

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-078417 Unit Reporting Number NMNM-78413C-DK NMNM-78413A-MV
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator ConocoPhillips	7. Unit Agreement Name San Juan 28-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 28-7 Unit 9. Well Number 194F
4. Location of Well Surface- Unit B (NWNE), 1015' FNL & 1495' FEL BH- Unit G (SWNE), 2000' FNL & 2200' FEL Latitude 36° 39.0698'N Longitude 107° 34.4632'W	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) B Sec. 21, T28N, R7W API # 30-039-30200
14. Distance in Miles from Nearest Town 18 miles to Blanco, NM	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 2000'	
16. Acres in Lease	17. Acres Assigned to Well MW/DK - 320 acres E/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease	
19. Proposed Depth TVD-7297' TMD-7518'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6147' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	NOTIFY AZTEC OCD 24 hrs IN TIME TO WITNESS cement E 089
24. Authorized by: <u>Landis Poland</u> Regulatory Technician	Date <u>2/15/07</u>

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

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

NMOCDB

DRILLING OF...
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

3/8/07

HOLD 5101 FOR directional
survey BH
surveys

RCVD MAR7'07

OIL CONS. DIV.
DIST. 3District I
1625 N. French Dr., Hobbs, NM 88240State of New Mexico
Energy, Minerals & Natural Resources DepartmentForm C-102
Revised October 12, 2005District II
1301 W. Grand Avenue, Artesia, NM 88210

OIL CONSERVATION DIVISION

Instructions on back
Submit to: Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 CopiesDistrict III
1000 Rio Brazos Rd., Aztec, NM 874101220 South St. Francis Dr.
Santa Fe, NM 87505District IV
1220 S St Francis Dr., Santa Fe, NM 87505☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- 30200		*Pool Code 72319 \ 71599		*Pool Name BLANCO MESAVERDE \ BASIN DAKOTA	
*Property Code 31739		*Property Name SAN JUAN 28-7 UNIT			*Well Number 194F
*GRID No. 217817		*Operator Name CONOCOPHILLIPS COMPANY			*Elevation 6147'

10 Surface Location

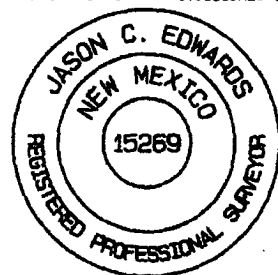
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	21	28N	7W		1015	NORTH	1495	EAST	RIO ARriba

11 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
G	21	28N	7W		2000	NORTH	2200	EAST	RIO ARriba

*Dedicated Acres	320.0 Acres - E/2 (MV) 320.0 Acres - E/2 (DK)	*Joint or Infill	*Consolidation Code	*Order No.
------------------	--	------------------	---------------------	------------

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

16 5280.00' 5280.00' 5276.04' 21 LEASE SF-078417 LEASE FEE	5280.00' 2000' 1015' 1495' 2200' 1208.6' 535°23.3'W LAT: 36°39.0698'N LONG: 107°34.4632'W DATUM: NAD27 SURFACE LOCATION LAT: 36°55.117'N LONG: 107°57.499'W DATUM: NAD83 BOTTOM-HOLE LOCATION LAT: 36°38.9077'N LONG: 107°34.6069'W DATUM: NAD27	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <u>Virgil E. Chavez</u> 12-22-06 Signature Date Printed Name 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief Survey Date: OCTOBER 9, 2006 Signature and Seal of Professional Surveyor  <u>JASON C. EDWARDS</u> Certificate Number 15269
--	---	--

Submit 3 Copies To Appropriate District Office

State of New Mexico

Form C-103

Energy, Minerals and Natural Resources

May 27, 2004

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-039- 30200

5. Indicate Type of Lease

STATE ☐

FEE ☐

☒

6. State Oil & Gas Lease No.

SF-078417

7. Lease Name or Unit Agreement Name

San Juan 28-7 Unit

8. Well Number

#194F

9. OGRID Number

217817

10. Pool name or Wildcat

Blanco Mesaverde/Basin Dakota

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐

Gas Well ☒

Other ☐

2. Name of Operator

ConocoPhillips Company

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter B : 1015' feet from the North line and 1495' feet from the East line

Section 21 Township 28N Rng 7W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

6147'

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type New Drill Depth to Groundwater >100' Distance from nearest fresh water well

>1000' Distance from nearest surface water

Pit Liner Thickness:

12

mil

Below-Grade Tank:

Volume

bbls;

Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

P AND A ☐

CASING/CEMENT JOB ☐

OTHER:

New Drill ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

New Drill, Lined:

ConocoPhillips proposes to construct a new drilling pit, an associated vent/flare pit and a pre-set mud pit (if required). Based on ConocoPhillips' interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and pre-set mud pit will be lined pits as detailed in ConocoPhillips' General Plan dated June 2005 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be lined as per the risk ranking criteria. ConocoPhillips anticipates closing these pits according to the November 1, 2004 Guidelines.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

Kandis Roland

TITLE

Regulatory Technician

DATE

2/15/2007

Type or print name

Kandis Roland

E-mail address:

kburns@brc-inc.com

Telephone No.

505-326-9597

For State Use Only

APPROVED BY

[Signature]

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. #3

DATE

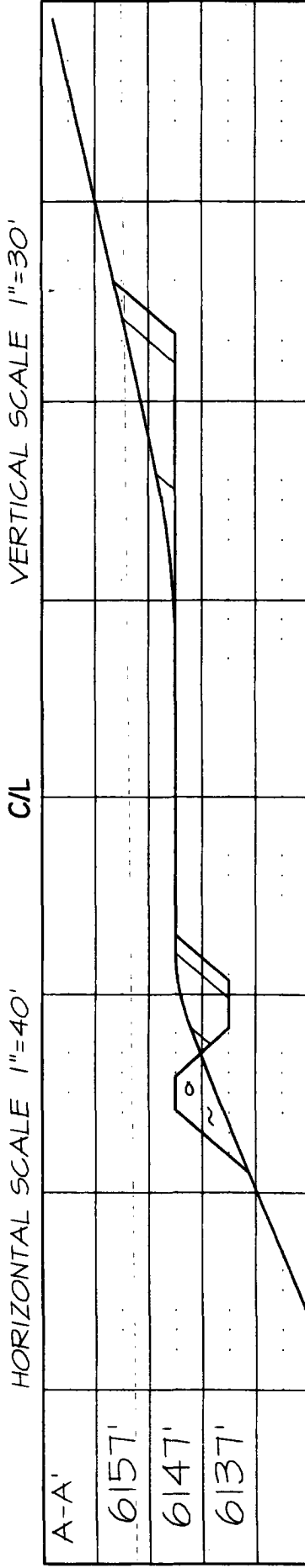
MAR 08 2007

Conditions of Approval (if any):

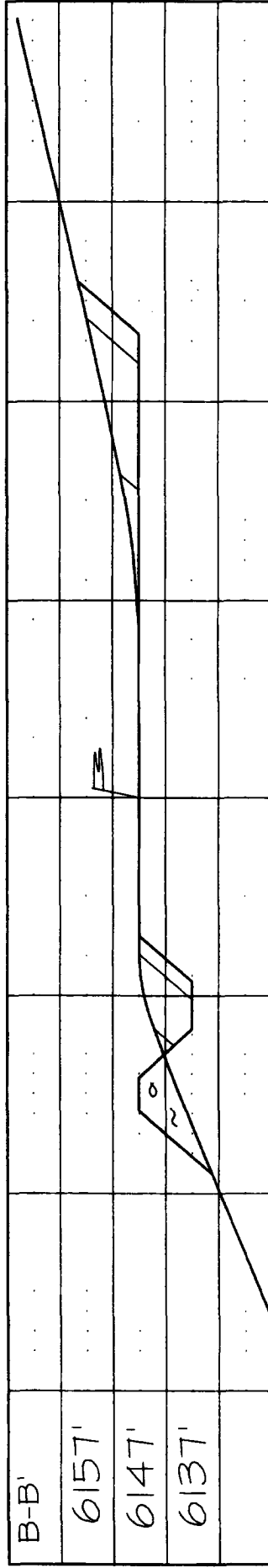
CONOCOPHILLIPS COMPANY SAN JUAN 28-7 UNIT #194F
 1015' FNL & 1495' FEL, SECTION 21, T28N, R7W, NMPM
 RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6147

HORIZONTAL SCALE 1"=40'

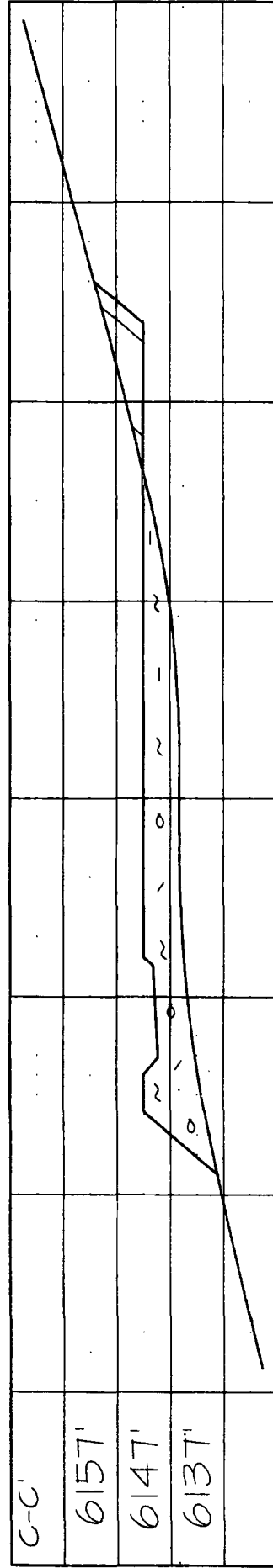
VERTICAL SCALE 1"=30'



C/L



C/L



NCE SURVEYS IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 194F

Production	28-7 #134E	NW 21-28N-7W
------------	------------	--------------

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

GR_CBL

Mudlog to TD from 100' above Greenhorn - mudlogger will call TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
----------	-------	-----------	---------	----------------	---------

Comments: Location/Tops/Logging - Directional hole from (near) the #49 well pad DK 28N07W21NE2 MVNM028N007W21NE2

Zones - Drilled from the #49 well pad. DK 28N07W21NE2 MVNM028N007W21NE2

Lease:	AFE #: WAN.CNV.7165	AFE \$:
Field Name: 28-7	Rig: Aztec Rig 673	State: NM County: RIO ARRIBA API #:
Geoscientist: Glaser, Terry J	Phone: (281) 293 - 6538	Prod. Engineer: Fontenot, Jessie C Phone: +1 832-486-3483
Res. Engineer: Johnson, Tom B.	Phone: (832)-486-2347	Proj. Field Lead: Franssen, Eric E. Phone:

Primary Objective (Zones):

Zone	Zone Name
R20002	MESAVERDE(R20002)
R20076	DAKOTA(R20076)

Location: Surface	Datum Code: NAD 27	Deviated
Latitude: 36.651162	Longitude: -107.574382	X: Y: Section: 21 Range: 007W
Footage X: 1495 FEL	Footage Y: 1015 FNL	Elevation: 6147 (FT) Township: 028N
Tolerance:		

Location: Bottom Hole	Datum Code: NAD 27	Deviated
Latitude: 36.648462	Longitude: -107.576783	X: Y: Section: 21 Range: 007W
Footage X: 2200 FEL	Footage Y: 2000 FNL	Elevation: (FT) Township: 028N
Tolerance:		

Location Type: Year Round	Start Date (Est.):	Completion Date:	Date In Operation:
Formation Data: Assume KB = 6161	Units = FT		

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
NCMT	661	5500	<input type="checkbox"/>			
OJAM	1970	4191	<input type="checkbox"/>			Possible water flows.
KRLD	2061	4100	<input type="checkbox"/>			
FRLD	2410	3751	<input type="checkbox"/>			Possible gas.
PCCF	2801	3360	<input type="checkbox"/>			
LEWS	3001	3160	<input type="checkbox"/>			
HUERFANITO BENTONITE	3391	2770	<input type="checkbox"/>			
CHRA	3741	2420	<input type="checkbox"/>			
CLFH	4428	1733	<input type="checkbox"/>			Gas; possibly wet
MENF	4590	1571	<input type="checkbox"/>			Gas.

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 28-7 194F

PTLK	4985	1176	<input type="checkbox"/>	Gas.
GLLP	6216	-55	<input type="checkbox"/>	Gas. Possibly wet.
GRHN	6956	-795	<input type="checkbox"/>	Gas possible, highly fractured
GRANEROS	7023	-862	<input type="checkbox"/>	
TWLS	7063	-902	<input type="checkbox"/>	Gas
PAGU	7158	-997	<input type="checkbox"/>	Gas. Highly Fractured.
CBBO	7183	-1022	<input type="checkbox"/>	Gas
CBRL	7212	-1051	<input type="checkbox"/>	
ENCINAL	7287	-1126	<input type="checkbox"/>	
TOTAL DEPTH DK	7297	-1136	<input type="checkbox"/>	TD 10 ft below T/ENCN

Reference Wells:

Reference Type	Well Name	Comments
Production	28-7 #194E	SE 21-28N-7W On strike
Production	28-7 #194	NE 21-28N-7W
Production	28-7 #134E	NW 21-28N-7W

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

GR_CBL

Mudlog to TD from 100' above Greenhorn - mudlogger will call TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
----------	-------	-----------	---------	----------------	---------

Comments: Location/Tops/Logging - Directional hole from (near) the #49 well pad DK 28N07W21NE2 MVNM028N007W21NE2

Zones - Drilled from the #49 well pad. DK 28N07W21NE2 MVNM028N007W21NE2

SJ 28-7 #194F OPERATIONS PLAN

Well Name: SJ 28-7 #194F

Objective: Mesa Verde/Dakota

Location: Rio Arriba NM

Elevation: 6147'

Surface Coordinates/Footages

Bottom Hole Coordinates/Footages

T - 28 N R - 7 W Sec.: 21
1015' FNL 1495' FEL
Latitude: 36° 39.0697' N
Longitude: 107° 34.4629' W

T - 28 N R - 7 W Sec.: 21
2000' FNL 2200' FEL
Latitude: 36° 38.9077' N
Longitude: 107° 34.6069' W

<u>Formation</u>	<u>Top (TMD)</u>	<u>Top (TVD)</u>	<u>Contents</u>
San Jose	0	0	
Nacimiento	0'	661'	
Ojo Alamo	2074'	1970'	aquifer
Kirtland	2172'	2061'	
Fruitland	2550'	2410'	gas
Pictured Cliffs	2973'	2801'	
Lewis	3190'	3001'	
Huerfanito Bentonite	3606'	3391'	
Chacra	3962'	3741'	
Massive Cliff House	4649'	4428'	gas
Menefee	4811'	4590'	gas
Massive Point Lookout	5206'	4985'	gas
Gallup	6437'	6216'	gas
Greenhorn	7177'	6956'	gas
Graneros	7244'	7023'	
Two Wells	7284'	7063'	gas
Paguate	7379'	7158'	gas
Cubero	7404'	7183'	gas
Lower Cubero	7433'	7212'	
Encinal	7508'	7287'	
Total Depth:	7518'	7297'	gas

Logging Program: Cased Hole: CBL-GR
Open Hole: None

<u>TVD</u>					
<u>Mud Program:</u>	<u>Interval (TMD)</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Vis. (s/qt)</u>	<u>Fluid Loss (cc/30min)</u>
	0' - 200'	Spud	8.4-9.0	40-50	No control
	200' - 3891'	Non-dispersed	8.4-9.0	30-60	Less than 8
	3891' - 7297'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

<u>TVD</u>					
<u>Casing program:</u>	<u>Interval (TMD)</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>
	0' - 200'	12 1/4"	9 5/8"	32.3#	H-40
	200' - 3891'	8 3/4"	7"	23.0#	L-80
	3891' - 7297'	6 1/4"	4 1/2"	11.6#	L-80

<u>TVD</u>					
<u>Tubing program:</u>	<u>Interval (TMD)</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>
	0' - 7297'	Cased	2 3/8"	4.7#	J-55

Wellhead Equipment

9 5/8" x 7" X 4 1/2" x 2 3/8" - 1 1" (2000 psi) wellhead assembly

Drilling: Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

Surface

Drill to surface casing point of 200' and set 9.625" casing.

Intermediate

Mud drill to kick off point of 200'. At this point the well will be directionally drilled by building 3 degrees per 100' with an azimuth of 215.59 degrees. The end of the build will be at a TVD of 927.5', a TMD of 948', a reach of 144', and an inclination of 22.44 degrees. This angle and azimuth will be held to a TVD of 3162', a TMD of 3364', and a reach of 1067'. At this point the well will be drilled with a drop of 3 degrees per 100'. The end of the drop will be at a TVD of 3891', a TMD of 4112', a reach of 1211', and an angle of 0.0 degrees. 7" casing will be set at this point.

Production

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TVD of 7297' (TMD of 7518'). 4.5" casing will be set at this point.

Cementing

9.625" surface casing conventionally drilled: **200%** excess cement to bring cement to surface.

Run 188 cu.ft. (147 sks) Type III cement with 3% CaCl₂ and 1/4 pps celloflake (1.28 sks/ cu.ft.). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° F prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

7" intermediate casing: **50%** excess cement to bring cement to surface.

Lead with 754 cu.ft. (354 sks) Premium Lite w/ 3% CaCl₂, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft³). Tail with 124 ft³ (90 sks) Type III cmt. w/ 1% CaCl₂, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft³). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4.5" production casing: **30%** excess cement to achieve 100' overlap with intermediate casing.

Run 466 cu.ft. (235 sks) Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft³.)

BOP and Tests

Surface to Total Depth – 11", 2000 psi double gate BOP stack (Reference Figure #1).

Surface to Total Depth – choke manifold (Reference Figure #2).

Prior to drilling out surface casing, test BOPE and casing to 600 psi for 30 minutes.

Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

Additional Information:

- No gas dedication.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	359.18	200.0	0.0	0.0	0.00	359.18	0.0	
3	947.9	22.44	215.59	928.9	-117.6	-84.2	3.00	215.59	144.6	
4	3363.9	22.44	215.59	3162.1	-867.4	-620.8	0.00	0.00	1066.7	
5	4111.8	0.00	0.00	3891.0	-985.0	-705.0	3.00	180.00	1211.3	CASING POINT 194F
6	7517.8	0.00	0.00	7297.0	-985.0	-705.0	0.00	0.00	1211.3	PBHL 194F

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
CASING POINT 194F	3891.0	-985.0	-705.0	2055392.84	575256.85	36° 38' 54.461 N	107° 34' 36.459 W	Point
PBHL 194F	7297.0	-985.0	-705.0	2055392.84	575256.85	36° 38' 54.461 N	107° 34' 36.459 W	Circle (Radius: 100.0)

PROJECT DETAILS: Rio Arriba , NM

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003

System Datum: Mean Sea Level

WELL DETAILS: SJ 28-7 194F

	Ground Level:	6151.0	
Northing	Easting	Latitude	Longitude
2056377.84	575961.85	36° 39' 4.183 N	107° 34' 27.775 W

