AT5-10-475

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JUN - 9 2010
NMOCD ARTESIA

OCD-ARTESIA

Form 3160-3
(April 2004)

RESUBMITTAL

FORM APPROVED
OMB No 1004-0137 EA10-714
Expires March 31, 2007

UNITED STATES
NWNE, UL B, SECT 21, T24S, R30E, LAT N32.208278, LON W103 884000
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No LC 068431 SHL LC 068430 BHL

6 If Indian Allotee or Tribe Name

1a Type of work ☑ DRILL ☐ REENTER

7 If Unit or CA Agreement Name and No
NMNM 71016X

1b Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☑ Multiple Zone

8 Lease Name and Well No (306902)
Poker Lake Unit #293H

2 Name of Operator
BOPCO, L P (260737)

9 API Well No
30-015-38112

3a Address P O Box 2760
Midland, TX 79702

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

10 Field and Pool, or Exploratory (79545)
Nash Draw (Dela, BS, Avalon Sd)

4 Location of Well (Report location clearly and in accordance with any State requirements *)
At surface NWNE, 810' FNL, 1980' FEL, Lat N32.208278, Long W103 883487
At proposed prod zone BHL LAT 1 2266' FSL, 1471' FEL, LAT 32 202197, LG.W103 864561
BHL LAT 2 330' FNL, 1650' FWL, LAT 32 23958, LG W103 889039

11 Sec, T R M or Blk and Survey or Area
Sec 21, T24S, R30E, MER NMP

14 Distance in miles and direction from nearest town or post office*
14 miles east 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) 660'

16 No of acres in lease
2480 84

17 Spacing Unit dedicated to this well
320 acres 1st lateral, 280 acres 2nd lateral

18 Distance from proposed location* to nearest well drilling completed applied for on this lease, ft 2492'

19 Proposed Depth
13,611' MD 7671' TVD
13,334' MD 7550' TVD

20 BLM/BIA Bond No on file
COB000050

21 Elevations (Show whether DF KDB, RT, GL etc)
3343' GL

22 Approximate date work will start*
06/01/2010

23 Estimated duration
40 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 Annette Childers
Name (Printed/Typed) Annette Childers
Date 4-13-2010

Title Regulatory Clerk

Approved by (Signature) /s/ Don Peterson
Name (Printed/Typed)
Date JUN 7 2010

Title FIELD MANAGER
Office CARLSBAD FIELD 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 representations as to any matter within its jurisdiction

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ 8/30/10

Approval Subject to General Requirements & Special Stipulations Attached

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

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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 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 12, 2005

Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-38112	47545	Nash Draw (Delaware, Bone Spring, Avalon Sand)

Property Code	Property Name	Well Number
~~068431~~ 306402	POKER LAKE UNIT	293H

OGRID No.	Operator Name	Elevation
260737	BOPCO, L.P.	3343'

Surface Location

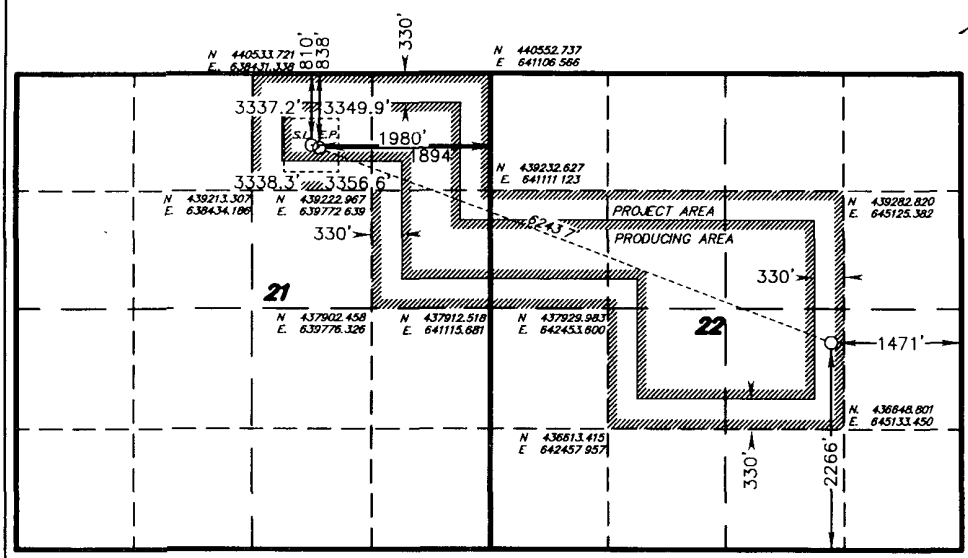
UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	21	24 S	30 E		810	NORTH	1980	EAST	EDDY

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
J	22	24 S	30 E		2266	SOUTH	1471	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	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



SURFACE LOCATION	PROP. DELAWARE ENTRY POINT	PROP. BRUSHY CANYON E.P.	BOTTOM HOLE LOCATION
Lat – N 32°12'29.31"	Lat – N 32°12'29.31"	Lat – N 32°12'28.99"	Lat – N 32°12'07.91"
Long – W 103°53'00.59"	Long – W 103°53'00.59"	Long – W 103°52'59.61"	Long – W 103°51'52.42"
NMSPCE– N 439732.399	NMSPCE– N 439732.399	NMSPCE– N 439701.588	NMSPCE– N 437594.867
E 639131.386	E 639131.386	E 639215.945	E 644997.746
(NAD-27)	(NAD-27)	(NAD-27)	(NAD-27)

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 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 4/13/10
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

JULY 7, 2009
Date Surveyed

Signature & Seal of Professional Surveyor
GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. [illegible]

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

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 St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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1220 South St. Francis Dr.
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Form C-102
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Submit to Appropriate District Office
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Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	47545	Nash Draw (Delaware, Bone Spring, Avalon Sand)

Property Code	Property Name	Well Number
068431	POKER LAKE UNIT	293H

OGRID No.	Operator Name	Elevation
260737	BOPCO, L.P.	3343'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	21	24 S	30 E		810	NORTH	1980	EAST	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
C	16	24 S	30 E		330	NORTH	1650	WEST	EDDY

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

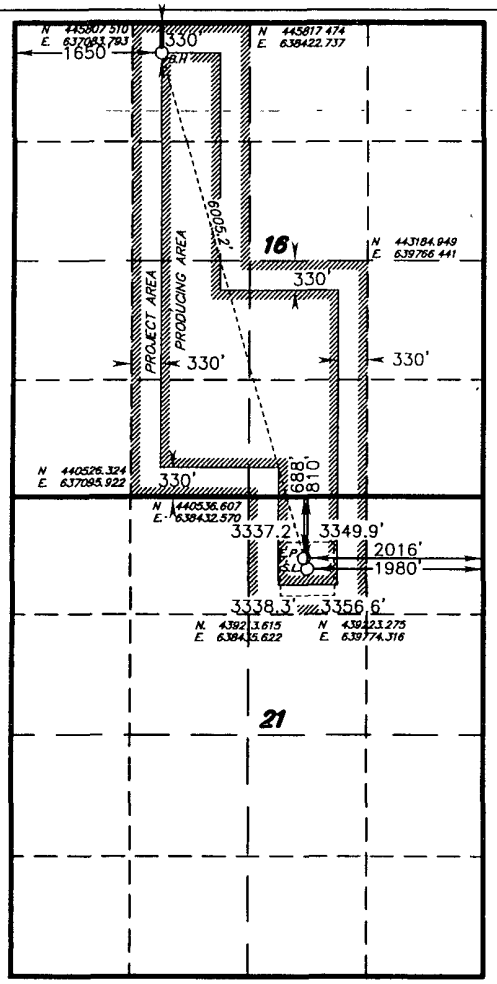
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

BOTTOM HOLE LOCATION
Lat – N 32°13'26.25"
Long – W 103°53'20.54"
NMSPCE– N 445479.449
E 637393.880
(NAD-27)

PROP. BRUSHY CANYON E.P.
Lat – N 32°12'30.50"
Long – W 103°53'01.01"
NMSPCE– N 439852.85
E 639094.88
(NAD-27)

SURFACE LOCATION
Lat – N 32°12'29.31"
Long – W 103°53'00.59"
NMSPCE– N 439732.399
E 639131.386
(NAD-27)

PROP. DELAWARE ENTRY POINT
Lat – N 32°12'29.31"
Long – W 103°53'00.59"
NMSPCE– N 439732.399
E 639131.386
(NAD-27)



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 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 4/13/10
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

JULY [illegible] 2008
Date Surveyed
Signature & Seal of Professional Surveyor
GARY L. JONES NEW MEXICO 7977

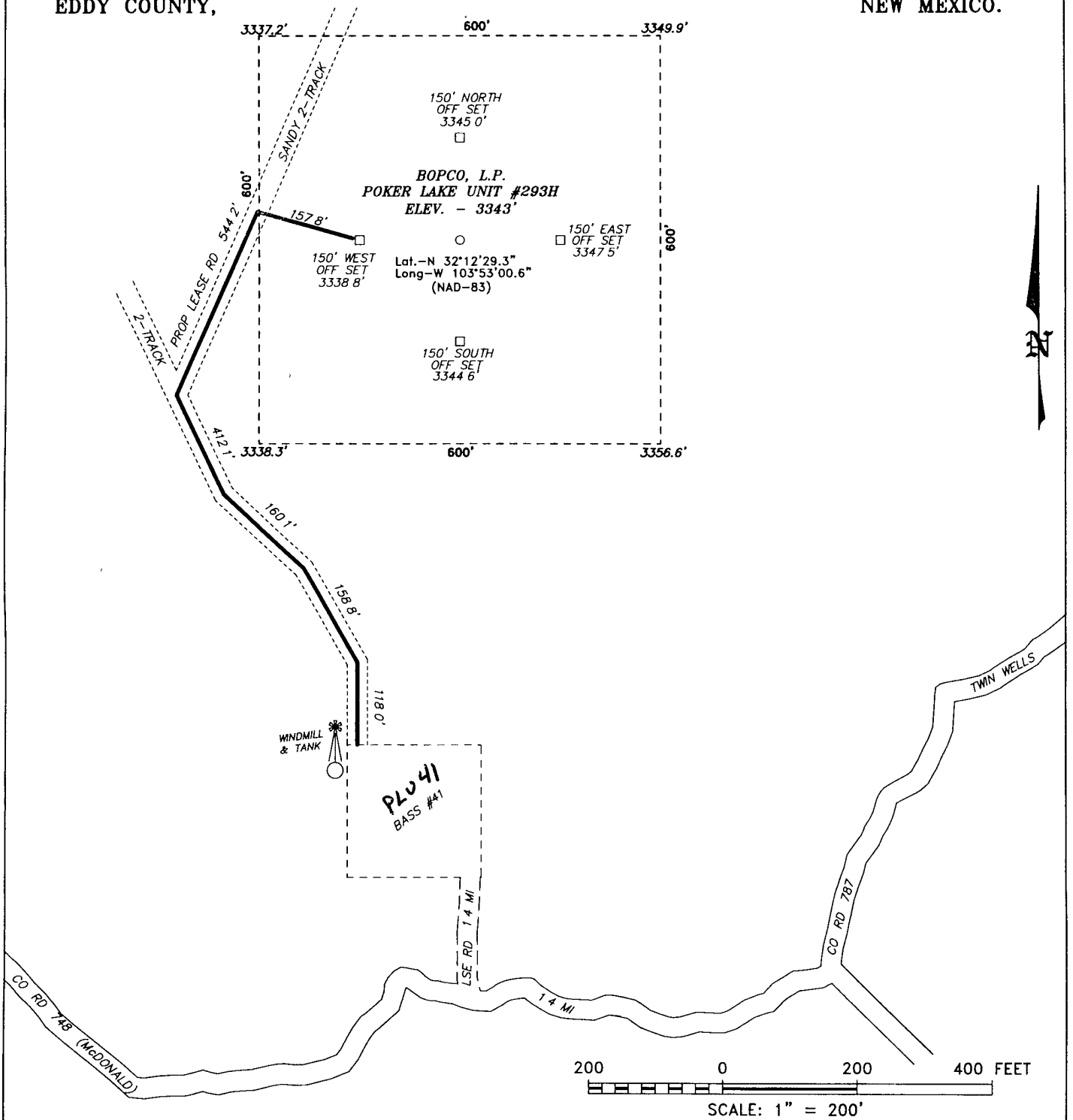
W.O. [illegible]

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 21, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M.,

EDDY COUNTY, **NEW MEXICO.**



DIRECTIONS TO LOCATION

FROM THE JUNCTION OF CO RD 787 (TWIN WELLS) AND CO RD 746 (McDONALD), PROCEED WEST ON CO RD 746 FOR 1 4 MILES TO LEASE ROAD ON LEASE ROAD PROCEED NORTH 1 4 MILE TO THE #41 WELL AND PROPOSED LEASE ROAD

BASIN SURVEYS P O BOX 1786 – HOBBS, NEW MEXICO

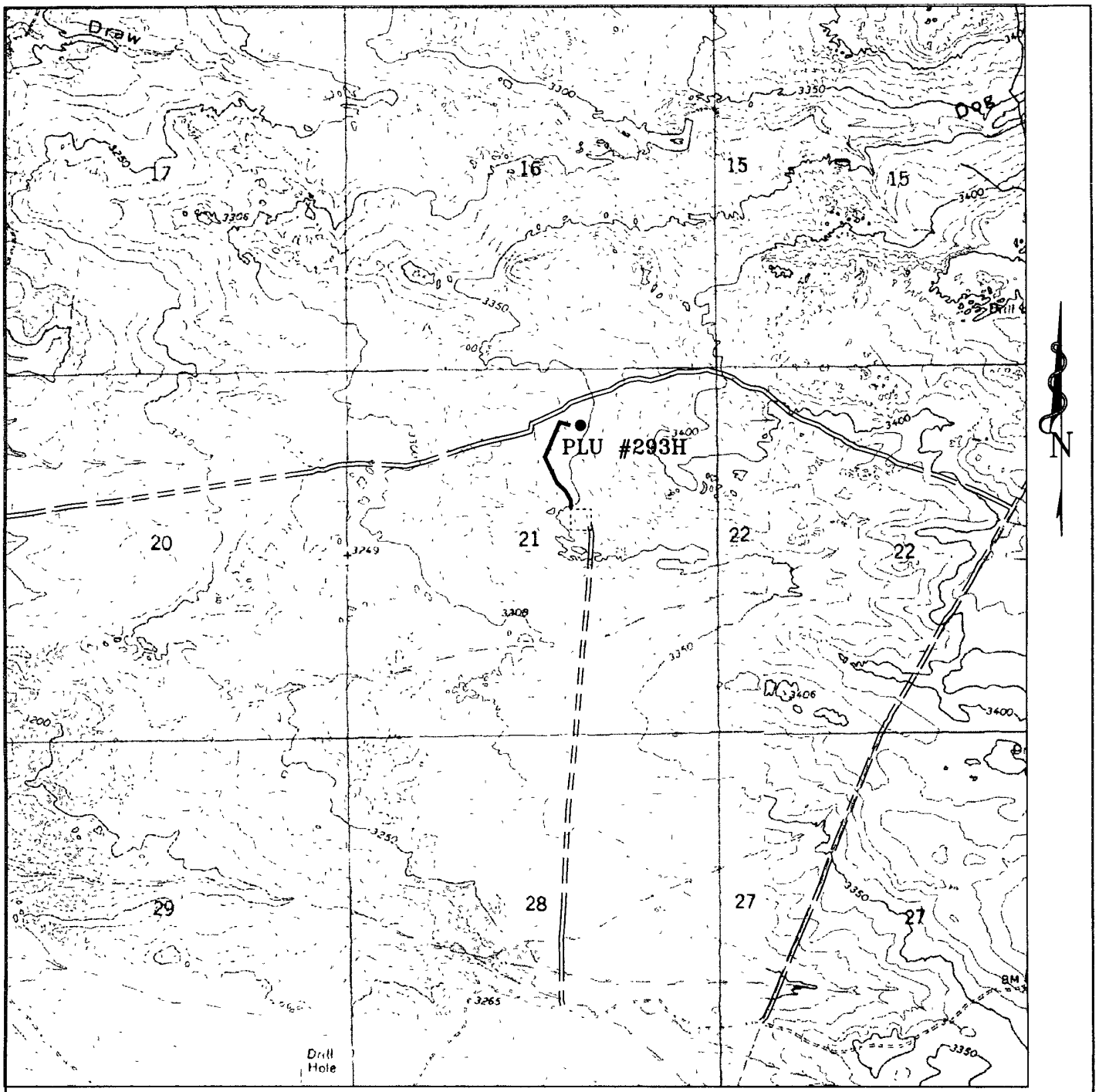
W O Number 17558	Drawn By J. SMALL
Date 07-01-2009	Disk: 17558W JMS

BOPCO, L.P.

REF: POKER LAKE UNIT #293H / WELL PAD AND TOPO

THE POKER LAKE UNIT No. 293H LOCATED 810' FROM THE NORTH LINE AND 1980' FROM THE EAST LINE OF SECTION 21, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date 07-01-2009	Sheet 1 of 1 Sheets



POKER LAKE UNIT #293H

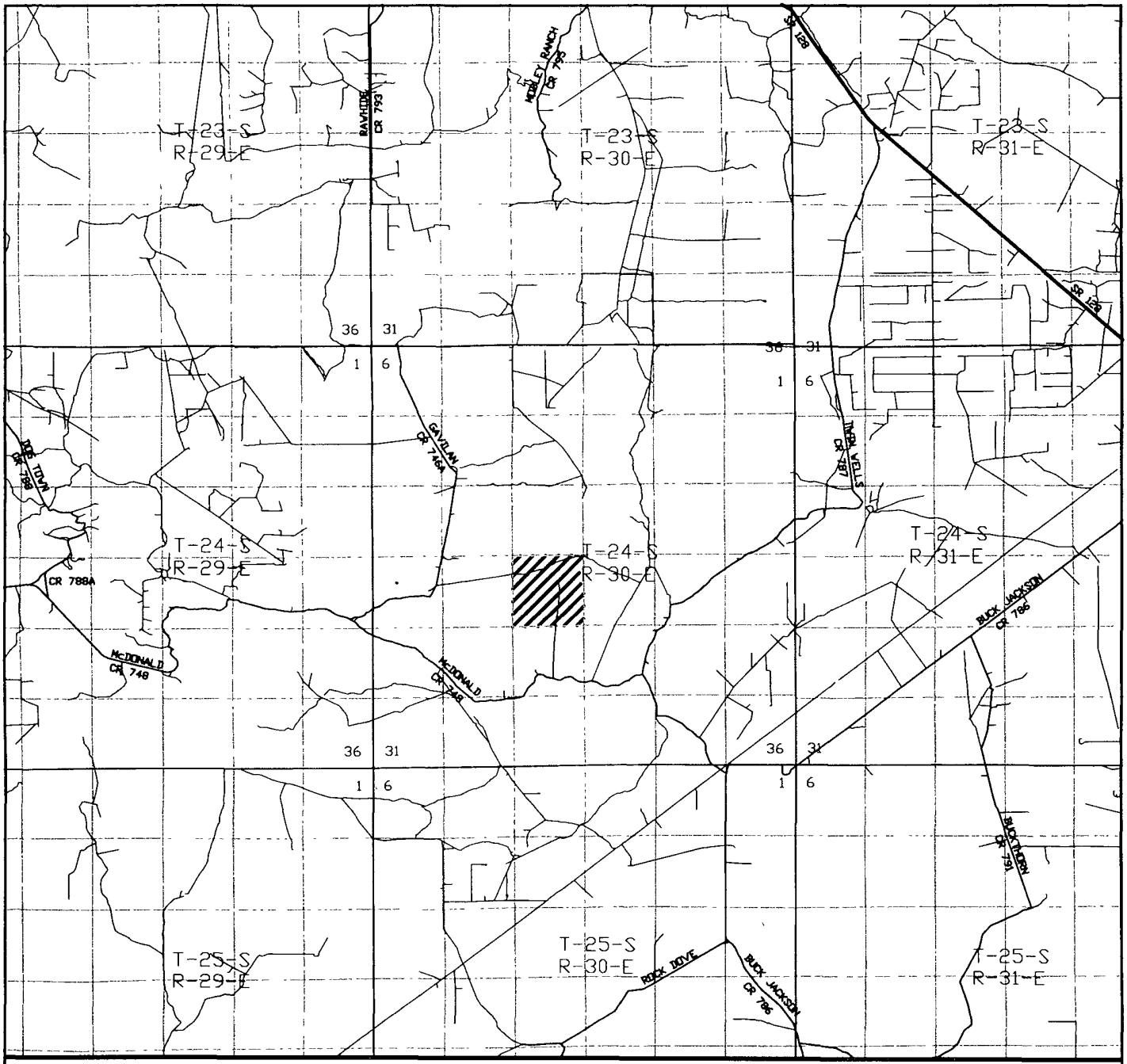
810' FNL and 1980' FEL
Section 21, Township 24 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

P O Box 1786
1120 N West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W O Number	JMS 17558T
Survey Date	07-01-2009
Scale	1" = 2000'
Date	07-01-2009

BOPCO, L.P.



POKER LAKE UNIT #293H
810' FNL and 1980' FEL
Section 21, Township 24 South, Range 30 East,
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1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O Number	JMS 17558TR
Survey Date	07-01-2009
Scale	1" = 2 MILES
Date	07-01-2009

BOPCO, L.P.

BHL 1st Lateral - 2266' FSL, 1471' FEL, Sec 21, T24S, R30E, Lat N32 202197, Long W103 864561, Eddy County, New Mexico
BHL 2nd Lateral - 330' FNL, 1650' FWL, Sec 16, T24S, R30E, Lat N32 223958, Long W103 889039, Eddy County, New Mexico

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

4 1/2" production casing will be run in both laterals with Baker external hydraulic packers for formation isolation

Drilling procedure, BOP diagram, and anticipated tops attached

This surface location is located outside the R111 area and outside the Secretary's area. There are no potash leases within 1 mile of the location

The location of surface hole is orthodox The bottom hole location of the lateral ending in Sec 22, T24S, R30E is unorthodox. The bottom hole location of the lateral ending in Sec 16, T24S, R30E 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 COB 000050 (Nationwide)

Note: This well was originally approved as Delaware vertical 4/12/07. APD extended 2/19/08. Amended to a Brushy Canyon Horizontal 11/10/09. Surface location has not changed since 4/12/07 approval. Location is already built. Therefore a multipoint surface use plan is not included with this APD.

EIGHT POINT DRILLING PROGRAM
BOPCO, L. P.

NAME OF WELL: Poker Lake Unit #293H

LEGAL DESCRIPTION - SURFACE 810' FNL & 1980' FEL, Section 21, T-24-S, R-30-E, Eddy County, NM
BHL 2266' FSL, 1471' FEL, Section 22, T24S, R30E, Eddy County, NM (1st lateral)
BHL 330' FNL, 1650' FWL, Section 16, T24S, R30E, Eddy County, NM (2nd lateral)

POINT 1: ESTIMATED FORMATION TOPS

(See No 2 Below)

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

Anticipated Formation Tops KB 3362' (est) GL 3343'

1st Lateral

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUBSEA TOP	BEARING
	TVD	MD		
T/Rustler	1082'	1082'	+2,280'	Barren
B/Rustler	1332'	1332'	+2,030'	Barren
T/Salt	1362'	1362'	+2,000'	Barren
B/Salt	3,601'	3,601'	- 239'	Barren
T/Lamar Lime	3,811'	3,811'	- 449'	Barren
T/Ramsey	3,844'	3,844'	- 482'	Oil/Gas
T/Lwr Cherry Canyon	5,957'	5,957'	-2,595'	Oil/Gas
KOP	7,094'	7,094'	-3,732'	NA
T/Lwr Brushy Canyon	7,375'	7,375'	-4,013'	Oil/Gas
T/ Lwr B Canyon "Y" Sd	7,525'	7,638'	-4,163'	Oil/Gas
EOC	7,571'	7,836'	-4,209'	Oil/Gas
TD Lateral	7,671'	13,611'	-4,309'	Oil/Gas

2nd Lateral

FORMATION	ESTIMATED TOP FROM KB		ESTIMATED SUBSEA TOP	BEARING
	TVD	MD		
T/Rustler	1082'	1082'	+2,280'	Barren
B/Rustler	1332'	1332'	+2,030'	Barren
T/Salt	1362'	1362'	+2,000'	Barren
B/Salt	3,601'	3,601'	- 239'	Barren
T/Lamar Lime	3,811'	3,811'	- 449'	Barren
T/Ramsey	3,844'	3,844'	- 482'	Oil/Gas
T/Lwr Cherry Canyon	5,957'	5,957'	-2,595'	Oil/Gas
KOP	7,000'	7,000'	-3,638'	NA
T/Lwr Brushy Canyon	7,375'	7,375'	-4,013'	Oil/Gas
T/Lwr B Canyon "Y" Sd	7,525'	7,638'	-4,163'	Oil/Gas
EOC	7,550'	7,824'	-4,188'	Oil/Gas
TD Lateral	7,550'	13,334'	-4,188'	Oil/Gas

POINT 3: CASING PROGRAM See COA

1st Lateral:

TYPE	INTERVALS (MD	Hole Size	PURPOSE	CONDITION
30"	0'-80'	36"	Conductor	Contractor Discretion
20", 133#, J55, Buttress	0'-~~950'~~ 1352	26"	Surface	New
9-5/8", 40#, J55, 8rd, LTC	0'-2,500'	17-1/2"	Intermediate	New
9-5/8", 40#, J55, 8rd, LTC	2,500'-3,831'	12-1/4"	Intermediate	New
7", 26#, N80, 8rd, LTC	0'-7,886'	8-3/4"	Production	New
4-1/2", 11 6#, HCP110, Ultra FJT	6894'-7,886'	6-1/8"	Production	New
4-1/2", 11 6#, HCP110, 8rd, LTC	7886'-13,611'	6-1/8"	Production	New

2nd Lateral:

TYPE	INTERVALS (MD	Hole Size	PURPOSE	CONDITION
30"	0'-80'	36"	Conductor	Contractor Discretion
20", 133#, J55, Buttress	0'-~~958'~~ 1352	26"	Surface	New
9-5/8", 40#, J55, 8rd, LTC	0'-2,500'	17-1/2"	Intermediate	New
9-5/8", 40#, J55, 8rd, LTC	2,500'-3,831'	12-1/4"	Intermediate	New
7", 26#, N80, 8rd, LTC	0'-7,886'	8-3/4"	Production	New
4-1/2", 11 6#, HCP110, Ultra FJT	6,800'-7,874'	6-1/8"	Production	New
4-1/2", 11 6#, HCP110, 8rd, LTC	7,874'-13,334'	6-1/8"	Production	New

CASING DESIGN SAFETY FACTORS:

1st Lateral:

TYPE	TENSION	COLLAPSE	BURST
20", 133#, J55, Buttress	13 16	2 18	2 31
9-5/8", 40#, J55, 8rd, LTC	3 40	1 29	1 10
7" 26#, N80, 8rd, LTC	2 97	1 48	1 09
4-1/2", 11 6#, HCP-110, Ultra FJT	3 25	2 05	1 30
4-1/2", 11 6#, HCP110, 8rd, LTC	3 78	2 05	1 30

2nd Lateral:

TYPE	TENSION	COLLAPSE	BURST
20", 133#, J55, Buttress	13 16	2 18	2 31
9-5/8", 40#, J55, 8rd, LTC	3 40	1 29	1 10
7", 26#, N80, 8rd, LTC	2 97	1 48	1 09
4-1/2", 11 6#, HCP-110, Ultra FJT	3 25	2 05	1 30
4-1/2", 11 6#, HCP110, 8rd, LTC	3 78	2 05	1 30

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

2ND 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 for 17-1/2" & 12-1/4" intermediate hole will consist of 21-1/4" X 2000 psi hydril with mud cross, choke manifold, and chokes as per Diagram 2 (2000 psi WP) The BOP stack, choke, kill lines, upper and lower kelly cocks, inside BOP, etc. when installed on the surface casinghead will be hydro-tested to 250-300 psig and 2000 psig by independent tester The BOPE when rigged up on the intermediate casing spool will consist of 13-5/8" 5000 psi annular, 5000 psi pipe & blind rams with choke manifold, chokes, as in Diagram 3 and will be tested to 3000 psig by independent tester. Upper and lower kelly cocks, inside BOP will also be tested to 3000 psig In addition to the high pressure test, a low pressure (250-300 psig) test will be required Hydril will be tested to 2500 psig

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

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM) - Cont

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

POINT 5: MUD PROGRAM

1st Lateral:

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - ~~950'~~ 1352	FW Spud Mud	8 5 – 9 2	38-70	NC	NC	NC	10 0
1352 ~~950'~~ - 3,831'	Brine Water	9 8 – 10 2	28-30	NC	NC	NC	9 5-10 0
3,831' - 13,611'	FW/Gel	8 7 – 9 2	28-36	NC	NC	20	9 5-10 0

2nd Lateral:

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - ~~950'~~ 1352	FW Spud Mud	8 5 – 9 2	38-70	NC	NC	NC	10 0
1352 ~~950'~~ - 3,831'	Brine Water	9 8 – 10 2	28-30	NC	NC	NC	9 5-10 0
3,831' - 13,334'	FW/Gel	8 7 – 9 2	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 See COA

B) LOGGING

Run #1 GR with MWD during drilling of build and horizontal portions of 8-3/4" hole and 6-1/8" hole

Run #2 Drill pipe conveyed GR/PE/NL/Density/Resistivity/Caliper log run from TD to KOP in each lateral

Run #3 GR/CNL will be run from 9-5/8" casing shoe to surface during completion operations

C) CONVENTIONAL CORING

None anticipated

D) CEMENT See COA

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE						
Lead 0 – 650' (100% excess Circ to surface)	1120	650	ExtendaCem CZ + 4% Gel + 2% $CaCl_2$	9 20	13 5	1 75
Tail 650' – ~~950~~ 1352 (100% excess)	670	300	Halcem + 2% $CaCl_2$	6 39	14 8	1 35
INTERMEDIATE						
Lead 0' - 3331' (100% excess Circ to surface)	3400	3331	EconoCem-HLC + 5% Salt + 5 pps Gilsonite	9 59	12 9	1 88
Tail 3331' - 3831' (100% excess)	250	500	HalCem-C	6 34	14 8	1 33

D) CEMENT - con't

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT^3/SX
2ND INTERMEDIATE						
Stage 1						
Lead 5000' – 6800' (50% excess)	220	1800	Halco Tuned Lite (Versa Cem) + 20 pps HGS 6000 + 1% Cal-Seal 60 + 1 pps NaCl + 1 25 pps DFR-3 + 0 15 pps FWCA	14 68	9 7	3 16
Tail 6800' – 7886' (50% excess)	170	1086	HalcoCem-H + 0 6% Halad-9 + 2% Bentonite	5 85	15 2	1 28
DV Tool @ 5,000'						
Stage 2						
Lead 0' – 4900' (50% excess)	400	4900	EconoCem-HLC + 3 pps Gilsonite + 3% NaCl	10 57	12 6	1 87
Tail 4900' – 5000' (50% excess)	100	100	Hal-Cem C	6 34	14 8	1 33

E) DIRECTIONAL DRILLING

1st Lateral:

BOPCO, L P plans to drill out the 9-5/8" intermediate casing with an 8-3/4" bit to a TVD of approximately 7094' At which point a directional hole will be kicked off and drilled at an azimuth of 110 0°, building angle at 12 00°/100' to a max angle of 89 012° at a TVD of 7571' (MD 7836') This 89 012° angle will be maintained to a MD of 7886' or TVD of 7571' At 7886', 7", 26#, N80, 8rd, LTC casing will be installed and cemented in two stages (DV Tool @ 5000') with cement being circulated to the surface A 6-1/8" openhole lateral will be drilled out from under the 7" casing to a measured depth of 13,611' at an azimuth of 110 02° 4-1/2", 11 6#, HCP110, 8rd, LTC casing will be installed with Baker hydraulic packers installed for zone isolation in the lateral and 4-1/2", 11 6#, HCP110, Ultra FJT thru the curve Liner hanger will be set at approx 7050'

2nd Lateral:

A bridge plug / bottom trip anchor will be set above the previously set liner hanger A whipstock and milling assembly will then be set in the 7" casing, and a window cut in 7" casing The second lateral will be kicked off at approximately 7000' The 6-1/8" curve will be built at 12°/100' to 90° (7824' MD) and azimuth of 343 237°. (TVD of end of curve 7550') This 6-1/8" lateral will be maintained to a measured depth of 13,334' (TVD 7550') 4-1/2" liner will then be installed as follows 5500' of 4-1/2", 11 6#, HCP110, LTC casing from TD to end of curve (EOC) and 4-1/2", 11.6#, HCP110, Ultra FJT casing from EOC to window Liner will be set with S3 hook hanger

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout the Delaware section A BHP of 3533 psi (max) or MWE of 9 0 ppg is expected Lost circulation may exist in the Delaware Section from 3844'-7550' TVD No H_2S is anticipated

POINT 8: OTHER PERTINENT INFORMATION 6

A) Auxiliary Equipment

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

B) Anticipated Starting Date

Upon approval

40 days drilling operations

20 days completion operations

GEG/mac
January 28, 2010

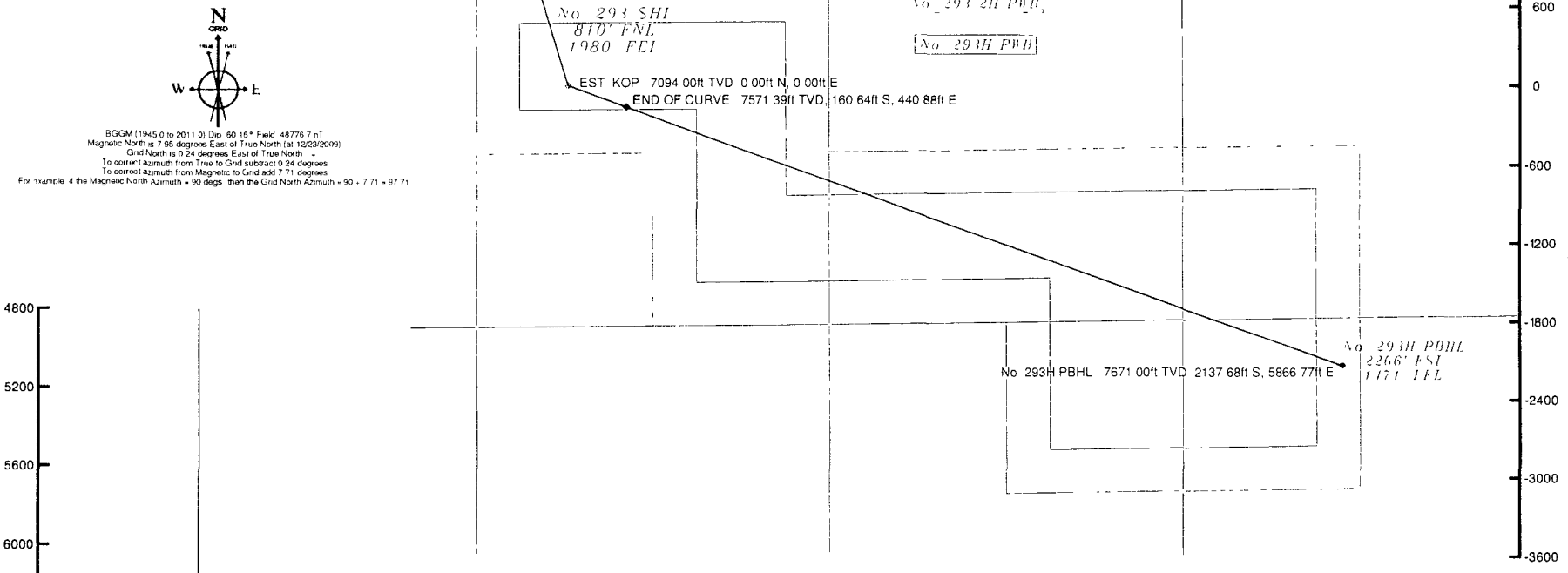
1st Lateral

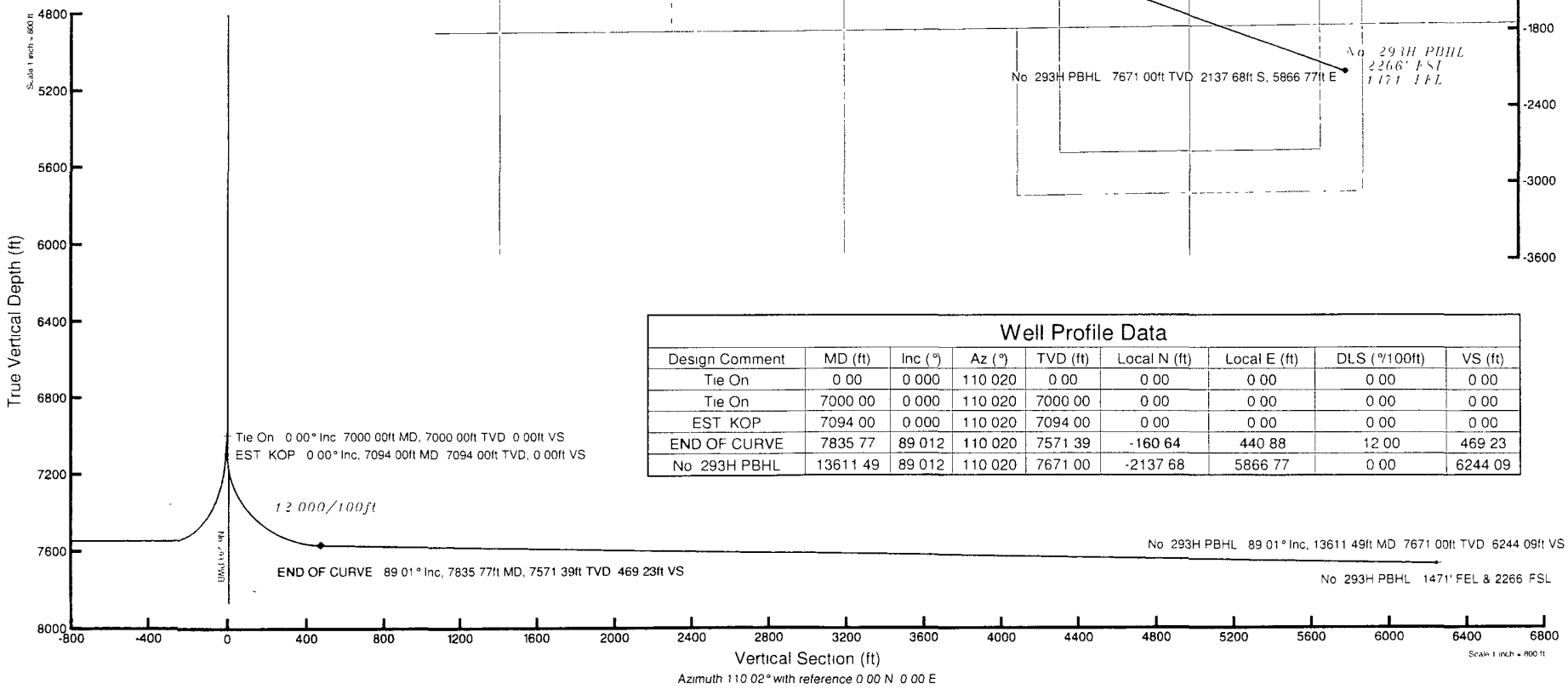
BOPCO, L.P.

Location	Eddy County NM	Slot	No 293 SHL - 810' FNL & 1980' FEL
Field	(PLU) Sec 21, T24S, R30E	Well	No 293H
Facility	Poker Lake Unit No 293	Wellbore	No 293H PWB

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No 293H SHL (RT)	Grid System: NAD27 (TM New Mexico State Plane, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 293H SHL (RT)	North Reference: Grid north
Rig on No 293H SHL (RT) to Mean Sea Level: 3362 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Poker Lake Unit No 293): 3343 feet	Depths are in feet
Coordinates are in feet, referenced to Surface Location	Created by: Victor Hernandez on 12/23/2009

BAKER HUGHES INTEQ





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	110 020	0 00	0 00	0 00	0 00	0 00
Tie On	7000 00	0 000	110 020	7000 00	0 00	0 00	0 00	0 00
EST KOP	7094 00	0 000	110 020	7094 00	0 00	0 00	0 00	0 00
END OF CURVE	7835 77	89 012	110 020	7571 39	-160 64	440 88	12 00	469 23
No 293H PBHL	13611 49	89 012	110 020	7671 00	-2137 68	5866 77	0 00	6244 09

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	**BOPCO, L.P.**	Slot	**No. 293 SHL - 810' FNL & 1980' FEL**
Area	**Eddy County, NM**	Well	**No. 293H**
Field	**(PLU) Sec 21, T24S, R30E**	Wellbore	**No. 293H PWB**
Facility	**Poker Lake Unit No. 293**	Sidetrack from	**No. 293 PWB at 7000.00 MD**

REPORT SETUP INFORMATION

Projection System	**NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Victor Hernandez**
Scale	**0.999931**	Report Generated	**12/23/2009 at 10:03:59 AM**
Convergence at slot	**0.24° East**	Database/Source file	**WA_Midland/No._293H_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**	639131.39	439732.40	32°12'29.308"N	103°53'00.591"W
Facility Reference Pt			**639131.39**	**439732.40**	32°12'29.308"N	103°53'00.591"W
Field Reference Pt			**639131.39**	**439732.40**	32°12'29.308"N	103°53'00.591"W

WELLPATH DATUM

Calculation method	**Minimum curvature**	Rig on No. 293H SHL (RT) to GL	**19.00ft**
Horizontal Reference Pt	**Surface Location**	Rig on No. 293H SHL (RT) to Mean Sea Level	**3362.00ft**
Vertical Reference Pt	**Rig on No. 293H SHL (RT)**	GL to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 293H SHL (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**110.02°**

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 293 SHL - 810' FNL & 1980' FEL
Area	Eddy County, NM	Well	No. 293H
Field	(PLU) Sec 21, T24S, R30E	Wellbore	No. 293H PWB
Facility	Poker Lake Unit No. 293	Sidetrack from	No. 293 PWB at 7000.00 MD

WELLPATH DATA (71 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]	DLS [°/100ft]	Comments
0 00	0 000	110 020	0 00	0 00	0 00	0 00	639131 39	439732 40	0 00	Tie On
7000 00	0 000	110 020	7000 00	0 00	0 00	0 00	639131 39	439732 40	0 00	Tie On
7094 00	0 000	110 020	7094 00	0 00	0 00	0 00	639131 39	439732 40	0 00	EST KOP
7100 00†	0 720	110 020	7100 00	0 04	-0 01	0 04	639131 43	439732 39	12 00	
7200.00†	12.720	110.020	7199.13	11.72	-4.01	11.01	639142.40	439728.39	12.00	
7300 00†	24 720	110 020	7293 67	43 75	-14 98	41 11	639172 50	439717 42	12 00	
7400 00†	36 720	110 020	7379 48	94 74	-32 44	89 02	639220 40	439699 97	12 00	
7500 00†	48 720	110 020	7452 81	162 46	-55 62	152 65	639284 02	439676 78	12 00	
7600 00†	60 720	110 020	7510 46	243 95	-83 52	229 21	639360 58	439648 89	12 00	
7700.00†	72.720	110.020	7549.91	335.64	-114.91	315.36	639446.72	439617.50	12.00	
7800 00†	84 720	110 020	7569 44	433 53	-148 42	407 33	639538 69	439583 99	12 00	
7835 77	89 012	110 020	7571 39	469 23	-160 64	440 88	639572 23	439571 77	12 00	END OF CURVE
7900 00†	89 012	110 020	7572 50	533 46	-182 63	501 22	639632 57	439549 78	0 00	
8000 00†	89 012	110 020	7574 23	633 44	-216 86	595 16	639726 51	439515 55	0 00	
8100.00†	89.012	110.020	7575.95	733.43	-251.09	689.11	639820.45	439481.33	0.00	
8200 00†	89 012	110 020	7577 68	833 41	-285 32	783 05	639914 38	439447 10	0 00	
8300 00†	89 012	110 020	7579 40	933 40	-319 55	876 99	640008 32	439412 87	0 00	
8400 00†	89 012	110 020	7581 12	1033 38	-353 78	970 94	640102 26	439378 64	0 00	
8500 00†	89 012	110 020	7582 85	1133 37	-388 01	1064 88	640196 19	439344 42	0 00	
8600.00†	89.012	110.020	7584.57	1233.35	-422.24	1158.82	640290.13	439310.19	0.00	
8700 00†	89 012	110 020	7586 30	1333 34	-456 47	1252 77	640384 07	439275 96	0 00	
8800 00†	89 012	110 020	7588 02	1433 32	-490 70	1346 71	640478 00	439241 73	0 00	
8900 00†	89 012	110 020	7589 75	1533 31	-524 93	1440 65	640571 94	439207 50	0 00	
9000 00†	89 012	110 020	7591 47	1633 29	-559 16	1534 59	640665 88	439173 28	0 00	
9100.00†	89.012	110.020	7593.20	1733.28	-593.39	1628.54	640759.81	439139.05	0.00	
9200 00†	89 012	110 020	7594 92	1833 26	-627 62	1722 48	640853 75	439104 82	0 00	
9300 00†	89 012	110 020	7596 65	1933 25	-661 85	1816 42	640947 69	439070 59	0 00	
9400 00†	89 012	110 020	7598 37	2033 23	-696 08	1910 37	641041 62	439036 37	0 00	
9500 00†	89 012	110 020	7600 09	2133 22	-730 31	2004 31	641135 56	439002 14	0 00	
9600.00†	89.012	110.020	7601.82	2233.20	-764.54	2098.25	641229.50	438967.91	0.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No. 293 SHL - 810' FNL & 1980' FEL**
Area	**Eddy County, NM**	Well	**No. 293H**
Field	**(PLU) Sec 21, T24S, R30E**	Wellbore	**No. 293H PWB**
Facility	**Poker Lake Unit No. 293**	Sidetrack from	**No. 293 PWB at 7000.00 MD**

WELLPATH DATA (71 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]	DLS [°/100ft]	Comments
9700.00†	89.012	110.020	7603.54	2333.19	-798.77	2192.20	641323.43	438933.68	0.00	
9800.00†	89.012	110.020	7605.27	2433.17	-833.00	2286.14	641417.37	438899.45	0.00	
9900.00†	89.012	110.020	7606.99	2533.16	-867.23	2380.08	641511.30	438865.23	0.00	
10000.00†	89.012	110.020	7608.72	2633.14	-901.46	2474.03	641605.24	438831.00	0.00	
10100.00†	89.012	110.020	7610.44	2733.13	-935.69	2567.97	641699.18	438796.77	0.00	
10200.00†	89.012	110.020	7612.17	2833.11	-969.93	2661.91	641793.11	438762.54	0.00	
10300.00†	89.012	110.020	7613.89	2933.10	-1004.16	2755.86	641887.05	438728.32	0.00	
10400.00†	89.012	110.020	7615.62	3033.08	-1038.39	2849.80	641980.99	438694.09	0.00	
10500.00†	89.012	110.020	7617.34	3133.07	-1072.62	2943.74	642074.92	438659.86	0.00	
10600.00†	89.012	110.020	7619.06	3233.05	-1106.85	3037.69	642168.86	438625.63	0.00	
10700.00†	89.012	110.020	7620.79	3333.04	-1141.08	3131.63	642262.80	438591.40	0.00	
10800.00†	89.012	110.020	7622.51	3433.02	-1175.31	3225.57	642356.73	438557.18	0.00	
10900.00†	89.012	110.020	7624.24	3533.01	-1209.54	3319.51	642450.67	438522.95	0.00	
11000.00†	89.012	110.020	7625.96	3632.99	-1243.77	3413.46	642544.61	438488.72	0.00	
11100.00†	89.012	110.020	7627.69	3732.98	-1278.00	3507.40	642638.54	438454.49	0.00	
11200.00†	89.012	110.020	7629.41	3832.96	-1312.23	3601.34	642732.48	438420.27	0.00	
11300.00†	89.012	110.020	7631.14	3932.95	-1346.46	3695.29	642826.42	438386.04	0.00	
11400.00†	89.012	110.020	7632.86	4032.94	-1380.69	3789.23	642920.35	438351.81	0.00	
11500.00†	89.012	110.020	7634.59	4132.92	-1414.92	3883.17	643014.29	438317.58	0.00	
11600.00†	89.012	110.020	7636.31	4232.91	-1449.15	3977.12	643108.23	438283.35	0.00	
11700.00†	89.012	110.020	7638.04	4332.89	-1483.38	4071.06	643202.16	438249.13	0.00	
11800.00†	89.012	110.020	7639.76	4432.88	-1517.61	4165.00	643296.10	438214.90	0.00	
11900.00†	89.012	110.020	7641.48	4532.86	-1551.84	4258.95	643390.04	438180.67	0.00	
12000.00†	89.012	110.020	7643.21	4632.85	-1586.07	4352.89	643483.97	438146.44	0.00	
12100.00†	89.012	110.020	7644.93	4732.83	-1620.30	4446.83	643577.91	438112.22	0.00	
12200.00†	89.012	110.020	7646.66	4832.82	-1654.53	4540.78	643671.84	438077.99	0.00	
12300.00†	89.012	110.020	7648.38	4932.80	-1688.76	4634.72	643765.78	438043.76	0.00	
12400.00†	89.012	110.020	7650.11	5032.79	-1722.99	4728.66	643859.72	438009.53	0.00	
12500.00†	89.012	110.020	7651.83	5132.77	-1757.22	4822.61	643953.65	437975.30	0.00	
12600.00†	89.012	110.020	7653.56	5232.76	-1791.45	4916.55	644047.59	437941.08	0.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No. 293 SHL - 810' FNL & 1980' FEL**
Area	**Eddy County, NM**	Well	**No. 293H**
Field	**(PLU) Sec 21, T24S, R30E**	Wellbore	**No. 293H PWB**
Facility	**Poker Lake Unit No. 293**	Sidetrack from	**No. 293 PWB at 7000.00 MD**

WELLPATH DATA (71 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]	DLS [°/100ft]	Comments
12700.00†	89.012	110.020	7655.28	5332.74	-1825.68	5010.49	644141.53	437906.85	0.00	
12800.00†	89.012	110.020	7657.01	5432.73	-1859.91	5104.43	644235.46	437872.62	0.00	
12900.00†	89.012	110.020	7658.73	5532.71	-1894.14	5198.38	644329.40	437838.39	0.00	
13000.00†	89.012	110.020	7660.45	5632.70	-1928.37	5292.32	644423.34	437804.17	0.00	
13100.00†	89.012	110.020	7662.18	5732.68	-1962.60	5386.26	644517.27	437769.94	0.00	
13200.00†	89.012	110.020	7663.90	5832.67	-1996.83	5480.21	644611.21	437735.71	0.00	
13300.00†	89.012	110.020	7665.63	5932.65	-2031.06	5574.15	644705.15	437701.48	0.00	
13400.00†	89.012	110.020	7667.35	6032.64	-2065.29	5668.09	644799.08	437667.25	0.00	
13500.00†	89.012	110.020	7669.08	6132.62	-2099.52	5762.04	644893.02	437633.03	0.00	
13600.00†	89.012	110.020	7670.80	6232.61	-2133.75	5855.98	644986.96	437598.80	0.00	
13611.49	89.012	110.020	7671.00	6244.09	-2137.68	5866.77	644997.75	437594.87	0.00	No 293H PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 293H PBHL - 1471' FEL & 2266' FSL	13611.49	7671.00	-2137.68	5866.77	644997.75	437594.87	32° 12' 07.907" N	103° 51' 52.421" W	point

SURVEY PROGRAM Ref Wellbore: No. 293H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	7000.00	NaviTrak (Standard)		No 293 PWB
7000.00	13611.49	NaviTrak (Standard)		No 293H PWB

BOPCO, L.P.

Location	Eddy County NM	Slot	No 293 SHL 810 FNL & 1980 FEL
Field	(PLU) Sec 21 T24S R30E	Well	No 293 2H
Facility	Poker Lake Unit No 293	Wellbore	No 293 2H PWB

BAKER HUGHES
INTEQ

Scale 1 inch = 1200 ft

Easting (ft)

-3600 -3000 -2400 -1800 -1200 -600 0 600 1200

6600 6000 5400 4800 4200 3600 3000 2400 1800 1200 600 0 -600

Northing (ft)

No 293 2H PWB

No 293 2H PBHL - 330 FNL & 1650' FWL

No 293 2H PBHL 7550 00ft TVD 5751 16ft N, 1732 63ft W

END OF CURVE 7550 04ft TVD, 474 93ft N, 143 37ft W

END OF HOLD / KOP 2 7130 77ft TVD, 21 22ft N, 6 49ft W

EST KOP 6999 75ft TVD 5 83ft N, 1 78ft W

Tie On 6900 00ft TVD, 0 00ft N, 0 00ft E

No 293 SHL 810' FNL 1980' FEL

No 293H PWB

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	343.000	0.00	0.00	0.00	0.00	0.00
Tie On	6900.00	0.000	343.000	6900.00	0.00	0.00	0.00	0.00
EST KOP	7000.00	7.000	343.000	6999.75	5.83	1.78	7.00	6.10
END OF HOLD / KOP 2	7132.00	7.000	343.000	7130.77	21.22	6.49	0.00	22.19
END OF CURVE	7823.67	90.000	343.237	7550.04	474.93	143.37	12.00	496.10
No 293 2H PBHL	13334.06	90.000	343.237	7550.00	5751.16	1732.63	0.00	6006.48

N
GRID

W E

BGGM (1945.0 to 2011.0) Dip: 60.16° Field: 48776.7 nT
Magnetic North is 7.95 degrees East of True North (at 12/23/2009)
Grid North is 0.24 degrees East of True North
To correct azimuth from True to Grid subtract 0.24 degrees
To correct azimuth from Magnetic to Grid add 7.71 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.71 = 97.71

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No. 293H SHL (RT)	Grid System: NAD27 / TM New Mexico State Plane, Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No. 293H SHL (RT)	North Reference: Grid north
Rig on No. 293H SHL (RT) is Mean Sea Level: 3362 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Poker Lake Unit No. 293): -3343 feet	Depths are in feet
Coordinates are in feet referenced to Surface Location	Created by: Victor Hernandez on 12-23-2009

Scale 1 inch = 1000 ft

4000 4500 5000 5500 6000 6500 7000 7500 8000

True Vertical Depth (ft)

Tie On 0 00° Inc, 6900 00ft MD, 6900 00ft TVD, 0 00ft VS

EST KOP 7 00° Inc, 7000 00ft MD 6999 75ft TVD 6 10ft VS

END OF HOLD / KOP 2 7 00° Inc, 7132 00ft MD, 7130 77ft TVD, 22 19ft VS

12 000/100ft

No 293 2H PBHL 90 00° Inc 13334 06ft MD, 7550 00ft TVD, 6006 48ft VS

END OF CURVE 90 00° Inc 7823 67ft MD 7550 04ft TVD, 496 10ft VS

No 293 2H PBHL - 330 FNL & 1650' FWL

SHL 810' FNL

-500 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500

Vertical Section (ft)

Scale 1 inch = 1000 ft

Azimuth 343 23° with reference 0 00 N 0 00 E

2nd Lateral

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	**BOPCO, L.P.**	Slot	**No. 293 SHL - 810' FNL & 1980' FEL**
Area	**Eddy County, NM**	Well	**No. 293 2H**
Field	**(PLU) Sec 21, T24S, R30E**	Wellbore	**No. 293 2H PWB**
Facility	**Poker Lake Unit No. 293**	Sidetrack from	**No. 293 PWB at 6900.00 MD**

REPORT SETUP INFORMATION

Projection System	**NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Victor Hernandez**
Scale	**0.999931**	Report Generated	**12/23/2009 at 12:47:45 PM**
Convergence at slot	**0.24° East**	Database/Source file	**WA_Midland/No._293_2H_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**	639131.39	439732.40	32°12'29.308"N	103°53'00.591"W
Facility Reference Pt			**639131.39**	**439732.40**	32°12'29.308"N	103°53'00.591"W
Field Reference Pt			**639131.39**	**439732.40**	32°12'29.308"N	103°53'00.591"W

WELLPATH DATUM

Calculation method	**Minimum curvature**	Rig on No 293H SHL (RT) to GL	**19.00ft**
Horizontal Reference Pt	**Surface Location**	Rig on No 293H SHL (RT) to Mean Sea Level	**3362.00ft**
Vertical Reference Pt	**Rig on No. 293H SHL (RT)**	GL to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 293H SHL (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**343.23°**

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
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WELLPATH DATA (69 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]	DLS [°/100ft]	Comments
0 00	0 000	343 000	0 00	0 00	0 00	0 00	639131 39	439732 40	0 00	Tie On
6900 00	0 000	343 000	6900 00	0 00	0 00	0 00	639131 39	439732 40	0 00	Tie On
7000 00	7 000	343 000	6999 75	6 10	5 83	-1 78	639129 61	439738 23	7 00	EST KOP
7100 00†	7 000	343 000	7099 01	18 29	17 49	-5 35	639126 04	439749 89	0 00	
7132.00	7.000	343.000	7130.77	22.19	21.22	-6.49	639124.90	439753.62	0.00	END OF HOLD / KOP 2
7200 00†	15 160	343 130	7197 44	35 24	33 71	-10 29	639121 11	439766 11	12 00	
7300 00†	27 160	343 180	7290 53	71 28	68 20	-20 72	639110 67	439800 59	12 00	
7400 00†	39 160	343 201	7374 09	125 87	120 46	-36 51	639094 88	439852 85	12 00	
7500 00†	51 160	343 214	7444 48	196 65	188 22	-56 96	639074 44	439920 61	12 00	
7600.00†	63.160	343.222	7498.61	280.52	268.52	-81.17	639050.22	440000.90	12.00	
7700 00†	75 160	343 229	7534 12	373 80	357 83	-108 09	639023 30	440090 21	12 00	
7800 00†	87 160	343 236	7549 46	472 44	452 27	-136 55	638994 85	440184 64	12 00	
7823 67	90 000	343 237	7550 04	496 10	474 93	-143 37	638988 03	440207 29	12 00	END OF CURVE
7900 00†	90 000	343 237	7550 04	572 43	548 01	-165 39	638966 02	440280 38	0 00	
8000.00†	90.000	343.237	7550.04	672.43	643.76	-194.23	638937.18	440376.12	0.00	
8100 00†	90 000	343 237	7550 04	772 43	739 52	-223 07	638908 34	440471 86	0 00	
8200 00†	90 000	343 237	7550 04	872 43	835 27	-251 91	638879 50	440567 61	0 00	
8300 00†	90 000	343 237	7550 04	972 43	931 02	-280 75	638850 66	440663.35	0 00	
8400 00†	90 000	343 237	7550 04	1072 43	1026 77	-309 59	638821 82	440759 09	0 00	
8500.00†	90.000	343.237	7550.04	1172.43	1122.52	-338.43	638792.98	440854.84	0.00	
8600 00†	90 000	343 237	7550 04	1272 43	1218 27	-367 28	638764 14	440950 58	0 00	
8700 00†	90 000	343 237	7550 04	1372 43	1314 02	-396 12	638735 30	441046 33	0 00	
8800 00†	90 000	343 237	7550 04	1472 43	1409 77	-424 96	638706 46	441142 07	0 00	
8900 00†	90 000	343 237	7550 04	1572 43	1505 52	-453 80	638677 62	441237 81	0 00	
9000.00†	90.000	343.237	7550.03	1672.43	1601.27	-482.64	638648.78	441333.56	0.00	
9100 00†	90 000	343 237	7550 03	1772 43	1697 02	-511 48	638619 95	441429 30	0 00	
9200 00†	90 000	343 237	7550 03	1872 43	1792 77	-540 32	638591 11	441525 05	0 00	
9300 00†	90 000	343 237	7550 03	1972 43	1888 52	-569 16	638562 27	441620 79	0 00	
9400 00†	90 000	343 237	7550 03	2072 43	1984 27	-598 00	638533 43	441716 53	0 00	
9500.00†	90.000	343.237	7550.03	2172.43	2080.02	-626.85	638504.59	441812.28	0.00	

Planned Wellpath Report

Prelim_1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
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Area	Eddy County, NM	Well	No. 293 2H
Field	(PLU) Sec 21, T24S, R30E	Wellbore	No. 293 2H PWB
Facility	Poker Lake Unit No. 293	Sidetrack from	No. 293 PWB at 6900.00 MD

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	DLS [°/100ft]	Comments
9600.00†	90.000	343.237	7550.03	2272.43	2175.77	-655.69	638475.75	441908.02	0.00	
9700.00†	90.000	343.237	7550.03	2372.43	2271.53	-684.53	638446.91	442003.76	0.00	
9800.00†	90.000	343.237	7550.03	2472.43	2367.28	-713.37	638418.07	442099.51	0.00	
9900.00†	90.000	343.237	7550.03	2572.43	2463.03	-742.21	638389.23	442195.25	0.00	
10000.00†	90.000	343.237	7550.03	2672.43	2558.78	-771.05	638360.39	442291.00	0.00	
10100.00†	90.000	343.237	7550.03	2772.43	2654.53	-799.89	638331.55	442386.74	0.00	
10200.00†	90.000	343.237	7550.03	2872.43	2750.28	-828.73	638302.71	442482.48	0.00	
10300.00†	90.000	343.237	7550.02	2972.43	2846.03	-857.58	638273.87	442578.23	0.00	
10400.00†	90.000	343.237	7550.02	3072.43	2941.78	-886.42	638245.04	442673.97	0.00	
10500.00†	90.000	343.237	7550.02	3172.43	3037.53	-915.26	638216.20	442769.72	0.00	
10600.00†	90.000	343.237	7550.02	3272.43	3133.28	-944.10	638187.36	442865.46	0.00	
10700.00†	90.000	343.237	7550.02	3372.43	3229.03	-972.94	638158.52	442961.20	0.00	
10800.00†	90.000	343.237	7550.02	3472.43	3324.78	-1001.78	638129.68	443056.95	0.00	
10900.00†	90.000	343.237	7550.02	3572.43	3420.53	-1030.62	638100.84	443152.69	0.00	
11000.00†	90.000	343.237	7550.02	3672.43	3516.28	-1059.46	638072.00	443248.44	0.00	
11100.00†	90.000	343.237	7550.02	3772.43	3612.03	-1088.31	638043.16	443344.18	0.00	
11200.00†	90.000	343.237	7550.02	3872.43	3707.79	-1117.15	638014.32	443439.92	0.00	
11300.00†	90.000	343.237	7550.02	3972.43	3803.54	-1145.99	637985.48	443535.67	0.00	
11400.00†	90.000	343.237	7550.02	4072.43	3899.29	-1174.83	637956.64	443631.41	0.00	
11500.00†	90.000	343.237	7550.01	4172.43	3995.04	-1203.67	637927.80	443727.15	0.00	
11600.00†	90.000	343.237	7550.01	4272.43	4090.79	-1232.51	637898.97	443822.90	0.00	
11700.00†	90.000	343.237	7550.01	4372.43	4186.54	-1261.35	637870.13	443918.64	0.00	
11800.00†	90.000	343.237	7550.01	4472.43	4282.29	-1290.19	637841.29	444014.39	0.00	
11900.00†	90.000	343.237	7550.01	4572.43	4378.04	-1319.04	637812.45	444110.13	0.00	
12000.00†	90.000	343.237	7550.01	4672.43	4473.79	-1347.88	637783.61	444205.87	0.00	
12100.00†	90.000	343.237	7550.01	4772.43	4569.54	-1376.72	637754.77	444301.62	0.00	
12200.00†	90.000	343.237	7550.01	4872.43	4665.29	-1405.56	637725.93	444397.36	0.00	
12300.00†	90.000	343.237	7550.01	4972.43	4761.04	-1434.40	637697.09	444493.11	0.00	
12400.00†	90.000	343.237	7550.01	5072.43	4856.79	-1463.24	637668.25	444588.85	0.00	
12500.00†	90.000	343.237	7550.01	5172.43	4952.54	-1492.08	637639.41	444684.59	0.00	

Planned Wellpath Report

Prelim_1

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REFERENCE WELLPATH IDENTIFICATION			
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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	DLS [°/100ft]	Comments
12600.00†	90.000	343.237	7550.01	5272.43	5048.29	-1520.92	637610.57	444780.34	0.00	
12700.00†	90.000	343.237	7550.01	5372.43	5144.04	-1549.76	637581.73	444876.08	0.00	
12800.00†	90.000	343.237	7550.00	5472.43	5239.80	-1578.61	637552.90	444971.82	0.00	
12900.00†	90.000	343.237	7550.00	5572.43	5335.55	-1607.45	637524.06	445067.57	0.00	
13000.00†	90.000	343.237	7550.00	5672.43	5431.30	-1636.29	637495.22	445163.31	0.00	
13100.00†	90.000	343.237	7550.00	5772.43	5527.05	-1665.13	637466.38	445259.06	0.00	
13200.00†	90.000	343.237	7550.00	5872.43	5622.80	-1693.97	637437.54	445354.80	0.00	
13300.00†	90.000	343.237	7550.00	5972.43	5718.55	-1722.81	637408.70	445450.54	0.00	
13334.06	90.000	343.237	7550.00	6006.48	5751.16	-1732.63	637398.88	445483.15	0.00	No 293 2H PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 293 2H PBHL - 330' FNL & 1650' FWL	13334.06	7550.00	5751.16	-1732.63	637398.88	445483.15	32°13'26.290"N	103°53'20.480"W	point

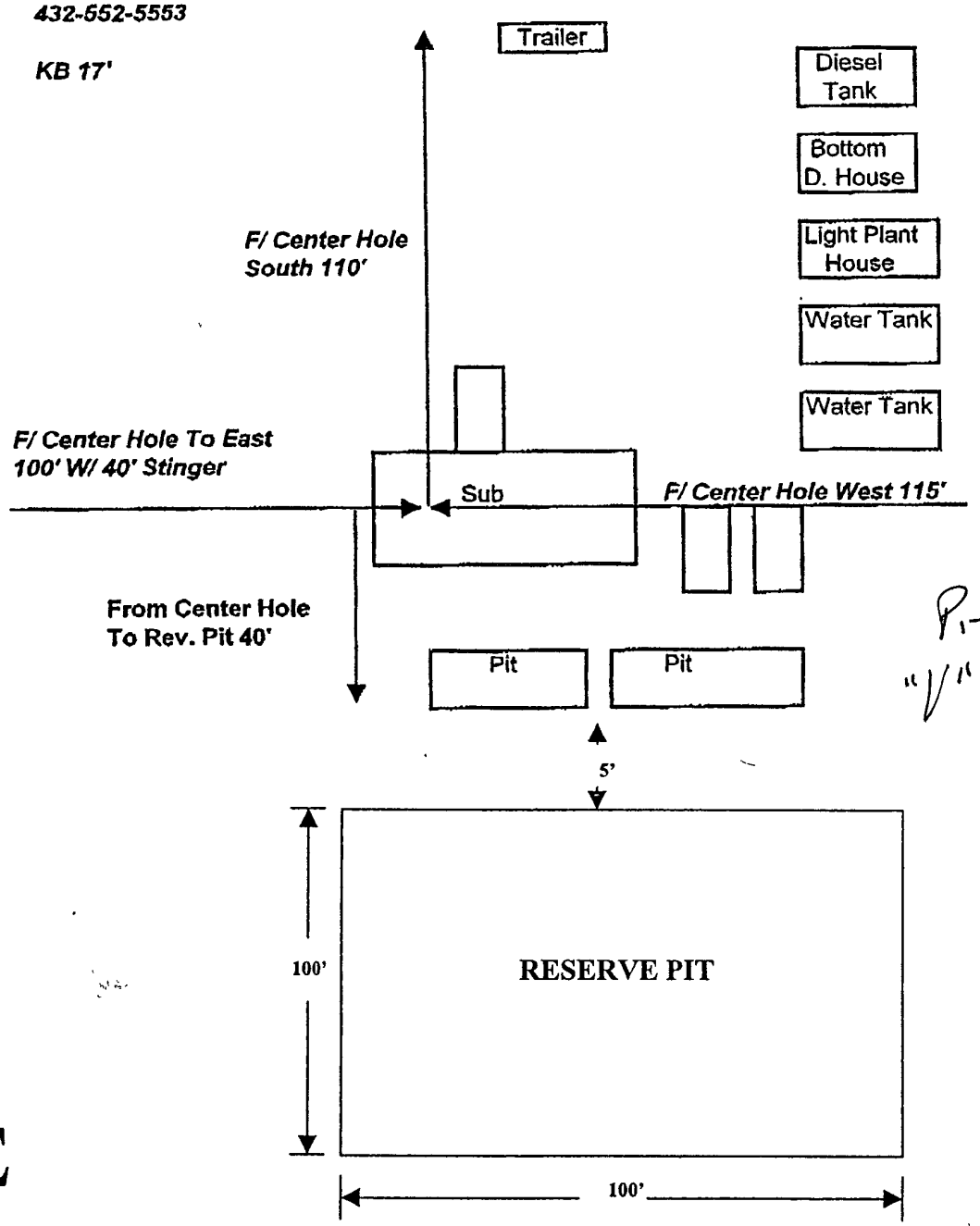
SURVEY PROGRAM Ref Wellbore: No. 293 2H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	6900.00	NaviTrak (Standard)		No 293 PWB
6900.00	13334.06	NaviTrak (Standard)		No 293 2H PWB

Adobe Drilling Rig No. Longhorn

432-552-5553

KB 17'



Pits Southeast
"V" Door Southwest

EXHIBIT "D"

BOPCO
Poker Lake 293 H

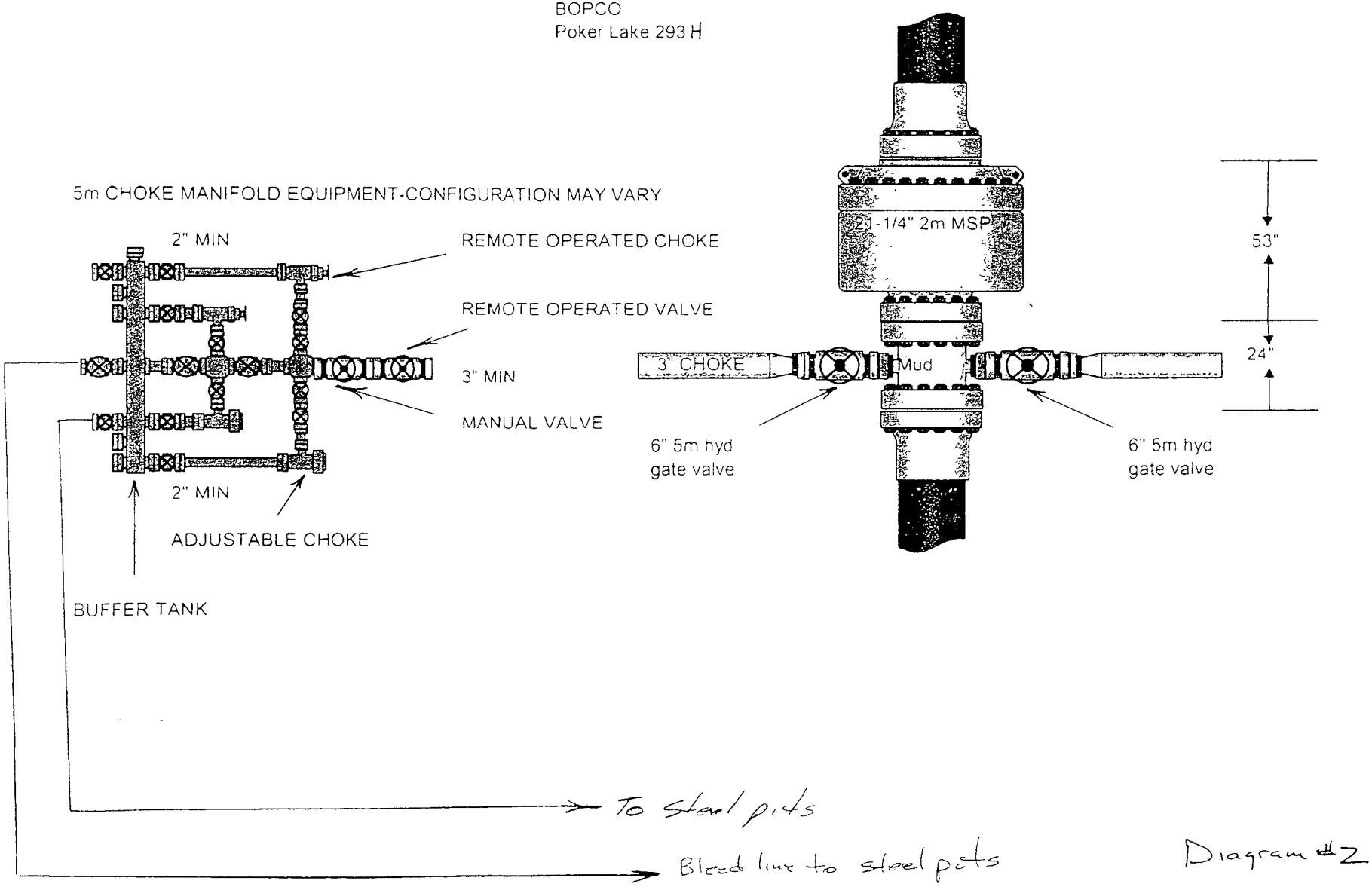
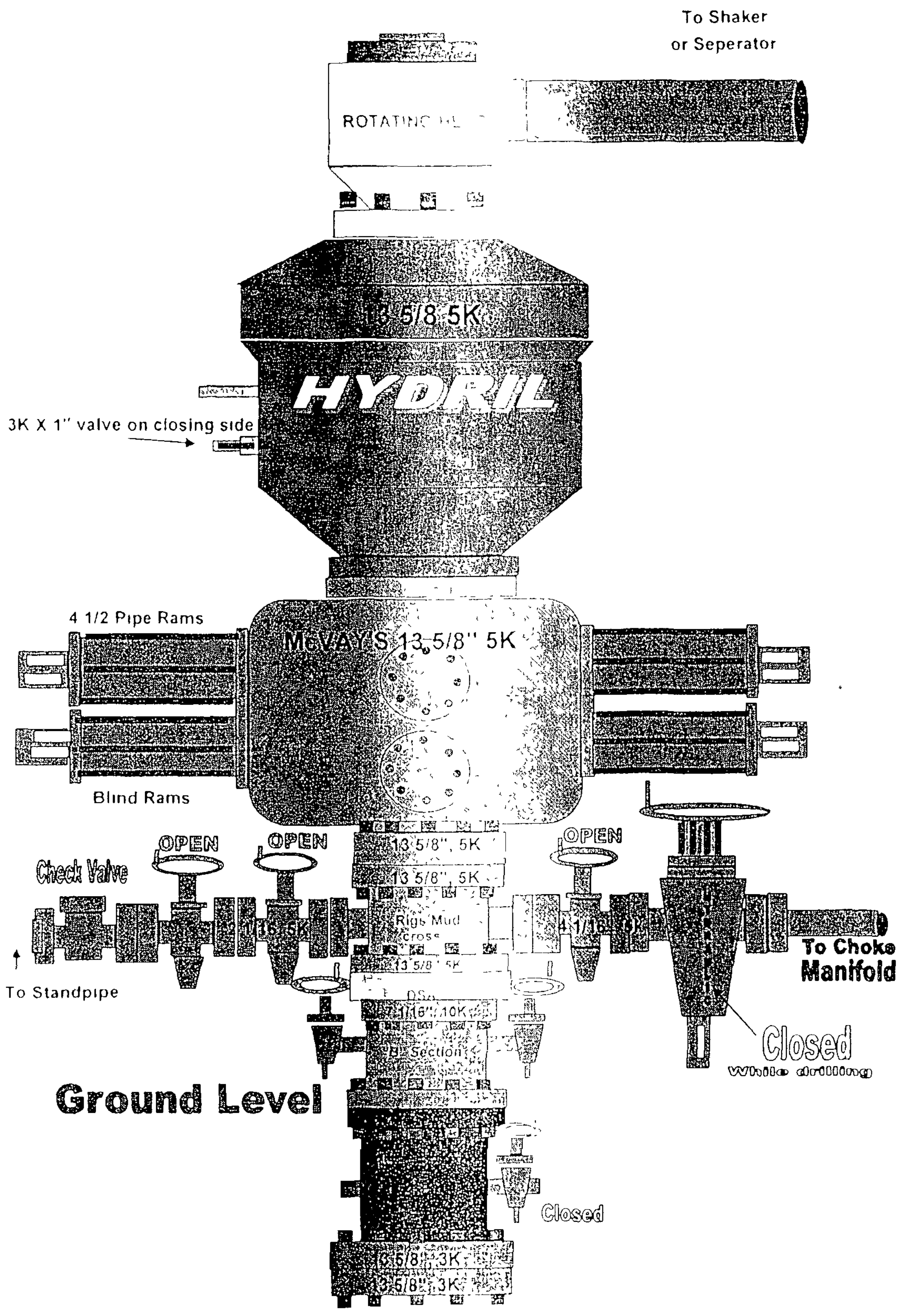


Diagram #2


To Shaker
or Seperator
ROTATING
13 5/8 5K
HYDRIL
3K X 1" valve on closing side
4 1/2 Pipe Rams
McVAY'S 13 5/8" 5K
Blind Rams
OPEN
OPEN
OPEN
Check Valve
13 5/8", 5K
13 5/8", 5K
Rigs Mud
To Choke
Manifold
To Standpipe
Closed
While drilling
Ground Level
Closed
3K
3K

Diagr... 3

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: Poker Lake Unit #293H

LEGAL DESCRIPTION - SURFACE: 810' FNL & 1980' FEL, Section 21, T-24-S, R-30-E, Eddy County, NM.
BHL: 2266' FSL, 1471' FEL, Section 22, T24S, R30E, Eddy County, NM. (1st lateral)
BHL. 330' FNL, 1650' FWL, Section 16, T24S, R30E, Eddy County, NM. (2nd lateral)

POINT 1: EXISTING ROADS

A) Proposed Well Site Location:

See Exhibit A and Survey Plats

B) Existing Roads:

From the junction of Co. Rd 787 (Twin Wells) and Co Rd. 746 (McDonald), proceed west on Co Rd. 746 for 1 4 miles to lease road. On lease road proceed north 1.4 miles to the PLU #41 well and proposed lease road.

C) Existing Road Maintenance or Improvement Plan:

See Exhibit B and Survey Plats.

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

Approximately 1550' of new road will be built from the existing lease road to Poker Lake Unit #41.

B) Width

12'

C) Maximum Grade

Grade to match existing topography or as per BLM requirements.

D) Turnout Ditches

Spaced per BLM requirements.

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

Exhibit A indicates existing wells within the surrounding area.

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

A) Existing facilities are located within approximately 1.5 miles, which are owned or controlled by lessee/operator.

Closest Oil/Gas production facilities are located at Poker Lake Unit #213 wellsite. Poker Lake Unit #213 is located approximately 1.5 miles west of proposed well.

B) New Facilities in the Event of Production·

New production facilities will be constructed on Poker Lake Unit #261 location. Power lines and flow lines will follow the existing and new roads.

C) Rehabilitation of Disturbed Areas Unnecessary for Production

Following flowline 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

B) Land Ownership

Federally Owned.

C) Materials Foreign to the Site

If on-site caliche is not sufficient, we will haul caliche from a BLM approved site

D) Access Roads

See Exhibit B.

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

Cuttings will be contained in the reserve pit.

B) Drilling Fluids

Drilling fluids will be contained in the reserve pit.

C) Produced Fluids

Water production will be contained in the reserve pit.

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks. Prior to cleanup operations, any hydrocarbon material in the reserve pit will be removed by skimming or burning as the situation would dictate

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 indicates potential productive zones. The reserve pit will be fenced and bird netted. The fence will be maintained until the pit is backfilled. 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 reserve pits, 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 Pits and Access Road

See Exhibits "B", "C" & "D".

C) Lining of the Pits

The reserve pit will be lined with plastic.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

A) Reserve Pit Cleanup

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

The reserve pits will be backfilled and restored as described above under Item A. 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

The reserve pits will be restored as described above. 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 with moderate sand dunes.

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 1-1/2 miles of the wellsite.

F) Water Wells

There are three water wells located within 1.5 miles of the proposed well. (See Exhibit A)

G) Residences and Buildings

None in the immediate vicinity.

H) Historical Sites

None observed

I) Archeological Resources

An archeological survey will be obtained for this area. Before any construction begins, a full and complete archeological survey will be submitted to the Bureau of Land Management. Any location or construction conflicts will be resolved before construction begins.

J) Surface Ownership

The well site is on federally owned land.

K) Well signs will be posted at the drilling site

L) Open Pits

All pits containing liquid or mud will be fenced and bird-netted.

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

4/22/10
Date

Gary E. Gerhard

GEG/mac

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

4/13/10
Date

Gary E Gerhard (432) 683-2277

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO, L.P.
LEASE NO.:	LC068430 BHL LC 068431 SHL
WELL NAME & NO.:	POKER LAKE UNIT # 293H
SURFACE HOLE FOOTAGE:	0810' FL & 1980' FEL
BOTTOM HOLE FOOTAGE	2266' FSL & 1471' FEL (LAT 1)
BOTTOM HOLE FOOTAGE	0330' FNL & 1650' FWL (LAT 2)
LOCATION:	Section 21, T. 24 S., R 30 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.

I. 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.

II. 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.)

III. 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.

IV. 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.

V. 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, 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 feet 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.

Commercial Well Determination

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

VI. 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.

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 fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

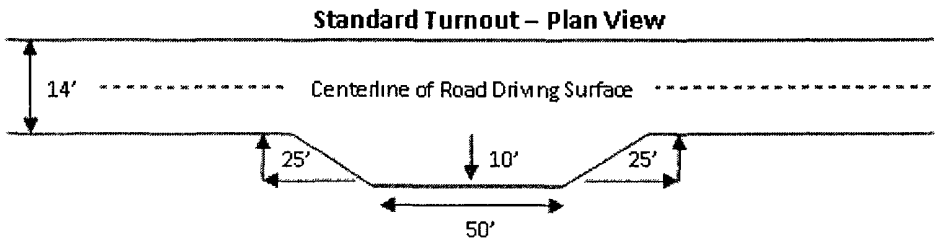
Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

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.

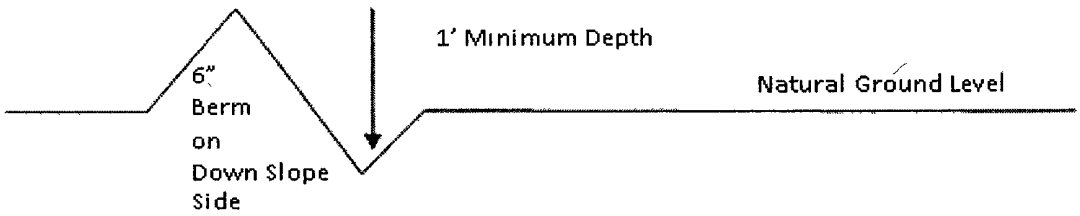
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



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:

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

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.

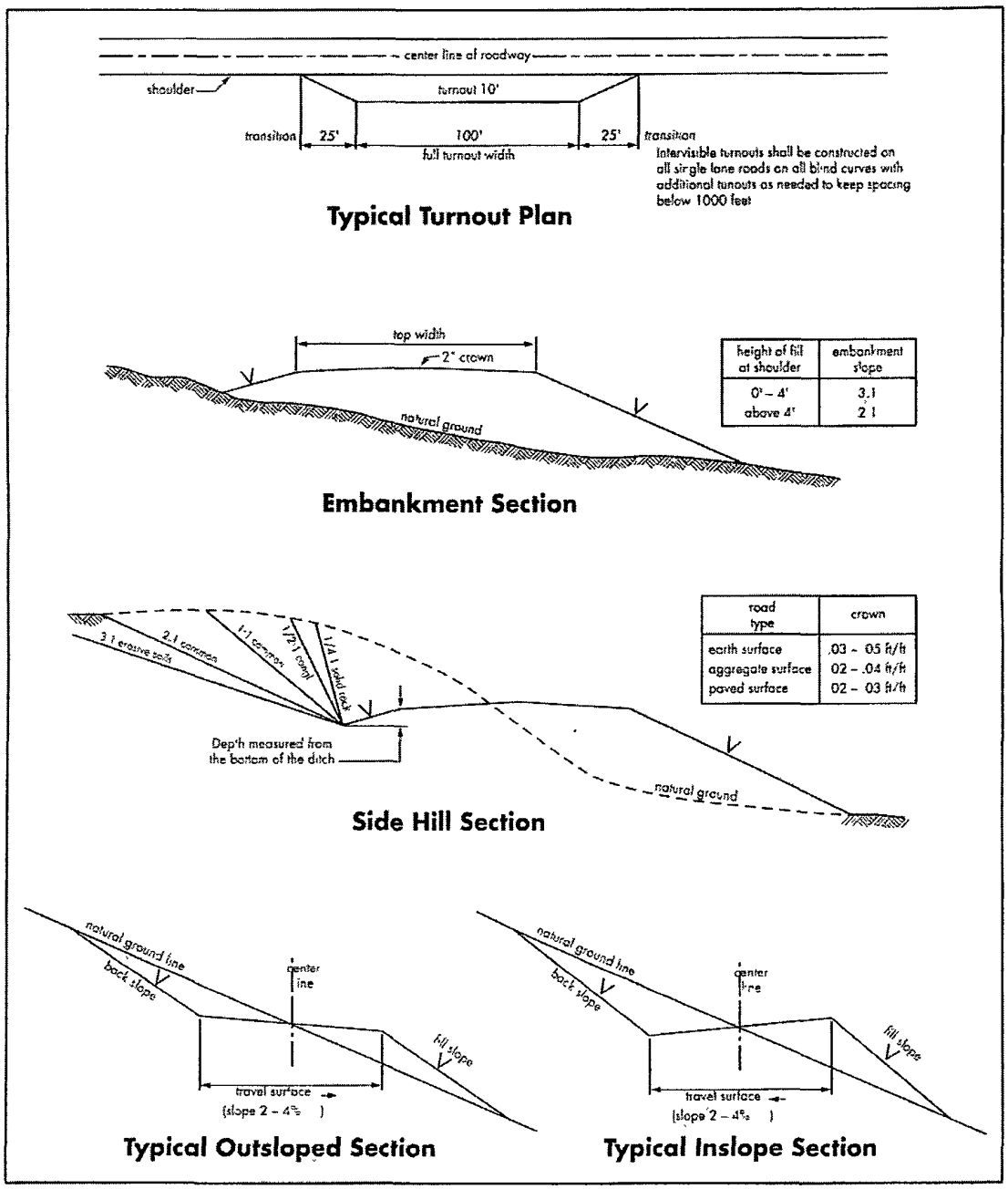
Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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



VII. 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. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts 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.

Medium Cave/Karst
Possible lost circulation in the Delaware and Bone Springs.

1. The **20** inch surface casing shall be set at **approximately 1352 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Additional cement may be required because excess cement calculates to only 33%.**

    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 a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

    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. Set at approximately 3720' within the Lamar Limestone below the Castile Formation.**

Pilot hole to be plugged back with a solid plug from TD to KOP for first lateral. Per procedure, pilot hole will be plugged prior to running 7 inch.

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 surface. If cement does not circulate, contact the appropriate BLM office.

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

☒ No cement required. Using hydraulic packers.

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.

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.

   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. **System is to be a 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 052010

VIII. 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 – not requested

C. ELECTRIC LINES – not requested

IX. 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.

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