Form 3160-3 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

Э.	rease genai Mo.
	NMNM-77046

APPLICATION FOR PERMIT TO I	DRILL OR REENTER		6. If Indian, Allotee of	r Tribe N	lame
la. Type of work: DRILL REENTE	R		7 If Unit or CA Agree	ment, Nar	me and No.
lb. Type of Well: Oil Well			8. Lease Name and W North Pure Gol		eral 10
Name of Operator Devon Energy Production Company, Li	4137			345	
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260	3b. Phone No. (include area code) 405-552-7802	40	10. Field and Pool, or E Los Medanos		r New
4. Location of Well (Report location clearly and in accordance with arr	y State requirements.*)		11. Sec., T. R. M. or Bl	k and Sur	vey or Area
At surface NWNE Lot H 1330' FNL & 1310' F			Lot H Sec 8, T2	3S R3 1	E
At proposed prod. zone NWNF Lot B 660' FNL & 1980' FE 14. Distance in miles and direction from nearest town or post office. AF	L R-111-P Point		12 Create on Death		13. State
14. Distance in miles and direction from nearest town or post office. Approximately 10 miles northeast of Carlsbad, New Mex			12. County or Parish Eddy County	ļ	13. State NM
15. Distance from proposed*	16. No. of acres in lease	17. Spacin	g Unit dedicated to this w	ell	
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	1320	320			
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth 14,620 MD 14,510 MD	20. BLM/I	BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will sta	rt*	23. Estimated duration		
3333'	01/15/2006		45 days		
	24. Attachments	History	Controlled Wat	or Da	sha .
The following, completed in accordance with the requirements of Onshor	re Oil and Gas Order No.1, shall be a	ttached to th	is form:		
Well plat certified by a registered surveyor.	4. Bond to cover t ltem 20 above).	he operatio	ns unless covered by an	existing l	ond on file (see
 A Drilling Plan. A Surface Use Plan (if the location is on National Forest System 	1	cation			
SUPO shall be filed with the appropriate Forest Service Office).		specific infe	ormation and/or plans as	may be r	equired by the
25. Signature	Name (Printed Typed) Stephanie A. Ysasa	ga		Date	20/2005
Title Sr. Staff Engineering Technician		B			
Approved by (Signature)	Name (Printed Typed)	2. Re	udell	Date	400 100
STATE DIRECTOR	Office NM	STATE	OFFICE		
Application approval does not warrant or certify that the applicant holo			•	ntitle the	applicant to
conduct operations thereon. Conditions of approval, if any, are attached.	APF	₹ROV	AL FOR 1	YE	AR

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)

WITNESS ! 13 8 CSG CNT JUS

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Additional Operator Remarks:

Devon Energy Production Company, LP proposes to drill a Los Medanos well to 14,620'MD 14510' TVD for commercial quantities of oil and gas. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Devon Energy Production Co., LP plans to drill the well per the currently attached Drilling and Surface Use Plan.

Directions:

From the intersection of state road 128 and County Road 787 (Twinwell Road) go southeast on 128 0.1 miles to lease road, thence north 1.4 miles, then northeast 0.5 miles, then northwest to the North Pure Gold 9 Fed 5 location.

H2S:

No H2S is expected to be encountered.

DISTRICT I 1625 K. French Dr., Hobbs, NM 88240 DISTRICT II 811 South First, Artesis, NM 88210

State of New Mexico Energy, Minerals and Natural Resources Departme

Form C-102 Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies Poe Lease - 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 57505

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

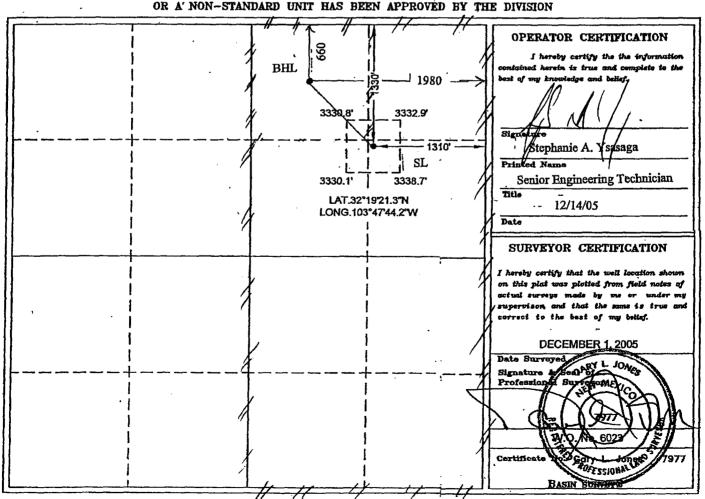
Pool Code	Pool Nam	
• 1	Los Medar	ios
Property	Name	Vell Number
NORTH PURE GOLD	"8" FEDERAL	10
· Operator	Name	Elevation
DEVON ENERGY PROD	JCTION CO., L.P.	3333'
	Property NORTH PURE GOLD Operator	Pool Code Pool Name Los Medan Property Name NORTH PURE GOLD "8" FEDERAL Operator Name DEVON ENERGY PRODUCTION CO., LP.

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	8	23-S	31-E		1330	NORTH	1310	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No. B	Section.	Township 23S	Range 31E	Lot Idn	Feet from the	North/South line NORTH	Feet from the 1980	East/West line EAST	EDDY
Dedicated Acre	Joint o	<u> </u>	nsolidation (Code Or	der No.	- Hotelii			
320				ļ					

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





United States Department of the Interior



NM-77046 3160 (52200) BUREAU OF LAND MANAGEMENT New Mexico State Office 1474 Rodeo Rd. P.O. Box 27115 Santa Fe, New Mexico 87502-0115 www.nm.blm.gov

February 6, 2006

CERTIFIED--RETURN RECEIPT REQUESTED 7004 2890 0002 1276 0062

Devon Energy Production Company, LP 20 North Broadway Oklahoma City, OK 73102-8260

RE: NM-77046

North Pure Gold 8 Federal #10

SHL: 1330'/N. & 1310'/E., sec. 8, T. 23 S., R. 31 E. BHL: 660'/N. & 1980'/E., sec. 8, T. 23 S., R. 31 E.

Eddy County, New Mexico

Gentlemen:

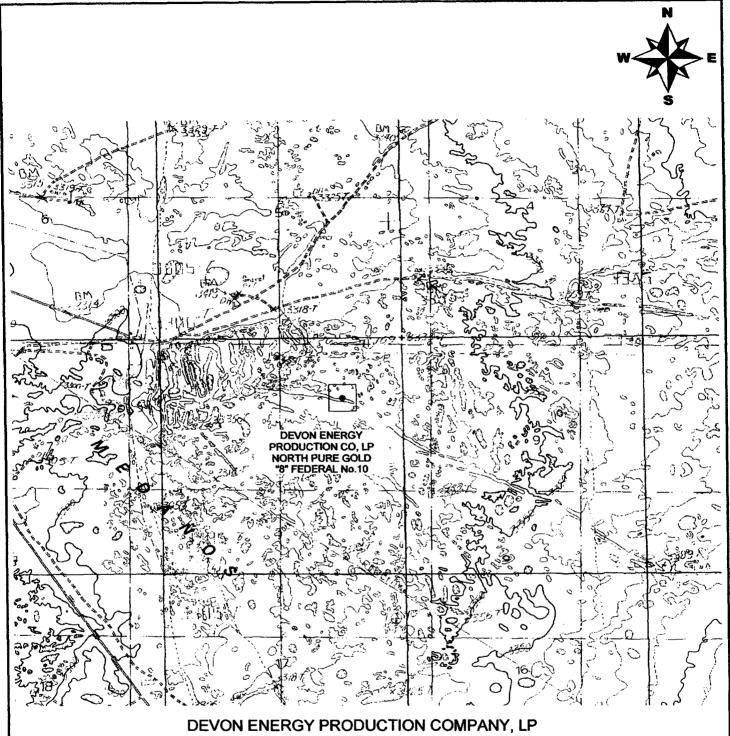
I have approved your application at the well location requested. A copy of the approved application with stipulations is enclosed. Please contact our Carlsbad Field Office at (505) 234-5972, should you have any questions, or if we can be of any additional help.

Sincerely,

Linda S.C. Rundell State Director

1 Enclosure

SECTION 8, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. **EDDY COUNTY, NEW MEXICO DEVON ENERGY** PRODUCTION CO., L.P. **NORTH PURE GOLD** "8" FEDERAL #10 GR. ELEV. = 3333.3' LAT .: 32°19'21.3"N LONG .: 103°47'44.2"W 3330.8 3332.9' 600' 150'N 3334.4 SAND DUNES 150W **DEVON ENERGY** 3327.6 PRODUCTION CO., L.P. ١ġ NORTH PURE GOLD 150'E "8" FEDERAL #3 **EXISTING** 3334.2 WELL PAD LEASE ROAD 150'S 3330.0 SAND DUNES 600' 3330.11 3338.7 200 200 400FEET BEHER SCALE: 1" = 200' **DIRECTIONS TO LOCATION:** FROM THE INTERSECTION OF STATE ROAD 128 AND COUNTY DEVON ENERGY PRODUCTION COMPANY, L.P. ROAD 787 (TWINWELL ROAD) GO SOUTHEAST ON 128 0.1 MILES TO LEASE ROAD, THEN NORTH 1.4 MILES, THEN NORTH PURE GOLD "8" FEDERAL No.10 WELL PAD DETAIL NORTHEAST 0.5 MILES, THEN NORTHWEST TO THE NORTH PURE GOLD "9" FED. #5 LOCATION. NORTH PURE GOLD "8" FEDERAL No.10 LOCATED 1330' F.N.L. & 1310 F.E.L. SECTION 8, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BASIN SURVEYS P.O. BOX 1786 -HOBBS, NEW MEXICO EDDY COUNTY, NEW MEXICO W.O. Number: 6023 Drawn By: S.STANFIELD Sheet **Sheets** Date: 12-06-2005 Disk:C:\DRAWINGS\DEVON\DEV6023-1 Survey Date: 12-01-2005



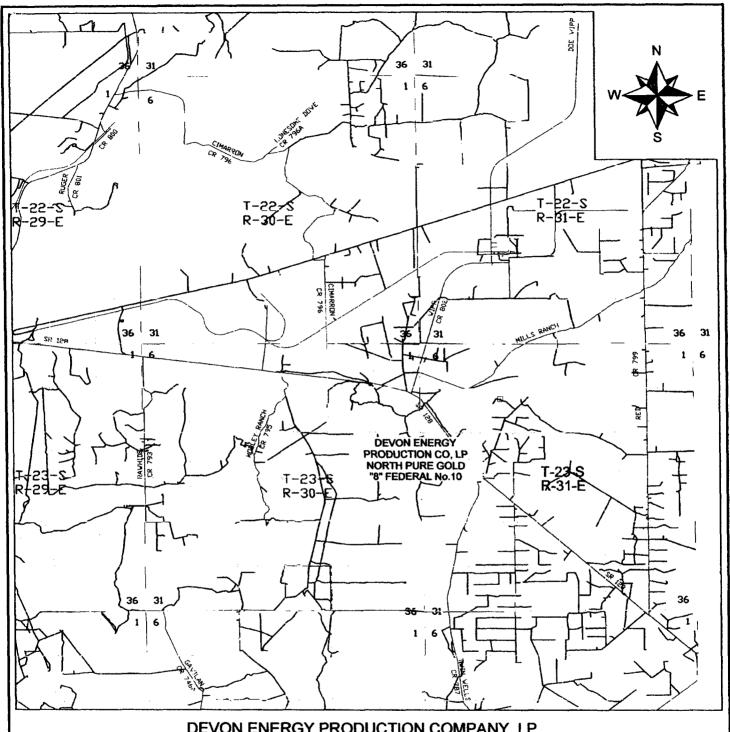
DEVON ENERGY PRODUCTION COMPANY, LP
NORTH PURE GOLD "8" FEDERAL No.10
SECTION 8, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO



P.O. Box 1786 1120 West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-2206 - Fax basinsurveys.com

	Date:	DECEMBER 6, 2005
I	SCALE:	1"=2000"
	Survey Date:	DECEMBER 1, 2005
	W.O. Number:	C:\DRAWINGS\DEVON\ DEV6023-2

DEVON ENERGY PRODUCTION CO., £P



DEVON ENERGY PRODUCTION COMPANY, LP
NORTH PURE GOLD "8" FEDERAL No.10
SECTION 9, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Surveys
focused on excellence
in the oilfield

P.O. Box 1786 1120 West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-2206 - Fax basinsurveys.com

W.O. Number:	C:\DRAWINGS\DEVON\ DEV6023-2
Survey Date:	DECEMBER 1, 2005
SCALE:	1"=2000'
Date:	DECEMBER 6, 2005

DEVON ENERGY PRODUCTION CO., LP

DRILLING PROGRAM

Devon Energy Production Company, LP North Pure Gold 8 Federal 10

Surface Location: 1330' FNL & 1310' FEL, Unit H, Sec 8 T23S R31E, Eddy, NM Bottom hole Location: 660' FNL & 1980' FEL, Unit B, Sec 8 T23S R31E, Eddy, NM

1. Geologic Name of Surface Formation

a. Permian

2. Estimated tops of geological markers:

a.	Rustler	340
b.	Salado	630
c.	Delaware	3810
d.	Bone Spring	7635
e.	Wolfcamp	10925
f.	Strawn	12465
g.	Atoka	12785
h.	Morrow	13350
i.	Lower Morrow	14150

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

a.	Upper Permian Sands	•	Fresh Water
b.	Delaware	3810'	Oil/Gas
c.	Bone Spring	7635'	Oil/Gas
d.	Wolfcamp	10925'	Oil/Gas
e.	Strawn	12465'	Gas
f.	Atoka	12785'	Gas
g.	Morrow	13350'	Gas
h.	Lower Morrow	14150'	Gas

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 620' and circulating cement back to surface. Potash and salt will be protected by setting 9 5/8" casing at 3850' and circulating cement to surface. The 7" casing will be set through the Wolfcamp to 12,050' circulating cement to surface. The 4 ½" liner will be set and cemented through the Morrow to 14,500'.

4. Casing Program:

Hole Size	<u>Interval</u>	OD Csg	Weight	<u>Collar</u>	<u>Grade</u>
30"	0'-40'	20"		Conductor	
17 ½"	0' - 620'	13 3/8"	48#	ST&C	H-40
12 ¼"	0' - 3850'	9 5/8"	40#	LT&C	J-55
8 3/4"	0' - 12050'	7"	26#	LT&C	HCP110
6 1/8"	12050'-14500'	4 1/2"	13.5#	LT&C	HCP110

5. Cement Program:

a. 20"	Conductor	Cement with ready-mix to surface.
b. 13 3/8"	Surface	Cement to surface with 360 sx Class C + 4% Bentonite + 2% Calcium Chloride + 0.25 lbs/sack Celloflake followed by 250 sx Class C + Calcium Chloride +0.25 lbs/sack Celloflake.
c. 9 5/8"	Intermediate	Cement to surface with 980 sx Poz C (35:65) + 6% Bentonite + 5% Salt + 0.25 lbs/sack Cello flakes followed by 200 sx Poz C (60:40) + 4% Sodium Metasilicate + 0.25 lbs/sx Cello flakes.
d. 7"	Production	Cement to surface 1 st stage with 592 sx Poz H + 5% Salt + 1% EC + 0.2% CD-32 + 3 lbs/sx LCM-1 + . 6% FL-52A + 0.1% Sodium Metasilicate. 2 nd stage with 150 sx Poz C + 3% Salt + 0.25% R-3 + 0.25 lbs/sx Cello flake + 3 lbs/sx LCM-1 + 0.3% FL-52A + 6% Bentonite followed by 627 sx Poz + 1% Salt + 0.5% BA-10 + cello flake + 0.25 lbs/sx Cello flake + 2lbs/sx Kol Seal + 4% MPA-1. 3 rd Stage 221 sx Poz C + 5% Salt + 0.25 lbs/sx cello flake + 6% Bentonite followed by 150 sx Poz C + 5% Salt + 0.25 lbs/sx Cello flake + 0.4% Sodium Metasilicate + 4% MPA-1.
e. 4 ½"	Liner	Cement with 261 sx Poz Class H (15:61) + 2% Potassium Chloride + 0.6% FL-25 + 0.6% FL-52A + 0.4% CD-32 + 1% EC-1 + 3 lbs/sx LCM-1 + 0.25 lbs/sx Cello Flake + 0.005 FP-13L + 0.01% Static free.

The above cement volumes could be revised pending the caliper measurement from the open hole logs.

6. Pressure Control Equipment:

The blowout preventor equipment (BOP) shown in exhibit #B (A) will consist of a (5M system) double ram type (5000 psi WP) preventor and a bag-type (Hydril) preventor (3000 psi WP). Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. Both BOP's will be installed on the 13 3/8" surface casing and utilized continuously until total depth is reached. All BOP's and associated equipment will be tested to 1200 psi with the rig pump before drilling out the 13 3/8" casing shoe (70% of 48#, H-40 casing). Prior to drilling out the 9 5/8" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi rating.

7. Proposed Mud Circulation System

<u>Depth</u>	Mud Wt.	Visc	Fluid Loss	Type System
0' - 620'	8.4	28-29	NC	Fresh Water
620' – 3850'	10.0	28-29	NC	Brine Water
3850' – 9000'	8.4-8.8	28-29	NC	Cut Brine
9000'- 14500'	10.0-13.0	30-32	12-15 cc	Brine/XCD

The necessary mud products for weight addition and fluid loss control will be on location at all times.

8. Testing, Logging, and Coring Program:

- a. Drill stem tests will be based on geological sample shows.
- b. The open hole electrical logging program will be:
 - i. Total Depth to Intermediate Casing Dual Laterol-Micro Laterolog with SP and Gamma Ray. Compensated Neutron Z Density log with Gamma Ray and Caliper.
 - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
 - iii. No coring program is planned.
 - iv. Additional testing will be initiated subsequent to setting the 7" production casing.

 Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Auxilliary Well Control and Monitoring Equiptment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. Hydrogen Sulfide detection equipment will be in operations after drilling out the 13 3/8" casing shoe until the 9 5/8" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

10. Potential Hazards:

a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 7500 psi and Estimated BHT 200°.

11. Anticipated Starting Date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

SURFACE USE PLAN

Devon Energy Production Company, LP

North Pure Gold 8 Federal 10

Surface Location: 1330' FNL & 1310' FEL, Unit H, Sec 8 T23S R31E, Eddy, NM Bottom hole Location: 660' FNL & 1980' FEL, Unit B, Sec 8 T23S R31E, Eddy, NM

1. Existing Roads:

- a. The well site and elevation plat for the proposed well are reflected on Exhibit 2. The well was staked by Basin Surveys.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location: From the intersection of state road 128 and County Road 787 (Twinwell Road) go southeast on 128 0.1 miles to lease road, thence north 1.4 miles, then northeast 0.5 miles, then northwest to the North Pure Gold 9 Fed 5 location.

2. Access Road

- a. Exhibit #3 shows the existing lease road.
- b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. Proposed Facilities

- a. In the event the well is found productive, a tank battery would be constructed.
- b. The tank battery, all connections and all lines will adhere to API standards.
- c. If the well is productive, rehabilitation plans are as follows:
 - i. The reserve pit will be closed pursuant to NM OCD rules and guidelines.
 - ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

4. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed of in the reserve pits.
- b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. Wastewater from living quarters will be drained into hole with a minimum of 10°. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.

5. Well Site Layout

- a. Exhibit D Shows the proposed well site layout.
- b. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits & the reserve pit will be lined with a 12 mil synthetic woven liner.
- d. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. After the rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed. If the well is a producer, the reserve pit fence and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

6. Other Information:

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds.
- b. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is of limited use except for the grazing of livestock and the production of oil and gas.
- c. An Archaeological survey will be forwarded to the Bureau of Land Management.
- d. There are no dwellings within 2 miles of location.

Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

James Blount	Don Mayberry
Operations Engineer Advisor	Superintendent

Devon Energy Production Company, L.P.

20 North Broadway, Suite 1500

Oklahoma City, OK 73102-8260

Devon Energy Production Company, L.P.

Post Office Box 250

Artesia, NM 88211-0250

(405) 228-4301 (office) (505) 748-3371 (office) (405) 834-9207 (Cellular) (505) 746-4945 (home)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed:	18/4//	Date:	December 20th, 2005
	Stephanie A. Ysasaga		
	Staff Engineering Technician		

Attachment to Exhibit #1 NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP North Pure Gold 8 Federal 10

Surface Location: 1330' FNL & 1310' FEL, Unit H, Sec 8 T23S R31E, Eddy, NM Bottom hole Location: 660' FNL & 1980' FEL, Unit B, Sec 8 T23S R31E, Eddy, NM

- 1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
- 2. Wear ring will be properly installed in head.
- 3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.
- 4. All fittings will be flanged.
- 5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
- 6. All choke lines will be anchored to prevent movement.
- 7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
- 8. Will maintain a kelly cock attached to the kelly.
- 9. Hand wheels and wrenches will be properly installed and tested for safe operation.
- 10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
- 11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

UNITED STATES DEPARTMENT OF THE INTERIOR

Bureau of Land Management Roswell Field Office 2909 West Second Street Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Street or Box: City, State: Zip Code:	Devon Energy Production Company, LP 20 North Broadway, Suite 1500 Oklahoma City, Oklahoma 73102-8260
The undersigned accepts all applic conducted on the leased land or po	eable terms, conditions, stipulations and restrictions concerning operations ortion thereof, as described below.
Lease No.:	NMNM-77046
Legal Description of Land:	46 acres 8-T23S-R31E NWNE 1330' FNL & 1310' FEL
Formation(s):	Los Medanos
Bond Coverage:	Nationwide
BLM Bond File No.:	CO-1104
Authorized Signature:	Stephanie A. Ysasaga
Title:	Sr. Staff Engineering/Technician
Date:	12/20/05

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
 - a. Characteristics of H2S
 - b. Physical effects and hazards
 - c. Proper use of safety equipment and life support systems.
 - d. Principle and operation of H2S detectors, warning system and briefing areas
 - e. Evacuation procedures, routes and first aid.
 - f. Proper use of 30-minute pressure demand air pack.
- 2. H2S Detection and Alarm System
 - a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
 - a. Windsock at mud pit area should be high enough to be visible
 - b. Windsock at briefing area should be high enough to be visible
 - c. There should be a windsock at entrance to location
- 4. Condition Flags and Signs
 - a. Warning Sign on access road to location
 - b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well Control Equipment
 - a. See Exhibit "E" & "E-1"
- 6. Communication
 - a. While working under masks chalkboards will be used for communication.
 - b. Hand signals will be used where chalk board is inappropriate
 - c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
- 7. Drill stem Testing
 - a. Exhausts will be watered
 - b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
 - c. If the location is near to a dwelling a closed DST will be performed.
- 8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.



2105 market Street Midland, TX 79703 Ph. (432)694-9517 Fax. (432)694-5648

Directional/Horizontal Plan Report

Devon Energy

North Pure gold 8 Fed 10

Eddy County, NM

Plan #1

Prepared By Oscar Gomez Monday, December 19, 2005

DEVON ENERGY North Pure Gold 8 Fed 10,slot #1 ,Eddy County New Mexico

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PROPOSAL LISTING Page 1 Your ref : Plan 1 Last revised : 19-Dec-2005

Measured	Inclin.	Azimuth	True Vert	RECTANG	ULAR	Dogleg	Vert	
Depth	Degrees	Degrees	Depth	COORDIN	ATES	Deg/100ft	Sect	
0.00	0.00	313.77	0.00	0.00 ห	0.00 E	0.00	0.00	
500.00	0.00	313.77	500.00	0.00 N	0.00 ¥		0.00	
1000.00	0.00	313.77	1000.00	0.00 N	0.00 %		0.00	
1500.00	0.00	313.77	1500.00	0.00 N	0.00 ¥		0.00	
2000.00	0.00	313.77	2000.00	0.00 N	0.00 %		0.00	
						• • • • • • • • • • • • • • • • • • • •	0.00	
2500.00	0.00	313.77	2500.00	0.00 N	0.00 ¥	¥ 0.00	0.00	
2950.00	0.00	313.77	2950.00	0.00 N	0.00 %	₹ 0.00	0.00	
3050.00	3.00	313.77	3049.95	1.81 N	1.89 ¥	₹ 3.00	2.62	
3150.00	6.00	313.77	3149.63	7.24 N	7.56 ¥	₹ 3.00	10.46	
3250.00	9.00	313.77	3248.77	16.27 N	16.98 ¥	₹ 3.00	23.52	
3350.00	12.00	313.77	3347.08	28.87 พ	30.14 P	¥ 3.00	41.74	
3423.15	14.19	313.77	3418.33	40.34 N	42.11 V			WAR
3500.00	14.19	313.77	3492.83	53.37 N	55.72 1		58.31 77.16	вов
4000.00	14.19	313.77	3977.56	138.18 N	144.26 V		199.76	
4500.00	14.19	313.77	4462.30	223.00 N	232.80 ¥		322.37	
				223.00 10	232.60	• 0.00	322.37	
5000.00	14.19	313.77	4947.03	307.81 N	321.34 ¥	V 0.00	444.98	
5500.00	14.19	313.77	5431.77	392.62 N	409.89 ¥	₹ 0.00	567.59	
6000.00	14.19	313.77	5916.50	477.43 N	498.43 ¥	0.00	690.20	
6500.00	14.19	313.77	6401.23	562.24 N	586.97 ¥	0.00	812.80	
6640.57	14.19	313.77	6537.51	586.09 N	611.86 ¥	0.00	847.27	
6700.00	13.01	313.77	6595.27	505 Be 11				
6800.00	11.01	313.77	6693.08	595.76 N	621.95		861.25	
6900.00	9.01	313.77	6791.56	610.14 N 622.16 N	636.97 ¥		882.05	
7000.00	7.01	313.77	6890.58	631.80 N	649.52 W		899.42	
7100.00	5.01	313.77	6990.02	639.03 N	659.58 ¥		913.35	
		525.77	0330.02	039.03 N	667.13 v	7 2.00	923.81	
7200.00	3.01	313.77	7089.77	643.87 N	672.18 W	7 2.00	930.80	
7300.00	1.01	313.77	7189.71	646.29 N	674.71 ¥		934.30	
7350.30	0.00	313.77	7240.00	646.59 N	675.02 \$	2.00	934.74	Tgt to Drop vertical
7500.00	0.00	313.77	7389.70	646.59 N	675.02 ¥	7 0.00	934.74	•
7830.30	0.00	313.77	7720.00	646.59 N	675.02 W	0.00	934.74	Top Lower Brushy Canyon D sd
8000.00	0.00	313.77	7889.70	646.59 N	675.02 ¥	₹ 0.00		
B500.00	0.00	313,77	8389.70	646.59 N	675.02 ¥		934.74	
9000.00	0.00	313.77	8889.70	646.59 N	675.02 W		934.74	
9500.00	0.00	313.77	9389.70	646.59 N	675.02 W		934.74	
10000.00	0.00	313.77	9889.70	646.59 N	675.02 W		934.74 934.74	
					0.0.02	0.00	334.74	
10500.00	0.00	313.77	10389.70	646.59 N	675.02 W	7 0.00	934.74	
11000.00	0.00	313.77	10889.70	646.59 N	675.02 W	7 0.00	934.74	
11500.00	0.00	313.77	11389.70	646.59 N	675.02 ¥	0.00	934.74	
12000.00	0.00	313.77	11889.70	646.59 N	675.02 W	7 0.00	934.74	
12500.00	0.00	313.77	12389.70	646.59 N	675.02 W	0.00	934.74	
13000.00	0.00	313.77	12889.70	646.59 N	675.02 W	0.00	034 77	
13500.00	0.00	313.77	13389.70	646.59 N	675.02 W		934.74	
14000.00	0.00	313.77	13889.70	646.59 N	675.02 W		934.74 934.74	
14500.00	0.00	313.77	14389.70	646.59 N	675.02 W			
14620.30	0.00	313.77	14510.00	646.59 N	675.02 W		934.74	mp.
	-				373.02 M	0.00	934.74	TD

All data is in feet unless otherwise stated.

Coordinates from structure and TVD from rotary table.

Bottom hole distance is 934.74 on azimuth 313.77 degrees from wellhead.

Vertical section is from N 0.00 E 0.00 on azimuth 313.77 degrees.

Calculation uses the minimum curvature method.

Presented by Baker Hughes INTEQ

DEVON ENERGY North Pure Gold 8 Fed 10, slot #1 ,Eddy County New Mexico

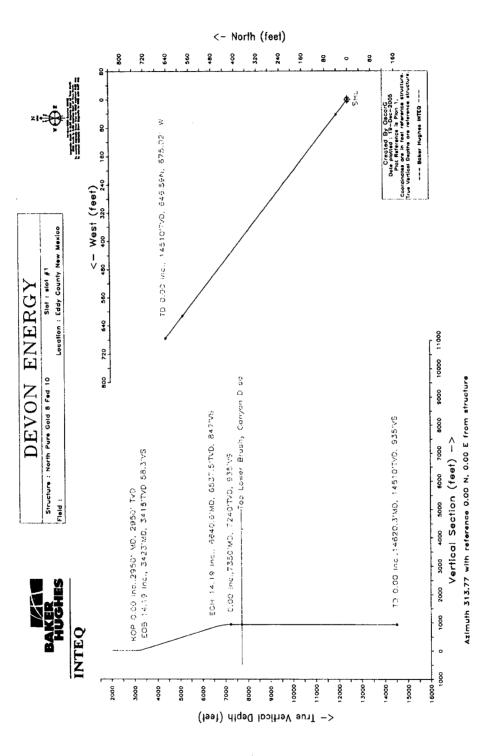
PROPOSAL LISTING Page 2 Your ref : Plan 1 Last revised : 19-Dec-2005

Comments in wellpath

MD	TVD	Rectangular	Coords.	Comment
3423.15	3418.33	40.34 N	42.11 W	EOB
7350.30	7240.00	646.59 N	675.02 W	Tgt to Drop vertical
7830.30	7720.00	646.59 N	675.02 W	Top Lower Brushy Canyon D sd
14620.30	14510.00	646.59 N	675.02 W	TD

Targets associated with this wellpath

Target name	Geographic Location	T.V.D.	Rectangular Coordinat	es Revised
-	32 19 27.300,w103 47 50.200,			2W 19-Dec-2005
Top Lower Brushy Can TD		7720.00	646.59N 675.0	
TO		14510.00	646.59N 675.0	2W 19-Dec-2005





DEVON ENERGY

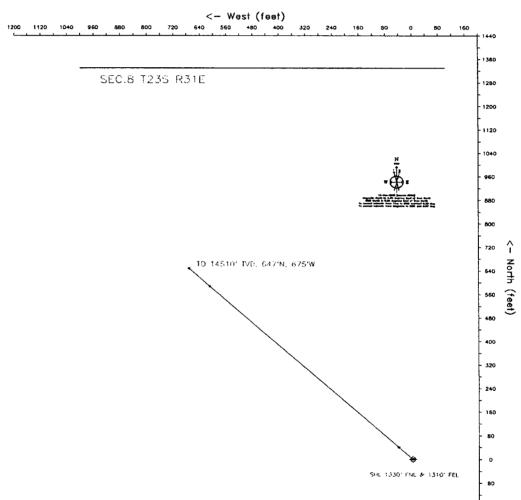
Structure : North Pure Gold 8 Fed 10

Slot : slot #1

Location : Eddy County New Mexico

Date plotted: 19-Dec-2005
Plot Reference is Plan 1.
ordinates are in feet reference structure
s Veritical Depthe are reference structure

--- Baker Hyghes INTEQ ---



p.1

p.2

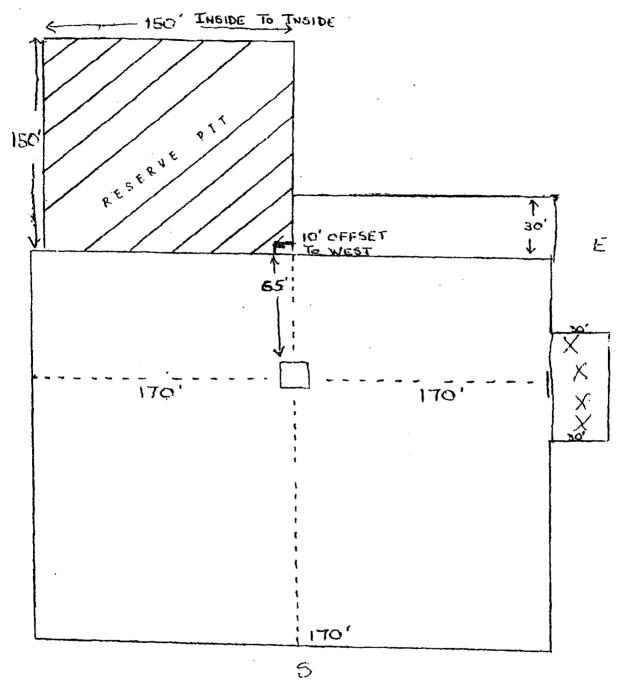
. Nov 10 05 02:10p Aug 23 04 09:10a

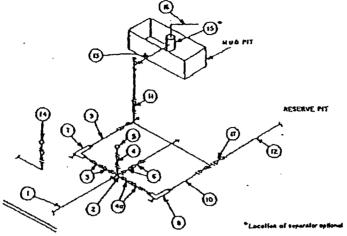
VV

McVAY DRILLING COMPANY Post Office 80x 924 Hobbs, New Mexico 68241 (505) 397-3311 (505) 393-3744

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Me VAS 17 .





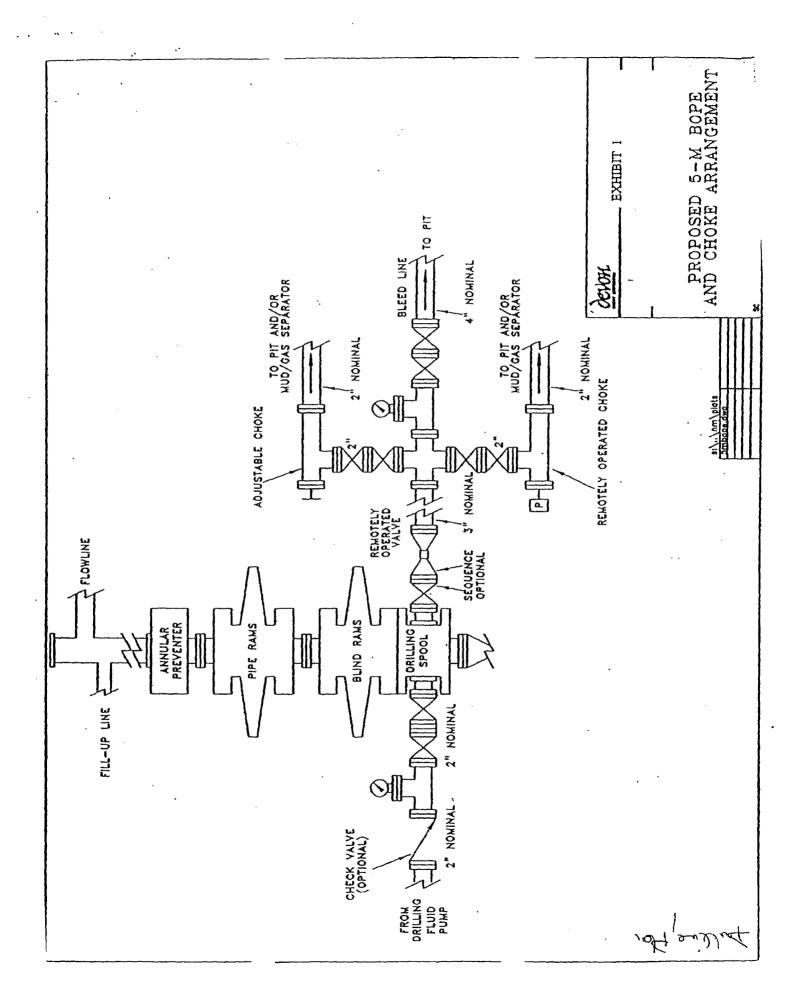
_			_						·
-	FY	^ 6	n	en	TZA	RU	CI	UR	E

			MINI	ULUM RECYL	KREMENT	<u> </u>				
		7	3,000 MWP			S,DOO MWP	<u> </u>	<u> </u>	10,000 MW/	
Ha	j	110.	NOMINAL	RATING	LD.	HOMBIAL	RATING	LD.	NOMINAL	RATING
1	Line from drilling spool	1	3"	2,000		3.	5,000		3"	10,000
<u> </u>	Cross 3. CJ. KJ. KJ.	1	1	3,000			5,000	l	1 1	
2	Cost 2, t3, t3, t3,	 	1							10,000
3	Velves(1) Gate □ Plug □(2)	3-1/8"		3,000	3-1/8*		\$,000	3-1/8"		D90,07
4	Valve Gate C	1-13/16*		3,000	1-13/16*		5,000	1-13/16"		10,000
46	Values(1)	2-1/16*		3,000	2-1/16"		5,000	2-118.	·	10,000
S	Pressure Gauge			3,000			5,000	<u> </u>		10,000
6	Valves Plug □(Z)	3-1/8"		2,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		900,E	7		5,000	2-		10,000
Ť	Adjustable Choke	1-		2,000	1.		5,000	2"		10,000
Ť	Line	1 -	3-	3,000		3-	9000	L	3~	10,000
10	Line	1	2"	3,000		2"	\$,000		3"	10,000
11	Valves Gale D	3-1/8*		3,800	3-1/A"		5,000	3-1/8"		10,000
12	Lines	1	3-	1,000		3*	1,000		3"	2,000
13	Lines		3-	1,000		1-	1,000		3"	2,000
14	Remote reading compound standoine pressure gauge			2,000	-		5,000			10,000
15	Gas Separator	T	2'15"			2'z5'			2,72.	
16	Line		4	1.000		~	1,000		4"	2,030
17	Valves Plug D(Z)	3-1/8"		3,000	3-1/8"		5,000	2-1/8"		\$0,000

- (1) Only one required in Chess 3AL
- (2) Gate rebres only shall be used for Class 10M.
- (3) Remote operated hydrausic choka required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- 1. All connections in choke manifold shall be welded, studded, lianged or Cameron clamp of comparable rating.
- 2. All flanges shall be API 68 or 68X and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- 3. All lines shall be securely anchored.
- 4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- 5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- 6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
- 7. Discharge lines from chokes, choke bypass and from top of gas separator should yent as far as practical from the well.



SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name Devon Energy Production Co. LPWell Name & No. 10-North Pure Gold 8 Federal Location 1330 F. N. L. & 1310 F.E. L. Sec. 8, T. 23 S. R. 31 E. SHL Lease No. NM-77046 County Eddy State New Mexico Location 660 FNL & 1980 FEL, Sec. 8, T. 23S., R. 31E. BHL The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGH OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.	2
This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.	
I. SPECIAL ENVIRONMENT REQUIREMENTS	
(Lesser Prairie Chicken (stips attached) () Flood plain (stips attached) () Other	
II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING	
(The BLM will monitor construction of this drill site. Notify the (Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.	
(Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.	
() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximatelyinches in depth. Approximatelycubic yards of topsoil material will be stockpiled for reclamation.	es
() Other.	
III. WELL COMPLETION REQUIREMENTS	
() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.	2
(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inchwith the following seed mixture, in pounds of Purc Live Seed (PLS), per acre.	e
() A. Seed Mixture 1 (Loamy Sites) Side Oats Grama (Bouteloua curtipendula) 5.0 Sand Dropseed (Sporobolus cryptandrus) 1.0 Sand Dropseed (Sporobolus cryptandrus) 1.0 Plains Bristlegrass (Setaria magrostachya) 2.0	
() C. Seed Mixture 3 (Shallow Sites) Side oats Grama (Boute curtipendula) 1.0 Alkali Sacaton (Sporobollud airoides) 1.0 Four-Wing Saltbush (Atriplex canescens) 5.0	
() OTHER SEE ATTACHED SEED MIXTURE	
Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring take advantage of available ground moisture.	to
() Other.	

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

<u>Reclamation</u>: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

1. 235, R. 31E Sec. 8:44

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00a.m. and 9:00a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on exixting roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not toexceed 75 db measured at 30 feet from the source of the noise.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

DEVON ENERGY PRODUCTION COMPANY, LP

Well Name & No.

10 - NORTH PURE GOLD 8 FEDERAL

Location:

1330' FNL & 1310' FEL – SEC 8 – T23S – R31E – EDDY COUNTY (SHL) 660' FNL & 1980' FEL – SEC 8 – T23S – R31E – EDDY COUNTY (BHL)

NIM pro 46

Lease: NM-77046

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: <u>13-3/8</u> inch <u>9-5/8</u> inch <u>7</u> inch <u>4-1/2</u> liner
- C. BOP tests
- 2 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 5. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

- 1. The 13-3/8 inch surface casing shall be set at 620 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. The minimum required fill of cement behind the <u>9-5/8</u> inch salt protection casing is <u>circulate cement to the surface.</u>
- 3. The minimum required fill of cement behind the 7 inch intermediate casing is circulate cement to the surface.
- 4. The minimum required fill of cement behind the <u>4-1/2</u> inch production liner is <u>cement shall extend</u> <u>upward to the top of the liner at approximately 12050 feet.</u>
- 5. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the <u>9-5/8</u> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be <u>2000</u> psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the <u>9-5/8</u> inch casing shall be <u>5000</u> psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the <u>Wolfcamp</u> Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1. Recording pit level indicator to indicate volume gains and losses.
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- 3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

BLM Serial Number:

NM-77046

Company Reference:

Devon Energy Production Co. LP

Well No. & Name:

10-North Pure Gold 8 Federal

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS CARLSBAD FIELD OFFICE

A copy of the grant and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

- A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all

damages to Federal lands resulting therefrom, the Authorized

Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar.

Holder agrees to comply with the following stipulations:

ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/__/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12" wide road).

V	Ditching v	vill be	required	on both	sides	of the	roadway	as shown	on t	he
	attached m	ap or a	as staked	in the	field.					

/	/	Flat-blading i	is authorized	on	seament(s)	delineated	on the	attached	man.
′ —		ar blaamig	.5 ddc	٠.,	3091110110(3)	acimicated	OH CHC	accacifed	map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

/_x_/ 400 foot intervals.
__
/_/ ___ foot intervals.
__
/_/ locations staked in the field as per spacing intervals above.
__

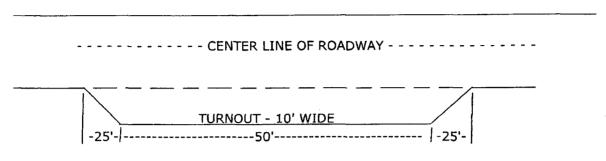
- B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).
- C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

/_/ locations delineated on the attached map.

Example: 4% slope: spacing interval = 400 + 100 = 200 feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less

than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: Non