AT5-10-423

R-111-POTASH

OCD-ARTESIA

RECEIVED
JUN 22 2010
NMOCD ARTESIA

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No ~~02887, 071988~~ NM-02887A (BA)

6 If Indian, Allotee or Tribe Name

1a Type of work: [✓] DRILL [ ] REENTER

7 If Unit or CA Agreement, Name and No

1b Type of Well: [✓] Oil Well [ ] Gas Well [ ] Other [✓] Single Zone [ ] Multiple Zone

8 Lease Name and Well No (306407)
James Ranch Unit #121H

2 Name of Operator
BOPCO, L P (260737)

9 API Well No
30-015-38119

3a Address
P O. Box 2760
Midland, TX 79702

3b Phone No *(include area code)*
432-683-2277

10 Field and Pool, or Exploratory (50443)
Quahada Ridge SE (Delaware)

4 Location of Well *(Report location clearly and in accordance with any State requirements *)*

At surface **SENW, UL F, 2450' FNL, 1500' FWL, Lat N32.304992, Lon W103.803539**

At proposed prod zone **660 FNL, 330 FWL,Sec 18-R23S-R31E,Lat N32 309878,Lon W103 824569**

11 Sec T R M or Blk and Survey or Area
Sec 17, T23S, R31E, Mer NMP

14 Distance in miles and direction from nearest town or post office*
20 miles Northeast of Malaga, NM

12 County or Parish
Eddy County

13 State
NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any)	16 No of acres in lease	17 Spacing Unit dedicated to this well
180'	**4580.4**	**160**
18 Distance from proposed location* to nearest well, drilling, completed applied for on this lease, ft	19 Proposed Depth	20 BLM/BIA Bond No on file
70'	**14,628' MD, 7606' (TVD)**	**COB000050**
21 Elevations (Show whether DF, KDB, RT, GL, etc)	22 Approximate date work will start*	23 Estimated duration
3317' GL	**11/15/2010**	**30 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

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

25 Signature	Name *(Printed/Typed)*	Date
Annette Childers	**Annette Childers**	3-26-2010

Title: **Regulatory Clerk**

Approved by *(Signature)*	Name *(Printed Typed)*	Date
/s/ William Merchege	/s/ William Merchege	6-11-10
Title: **ACTING STATE DIRECTOR**	Office: **NM STATE OFFICE**	

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

APPROVAL FOR TWO YEARS

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

OCD CONDITION OF APPROVAL of Drilling
Intent to drill ONLY --- CANNOT produce until the Non-Standard
Location has been approved by OCD Santa Fe office

(Instructions on page 2)

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

KZ 6/30/10

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1625 N French Dr., Hobbs, NM 88240

DISTRICT II
1301 W Grand Avenue, Artesia, NM 88210

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 15, 2009

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-38119	~~50470~~ 50443	Quahada Ridge SE (Delaware)

Property Code	Property Name	Well Number
306407	JAMES RANCH UNIT	121H
OGRID No	**Operator Name**	**Elevation**
260737	BOPCO, L.P.	3317'

Surface Location

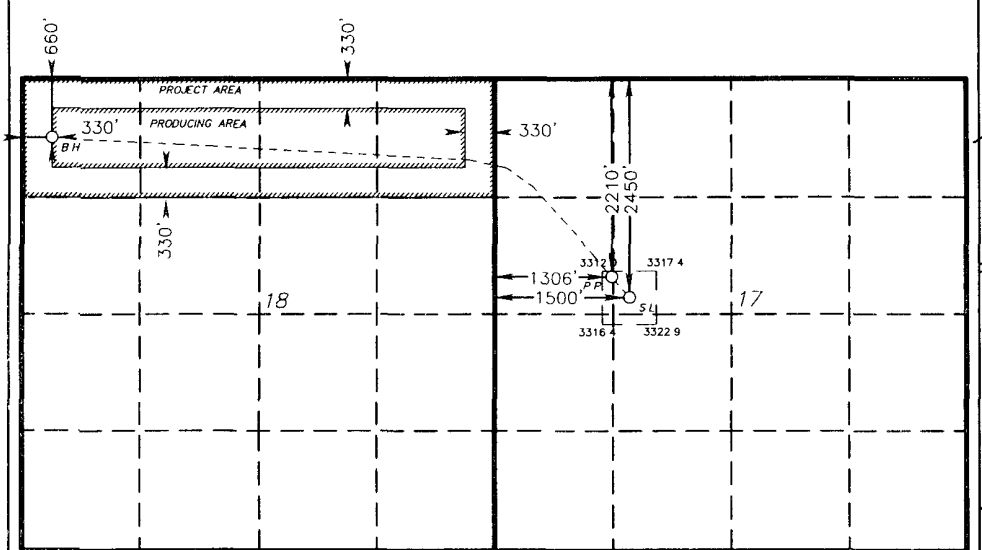
UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	17	23 S	31 E		2450	NORTH	1500	WEST	EDDY

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
D	18	23 S	31 E		660	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	N		

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



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.

Gary E. Gerhard 3/23/10

Signature Date

Gary E. Gerhard

Printed Name

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 supervison, and that the same is true and correct to the best of my belief

FEBRUARY 26, 2010

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

No. 22340

Certificate No Gary L Jones 7977

BASIN SURVEYS

PROPOSED BOTTOM HOLE LOCATION
Lat - N 32°18'35 56"
Long - W 103°49'28 45"
NMSPCE- N 476839 355
E 698516 454
(NAD-83)

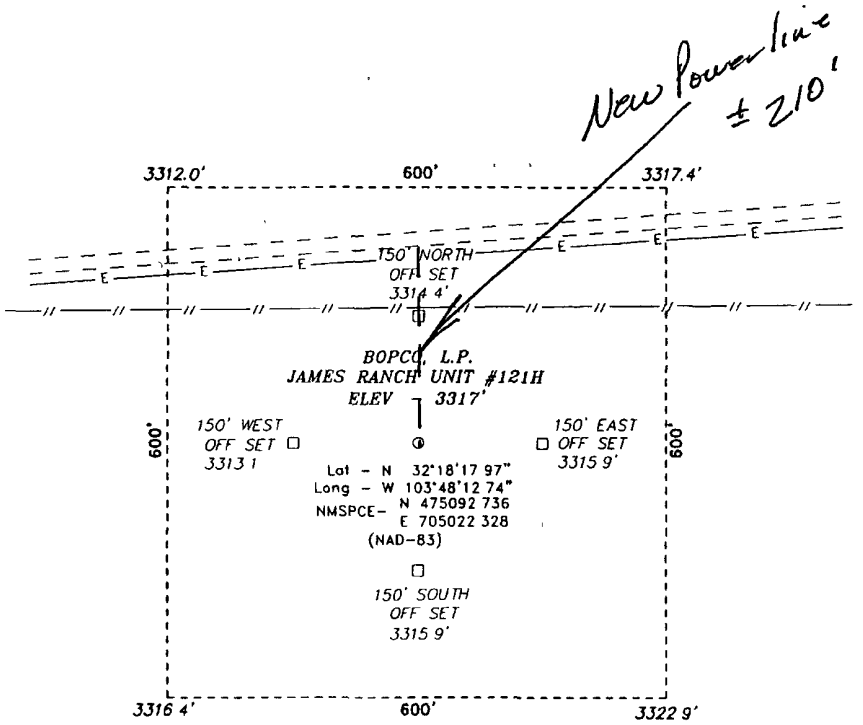
LOWER BRUSHY "W" SAND PENETRATION PT
Lat - N 32°18'20 28"
Long - W 103°48'15 01"
NMSPCE- N 475325 20
E 704827 27
(NAD-83)

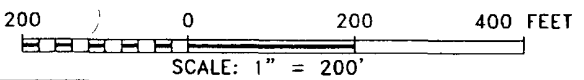
DELAWARE PENETRATION PT
Lat - N 32°18'17.97"
Long - W 103°48'12 74"
NMSPCE- N 475092 736
E 705022 328
(NAD-83)

SURFACE LOCATION
Lat - N 32°18'17 97"
Long - W 103°48'12 74"
NMSPCE- N 475092 736
E 705022 328
(NAD-83)

SECTION 17, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.





SCALE: 1" = 200'

Directions to Location

FROM THE JUNCTION OF STATE HWY 128 AND TWIN WELLS, GO EAST 0 1 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTHEAST 0 5 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTHWEST 0 1 THENCE WEST 0 1 MILES TO PROPOSED LOCATION

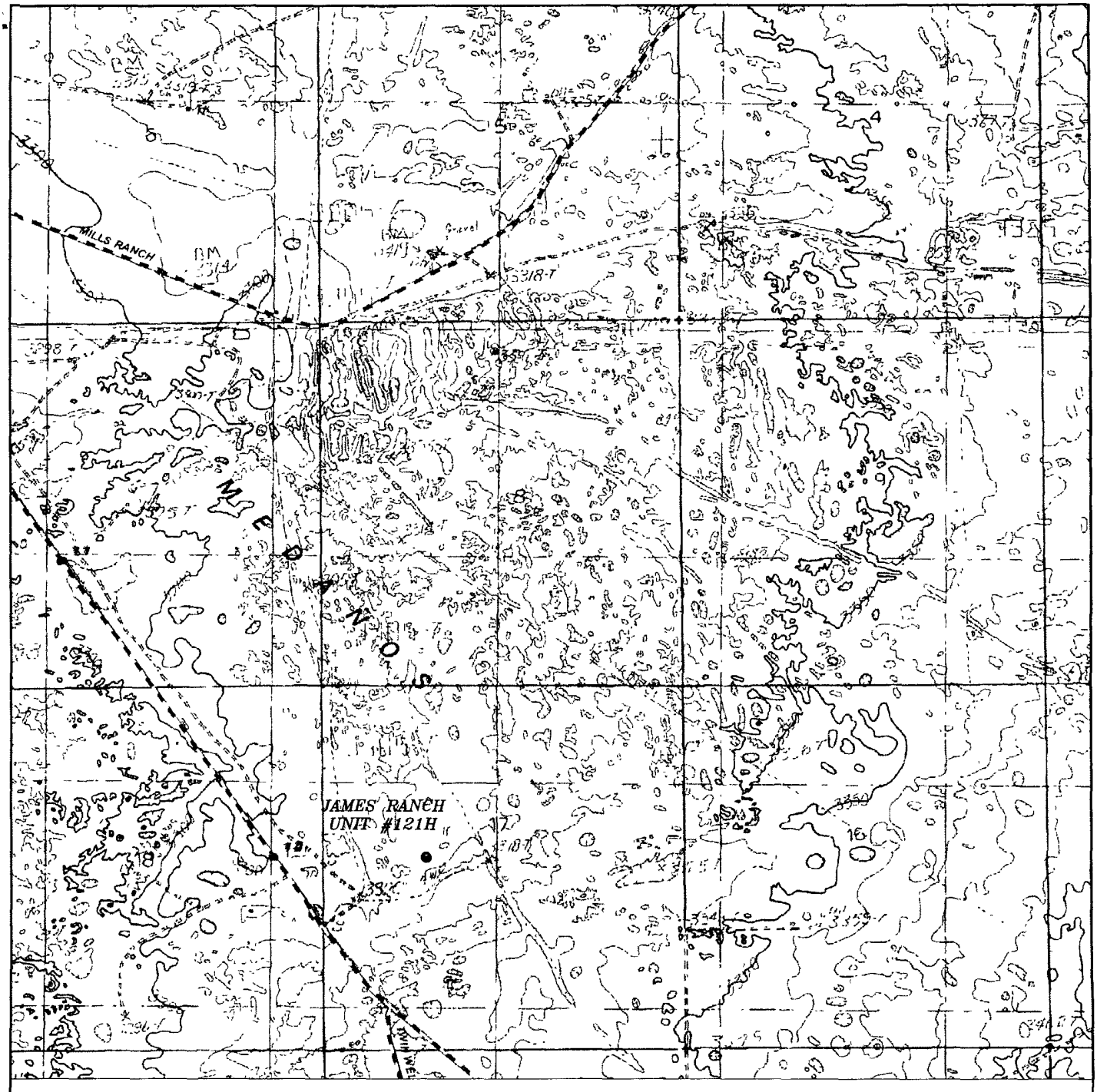
BOPCO, L.P.

REF JAMES RANCH UNIT #121H / WELL PAD TOPO

THE JAMES RANCH UNIT #121H LOCATED 2450' FROM THE NORTH LINE AND 1500' FROM THE WEST LINE OF SECTION 17, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P O BOX 1786 – HOBBS, NEW MEXICO

W O Number 22340	Drawn By J SMALL		
Date 03-02-2010	Disk JMS 22340	Survey Date 02-26-2010	Sheet 1 of 1 Sheets



JAMES RANCH UNIT #121H
Located 2450' FNL and 1500' FWL
Section 17, Township 23 South, Range 31 East,
N.M.P.M., Eddy County, New Mexico.

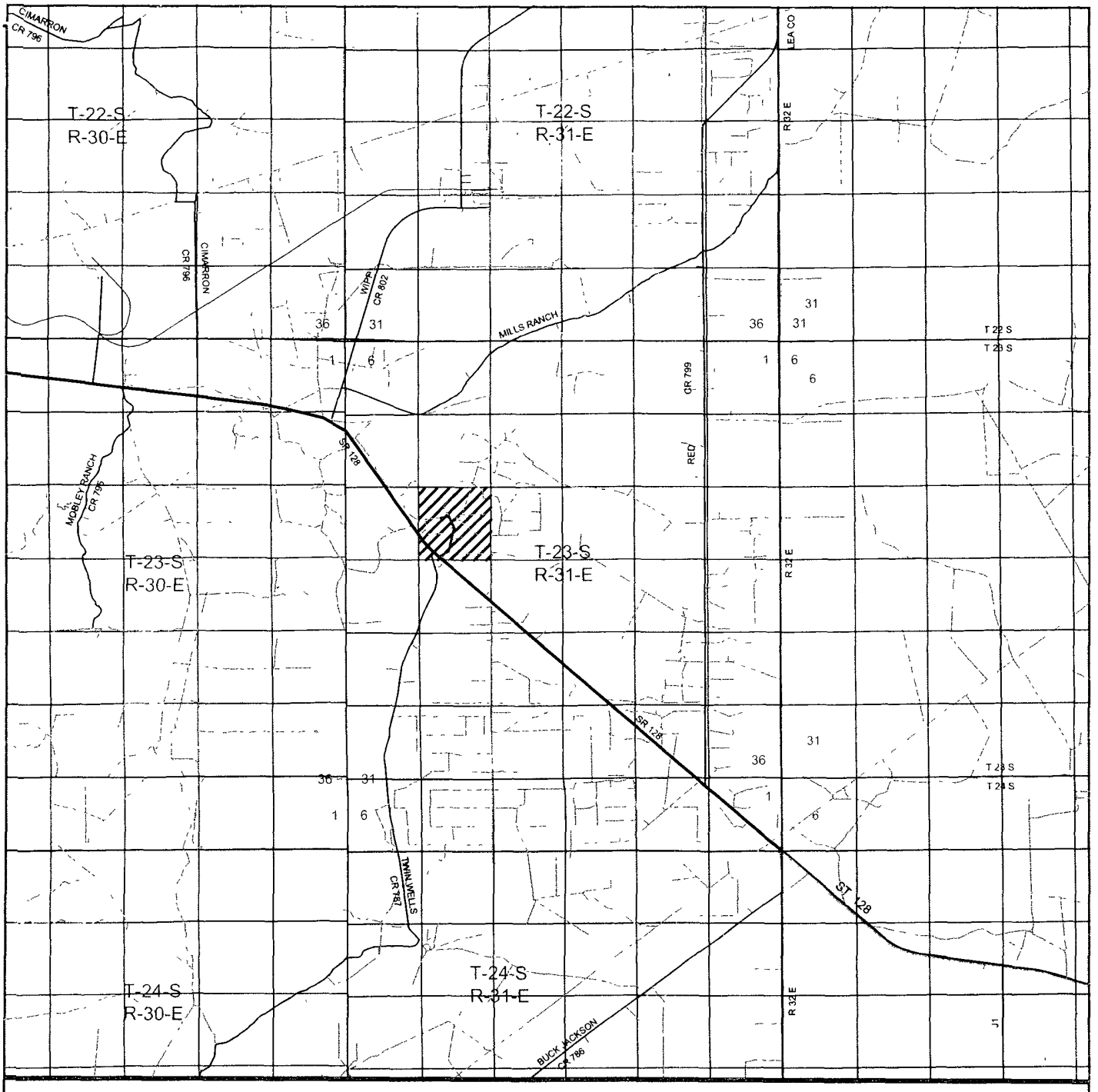
basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W O Number	JMS 22340
Survey Date	02-26-2010
Scale	1" = 2000'
Date	03-02-2010

N

BOPCO, L.P.



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Hobbs, New Mexico 88241
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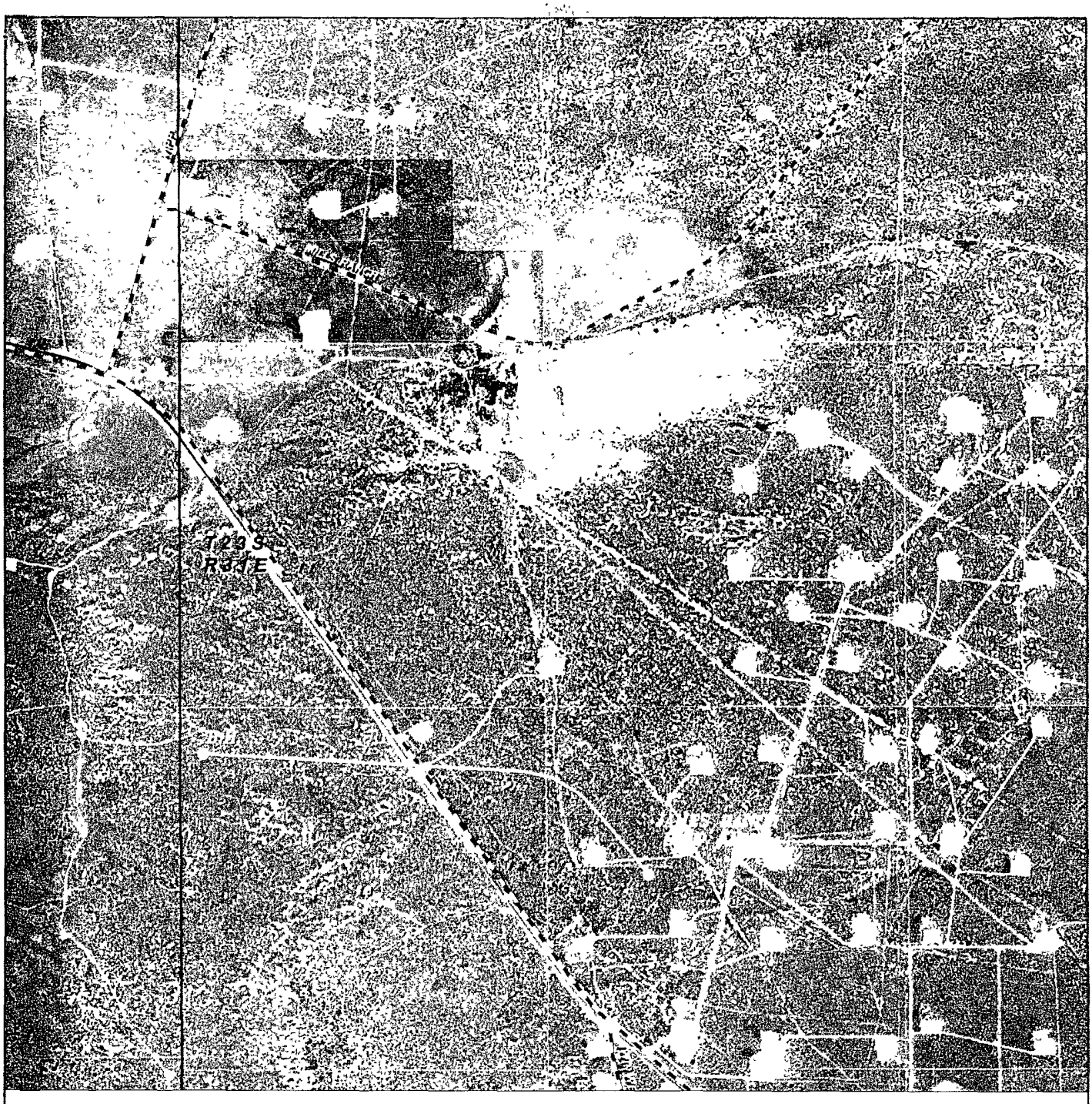
(575) 392-2206 - Fax
basinsurveys.com

W O Number	JMS 22340
Survey Date	02-26-2010
Scale	1" = 2 Miles
Date	03-02-2010

N

BOPCO, L.P.



JAMES RANCH UNIT #121H
Located 2450' FNL and 1500' FWL
Section 17, Township 23 South, Range 31 East,
N.M.P.M., Eddy County, New Mexico.

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Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 22340

Scale: 1" = 2000'

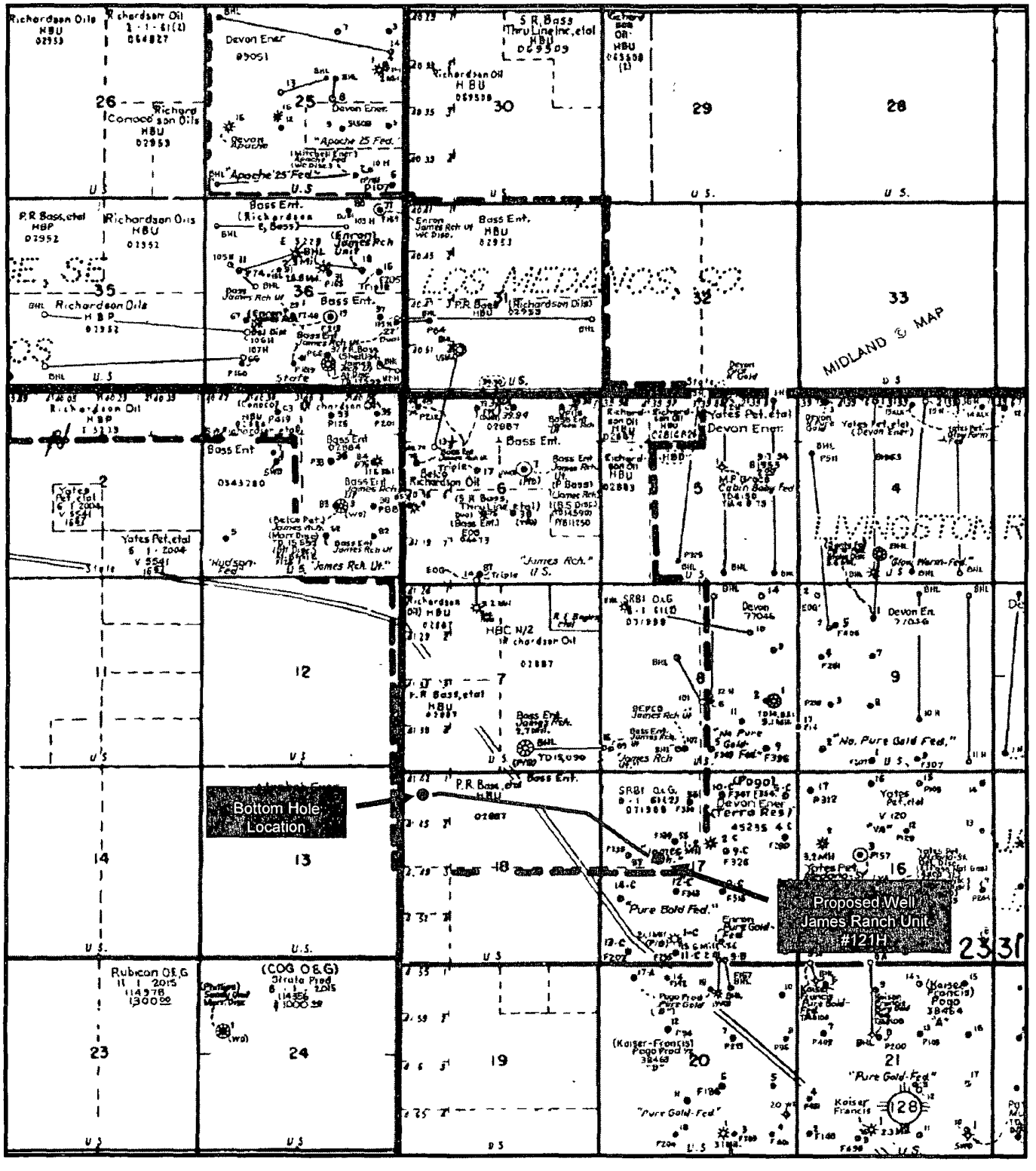
YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

BOPCO, L.P.

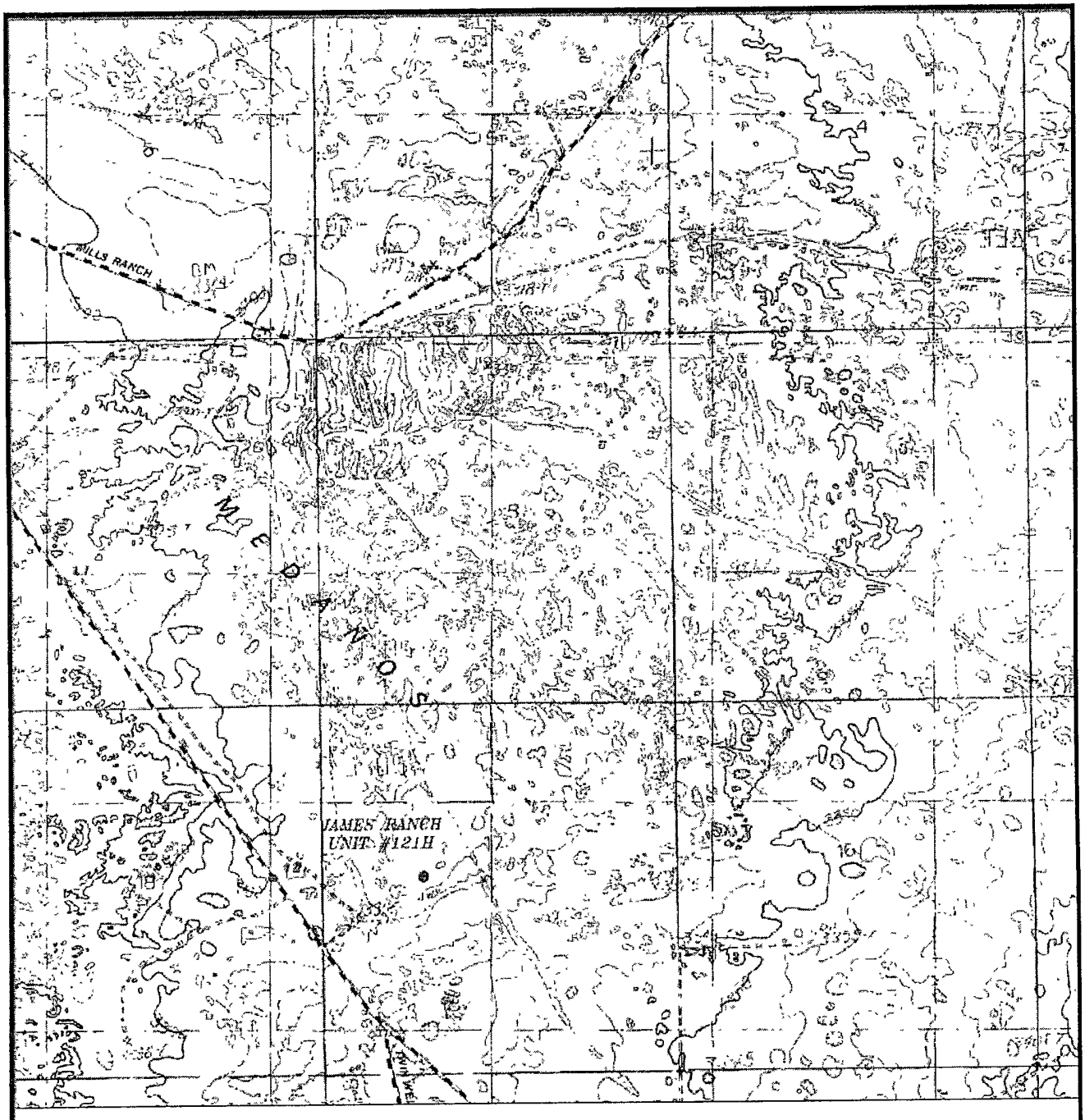
James Ranch Unit #121H

Exhibit "A"



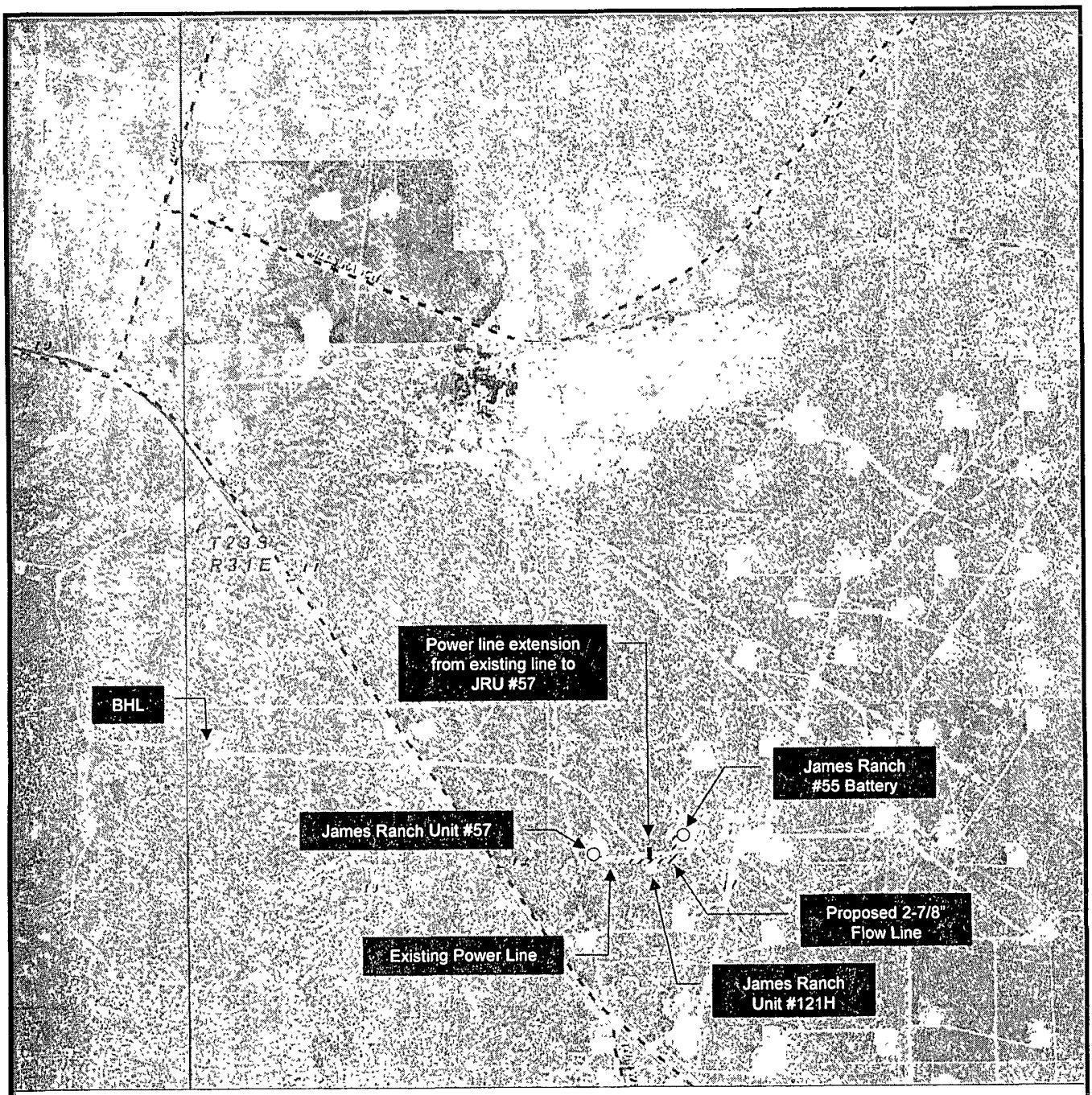
James Ranch Unit #121H

Exhibit "C"



JAMES RANCH UNIT #121H
Located 2450' FNL and 1500' FWL
Section 17, Township 23 South, Range 31 East,
N.M.P.M., Eddy County, New Mexico.

James Ranch Unit #121H
Exhibit "E"



JAMES RANCH UNIT #121H
Located 2450' FNL and 1500' FWL
Section 12, Township 23 South, Range 31 East,
N.M.P.M., Eddy County, New Mexico.

Surface casing to be set into the Rustler below all fresh water sands

7" casing will be set at approximately 10,250' MD (thru curve and turn) and cemented in two stages with DV tool set at approximately 5000' Cement will be circulated to surface.

Production casing will be 4-1/2" run with Baker hydraulic set packers Top of 4-1/2" liner will be approximately 200' into 7" at approximately 10,050' MD

Drilling procedure, BOP diagram, and anticipated tops attached

This well is located within the R111 Potash area Potash waiver attached

The surface and the bottom hole locations are both on Federal land Surface location is unorthodox and bottom hole location is orthodox

BOPCO, L P , at P O Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L P., 201 Mail Street, Ft Worth, TX, 76102 Bond No. COB000050 (Nationwide)

EIGHT POINT DRILLING PROGRAM
BOPCO, L.P.

NAME OF WELL: James Ranch Unit #121H
LEGAL DESCRIPTION - SURFACE 2450' FNL, 1500' FWL, Section 17, T23S, R31E, Eddy County, NM
BHL 660' FNL, 330' FWL, Section 18, T23S, R31E, Eddy County, New Mexico

POINT 1: ESTIMATED FORMATION TOPS
(See No 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops KB 3335' (estimated)
GL 3317'

FORMATION	ESTIMATED TOP FROM KB TVD	MD	ESTIMATED SUB-SEA TOP	BEARING
T/Rustler	361'	361'	+ 2975'	Barren
T/Salt	697'	697'	+ 2639'	Barren
B/Salt	3789'	3789'	- 453'	Barren
T/Lamar Lime	4021'	4021'	- 685'	Barren
T/Ramsey	4057'	4057'	- 721'	Oil/Gas
T/Lower Cherry Canyon	6242'	6242'	- 2906'	Oil/Gas
KOP (Kick Off Point)	7226'	7226'	- 3890'	N/A
T/Brushy Canyon "U" Sand	7422'	7428'	- 4086'	Oil/Gas
Lwr Brushy Canyon "8A"	7605'	7665'	- 4269'	Oil/Gas
Lwr Brushy Canyon "W" Sand	7671'	7798'	- 4335'	Oil/Gas
EOC Target	7704'	8126'	- 4368'	Oil/Gas
TD (end of lateral)	7606'	14,628'	- 4270'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS (MD)	Hole Size	PURPOSE	CONDITION
20"	0' - 40'	24"	Conductor	Contractor Discretion
13-3/8", 48#, H-40, 8rd, ST&C	0' - 687	17-1/2"	Surface	New
9-5/8", 40#, J-55, 8rd, LT&C	0' - 4041'	12-1/4"	Intermediate	New
7", 26#, N-80, 8rd, LT&C	0' - 10,250'	8-3/4"	Production	New
4-1/2", 11 6#, N-80, 8rd, LT&C	10,250' - 14,628'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
13-3/8", 48#, H-40, 8rd, ST&C	12 80	2.48	5 12
9-5/8", 40#, J-55, 8rd, LT&C	3 95	1 23	1 82
7", 26#, N-80, 8rd, LT&C	3 16	1 56	1 77
4-1/2", 11 6#, N-80, 8rd, LT&C	3 06	1 84	1.91

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING - (13-3/8")

Tension — A 1 6 design factor utilizing the effects of buoyancy (9 2 ppg)

Collapse — A 1 0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0 48 psi/ft) The effects of axial load on collapse will be considered

Burst — A 1 3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface Internal burst force at the shoe will be fracture pressure a that depth Backup pressure will be formation pore pressure In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1 0 psi/ft gradient The effects of tension on burst will not be utilized

PROTECTIVE CASING - (9-5/8")

Tension — A 1 6 design factor utilizing the effects of buoyancy (10 ppg)

Collapse — A 1 0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0 52 psi/ft) The effects of axial load on collapse will be considered

In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string

Burst — A 1 0 surface design factor and a 1 3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface Internal burst force at the shoe will be fracture pressure at that depth Back pressure will be formation pore pressure In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1 0 psi/ft gradient

2^{ND} INTERMEDIATE CASING - (7")

Tension — A 1 6 design factor utilizing the effects of buoyancy (9 0 ppg)

Collapse — A 1 0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0 48 psi/ft) The effects of axial load on collapse will be considered

Burst — A 1 25 design factor with anticipated maximum tubing pressure (5000 psig) on top of the maximum anticipated packer fluid gradient (0 433 psi/ft) Backup on production strings will be formation pore pressure (0 433 psi/ft) The effects of tension on burst will not be utilized

PRODUCTION CASING - (4-1/2")

Tension — A 1 6 design factor utilizing the effects of buoyancy (9 0 ppg)

Collapse — A 1 0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0 48 psi/ft) The effects of axial load on collapse will be considered

Burst — A 1 25 design factor with anticipated maximum tubing pressure (5000 psig) on top of the maximum anticipated packer fluid gradient (0 433 psi/ft) Backup on production strings will be formation pore pressure (0 433 psi/ft) The effects of tension on burst will not be utilized

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

The blowout preventer equipment will be as shown in Diagram #2 and will consist of a double ram type preventer (5000 psi WP) and a bag type (Hydril) annular preventer (5000 psi WP) The same BOPE will be installed on the surface casinghead and on all subsequent casing strings The BOP stack, chokes, kill lines, upper and lower kelly cocks, inside BOP, choke manifold when installed on the surface casinghead will be hydro-tested to 200 psig & 2000 psig by a independent tester. The BOP stack, chokes, kill lines, upper and lower kelly cocks, inside BOP, choke manifold, when rigged up on the intermediate casing spool will be tested to 3000 psig by independent tester (hydril to 2500 psig) In addition to the high pressure test, a low pressure (250 psig) test will be required

These tests will be performed

a) Upon installation
b) After any component changes
c) Fifteen days after a previous test
d) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip

POINT 5: MUD PROGRAM

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 687'	FW Spud Mud	8 5 – 9 2	38-70	NC	NC	NC	10 0
687' - 4041'	Brine Water	9 8 – 10 2	28-30	NC	NC	NC	9 5 – 10 5
4041' - 10,250'	FW/Gel	8 7 – 9 0	28-36	NC	NC	NC	9 5 – 10 0
10,250' - 14,628'	FW/Gel/Starch	8 7 – 9 0	28-36	NC	NC	<20	9 5 – 10 0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated

B) LOGGING

Run #1 GR with MWD during drilling of build and horizontal portions of 8-3/4" and 6-1/8" hole
Run #2 Shuttle log with GR, PE, Density Neutron, Receptivity in lateral leg open hole.
Run #3 GR/CNL from base of 9-5/8" casing to surface will be run as part of completion process.

C) CONVENTIONAL CORING

None anticipated

D)CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE:						
Lead 0 - 387' (100% excess Circ to surface)	310	387	Class "C" + 4% Extender + 2% $CaCl_2$	9 15	13 50	1 74
Tail 387' - 687' (100% excess)	335	300	Class "C" + 2% $CaCl_2$	6 35	14 80	1 34
INTERMEDIATE:						
Lead 0' - 3541' (100% excess Circ to surface)	1070	3541	35/65 Poz + 5% NaCl + 0 20% Anti Foam + 6% Extender + 0 125 pps Lost circulation material	11 44	12 60	2 08
Tail 3541' - 4041' (100% excess)	270	500	Class "C"	6 36	14 80	1 33
2nd INTERMEDIATE:						
Stage 1						
Lead 5000' - 10,250 (50% excess)	550	5250	LiteCrete + 3 pps Extender + 0 20% Anti Foam + 0 30% Retarder + 0 30% Dispersant	7 48	10 20	2 18
DV Tool @ 5,000'						
Stage 2						
Lead 0' – 4900' (100% excess Circ to surface)	550	4900	35/65 Poz + 5% NaCl + 0 60% Extender + 0 20% Anti Foam	10 92	12 60	1 98
Tail 4900' - 5000' (50% excess)	50	100	Class "C" + 0 20% Retarder	6 35	14 80	1 33

E) DIRECTIONAL DRILLING

BOPCO, L P plans to drill out the 9-5/8" intermediate casing with an 8-3/4" bit to a TVD of approximately 7226'. At this depth an 8-3/4" directional hole will be initiated at an azimuth of 320°, building angle at 12 00°/100' to a max of 90° at a TVD of 7704' (MD 7977'). This 8-3/4" hole will be continued on this 320° azimuth to a measured depth of 8795' where the azimuth will be turned at 4°/100' to an azimuth of 273° at a measured depth of 9970' (7704' TVD). This azimuth will be continued for another 280' 8-3/4" hole will be TD'd at 10,250' MD (7704' TVD). At this depth 7" casing will be installed with DV Tool at approximately 5000' The 7" casing will be cemented in two stages with cement circulated to the surface A 6-1/8" open hole will be drilled out from this 7" casing and thru the lateral to a MD of 14,628' (TVD 7606') 4-1/2" casing will be installed in the lateral using Baker Hydraulic packers to isolated pay intervals in the "W" Sand

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section A BHP of 3581 psi (max) or MWE of 8 4 ppg is expected Lost circulation may exist in the Delaware Section from 4057'-7621' TVD No H_2S is anticipated

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Anticipated spud date 11/15/10

30 days drilling operations

14 days completion operations

Gary Gerhard

GEG/mac
March 23, 2010

BOPCO, L.P.

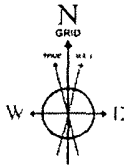
Location	Eddy County, NM	Slot	No 121H SHL
Field	JRU Project	Well	No 121H
Facility	JRU No 121H	Wellbore	No 121H PWB

Plot reference wellpath is Prelim_3	
True vertical depths are referenced to Rig on No 121H SHL (RT)	Grid System NAD83 / TM New Mexico State Planes Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No 121H SHL (RT)	North Reference Grid north
Rig on No 121H SHL (RT) to Mean Sea Level 3336 feet	Scale True distance
Mean Sea Level to Mud line (Facility JRU No 121H) -3317 feet	Depths are in feet
Coordinates are in feet referenced to Surface Location	Created by Victor Hernandez on 3/15/2010

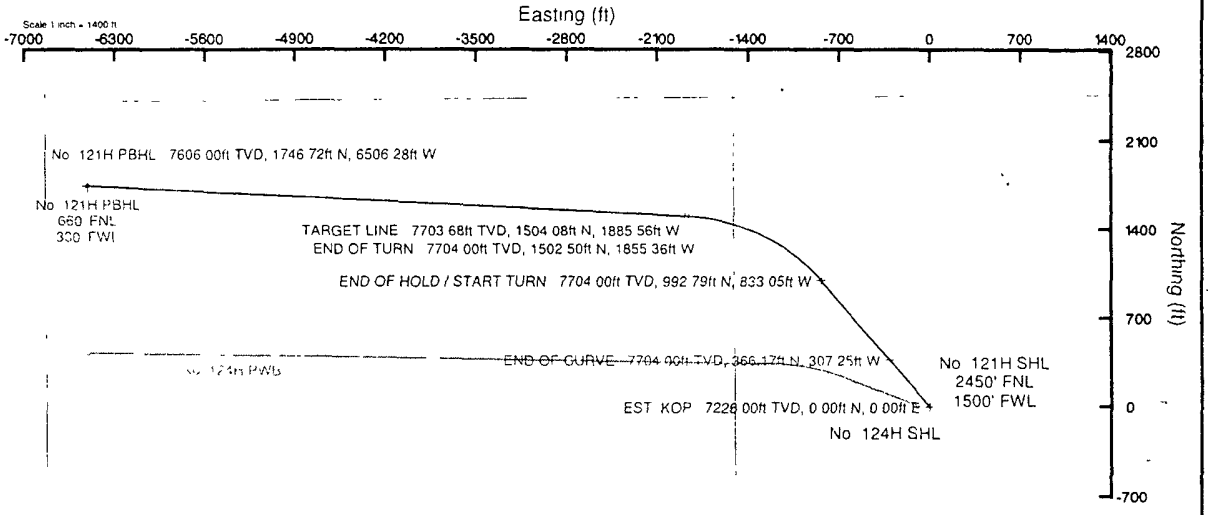
Well Profile Data

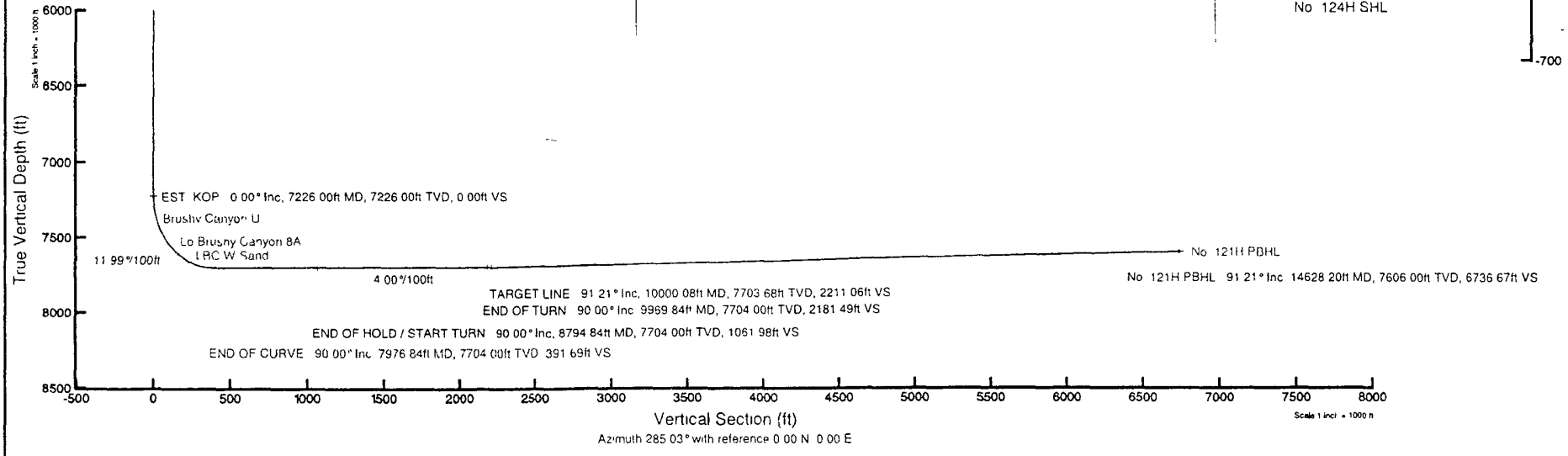
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0 00	0 000	320 000	0 00	0 00	0 00	0 00	0 00
EST KOP	7226 00	0 000	320 000	7226 00	0 00	0 00	0 00	0 00
END OF CURVE	7976 84	90 000	320 000	7704 00	366 17	307 25	11 99	391 69
END OF HOLD / START TURN	8794 84	90 000	320 000	7704 00	992 79	833 05	0 00	1061 98
END OF TURN	9969 84	90 000	273 000	7704 00	1502 50	-1855 36	4 00	2181 49
TARGET LINE	10000 08	91 209	273 006	7703 68	1504 08	-1885 56	4 00	2211 06
No 121H PBHL	14628 20	91 209	273 006	7606 00	1746 72	-6506 28	0 00	6736 67

BAKER HUGHES
INTEQ



BGGM (1945 0 to 2011 0) Dip 60 25° Field 48826 5 nT
Magnetic North is 7 89 degrees East of True North (at 3/15/2010)
Grid North is 0 28 degrees East of True North
To correct azimuth from True to Grid subtract 0 28 degrees
To correct azimuth from Magnetic to Grid add 7 61 degrees
For example if the Magnetic North Azimuth = 90 degs then the Grid North Azimuth = 90 + 7 61 = 97 61





Azimuth 285 03° with reference 0 00 N 0 00 E

Planned Wellpath Report

Prelim_3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 121H SHL
Area	Eddy County, NM	Well	No. 121H
Field	JRU Project	Wellbore	No. 121H PWB
Facility	JRU No. 121H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.99994	Report Generated	3/15/2010 at 2:53:38 PM
Convergence at slot	0.28° East	Database/Source file	WA_Midland/No._121H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	705022 33	475092 74	32°18'17 969"N	103°48'12 742"W
Facility Reference Pt			705022.33	475092.74	32°18'17 969"N	103°48'12 742"W
Field Reference Pt			697621.65	485218.03	32°19'58 517"N	103°49'38 415"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No 121H SHL (RT) to GL	19.00ft
Horizontal Reference Pt	Surface Location	Rig on No 121H SHL (RT) to Mean Sea Level	3336.00ft
Vertical Reference Pt	Rig on No. 121H SHL (RT)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 121H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	285.03°

Planned Wellpath Report

Prelim_3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 121H SHL
Area	Eddy County, NM	Well	No. 121H
Field	JRU Project	Wellbore	No. 121H PWB
Facility	JRU No. 121H		

WELLPATH DATA (85 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0 00	0 000	320 000	0 00	0 00	0 00	0 00	705022 33	475092 74	32°18'17 969"N	103°48'12 742"W	0 00	Tie On
7226 00	0 000	320 000	7226 00	0 00	0 00	0 00	705022 33	475092 74	32°18'17 969"N	103°48'12 742"W	0 00	EST KOP
7326 00†	11 987	320 000	7325 27	8 54	7 98	-6 70	705015 63	475100 72	32°18'18 048"N	103°48'12 820"W	11 99	
7426 00†	23 973	320 000	7420 22	33 79	31 59	-26 50	704995 83	475124 33	32°18'18 282"N	103°48'13 049"W	11 99	
7427 95†	24.207	320.000	7422.00	34.44	32.20	-27.02	704995.31	475124.94	32°18'18.289"N	103°48'13.055"W	11.99	Brushy Canyon U
7526.00†	35 960	320 000	7506 69	74 64	69 78	-58 55	704963 78	475162 52	32°18'18 662"N	103°48'13 420"W	11 99	
7626 00†	47 946	320.000	7580 92	129 32	120 90	-101 45	704920.89	475213 63	32°18'19 170"N	103°48'13 917"W	11 99	
7665 27†	52 653	320.000	7606 00	154 08	144 04	-120 86	704901 48	475236 77	32°18'19 400"N	103°48'14 142"W	11 99	Lo Brushy Canyon 8A
7726 00†	59 933	320 000	7639 68	195 45	182 71	-153 31	704869 03	475275 44	32°18'19 784"N	103°48'14 518"W	11 99	
7798 19†	68.585	320.000	7671.00	248.68	232.48	-195.07	704827.27	475325 20	32°18'20.278"N	103°48'15.001"W	11.99	LBC W Sand
7826 00†	71 919	320.000	7680 40	270 13	252 53	-211 90	704810 45	475345 25	32°18'20 478"N	103°48'15 196"W	11 99	
7926 00†	83 906	320 000	7701.30	350 11	327 30	-274 63	704747 71	475420 02	32°18'21 221"N	103°48'15 923"W	11 99	
7976 84	90 000	320 000	7704 00	391 69	366 17	-307 25	704715 10	475458 89	32°18'21 607"N	103°48'16 301"W	11 99	END OF CURVE
8026 00†	90 000	320 000	7704 00	431 97	403 83	-338 85	704683 50	475496 54	32°18'21.981"N	103°48'16 667"W	0.00	
8126.00†	90.000	320 000	7704.00	513.91	480.43	-403.13	704619.22	475573.14	32°18'22.742"N	103°48'17.411"W	0.00	
8226 00†	90 000	320 000	7704 00	595 86	557 04	-467 41	704554 95	475649 74	32°18'23 503"N	103°48'18 156"W	0 00	
8326 00†	90 000	320 000	7704 00	677 80	633 64	-531 69	704490 68	475726 34	32°18'24 264"N	103°48'18 900"W	0 00	
8426 00†	90 000	320 000	7704 00	759 74	710 25	-595 97	704426 40	475802 94	32°18'25 026"N	103°48'19 645"W	0 00	
8526 00†	90 000	320 000	7704 00	841 68	786 85	-660 25	704362 13	475879 54	32°18'25 787"N	103°48'20 389"W	0 00	
8626.00†	90.000	320.000	7704.00	923.63	863.45	-724.52	704297 85	475956 14	32°18'26 548"N	103°48'21.134"W	0.00	
8726 00†	90 000	320 000	7704 00	1005 57	940 06	-788 80	704233 58	476032 74	32°18'27 309"N	103°48'21 878"W	0 00	
8794 84	90 000	320 000	7704 00	1061 98	992 79	-833 05	704189 33	476085 47	32°18'27 833"N	103°48'22 391"W	0.00	END OF HOLD / START TURN
8826 00†	90 000	318 754	7704 00	1087 71	1016 44	-853 34	704169 04	476109 12	32°18'28 068"N	103°48'22 626"W	4 00	
8926 00†	90 000	314 754	7704 00	1172 75	1089 27	-921 84	704100 55	476181 94	32°18'28 792"N	103°48'23 420"W	4 00	
9026 00†	90.000	310 754	7704.00	1261 25	1157 14	-995.25	704027.14	476249 81	32°18'29 467"N	103°48'24 271"W	4 00	
9126 00†	90 000	306 754	7704 00	1352 78	1219 73	-1073 22	703949 18	476312 39	32°18'30 090"N	103°48'25 176"W	4 00	
9226 00†	90 000	302 754	7704 00	1446 89	1276 72	-1155 37	703867 04	476369 38	32°18'30 658"N	103°48'26 130"W	4 00	
9326 00†	90 000	298.754	7704 00	1543 13	1327 84	-1241 29	703781 12	476420 50	32°18'31 168"N	103°48'27 128"W	4 00	
9426 00†	90 000	294 754	7704 00	1641 02	1372 85	-1330 56	703691 85	476465 50	32°18'31 618"N	103°48'28 166"W	4 00	
9526.00†	90.000	290.754	7704.00	1740 09	1411.52	-1422.76	703599.66	476504.17	32°18'32 005"N	103°48'29.238"W	4.00	

Planned Wellpath Report

Prelim_3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 121H SHL
Area	Eddy County, NM	Well	No. 121H
Field	JRU Project	Wellbore	No. 121H PWB
Facility	JRU No. 121H		

WELLPATH DATA (85 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9626.00†	90.000	286.754	7704.00	1839.86	1443.66	-1517.43	703504.99	476536.31	32°18'32.327"N	103°48'30.339"W	4.00	
9726.00†	90.000	282.754	7704.00	1939.84	1469.12	-1614.12	703408.31	476561.77	32°18'32.584"N	103°48'31.464"W	4.00	
9826.00†	90.000	278.754	7704.00	2039.54	1487.78	-1712.34	703310.10	476580.43	32°18'32.773"N	103°48'32.607"W	4.00	
9926.00†	90.000	274.754	7704.00	2138.48	1499.54	-1811.63	703210.82	476592.18	32°18'32.894"N	103°48'33.764"W	4.00	
9969.84	90.000	273.000	7704.00	2181.49	1502.50	-1855.36	703167.08	476595.15	32°18'32.926"N	103°48'34.273"W	4.00	END OF TURN
10000.08	91.209	273.006	7703.68	2211.06	1504.08	-1885.56	703136.89	476596.73	32°18'32.943"N	103°48'34.625"W	4.00	TARGET LINE
10026.00†	91.209	273.006	7703.13	2236.41	1505.44	-1911.44	703111.01	476598.09	32°18'32.958"N	103°48'34.926"W	0.00	
10126.00†	91.209	273.006	7701.02	2334.19	1510.69	-2011.28	703011.18	476603.33	32°18'33.014"N	103°48'36.089"W	0.00	
10226.00†	91.209	273.006	7698.91	2431.98	1515.93	-2111.12	702911.34	476608.57	32°18'33.071"N	103°48'37.252"W	0.00	
10326.00†	91.209	273.006	7696.80	2529.76	1521.17	-2210.96	702811.51	476613.82	32°18'33.128"N	103°48'38.415"W	0.00	
10426.00†	91.209	273.006	7694.69	2627.55	1526.41	-2310.80	702711.67	476619.06	32°18'33.185"N	103°48'39.578"W	0.00	
10526.00†	91.209	273.006	7692.58	2725.33	1531.66	-2410.64	702611.84	476624.30	32°18'33.241"N	103°48'40.741"W	0.00	
10626.00†	91.209	273.006	7690.47	2823.12	1536.90	-2510.48	702512.01	476629.54	32°18'33.298"N	103°48'41.904"W	0.00	
10726.00†	91.209	273.006	7688.36	2920.90	1542.14	-2610.32	702412.17	476634.79	32°18'33.355"N	103°48'43.067"W	0.00	
10826.00†	91.209	273.006	7686.25	3018.69	1547.38	-2710.16	702312.34	476640.03	32°18'33.411"N	103°48'44.230"W	0.00	
10926.00†	91.209	273.006	7684.14	3116.47	1552.63	-2810.00	702212.50	476645.27	32°18'33.468"N	103°48'45.393"W	0.00	
11026.00†	91.209	273.006	7682.03	3214.26	1557.87	-2909.84	702112.67	476650.51	32°18'33.525"N	103°48'46.556"W	0.00	
11126.00†	91.209	273.006	7679.92	3312.04	1563.11	-3009.68	702012.84	476655.76	32°18'33.581"N	103°48'47.719"W	0.00	
11226.00†	91.209	273.006	7677.81	3409.83	1568.36	-3109.52	701913.00	476661.00	32°18'33.638"N	103°48'48.882"W	0.00	
11326.00†	91.209	273.006	7675.70	3507.61	1573.60	-3209.36	701813.17	476666.24	32°18'33.695"N	103°48'50.045"W	0.00	
11426.00†	91.209	273.006	7673.59	3605.40	1578.84	-3309.20	701713.33	476671.48	32°18'33.751"N	103°48'51.208"W	0.00	
11526.00†	91.209	273.006	7671.47	3703.18	1584.08	-3409.04	701613.50	476676.73	32°18'33.808"N	103°48'52.371"W	0.00	
11626.00†	91.209	273.006	7669.36	3800.97	1589.33	-3508.88	701513.67	476681.97	32°18'33.865"N	103°48'53.534"W	0.00	
11726.00†	91.209	273.006	7667.25	3898.75	1594.57	-3608.72	701413.83	476687.21	32°18'33.921"N	103°48'54.697"W	0.00	
11826.00†	91.209	273.006	7665.14	3996.54	1599.81	-3708.56	701314.00	476692.45	32°18'33.978"N	103°48'55.860"W	0.00	
11926.00†	91.209	273.006	7663.03	4094.33	1605.05	-3808.40	701214.16	476697.69	32°18'34.035"N	103°48'57.023"W	0.00	
12026.00†	91.209	273.006	7660.92	4192.11	1610.30	-3908.24	701114.33	476702.94	32°18'34.091"N	103°48'58.186"W	0.00	
12126.00†	91.209	273.006	7658.81	4289.90	1615.54	-4008.08	701014.50	476708.18	32°18'34.148"N	103°48'59.349"W	0.00	
12226.00†	91.209	273.006	7656.70	4387.68	1620.78	-4107.92	700914.66	476713.42	32°18'34.204"N	103°49'00.512"W	0.00	
12326.00†	91.209	273.006	7654.59	4485.47	1626.03	-4207.76	700814.83	476718.66	32°18'34.261"N	103°49'01.675"W	0.00	

Planned Wellpath Report

Prelim_3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 121H SHL
Area	Eddy County, NM	Well	No. 121H
Field	JRU Project	Wellbore	No. 121H PWB
Facility	JRU No. 121H		

WELLPATH DATA (85 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12426.00†	91.209	273.006	7652.48	4583.25	1631.27	-4307.60	700714.99	476723.91	32°18'34.318"N	103°49'02.838"W	0.00	
12526.00†	91.209	273.006	7650.37	4681.04	1636.51	-4407.44	700615.16	476729.15	32°18'34.374"N	103°49'04.001"W	0.00	
12626.00†	91.209	273.006	7648.26	4778.82	1641.75	-4507.28	700515.33	476734.39	32°18'34.431"N	103°49'05.164"W	0.00	
12726.00†	91.209	273.006	7646.15	4876.61	1647.00	-4607.12	700415.49	476739.63	32°18'34.488"N	103°49'06.327"W	0.00	
12826.00†	91.209	273.006	7644.04	4974.39	1652.24	-4706.96	700315.66	476744.88	32°18'34.544"N	103°49'07.490"W	0.00	
12926.00†	91.209	273.006	7641.93	5072.18	1657.48	-4806.80	700215.83	476750.12	32°18'34.601"N	103°49'08.653"W	0.00	
13026.00†	91.209	273.006	7639.82	5169.96	1662.72	-4906.64	700115.99	476755.36	32°18'34.657"N	103°49'09.816"W	0.00	
13079.78†	91.209	273.006	7638.68	5222.55	1665.54	-4960.34	700062.30	476758.18	32°18'34.688"N	103°49'10.441"W	0.00	
13126.00†	91.209	273.006	7637.71	5267.75	1667.97	-5006.48	700016.16	476760.60	32°18'34.714"N	103°49'10.979"W	0.00	
13226.00†	91.209	273.006	7635.59	5365.53	1673.21	-5106.32	699916.32	476765.85	32°18'34.771"N	103°49'12.142"W	0.00	
13326.00†	91.209	273.006	7633.48	5463.32	1678.45	-5206.16	699816.49	476771.09	32°18'34.827"N	103°49'13.305"W	0.00	
13426.00†	91.209	273.006	7631.37	5561.10	1683.70	-5306.00	699716.66	476776.33	32°18'34.884"N	103°49'14.468"W	0.00	
13526.00†	91.209	273.006	7629.26	5658.89	1688.94	-5405.84	699616.82	476781.57	32°18'34.941"N	103°49'15.631"W	0.00	
13626.00†	91.209	273.006	7627.15	5756.67	1694.18	-5505.69	699516.99	476786.82	32°18'34.997"N	103°49'16.794"W	0.00	
13726.00†	91.209	273.006	7625.04	5854.46	1699.42	-5605.53	699417.15	476792.06	32°18'35.054"N	103°49'17.957"W	0.00	
13826.00†	91.209	273.006	7622.93	5952.24	1704.67	-5705.37	699317.32	476797.30	32°18'35.110"N	103°49'19.120"W	0.00	
13926.00†	91.209	273.006	7620.82	6050.03	1709.91	-5805.21	699217.49	476802.54	32°18'35.167"N	103°49'20.283"W	0.00	
14026.00†	91.209	273.006	7618.71	6147.81	1715.15	-5905.05	699117.65	476807.79	32°18'35.223"N	103°49'21.446"W	0.00	
14126.00†	91.209	273.006	7616.60	6245.60	1720.39	-6004.89	699017.82	476813.03	32°18'35.280"N	103°49'22.609"W	0.00	
14226.00†	91.209	273.006	7614.49	6343.38	1725.64	-6104.73	698917.98	476818.27	32°18'35.337"N	103°49'23.772"W	0.00	
14326.00†	91.209	273.006	7612.38	6441.17	1730.88	-6204.57	698818.15	476823.51	32°18'35.393"N	103°49'24.935"W	0.00	
14426.00†	91.209	273.006	7610.27	6538.95	1736.12	-6304.41	698718.32	476828.75	32°18'35.450"N	103°49'26.098"W	0.00	
14526.00†	91.209	273.006	7608.16	6636.74	1741.37	-6404.25	698618.48	476834.00	32°18'35.506"N	103°49'27.261"W	0.00	
14626.00†	91.209	273.006	7606.05	6734.52	1746.61	-6504.09	698518.65	476839.24	32°18'35.563"N	103°49'28.424"W	0.00	
14628.20	91.209	273.006	7606.00[1]	6736.67	1746.72	-6506.28	698516.45	476839.36	32°18'35.564"N	103°49'28.449"W	0.00	No 121H PBHL

Planned Wellpath Report

Prelim_3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 121H SHL
Area	Eddy County, NM	Well	No. 121H
Field	JRU Project	Wellbore	No. 121H PWB
Facility	JRU No. 121H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 121H PBHL	14628 20	7606 00	1746 72	-6506.28	**698516.45**	**476839.35**	32°18'35.564"N	103°49'28.449"W	point

SURVEY PROGRAM Ref Wellbore: No. 121H PWB Ref Wellpath: Prelim_3

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19 00	14628 20	NaviTrak (Standard)		No 121H PWB

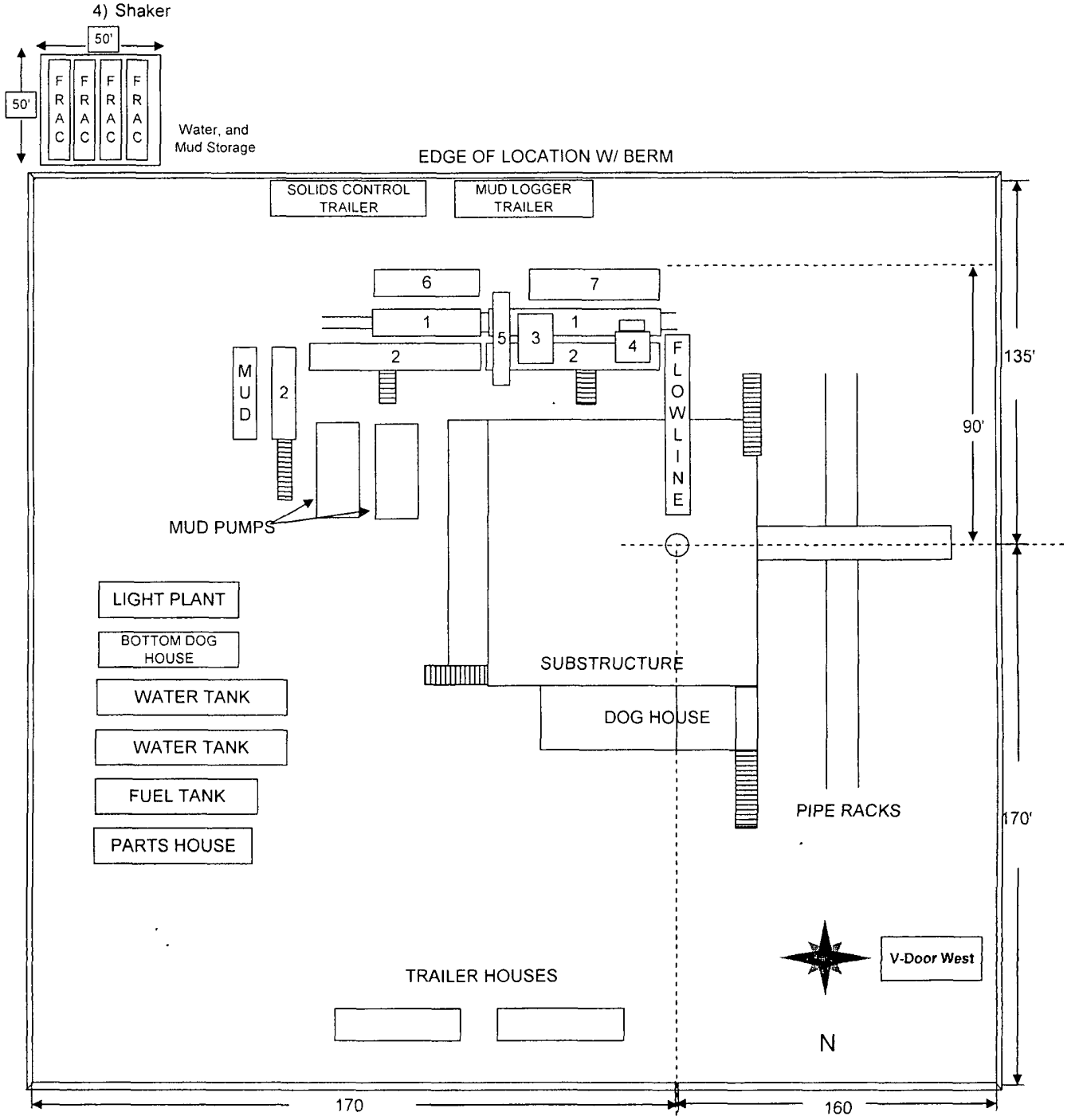
BOPCO, L.P.
James Ranch Unit #121H
Sec1,T23S-R30E
Eddy County, NM

Exhibit "D"

RIG LAYOUT SCHEMATIC
INCLUSIVE OF CLOSED-LOOP DESIGN PLAN

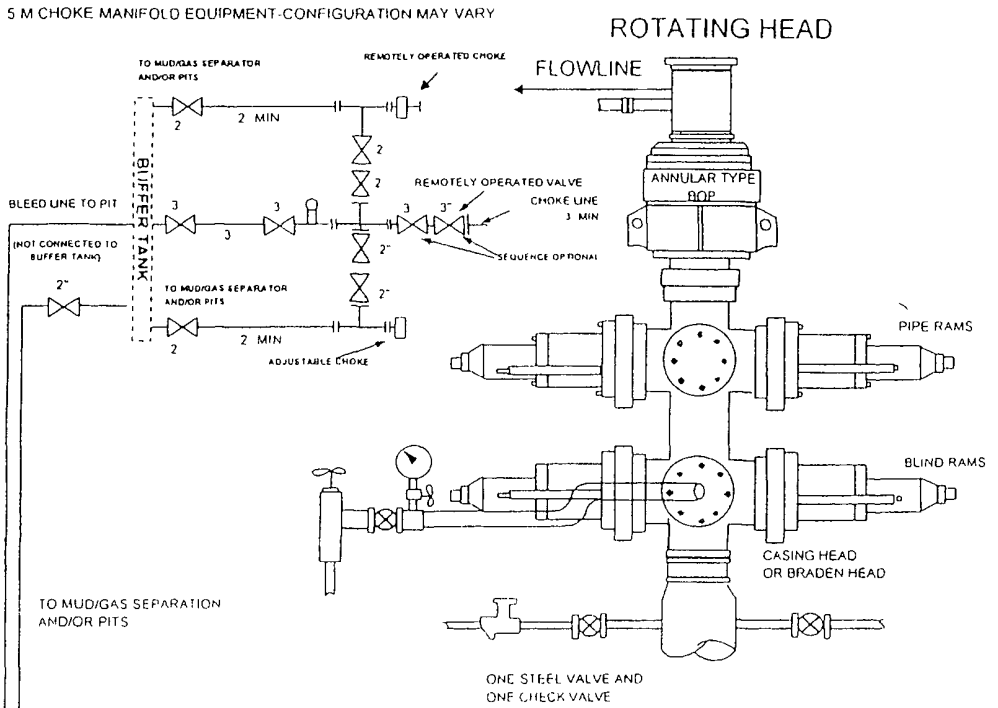
Solids Control Equipment Legend

1) Roll Off Bin
2) Steel Tank
3) Mud Cleaner
4) Shaker
5) Centrifuge
6) Dewatering Unit
7) Catch Tank



Wtd-ser/Drilling/DrillingDiagrams/McVay#5 Rig Pad deminsions - Closed Loop Location size Exhibit D xlsRes Pit Exibit D w-rig

BOPCO, L. P.
5-M WP BOPE WITH 5-M WP ANNULAR



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A One double gate Blowout preventer with lower pipe rams and upper blind rams, all hydraulically controlled
B Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter
C All connections from operating manifold to preventers to be all steel hose or tube a minimum of one inch in diameter
D The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate (close, open, and re-close) the preventers
E All connections to and from preventers to have a pressure rating equivalent to that of the BOPs
F Manual controls to be installed before drilling cement plug
G Valve to control flow through drill pipe to be located on rig floor
H Chokes must be adjustable Choke spool may be used between rams

DIAGRAM 2

TO STEEL MUD TANKS

BLEED LINE TO FLARE PIT (NOT CONNECTED TO BUFFER TANK

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: James Ranch Unit #121H
LEGAL DESCRIPTION - SURFACE 2450' FNL, 1500' FWL, Section 17, T23S, R31E, Eddy County, NM
BHL 660' FNL, 330' FWL, Section 18, T23S, R31E, Eddy County, New Mexico

POINT 1: EXISTING ROADS

A) Proposed Well Site Location

See Exhibit "A"

B) Existing Roads

From the junction of State Hwy 128 and Twin Wells go east 0 1 miles to lease road On lease road go northeast 0 5 miles to lease road On lease road go northwest 0 1 miles thence west 0 1 miles to proposed location

C) Existing Road Maintenance or Improvement Plan

See Exhibit "B" & "C"

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location

Existing road will be upgraded No new road required (See Exhibit "B")

B) Width

12' wide

C) Maximum Grade

Grade to match existing topography or as per BLM requirements

D) Turnout Ditches

As required by BLM stipulations

E) Culverts, Cattle Guards, and Surfacing Equipment

If required, culverts and cattle guards will be set per BLM Specs

POINT 3: LOCATION OF EXISTING WELLS

Exhibits "A" indicates existing wells within the surrounding area

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

A) Existing facilities within one mile owned or controlled by lessee/operator

The BOPCO operated James Ranch Unit #55 Battery is located in the SE quarter of NW quarter of Sec 17, T23S, R31E

B) New Facilities in the Event of Production.

New production facilities will not be installed at the new location Additional separators and heater/treaters will be added as needed at the James Ranch Unit #55 Battery Proposed flow lines and power lines are displayed in Exhibit "E" 2-7/8" steel flow lines will follow existing roads and will be laid on top of the ground to James Ranch Unit #55 Battery Power lines will be extended from existing lines (See Exhibit "E").

C) Rehabilitation of Disturbed Areas Unnecessary for Production

Following the construction, those access areas required for continued production will be graded to provide drainage and minimize erosion The areas unnecessary for use will be graded to blend in with the surrounding topography (see Point 10)

POINT 5: LOCATION AND TYPE OF WATER SUPPLY

A) Location and Type of Water Supply

Fresh water will be hauled from Johnson Station 50 miles east of Carlsbad, New Mexico or other commercial facilities Brine water will be hauled from commercial facilities

B) Water Transportation System

Water hauling to the location will be over the existing and proposed roads

POINT 6: SOURCE OF CONSTRUCTION MATERIALS

A) Materials

On-site caliche will be used If this is not sufficient, caliche will be hauled from a BLM approved pit.

B) Land Ownership

Federally Owned

C) Materials Foreign to the Site

No construction materials foreign to this area are anticipated for this drill site

D) Access Roads

See Exhibits "B" & "C"

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings – Closed Loop System

Cuttings will be contained in the steel pits and will be hauled to an approved disposal facility

B) Drilling Fluids – Closed Loop System

Drilling fluids will be contained in the steel pits, frac tanks, and will be disposed of at licensed disposal facilities

C) Produced Fluids

Water production will be contained in the steel pits

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks

D) Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with

E) Garbage

Portable containers will be utilized for garbage disposal during the drilling of this well

F) Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if electric log analysis indicate potential productive zones Reasonable cleanup will be performed prior to the final restoration of the site

POINT 8: ANCILLARY FACILITIES

None required

POINT 9: WELL SITE LAYOUT

A) Rig Orientation and Layout

Exhibit "D" shows the dimensions of the well pad and closed loop system, and the location of major rig components Only minor leveling of the well site will be required. No significant cuts or fills will be necessary

B) Locations of closed loop system and access road

See Exhibits "D"

C) Lining of the Pits

No reserve pit. Closed loop system.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

A) Reserve Pit Cleanup - Not applicable (see Point 9C above)

The pits will be fenced immediately after construction and shall be maintained until they are backfilled. Previous to backfill operations, any hydrocarbon material on the pits' surfaces shall be removed The fluids and solids contained in the pits shall be backfilled with soil excavated from the site and soil adjacent to the reserve pits The restored surface of the pits shall be contoured to prevent impoundment of surface water flow. Water-bars will be constructed as needed to prevent excessive erosion Topsoil, as available, shall be placed over the restored surface in a uniform layer The area will be seeded according to the Bureau of Land Management stipulations during the appropriate season following restoration.

B) Restoration Plans - Production Developed

In addition, those areas not required for production will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C

C) Restoration Plans - No Production Developed

With no production developed, the entire surface disturbed by construction of the well site will be restored The site will be contoured to blend with the surrounding topography and provide drainage of surface water The topsoil, as available, shall be replaced in a uniform layer and seeded according to the Bureau of Land Management's stipulations

D) Rehabilitation's Timetable

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work

POINT 11: OTHER INFORMATION

A) Terrain

Relatively flat

B) Soil

Caliche and sand

C) Vegetation

Sparse, primarily grasses and mesquite with very little grass

D) Surface Use

Primarily grazing

E) Surface Water

There are no ponds, lakes, streams or rivers within several miles of the wellsite

F) Water Wells

The closest known fresh water wells are located in Sec 35 and Sec 24, T22S, R30E and in Sec 5, T23S, R31E. In all cases the wells are over 1 mile from proposed location

G) Residences and Buildings

No residences are within 1 miles of this location

H) Historical Sites

None observed

I) Archeological Resources

A payment of $1339 00 will be submitted to the BLM (MOA) with this APD to cover archeological studies associated with this well location A separate check in the amount of $1854 ($1236.00 for flowline and $618 for electric line) payable to BLM for archeological studies will also be included with this application

J) Surface Ownership

The well site is on federal land There will be no new access roads required for this location.

K) Well signs will be posted at the drilling site.

L) Open Pits - None used. Closed loop system.

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use)

DRILLING
William R Dannels
Box 2760
Midland, Texas 79702
(432) 683-2277

PRODUCTION
Dean Clemmer
3104 East Green Street
Carlsbad, New Mexico 88220
(505) 887-7329

Carlos Cruz
Box 2760
Midland, Texas 79702
(432) 683-2277

OPERATOR CERTIFICATION

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route, that I am familiar with the conditions which currently exist, that the statements made in the plan are, to the best of my knowledge, true and correct, and that the work associated with operations proposed herein will be performed by BOPCO, L P and it's contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved This statement is subject to the provisions of 18 U.S C 1001 for the filing of a false statement

3/23/10
Date

Gary Gerhard
Gary Gerhard

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO, L. P.
LEASE NO.:	NM-02887A
WELL NAME & NO.:	121H-JAMES RANCH UNIT
SURFACE HOLE FOOTAGE:	2450' FNL & 1500' FWL
BOTTOM HOLE FOOTAGE	0660' FNL & 0330' FWL
SHL LOCATION:	Section 17, T. 23 S., R. 31 E., NMPM
BHL LOCATION:	Section 18, T. 23 S., R. 31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

Pipelines – See Standard Stipulations for Surface Installed PL
Electric Lines – See Standard Stipulations for Overhead Electric Dist. Lines

☐ **Interim Reclamation**

☒ **Final Abandonment & Reclamation**

GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:
Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. 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 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this 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 existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching:
Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Operator shall separate top-soil from any other materials placed on location as a result of "flipping" surface materials to expose and/or extract caliche from underneath the well-pad location.

Commercial Well Determination

Well is outside of NMNM – 70965G participating area. A commercial well determination will need to be submitted after production has been established for at least six months.

Plan of Development

Sub-operator is to submit a Unit Plan of Development (UPOD) annually to the Unit operator for submission to the BLM. Guidelines for UPOD are available upon request at the BLM Carlsbad Field Office.

V. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. V-DOOR DIRECTION: not stipulated

C. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 8 inches in depth. The topsoil will be used for interim and final reclamation.

Operator shall separate top-soil from any other materials placed on location as a result of "flipping" surface materials to expose and/or extract caliche from underneath the well-pad location.

D. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

E. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call theCarlsbad Field Office at (575) 234-5972.

F. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed twelve (12) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty (20) feet.

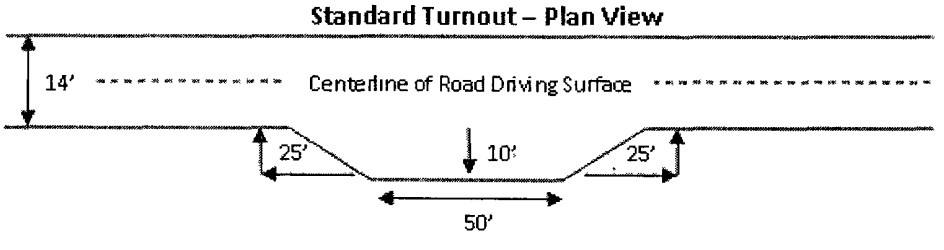
Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

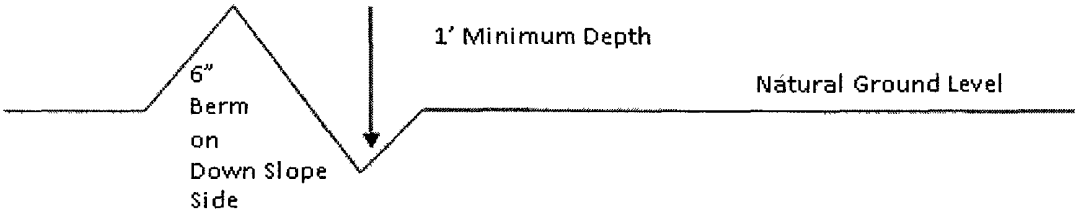
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

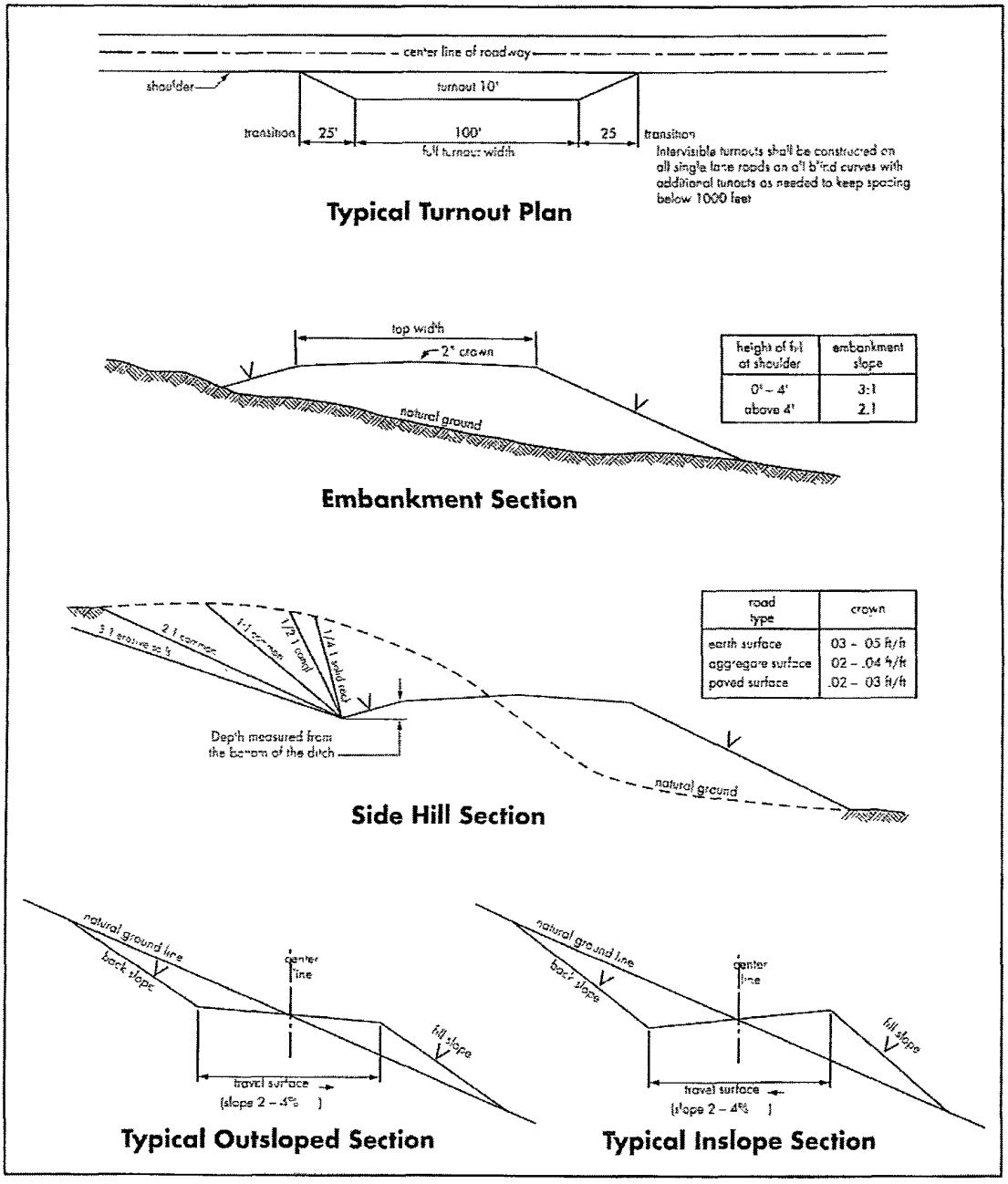
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VI. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Due to recent H2S encounters in the salt formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.**

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. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P Potash
Possible water and brine flows in the Salado and Casitle groups.
Possible lost circulation and water flows in the Delaware and Bone Spring.

1. The **13-3/8** inch surface casing shall be set at **approximately 687 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If salt is penetrated, set casing 10' above the top of salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash. Set in Lamar Limestone.**

3. The minimum required fill of cement behind the **7** inch production casing is:

   a. First stage to DV tool, cement shall:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

   b. Second stage above DV tool, cement shall:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash.**

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

   ☒ Packer system to be used – No Cement required.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

6. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi. **5M system tested as a 2M.**

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **3000 (3M)** psi. **5M system tested as a 3M**

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. Casing cut-off and BOP installation will not be initiated until the cement has had a minimum of 8 hours setup time for a water basin. The casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. In the potash area, the minimum time is 12 hours and the casing shall remain stationary and under pressure during this time period. Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.

    b. The tests shall be done by an independent service company utilizing a test plug.

    c. The results of the test shall be reported to the appropriate BLM office.

    d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

DHW 042710

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES – 2 7/8" Surface Steel Flowline

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. 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.

2. 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 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way 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.

3. 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 activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder 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.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.

b. Activities of other parties including, but not limited to:

(1) Land clearing.
(2) Earth-disturbing and earth-moving work.
(3) Blasting.
(4) Vandalism and sabotage.

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or 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 resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up 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 responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **12** feet.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. 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 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. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. 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 cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

C. ELECTRIC LINES –

STANDARD STIPULATIONS - OVERHEAD ELECTRIC DISTRIBUTION LINES

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

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. 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.

2. 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 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way 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.

3. 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), or resulting from the activity of the Right-of-Way holder 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.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in

writing by the Authorized Officer.

5. Powerlines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Powerlines, " Raptor Research Foundation, Inc., 1981. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. 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 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. 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 proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
- Limit all disturbance to authorized width of approved access road.
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.

- Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching:
Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre

Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A
**Four-winged Saltbush	5lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed