

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
1b. TYPE OF WELL

DRILL ☒ DEEPEN ☐

OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Burlington Resources Oil & Gas, LP

3. ADDRESS OF OPERATOR

*C/O Williams Exploration & Production Co.
P.O. Box 316 - Ignacio, CO 81137 - (970) 563-3308*

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At Surface *1515' FNL and 340' FEL, sec 34, T29, R7W*

At proposed Prod. Zone

From 1560' FNL & 160' FWL to 1730' FNL & 2150' FWL, sec 35, T29N, R7W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

21 miles SE of Blanco, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

160

16. NO. OF ACRES IN LEASE

160.00

17. NO. OF ACRES ASSIGNED TO THIS WELL

320 W/2

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.

280'

19. PROPOSED DEPTH

5531' (measured depth)

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6471

22. APPROX. DATE WORK WILL START*

January 1, 2005

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<i>12-1/4"</i>	<i>9-5/8"</i>	<i>36.0#</i>	<i>+/- 300'</i>	<i>~206 cu.ft. Type III with 2% CaCl₂</i>
<i>8-3/4"</i>	<i>7"</i>	<i>20.0#</i>	<i>+/- 3492'</i>	<i>~771 cu.ft. 65/35 poz & ~139 cu.ft. Type III</i>
<i>6-1/4"</i>	<i>4-1/2" perf</i>	<i>10.5#</i>	<i>+/- 3100' - 5531'</i>	<i>Open hole completion - no cement</i>

Williams Production Company, as an agent for Burlington Resources, proposes to drill a horizontal well to develop the Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans. After drilling and completion will be produced and operated by Burlington Resources.

This location has been archaeologically surveyed by LaPlata Archaeological Consultants. Copies of their report have been submitted directly to your office.

This well will require approximately 650 ft of new road.

HOLD C184 FOR Directional Survey - Proposed lateral is NSL at both ends



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED *Larry Higgins* TITLE *Larry Higgins, Agent* DATE *11/29/2004*

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

APPROVED BY *[Signature]* TITLE *AFM* DATE *10/24/05*

***See Instructions On Reverse Side**

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 representations as to any matter within its jurisdiction.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCD

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

District II
PO Drawer CD, Artesia, NM 88211-0719

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

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29369	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Locality Code 7465	*Property Name SAN JUAN 29-7 UNIT	*Well Number 577S
*CGFID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP	*Elevation 6471'

¹⁰ Surface Location

U. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	34	29N	7W		1515	NORTH	340	EAST	RIO ARIZONA

¹¹Bottom Hole Location If Different From Surface

Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
35	29N	7W		1730	NORTH	2150	WEST	RED ARRESTA

² Dedicating Acres	¹³ Count of Infill	¹⁴ Consolidation Code	¹⁵ Order No.
320.0 Acres - (N/2)			

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

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

100

Printed Name _____

מחזור

Da: n

¹⁸ SURVEYOR CERTIFICATION

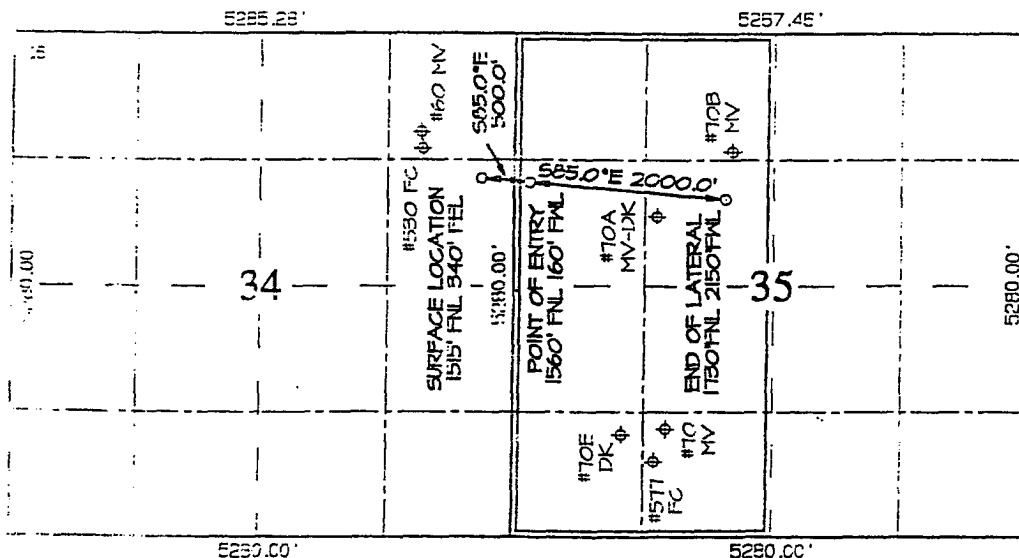
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: JUNE 22, 2004

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15259



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. 30-039-29369	
5. Indicate Type of Lease FEDERAL X STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No. Federal NMSF-0078425A	
7. Lease Name or Unit Agreement Name San Juan 29-7 Unit	
8. Well Number	577S
9. OGRID Number 14538	
10. Pool name or Wildcat Basin Fruitland Coal	

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
Burlington Resources Oil and Gas Company

3. Address of Operator
C/O Williams Exploration and Production Co., P.O. Box 316, Ignacio, CO 81137

4. Well Location
Unit Letter H: 1515 feet from the north line and 340 feet from the east line
Section 34 Township 29N Range 7W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6,471' GR

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type production Depth to Groundwater >100' Distance from nearest fresh water well >1,000' Distance from nearest surface water >1,000'

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 ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

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.

Reserve pit to be constructed in accordance with NMOCD Interim Pit and Below-grade Tank Guidelines

Production pit to be located approximately 50 feet west of the well head.

Reserve pit to be located approximately 30 feet east of the well head, in the northeast corner.

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 Larry Higgins TITLE Drilling COM DATE 11-29-2004

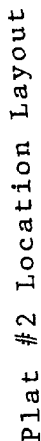
Type or print name Larry Higgins E-mail address: larry.higgins@williams.com Telephone No. (970) 563-3308

For State Use Only

APPROVED BY: Denny Kew TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE OCT 26 2005

Conditions of Approval (if any):

**BURLINGTON RESOURCES OIL & GAS COMPANY, LP
SAN JUAN 29-7 UNIT #577S, 1515' FNL & 340' FEL
SECTION 34, T29N, R7W, NMPM, RIO ARriba COUNTY, NM
GROUND ELEVATION: 6471' DATE: JUNE 22, 2004**



ACCT 555
6501 (0-0-0)

15

RESERVE PIT
55' X 140'

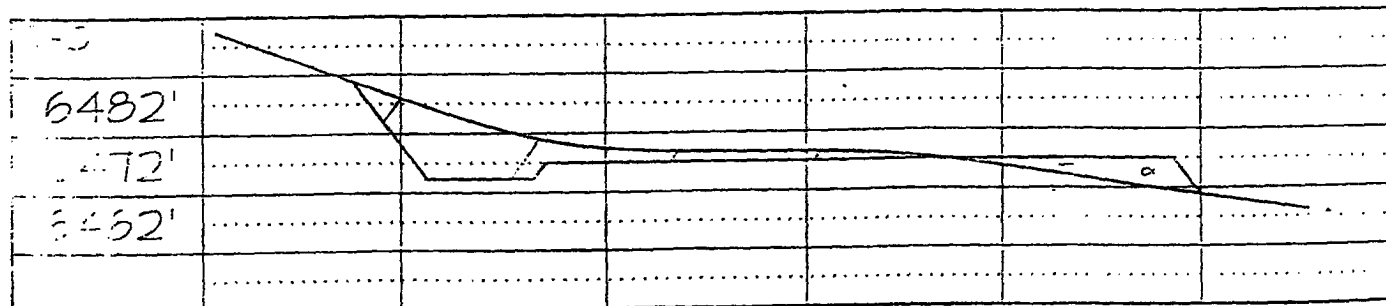
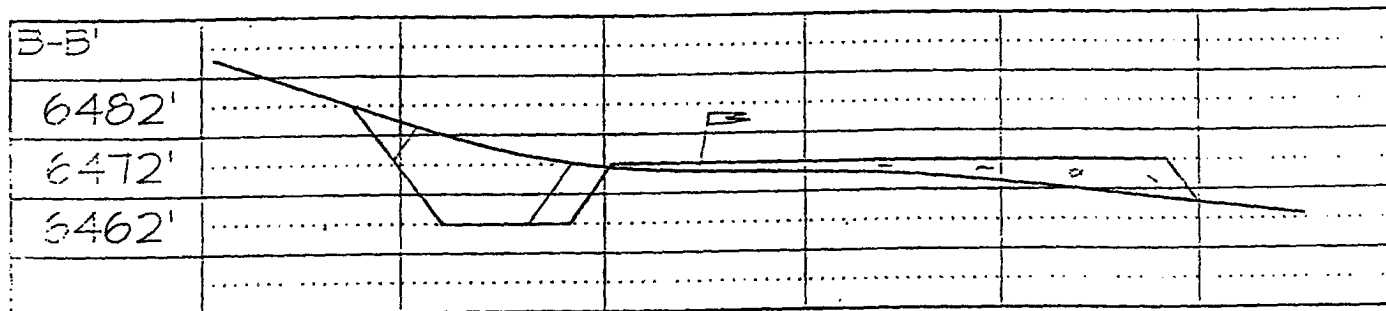
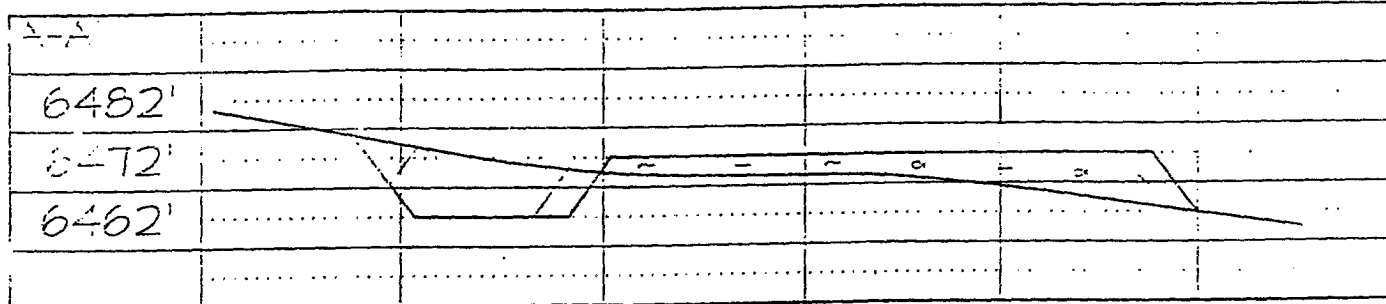
DRAIN TO
RESERVE

520°E
LAYDOWN

WORKING SIDE

BLOCK
FIT

LATITUDE: 36°41'07"
LONGITUDE: 107°32'59"
DATUM: NAD1927





WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 11/22/2004

WELLNAME: San Juan 29-7 #577S **FIELD:** Basin Fruitland Coal

SURF LOCATION: SENE Sec. 34-T29N-R7W **SURFACE:** FED
Rio Arriba, NM

BH LOCATION NWNW Sec 35-29N-7W

ELEVATION: 6,471' GR **MINERALS:** Federal/Fee

TOTAL DEPTH: 5,531' **LEASE #** SF-078425A

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

		Pilot Hole	Horizontal Section			Pilot Hole	Horizontal Section
		TVD	MD			TVD	MD
San Jose		Surface	Surface		Top Coal	3,056	3,079
Nancimiento		1,011	1,011		Top Target Coal	3,236	3,492
Ojo Alomo		2,306	2,306		Bottom Target Coal	3,256	
Kirtland		2,486	2,486		Base Coal	3,256	
Fruitland		2,996	2,996		Picture Cliffs	3,256	
					TD	3,356	5,531

- **NOTE:** Well will be vertically drilled to 100' into Picture Cliff, logged through the PC, plug back the PC and 8-3/4" hole to 200 ft. above adjusted KOP. Dress / Kick-off cement plug and horizontally drill through the coal.

B. LOGGING PROGRAM: High Resolution Induction/ GR and Density/ Neutron log from surface casing to TD of pilot hole. Onsite geologist will pick Density/ Neutron log intervals on both logging runs.

C. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

D. SURVEYING: Run Single Shot surveys every 500 ft. while drilling the Pilot Hole to 3,469 ft. (MD).

II. DRILLING

A. MUD PROGRAM: Clear water with benex to 7" casing point. Treat for lost circulation as necessary. Expect 100% returns prior to cementing. Notify Engineering of any mud losses. If coal is detected before 3,056' DO NOT drill deeper until Engineering is contacted.

B. Drilling Fluid: Horizontal section will be drilled with Calcium Chloride water.

C. MUD LOGGING PRORAM: Mud logger will be on location from 2,300 to TD of pilot hole then from drill out of intermediate casing to TD..

D. BOP TESTING: While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	12-1/4"	+/- 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 3,492'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,100-5,531'	4-1/2" perfed	10.5# K-55

***Note:** All casing depths are measured depths.

B. FLOAT EQUIPMENT:

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
3. **PRODUCTION LINER:** 4-1/2" perforated liner with guide shoe on bottom.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. **SURFACE:** Use 155 sx (206 cu.ft.) of "Type III" with 2% CaCl_2 and 1/4# of cello-flake/sk (Yield = 1.41 cu.ft./sk, Weight = 14.5 #/gal.). Use **100% excess** to circulate the surface. WOC 12 hours. Total volume = 206 cu.ft. Test to 1500#.
2. **INTERMEDIATE:** Lead – 370 sx (771 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl_2 and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl_2 (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **120% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry.** Total volume = 910 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. **PRODUCTION LINER:** Open hole completion. No cement.

IV COMPLETION

A. PRESSURE TEST

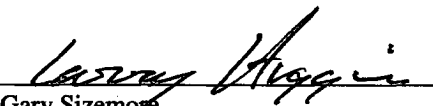
Pressure test 7" casing to 3300# for 15 minutes.

B. STIMULATION

None

C. RUNNING TUBING

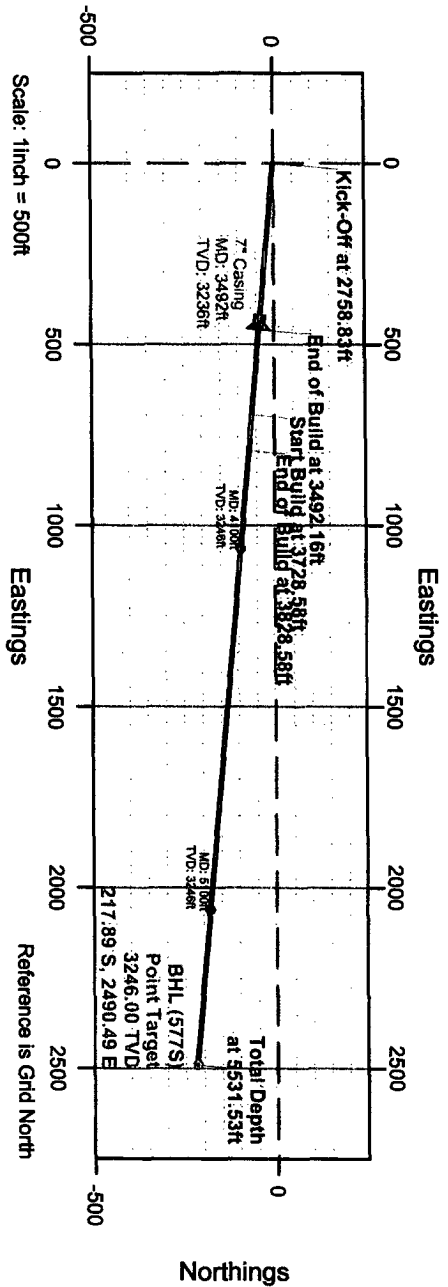
1. **Fruitland Coal:** Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.375" ID) on top of bottom joint. Land tubing at approximately 3,730'.

1-802 
Gary Sizemore
Sr. Drilling Engineer



New Mexico
Rio Arriba County, NM
Sec. 34 T39N R7W
San Juan 29-7 Unit #577-S
Version 1

Northings



Unit #577S Surface Location

RKB Elevation: 6486.00ft above Mean Sea Level
 RKB (6471' + 15' est)
 Ref. Global Coordinates: 2068817.85 N, 583158.93 E
 Ref. Geographical Coordinates: 36° 41' 07.0000" N, 107° 32' 59.0000" W

Version 1 Bottom Hole Location

Ref. RKB (6471' + 15' est): 3246.00ft
 Ref. Mean Sea Level: -3240.00ft
 Ref. Wellhead: 217.89 S, 2490.49 E
 Ref. Global Coordinates: 2068899.86 N, 585649.42 E
 Ref. Geographical Coordinates: 36° 41' 04.7714" N, 107° 32' 28.4311" W

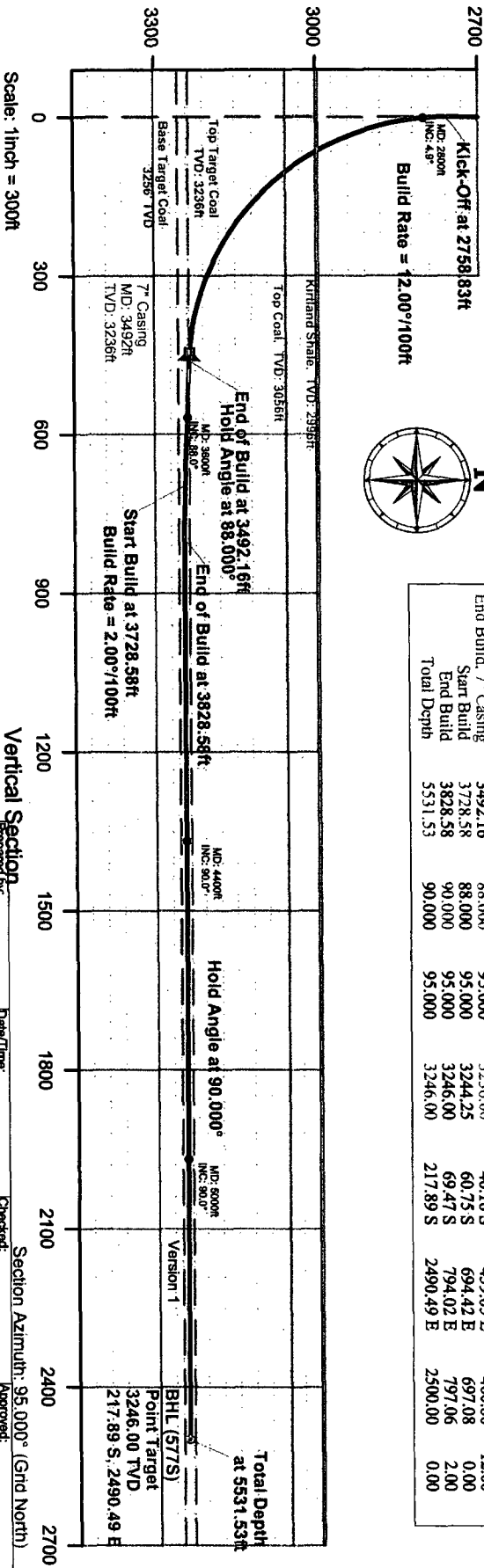


Version 1 Proposal Data

Coordinate System : NAD27 New Mexico State Planes, Western Zone (need to double check)							
Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Eastings	Vertical Section	Dogleg Rate
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	0.00
9 5/8" Casing	0.000	0.000	300.00	0.00 N	0.00 E	0.00	0.00
Kick-Off Point	0.000	0.000	2758.83	0.00 N	0.00 E	0.00	0.00
End Build, 7" Casing	0.000	0.000	3492.16	40.16 S	459.05 E	460.80	12.00
Start Build	88.000	95.000	3728.58	60.75 S	694.42 E	697.08	0.00
End Build	90.000	95.000	3828.58	69.47 S	794.02 E	797.06	2.00
Total Depth	5531.53	95.000	3246.00	217.89 S	2490.49 E	2500.00	0.00

Vertical Depth

Scale: 1 inch = 300ft

Vertical Section
Prepared by:
Brad McCungDate/Time:
24 September, 2004 - 11:32
Checked by:
File 577S-1pdatSection Azimuth: 95.000° (Grid North)
Approved:

Williams Production Company, LLC
Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

