

Record Clean Up

RECEIVED

RCVD AUG 2 '12  
OIL CONS. DIV.  
DIST. 3Form 3160-5  
(August 2007)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmington Field Office  
Bureau of Land Management

JUL 31 2012

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010**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 - Other Instructions on page 2.**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee, or Tribe Name <b>Jicarilla Apache Tribe</b>
2. Name of Operator <b>Black Hills Gas Resources, Inc.</b>		7. If Unit or CA. Agreement Name and/or No.
3a. Address <b>3200 N 1st St, Bloomfield, NM 87413</b>	3b. Phone No. (include area code) <b>(505) 634-5104</b>	8. Well Name and No. <b>Jicarilla 459-17 #11</b>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>1,188 FSL &amp; 1,603 FEL, Sec. 17, T30N R3W (UL: O)</b> <b>2,541 FSL &amp; 86 FWL, Sec. 17, T30N R3W (UL: L)</b>		9. API Well No. <b>30-039-25906</b>
		10. Field and Pool, or Exploratory Area <b>East Blanco Pictured Cliffs</b>
		11. County or Parish, State <b>Rio Arriba County, New Mexico</b>

**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"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>Horiz. Re-entry</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug back	<input type="checkbox"/> Water Disposal	

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 Notice shall be filed only after all requirements, including reclamantion, have been completed, and the operator has determined that the site is ready for final inspection.)

**Black Hills Gas Resources is filing the following Notice of Intent for recompleat done in 2004. This is a continuation of the permit clean-up program done in 2007.**

**Black Hills Gas Resources intends to perform the following work for a re-entry to drill a lateral in the Pictured Cliffs.**

**MIRU drilling rig. POH with 2 3/8" tbg. PU drill string. Cut window in 5 1/2" casing from approx 3826' to 3839'. Orient whipstock. Drill 4 3/4" PC lateral to proposed 7711' MD. RDMO drlg rig.**

**End of lateral wellbore is proposed for 2540' FSL and 100' FWL (NWSW) of Section 17, T30N, R03W.**

**A 2 3/8", 4.7#, J-55, EUE production tubing string will be run and landed at approx 4060' MD.**

**Attachments include Proposed Location Plat, Re-entry Drilling Program, BOP Program, Hydrogen Sulfide Drilling Operations Plan, Proposed Directional Plan.**

14. I hereby certify that the foregoing is true and correct. Name (Printed/ Typed)

Daniel Manus

Regulatory Technician

Title

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

AUG 01 2012

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.

Office

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 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)

NMOCB

RECEIVED

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Farmington Field Office  
Bureau of Land Management

Form C-102  
Revised August 1, 2011  
Submit one copy to  
appropriate  
District Office

☐ AMENDED REPORT

JUL 31 2012

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-25906		<sup>2</sup> Pool Code 72400	<sup>3</sup> Pool Name EAST BLANCO / PICTURED CLIFFS
<sup>4</sup> Property Code 22211	<sup>5</sup> Property Name JICARILLA 459-17		<sup>6</sup> Well Number 11
<sup>7</sup> OGRID No. 013925	<sup>8</sup> Operator Name BLACK HILL GAS RESOURCES		<sup>9</sup> Elevation 7291'

<sup>10</sup> Surface Location

UL or lot no. O	Section 17	Township 30-N	Range 3-W	Lot Idn	Feet from the 1188	North/South line SOUTH	Feet from the 1603	East/West line EAST	County RIO ARRIBA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. L	Section 17	Township 30-N	Range 3-W	Lot Idn	Feet from the 2541	North/South line SOUTH	Feet from the 86	East/West line WEST	County RIO ARRIBA
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<sup>12</sup> Dedicated Acres 320 ACRES S/2	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p><sup>16</sup></p> <p><b>BOTTOM HOLE:</b> BHL FOOTAGES ARE APPROXIMATE AND PROVIDED BY <u>BLACK HILLS GAS RESOURCES.</u> CLIENT</p> <p><b>BOTTOM HOLE:</b> LAT: 36.81210° N. (NAD 83) LONG: 107.18298° W. (NAD 83) LAT: 36°48'43.53291" N. (NAD 27) LONG: 107°10'56.56187" W. (NAD 27)</p> <p><b>SURFACE:</b> LAT: 36.80839° N. (NAD 83) LONG: 107.17076° W. (NAD 83) LAT: 36°48'30.17672" N. (NAD 27) LONG: 107°10'12.58717" W. (NAD 27)</p> <p>S 89°57'13" W 2628.69' (M)</p> <p>FD. 2 1/2" BC. 1917 GLO</p> <p>FD NAIL IN STONE MOUND</p> <p>N 00°08'33" W 2641.07' (M)</p> <p>2541'</p> <p>86'</p> <p>FD 2 1/2" BC. 1917 GLO</p> <p>17</p> <p>SHL</p> <p>1188'</p> <p>1603'</p> <p>N 00°06'15" E 2640.30' (M)</p>		<p><sup>17</sup></p> <p><b>OPERATOR CERTIFICATION</b></p> <p>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</p> <p><i>Daniel Manus</i> 7/31/12 Signature Date Daniel Manus Printed Name daniel.manus@blackhillscorp.ca E-mail Address</p> <p><sup>18</sup></p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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</p> <p>MARCH 16, 1998 Date of Survey Signature and Seal of Professional Surveyor.</p> <p>8894 Certificate Number</p>
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## Black Hills Gas Resources

### Jicarilla 459-17 #11

Surface Location: 1,188' FSL 1,603' FEL (SW/SE)  
Bottom Hole Location: 2,541' FSL 86' FWL (NW/SW)  
Sec. 17 T30N R3W, Rio Arriba County, New Mexico  
Lease: Contract 459

### DRILLING PROGRAM

**This is horizontal re-entry of the existing well Jicarilla 459-17 #11 to the Pictured Cliffs Formation.**

#### **SURFACE FORMATION** – San Jose

#### **GROUND ELEVATION** – 7,291'

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

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	2,158'	Sandstone, shales & siltstones
Ojo Alamo	3,296'	Sandstone, shales & siltstones
Kirtland	3,535'	Sandstone, shales & siltstones
Fruitland Coal	3,741'	Sandstone, shales, siltstones & coal
Pictured Cliffs	3,842'	Sandstone, shales & siltstones
Lewis	3,929'	Sandstone, shales & siltstones

**TOTAL DEPTH**                      **3,854' TVD**  
   **7,711' MD**

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

Nacimiento	2,158'	water, sand
Ojo Alamo	3,296'	Gas, water, sand
Kirtland	3,535'	Gas, water, sand
Fruitland Coal	3,741'	Gas, water, sand
Pictured Cliffs	3,842'	Gas, water, sand

#### **RE-ENTRY – HORIZONTAL DRILLING PROGRAM**

- A) A 2,000psi 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) Retrievable whipstock to be set at  $\pm 3826'$
- D) Window to be milled out of 5½" csg at  $\pm 3826' - 3839'$

#### **HORIZONTAL DRILLING PROGRAM**

Kick-Off Point is estimated to be  $\pm 3830'$  TVD

#### **CASING PROGRAM**

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' - 525' MD	12¼"	8-5/8"	K-55 24# ST&C	To surface (previously set)
0'-4,095' MD	7-7/8"	5½"	K-55 15.5# LT&C	To surface (previously set)
3,826' – 7,711' MD	4-3/4"	Open Hole	None	None

\* Actual cement volume to be determined by caliper log.

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 preventers and associated equipment will be pressure tested to 1,000psi. Annular type preventer will be pressure tested to 50% of the rated working pressure. 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 both double gate rams and an annular preventer as per Onshore Order No. 2 for a 2M system.

**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 5M 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**

3,826' – 7,711' MD      Low solids non-dispersed  
M.W. 825 – 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 well site.

**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

**LOGGING, CORING, TESTING PROGRAM**

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

**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 attached H<sub>2</sub>S plan in event H<sub>2</sub>S is encountered.
- D) Estimated bottomhole pressure: 1,218 psi

**ANTICIPATED START DATE**

7/1/98

**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 EUE tubing will be run for a flowing string. A sundry notice will be submitted with a revised completion program if warranted.

## Black Hills Exploration & Production

Jicarilla 459-17 #11

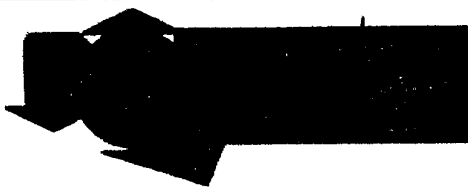
API No. 3003925906

1188' FSL & 1603' FEL (SW/SE) Unit O

Section 17 T30N - R03W

East Blanco Field, Rio Arriba County, New Mexico

Top of Coal:	3754	Ground Elevation:	7291'
Bottom of Coal:	3821	KB Elevation:	7304' (14' KB)
KOP:	3830	Surface Casing:	8-5/8" 24# K-55 ST&C @ 525'
At Well -		Production Casing:	5-1/2" 15.5# K-55 LT&C @ 4095'
Top of PC Target:	3842	Plugback TD:	4025'
Bottom of PC Target:	3907	Perfs: San Jose:	1668-72, 91-96, 1709-19, 79-82, 1803-05' (Open)
Bottom of PC:	3929	Perfs: Nacimiento:	
Top of Lewis:	3929	Perfs: Ojo Alamo:	3304 - 3354' (Open)
At BHL -		Perfs: Pictured Cliffs:	
Proposed BHL:	2540 FSL & 100 FWL	Completion:	Single Completion - San Jose / Ojo Alamo
Azimuth	290		100 jts 2-3/8" tbg @ 3295'
Top of PC Target:	3854		
Bottom of PC Target:	3866		



1724-B Townhurst Dr, Houston, Tx 77043  
(713) 827-8302  
www.nevisenergy.com

Job Number: Prop 8-18-04  
Company: Mallon Oil / BHEP  
Lease/Well: Jicarilla 459-17 # 11  
Location: Rio Arriba Co., NM  
Rig Name: Key 44  
RKB:  
G.L. or M.S.L.:

State/Country:  
Declination:  
Grid:  
File name: C:\WINSERVE\459-17-.SVY  
Date/Time: 17-Aug-04 / 13:35  
Curve Name: Plan 1

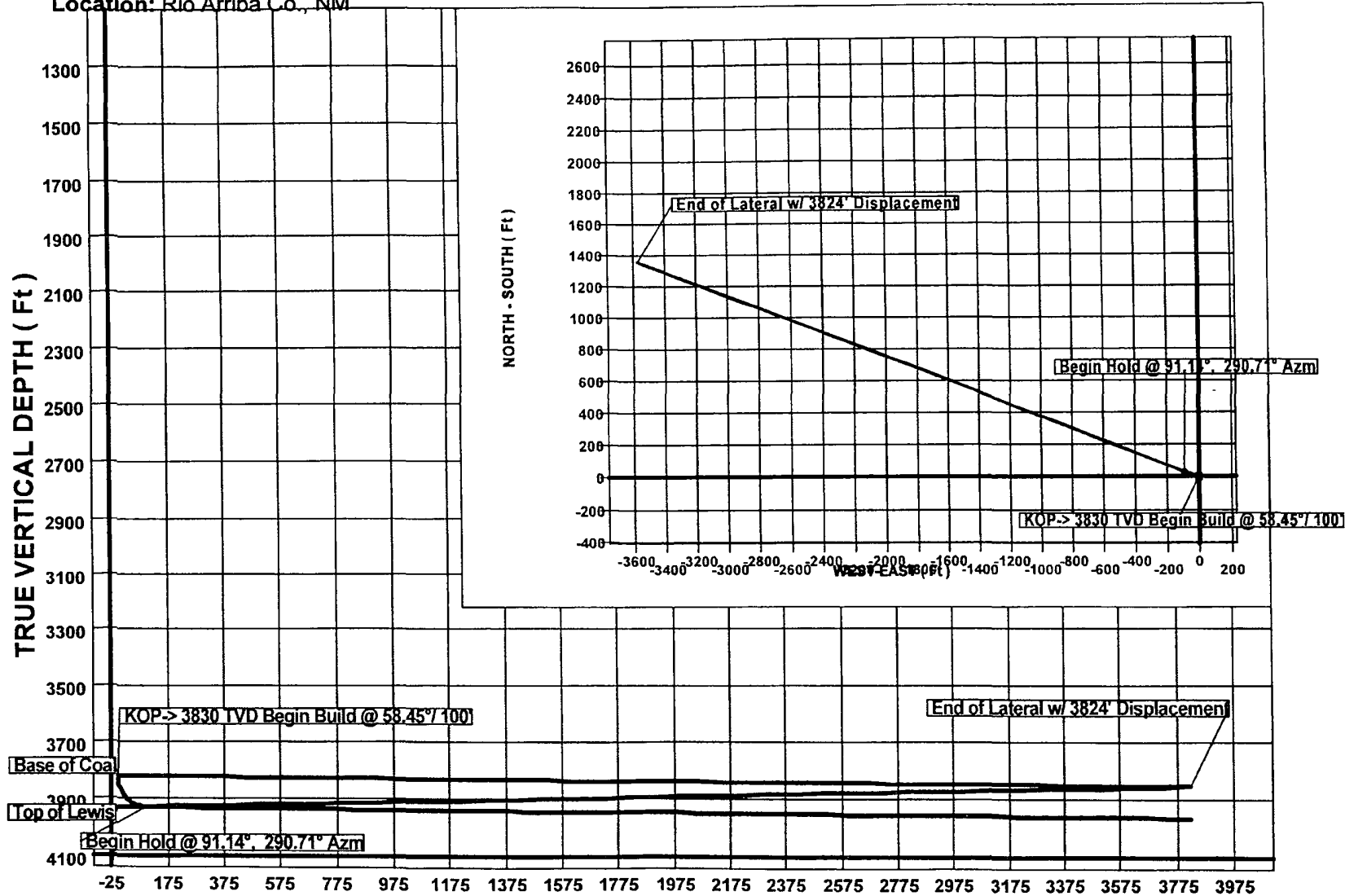
Nevis Energy Services, Inc  
1724-B Townhurst Dr. Houston, Texas 77043  
(713) 827-8302  
www.nevisenergy.com

WINSERVE PROPOSAL REPORT  
*Minimum Curvature Method*  
*Vertical Section Plane 290.71*  
*Vertical Section Referenced to Wellhead*  
*Rectangular Coordinates Referenced to Wellhead*

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
KOP-> 3830 TVD Begin Build @ 58.45°/ 100'									
3830.00	.00	290.71	3830.00	.00	.00	.00	.00	.00	.00
3840.00	5.85	290.71	3839.98	.51	.18	-.48	.51	290.71	58.45
3850.00	11.69	290.71	3849.86	2.03	.72	-1.90	2.03	290.71	58.45
3860.00	17.54	290.71	3859.53	4.56	1.61	-4.26	4.56	290.71	58.45
3870.00	23.38	290.71	3868.90	8.05	2.85	-7.53	8.05	290.71	58.45

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3880.00	29.23	290.71	3877.86	12.48	4.41	-11.67	12.48	290.71	58.45
3890.00	35.07	290.71	3886.32	17.80	6.29	-16.65	17.80	290.71	58.45
3900.00	40.92	290.71	3894.20	23.95	8.47	-22.40	23.95	290.71	58.45
3910.00	46.76	290.71	3901.41	30.87	10.92	-28.88	30.87	290.71	58.45
3920.00	52.61	290.71	3907.88	38.50	13.61	-36.01	38.50	290.71	58.45
3930.00	58.45	290.71	3913.53	46.74	16.53	-43.72	46.74	290.71	58.45
3940.00	64.30	290.71	3918.32	55.51	19.63	-51.92	55.51	290.71	58.45
3950.00	70.14	290.71	3922.19	64.73	22.89	-60.54	64.73	290.71	58.45
3960.00	75.99	290.71	3925.10	74.29	26.27	-69.49	74.29	290.71	58.45
3970.00	81.83	290.71	3927.03	84.10	29.74	-78.66	84.10	290.71	58.45
3980.00	87.68	290.71	3927.94	94.05	33.26	-87.97	94.05	290.71	58.45
3986.01	91.14	290.71	3928.00	100.06	35.38	-93.59	100.06	290.71	57.62
<b>Begin Hold @ 91.14°, 290.71° Azm</b>									
3986.02	91.14	290.71	3928.00	100.07	35.39	-93.61	100.07	290.71	.05
4086.02	91.14	290.71	3926.01	200.05	70.75	-187.13	200.05	290.71	.00
4186.02	91.14	290.71	3924.02	300.03	106.10	-280.65	300.03	290.71	.00
4286.02	91.14	290.71	3922.03	400.01	141.46	-374.17	400.01	290.71	.00
4386.02	91.14	290.71	3920.04	499.99	176.82	-467.69	499.99	290.71	.00
4486.02	91.14	290.71	3918.05	599.97	212.17	-561.21	599.97	290.71	.00
4586.02	91.14	290.71	3916.07	699.96	247.53	-654.73	699.96	290.71	.00
4686.02	91.14	290.71	3914.08	799.94	282.89	-748.25	799.94	290.71	.00
4786.02	91.14	290.71	3912.09	899.92	318.24	-841.77	899.92	290.71	.00
4886.02	91.14	290.71	3910.10	999.90	353.60	-935.28	999.90	290.71	.00
4986.02	91.14	290.71	3908.11	1099.88	388.96	-1028.80	1099.88	290.71	.00
5086.02	91.14	290.71	3906.12	1199.86	424.31	-1122.32	1199.86	290.71	.00
5186.02	91.14	290.71	3904.13	1299.84	459.67	-1215.84	1299.84	290.71	.00
5286.02	91.14	290.71	3902.14	1399.82	495.03	-1309.36	1399.82	290.71	.00
5386.02	91.14	290.71	3900.15	1499.80	530.39	-1402.88	1499.80	290.71	.00

Job Number: Prop 8-18-04  
 Company: Mallon Oil / BHEP  
 Lease/Well: Jicarilla 459-17 # 11  
 Location: Rio Arriba Co., NM



○ Plan 1    △ Base Coal    ▽ Top Lewis    ◇    □

VERTICAL SECTION ( Ft ) @ 290.71°





## **Black Hills Gas Resources**

### **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 tubular 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.

A training session will be held prior to encountering a known or probable  $H_2S$  zone (within 3 days or 500 feet) and weekly  $H_2S$  well control drills for all personnel in each crew. The initial training sessions 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 (if necessary) 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. Self-Contained Breathing Apparatus (SCBA) (30 min) will be located in the doghouse, on mud tanks, in the cellar and at briefing areas, as indicated on well site diagram.
- C.  $H_2S$  detection and monitoring equipment:

## **EMERGENCY CONTACT NUMBERS**

### **HOSPITAL**

**DULCE  
SAN JUAN**

**911 / 505-334-6622  
575-759-3291  
505-334-6622**

### **AMBULANCE**

**DULCE  
SAN JUAN**

**911 / 505-334-6622  
575-759-3778  
505-334-6622**

### **EMERGENCY HELICOPTER**

**911 / 505-334-6622**

### **FIRE/RESCUE**

**JICARILLA FIRE/SFTY  
FOREST SERVICE FIRE/SFTY  
NON-EMERGENCY**

**911 / 505-334-6622  
505-759-3254  
505-632-1963  
505-334-6622**

### **POLICE**

**JICARILLA PD  
RIO ARRIBA SHERIFF  
OFFICE  
DISPATCH  
NEW MEXICO STATE POLICE  
SAN JUAN SHERIFF  
NON-EMERGENCY**

**911 / 505-334-6622  
575-759-3222  
  
575-588-7522  
505-753-3320  
505-325-7547  
505-334-6622  
505-334-6622**

### **POISON CONTROL**

**1-800-222-1222**

## 2-M SYSTEM

Black Hills Gas Resources, Inc.

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

