface damage less than the surveyed acreages will not be reimbursed.
8. The Lessee shall indemnify and hold harmless the Federal Indian Minerals Office and its authorized agents, employees, landusers, landowners, and occupants, against any liability for loss of life, personal injury and property damages arising from the construction, maintenance, occupancy or use of lands by the Lessee.
9. Access Road.
 - a. Performing construction or maintenance activities outside the approved access road requires a new cultural survey, clearance, and additional surface damages.
 - b. Any modification to existing two track road will be subject to surface damages.
 - c. Culverts of sufficient size (minimum 18 inches) where it is deemed necessary to prevent damages to the land
 - d. No construction, or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 4 inches deep, the soil shall be deemed to be too wet.
 - e. Maintain a minimum of ten (10) feet of undisturbed surface between fence lines and proposed roads.
 - f. Road shall have a maximum driving surface of 14 feet, and a maximum bladed width of 30 feet excluding turnout ditches and turnouts, and a maximum grade of 10 percent (pitches over 10 percent that are less than 300 feet in length may be allowed). More than 10% will require a road designed by a professional engineer.

- g. Crowning and ditching on both sides of the road is required. The road cross section will conform to the cross section diagrams available from the BLM. The crown shall have a grade of approximately two percent (i.e., two inch crown on a 14 foot wide road.)
- h. Drainage control shall be ensured over the entire road through the use of borrow ditches, drainage dips, outslowing, inslaping, natural rolling topography, and/or turnout (lead-off) ditches. Every drainage dip shall drain water into an adjacent turnout ditch.
- i. Construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel. Material removed shall be stockpiled for use in rehabilitation of the crossing.
- j. Surfacing may be applied at the Lessee's discretion, but is not required at this time. However, if it becomes evident there is resource damage or it becomes evident the road is receiving excess damage, surfacing will be required.

10. Well site.

- a. The final cut slope shall not exceed a 3:1 ratio. The final fill slope shall not exceed a 3:1 ratio. To obtain this ratio, pits and slopes shall be backsloped into the pad upon completion of drilling. Construction slopes can be steeper during drilling, but will be recontoured to the above ratio during reclamation. Production equipment (including any facilities associated with pipeline construction) shall be placed on location as to not interfere with reclaiming the cut and fill slopes to their proper ratio. If equipment is found to interfere with the proper reclamation of the slope, the company will be required to move the equipment so proper recontouring can occur.
- b. All above ground structures not subject to safety requirements shall be painted by the Lessee to blend with the natural color of the landscape. A reflective material may be used to reduce hazards that may occur when such structures are near roads. Otherwise, the paint used shall be a non-glare, non-reflective, not chalking color of the following list.

<input type="checkbox"/> Sand beige	<input type="checkbox"/> Desert Brown	<input type="checkbox"/> Carlsbad Canyon	<input type="checkbox"/> Slate Gray
<input type="checkbox"/> Sudan Brown	<input type="checkbox"/> Brush Brown	<input type="checkbox"/> Juniper Green	<input type="checkbox"/> Shale Green
<input type="checkbox"/> Yuma Green	<input type="checkbox"/> Largo Red		

- c. Six inches of topsoil will be stripped and stockpiled in the construction zones of the well pad. The stockpile soil material will be spread on the reclaimed portions of the pad (including the reserve pit, cut and fill slopes) prior to reseeding. Spreading shall not be done when the ground or topsoil is frozen or wet.
- d. Diversion ditches will be constructed above the cut slope, draining away from the well pad.

11. Pits.

- a. Pits will be lined with an impervious material at least 12 mils thick. Prior to closing the pit, the liner will be cut off at mud level. The excess liner will be hauled to a licensed disposal area.
- b. Reserve pits will be closed and rehabilitated 90 days after well completion or 120 days after the well has been spudded. All reserve pits remaining open after the 90 days will need written authorization from the Authorized Officer. This requirement is addressed in the General Requirements of Onshore Order #7.
- c. To protect migratory birds and other wildlife, all permanent production tanks or pits regardless of diameter used for containment of produced water, oil, or condensate shall be screened, netted or otherwise covered.
- d. All unguarded pits (reserve/production/blow) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and a temporary fourth fence during extended breaks (vacations, holidays, and weekends or other extend periods of down time.) A fourth permanent fence will be put up upon completion of drilling. All fencing must be a legal fence in accordance with applicable Federal and State law.

12. Pipeline.

- a. All pipelines will be buried 4 feet deep.
- b. Identification shall be placed along the pipeline.

13. Fences and Gates.

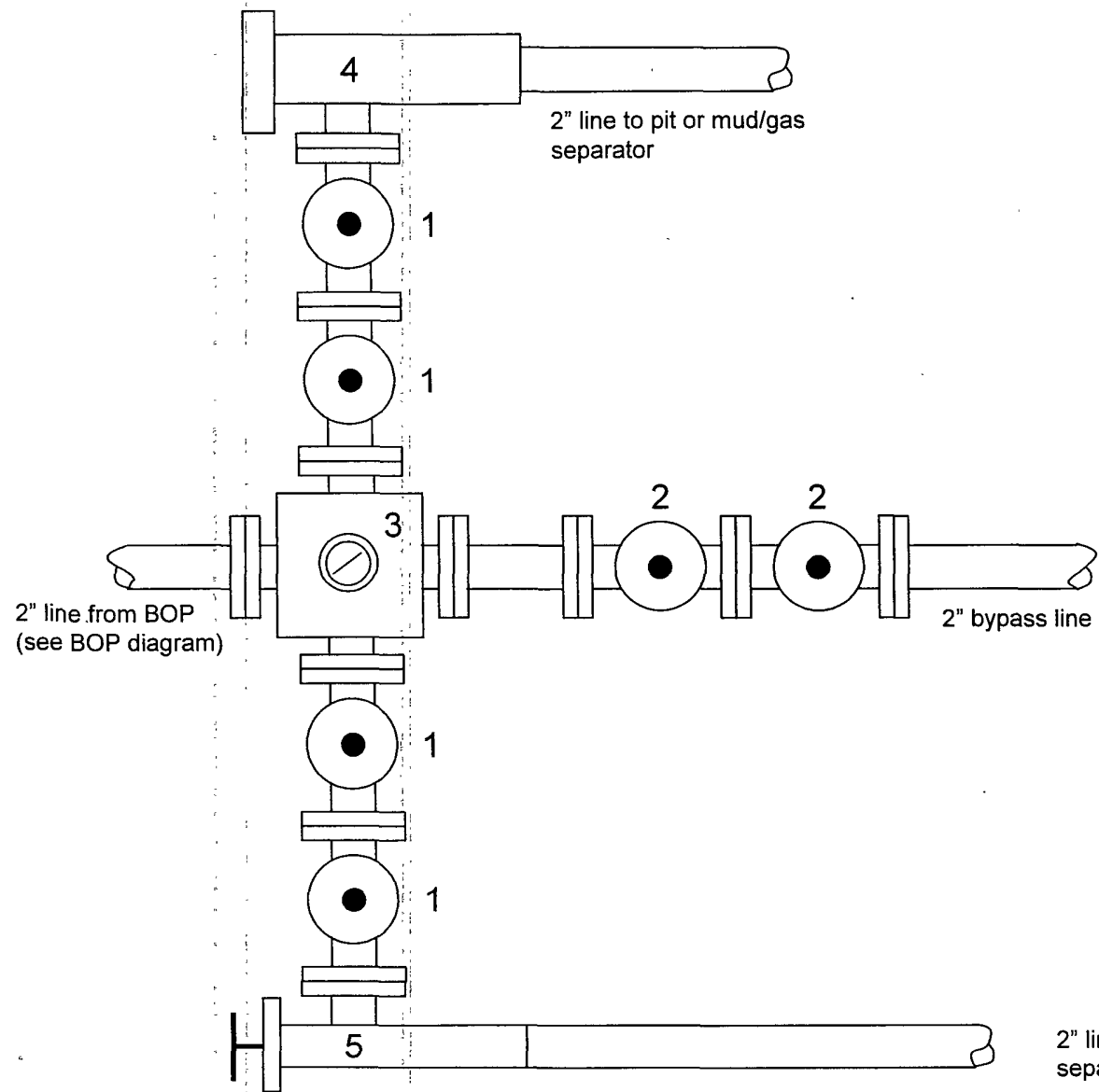
- a. Each fence crossed by this construction shall be braced and secured to prevent slacking of the wire before cutting the wire. The opening thus created shall be temporarily closed during construction to prevent passage of livestock. Upon completion of construction, a cattleguard with an adjacent sixteen (16) foot gate will be required. The cattleguard shall be constructed to BLM specifications.

14. Reseeding and abandonment

- a. The seed mixture used must be certified. There shall be no primary or secondary noxious weeds in the seed mixture. Seed labels from each bag shall be available for inspection.
- b. Seeding shall be accomplished between July 1 and September 15.
- c. The following seed mixture will be used which is for 10 inches or less annual precipitation.
 - 1. Fourwing saltbrush (*Atriplex Canescens*) 1.0 lbs
 - 2. Indian Ricegrass (*Oryzopsis hymenoides*) 1.0 lbs
 - 3. Western Wheatgrass (*Agropyron smithii*) 2.0 lbs
 - 4. Blue Grama (*Hatcheta* or *Allma*) 0.25 lbs
 - 5. Small Burnet (*Delar*) 1.0 lbs
 - 6. Antelope Bitterbrush 0.10 lbs
- d. Compacted areas shall be ripped to a depth of twelve (12) inches and disked to a depth of six (6) inches before seeding. Seeding shall be done with a disk-type drill with two boxes for various seed sizes. The drill rows shall be eight to ten inches apart. The seed shall be planted at not less than one-half inch deep or more than one inch deep. The seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed, and adequate compaction. Drilling shall be done on the contour where possible, not up and down the slope.
- e. Seeding shall be repeated if a satisfactory stand is not obtained as determined by the Authorized Officer upon evaluation after the second growing season.
- f. If, upon abandonment of the wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped to a depth of 12 inches. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. Reseeding of affected areas may be required.
- g. All equipment (tanks, pipes, fences, meter runs, meter houses, guy anchors, etc.) shall be removed upon abandonment.
- h. All protruding pipes shall be cut 4 feet below the surface.

Linda 31 #27

2000 psi Choke Manifold
Minimum requirements



Components

1 – 2" Valve (2M)

2 – 2" Valve (2M)

3 – Mud cross with gauge (2M) flanged below the gage.

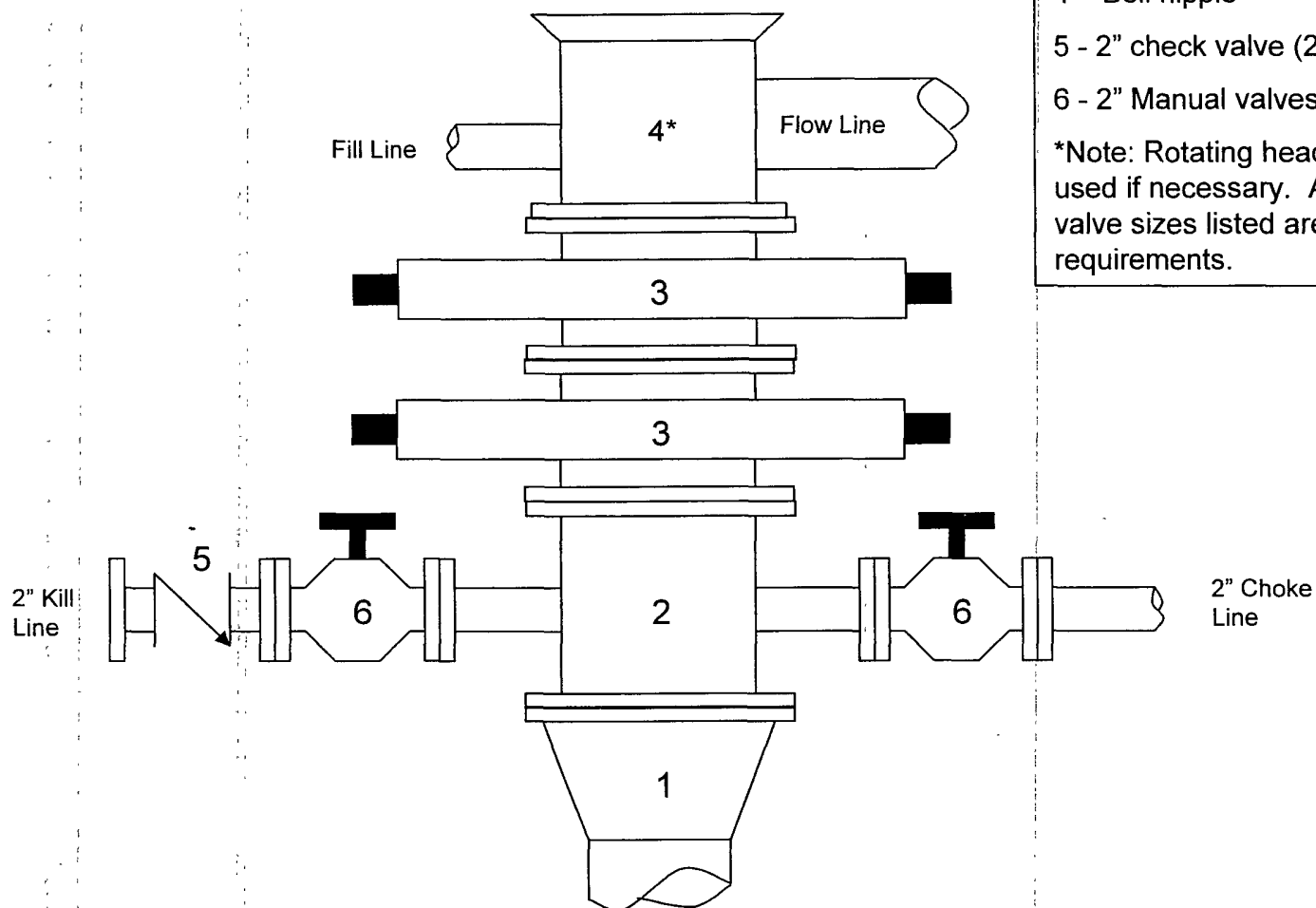
4 – Adjustable choke (2M)

5 – Adjustable choke (2M)

Note: All line and valve sizes listed are minimum requirements.

Linda 31 #27

2000 psi BOP stack
Minimum requirements



Components

- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 11" (2M)
- 3 - A double or two single rams with blinds on bottom 11" (2M)
- 4 - Bell nipple*
- 5 - 2" check valve (2M)
- 6 - 2" Manual valves (2M)

*Note: Rotating head may also be used if necessary. Also, all line and valve sizes listed are minimum requirements.