

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE		RECEIVED
1. TYPE OF WELL Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: _____		5. LEASE SERIAL NO. MDA 701-98-0013
2. NAME OF OPERATOR <b>Black Hills Gas Resources, Inc.</b>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache Nation
3. ADDRESS AND TELEPHONE NO. PO Box 249 Bloomfield NM 87413		7. IF UNIT OR CA, AGREEMENT DESIGNATION ---
4. LOCATION OF WELL (Footage, T, R, M, or Survey Description) 710' FNL 460' FWL Sec. 6 T.29N R.2W		8. WELL NAME AND NO. Jicarilla 29-2-6 No. 3
CONTACT: Lynn Benally PHONE: 505.634.1111 Ext. 27 Fax: 505.634.1116		9. API WELL NO. 30-039-26858
10. FIELD AND POOL, OR EXPLORATORY AREA East Blanco / Pictured Cliffs		11. COUNTY OR PARISH, STATE Rio Arriba New Mexico
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input checked="" type="checkbox"/> Recomplete
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Plug and Abandon	
	<input type="checkbox"/> Plug Back	
13. Describe Proposed or completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.  The location was permitted for Mallon Oil Company now known as Black Hills Gas Resources, Inc. (Black Hills) with an Application for Permit to Drill (APD) submitted to the Bureau of Land Management (BLM) in Farmington, New Mexico, and the New Mexico Oil Conservation Division (NMOCD) on June 5, 2001. This APD was given API# 30-039-26858 and approved by the BLM on October 30, 2001. Black Hills proposed to re-enter and horizontally drill this location with a southeast lateral bore. End of lateral bore is anticipated to be 1,000' FNL and 100' FEL (NE/4 NE/4) of Section 6 T29N R2W. Please find: Revised Drilling Program, BOP Diagram, Hydrogen Sulfide Drilling Operations Plan and Horizontal Drilling Plan.  Please send a copy of all correspondence to Banko Petroleum Management Inc. and 8501 Riverchase Parkway, Suite 420, Englewood, CO 80112-5849. Please contact David Banko or Kathy Schneebeck at 303-820-4480, or at david@banko1.com or kathys@banko1.com, respectively, if you have any questions. Thank you.		
14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Kathy L. Schneebeck - 303-820-4480 Signature Kathy L. Schneebeck Title: Permit Agent for Black Hills Gas Resources, Inc. Date: July 22, 2005		
THIS SPACE FOR FEDERAL OR STATE OFFICE USE.		
Approved by [Signature] Conditions of approval, if any, are attached. Approval of this notice 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.	Title Petr. Eng. Office	Date 8/8/05

DISTRICT I  
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26858		*Pool Code 72400	*Pool Name East Blanco/Pictured Cliffs
*Property Code 25495	*Property Name JICARILLA 29-02-06		*Well Number 3
*GRID No. 013925	*Operator Name Black Hills Gas Resources Inc.		*Elevation 7387'

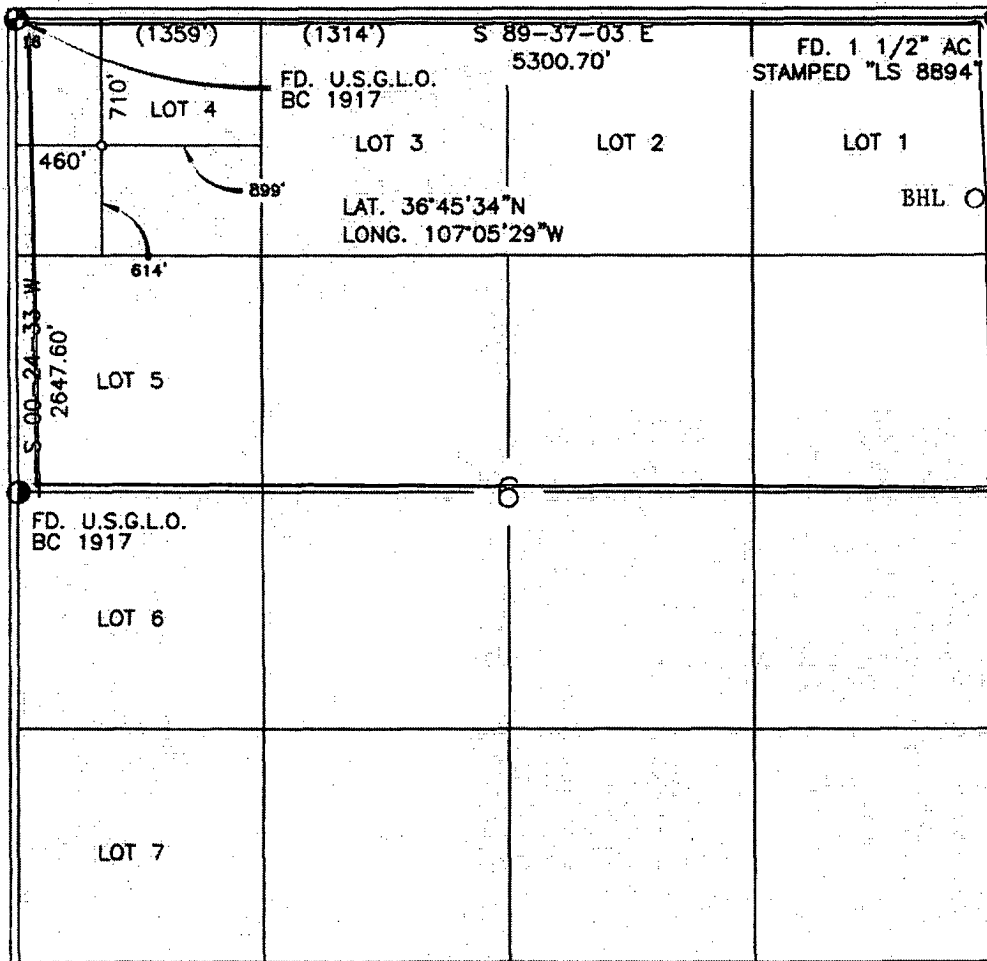
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	6	29-N	2-W		710'	NORTH	460'	WEST	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
A	6	29-N	2-W		1000'	North	100'	East	Rio Arriba
Dedicated Acres <del>188.87</del> 325.68			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



17 OPERATOR CERTIFICATION

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

*Kathy L. Schneebeck*  
Signature

Kathy L. Schneebeck  
Printed Name  
Permit Agent for Black Hills Gas Resources, Inc.

Title  
July 22, 2005

Date

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

Signature and Seal of Professional Surveyor

*[Signature]*  
8894  
Professional Surveyor

Certificate Number

Black Hills Gas Resources, Inc.  
**Jicarilla 29-02-06 3**  
**API #30-039-26858**  
**Surface: 710' FNL 460' FWL (NW/4 NW/4)**  
**End of Horizontal Hole: 1,000' FNL 100' FEL (NE/4 NE/4)**  
T29N R2W Sec. 6  
Rio Arriba County, New Mexico  
Lease: MDA 701-98-0013

### DRILLING PROGRAM

This Sundry Notice is submitted per CFR 3162.3-2. The existing well pad and reserve pit will be utilized "as is."

**This is a horizontal entry into and a deepening of the existing well Jicarilla 29-02-06 3 to the Pictured Cliffs Formation. See also the attached Horizontal Re-completion Plan.**

**SURFACE FORMATION** – San Jose. Surface water protection plan: Surface casing will be cemented to surface.

**GROUND ELEVATION** – 7,387' GL

**ESTIMATED FORMATION TOPS** (Water, oil, gas and/or other mineral-bearing formations).

**All Depths are True Vertical Depth (TVD)**

San Jose	Surface	Sandstone, shales and siltstones
Nacimiento	2,600'	Sandstone, shales and siltstones
Ojo Alamo	3,030'	Sandstone, shales and siltstones
Kirtland	3,358'	Sandstone, shales and siltstones
Fruitland	3,468'	Sandstone, shales and siltstones
Pictured Cliffs	3,660'	Sandstone, shales and siltstones
Lewis	3,800'	Sandstone, shales and siltstones

TOTAL DEPTH	3,741.' TVD (end of horizontal hole)	4,725.82' TVD (anticipated horizontal section)
	8,566.11' MD	

Estimated depths of anticipated fresh water, oil, or gas:

**Tertiary**

San Jose	1,300'	Gas
Nacimiento	2,600'	Gas
Ojo Alamo	3,030'	Gas
Fruitland	3,468'	Gas
Pictured Cliffs	3,660'	Gas

### RE-ENTRY – HORIZONTAL DRILLING PROGRAM

- A) A 2,000-psi WP double-gated BOP will be installed on the tubing head with blind rams on bottom and pipe rams on top controlled by an accumulator placed within easy access to drill and other crew members.
- B) No annular preventor will be placed above BOP stack.
- C) Well was never completed.
- D) Retrievable whipstock to be set at  $\pm 3,796'$ .

- E) Window to be milled out of 5-1/2" csg at  $\pm 3,780' - 3,796'$ .  
 F) Kick-off Point is estimated to be at 3,784' based on collar locations at 3,685'; 3,729'; 3,774'; and 3,819'.

#### CASING PROGRAM

True Vertical Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' - 274'	12-1/4"	8-5/8"	K-55 24# ST&C	To surface (previously set)
0' - 3,957'	7-7/8"	5-1/2"	K-55 15.5# LT&C	To surface (previously set)
3,957' - 8,566' (MD)	4-3/4"	Open hole	None	None

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and protected.

#### PRESSURE CONTROL

BOPs and choke manifold will be installed and pressure tested before drilling out under surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOP's will be pressure tested at least once every 30 days. Ram type preventors and related pressure control equipment will be pressure tested to 1,000 psi. Annular type preventor will be pressure tested to 50% of the rated working pressure, not to exceed 1,000 psi. All casing strings will be pressure tested to 0.22 psi/ft. or 1,000 psi, whichever is greater, not to exceed 70% of internal yield.

BOP to be either double gate rams or an annular preventor as per Onshore Order No. 2.

#### Statement on Accumulator System and Location of Hydraulic Controls

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 for 2M systems.

A remote accumulator will be used. Pressures, capacities, location of remote hydraulic and manual controls will be identified at the time of the BLM supervised BOP test.

#### MUD PROGRAM

3,957' - 8,566' MD      Low solids non-dispersed  
                                  M.W. 8.5 - 9.2 ppg  
                                  Vis - 28 - 50 sec  
                                  W.L. 15cc or less

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at wellsite.

AUXILIARY EQUIPMENT

- A) A Kelly cock will be kept in the drill string at all times
- B) Inside BOP or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed
- D) Testing: None anticipated.

LOGGING, CORING, TESTING PROGRAM

- A) Logging: CBL-CCL log will be run prior to beginning squeeze work.
- B) Coring: None
- C) Testing: None

ABNORMAL CONDITIONS

- A) Pressures: No abnormal conditions are anticipated  
Bottom hole pressure gradient – 0.31 psi/ft
- B) Temperatures: No abnormal conditions are anticipated
- C) H<sub>2</sub>S: See H<sub>2</sub>S Plan if H<sub>2</sub>S is encountered.
- D) Estimated bottomhole pressure: 1,160 psi

ANTICIPATED START DATE

August 15, 2005

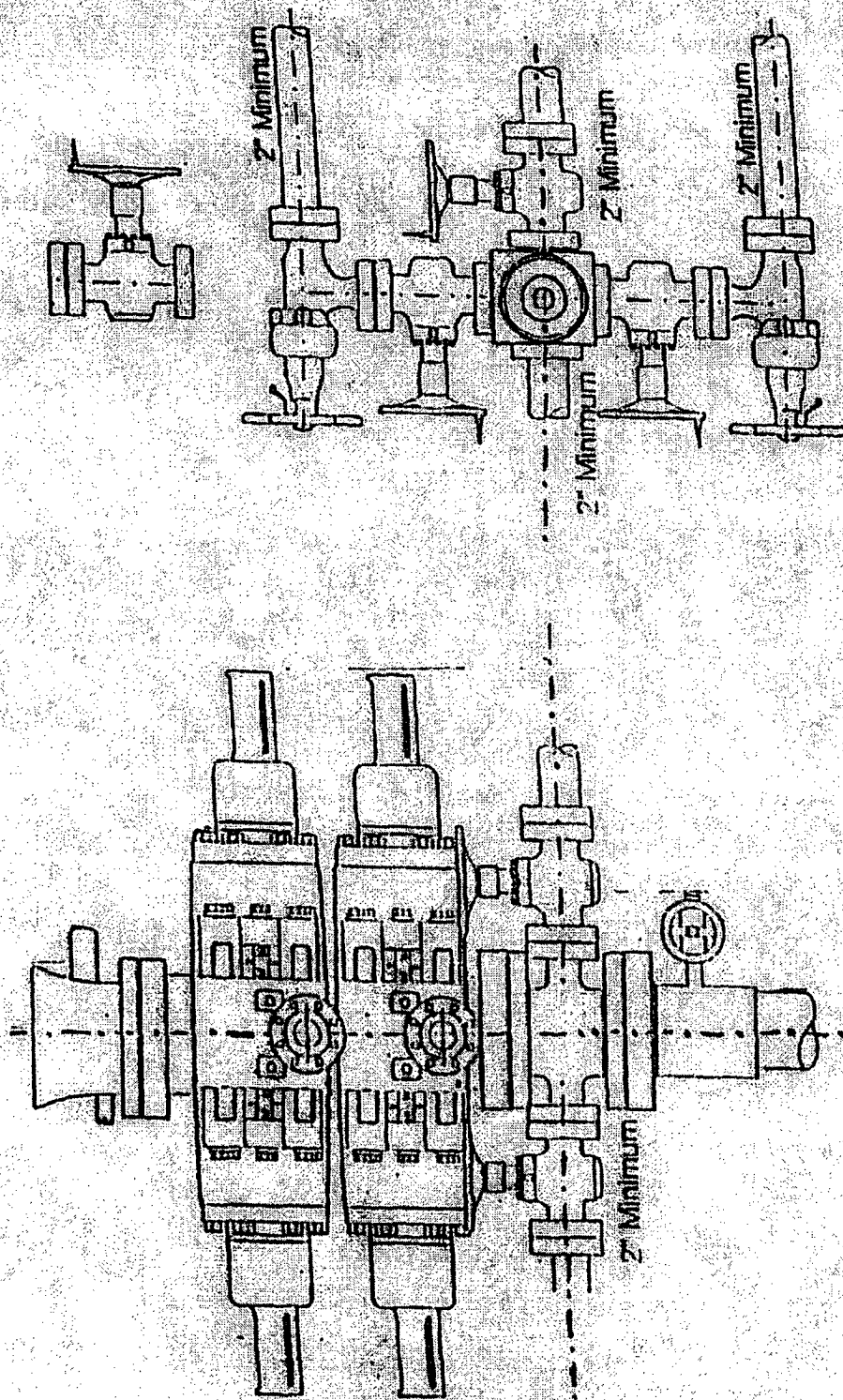
COMPLETION

The location pad is of sufficient size to accommodate all completion activities and equipment. A string of 2-3/8" J-55 4.7#/ft tubing will be run for a flowing string. A Sundry Notice will be submitted with a revised completion program if warranted.

## 2-M SYSTEM

Black Hills Gas Resources, Inc.

ANNULAR PREVENTOR MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTORS  
BOP PRESSURE TEST TO 1,000 PSI



# **Hydrogen Sulfide Drilling Operations Plan**

## **I. Hydrogen Sulfide Training**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide ( $H_2S$ ).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of  $H_2S$  detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of  $H_2S$  on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the  $H_2S$  Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable  $H_2S$  zone (within 3 days or 500 feet) and weekly  $H_2S$  and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific  $H_2S$  Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

## **II. $H_2S$ Safety Equipment and Systems**

**Note:** All  $H_2S$  safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetrating the first zone containing or reasonably expected to contain  $H_2S$ .

### **A. Well control equipment:**

1. Choke manifold with a minimum of one remote choke.
2. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

### **B. Protective equipment for essential personnel:**

1. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

**C. H<sub>2</sub>S detection and monitoring equipment:**

1. Two portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S levels of 10 ppm are reached.

**D. Visual warning systems:**

1. Wind direction indicators as shown on well site diagram.
2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate. See example attached.

**E. Mud program:**

1. The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

**F. Metallurgy:**

1. All drill strings, casings, tubing, wellhead, blowout preventors, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.
2. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

**G. Communication:**

1. Cellular telephone communications in company vehicles.

**H. Well testing:**

1. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.



# Black Hills Gas Resources

Jicarilla 29-02-06 #3H

API No. 3003926858

710' FNL & 460' FWL (NWNW) Unit D Lot 4

Section 6 T29N - R02W

East Blanco Field, Rio Arriba County, New Mexico

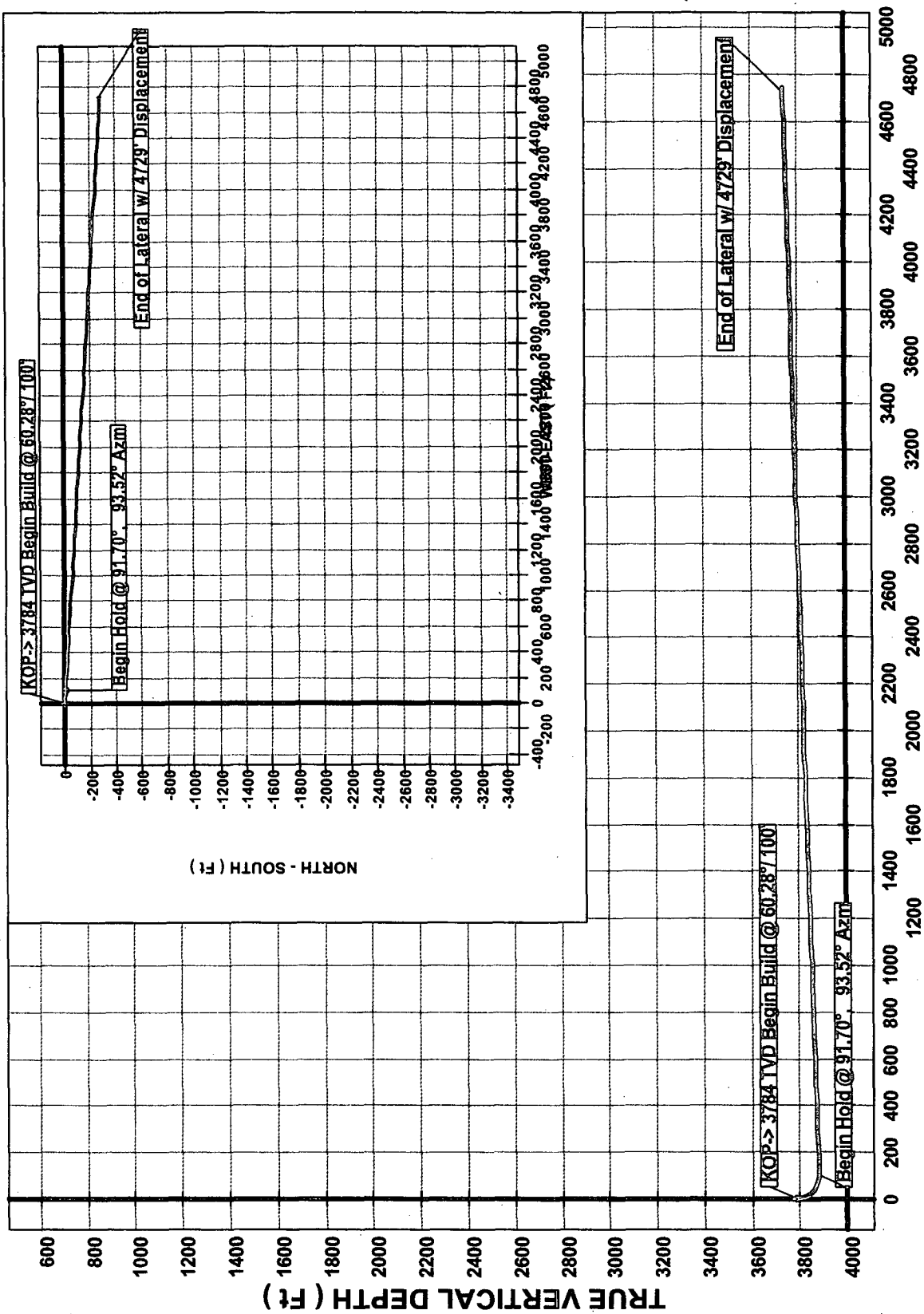
Top of Coal:	3665
Bottom of Coal:	3764
KOP:	3784
At Well - (NWNW) SEC 6 T29N - R02W	
Top of PC:	3777
PC Target Line:	3838
Bottom of PC:	3880
Top of Lewis:	3880
At BHL - (NENE) SEC 6 T29N - R02W	
Proposed BHL:	1000 FNL & 100 FEL
Azimuth	93.52
Top of PC:	3740
PC Target Line:	3745

Ground Elevation:	7387'
KB Elevation:	7400' (13' KB)
Surface Casing:	8-5/8" 24# K-55 ST&C @ 274'
Production Casing:	5-1/2" 15.5# K-55 LT&C @ 3957'
Plugback TD:	3900'
Perfs:	San Jose:
Perfs:	Nacimiento:
Perfs:	Ojo Alamo:
Perfs:	Pictured Cliffs:
Completion:	Never completed
	No Tubing in the Hole

Note: Window for kick-off will be cut from 3780 - 3896. KOP is estimated to be at 3784'.

Collar locations at 3685, 3729, 3774 & 3819. Lateral will be drilled from sump to TD at constant build.

Job Number: 6-30-05  
 Company: BHEP / Mallon Oil Corp.  
 Lease/Well: Jicarilla 29-02-06 # 3  
 Location: Rio Arriba Co., NM



VERTICAL SECTION ( Ft ) @ 93.52°