



Marquez, Cynthia <cmarquez@blm.gov>

OIL CONS. DIV DIST. 3

Unapproved APD

2 messages

JUN 30 2016

Salyers, Troy <tsalyers@blm.gov>

Mon, Jun 27, 2016 at 3:34 PM

To: Daniel.Manus@blackhillscorp.com

Cc: Maureen Joe <mjoe@blm.gov>, Cynthia Marquez <cmarquez@blm.gov>

Daniel,

Below is a well we currently have on file from Black Hills Gas Resources. This permit has been pending for an extended period of time Please advise this office if your company is still interested in pursuing drilling this well. If so, please provide a response to this message by 7/27/2016. If no response is received by the aforementioned date, the BLM will return your APD with no further action taken.

Troy Salyers

Well name	Well #	Township	Range	Section	Received date
Jicarilla 457-04	732	30N	3W	4	6/20/2007

Manus, Daniel <Daniel.Manus@blackhillscorp.com>

Tue, Jun 28, 2016 at 9:41 AM

To: "Salyers, Troy" <tsalyers@blm.gov>

Cc: Maureen Joe <mjoe@blm.gov>, Cynthia Marquez <cmarquez@blm.gov>

Troy,

After discussing internally, Black Hills has decided not to pursue the Jicarilla 457-04 732 and cancel the APD.

Daniel Manus

Black Hills Gas Resources

O: (505) 634-5104 | C: (505) 860-9194

www.bhep.com | www.blackhillscorp.com

From: Salyers, Troy [mailto:tsalyers@blm.gov]

Sent: Monday, June 27, 2016 3:35 PM

To: Manus, Daniel <Daniel.Manus@blackhillscorp.com>

Cc: Maureen Joe <mjoe@blm.gov>; Cynthia Marquez <cmarquez@blm.gov>

Subject: Unapproved APD

*** This email is from an EXTERNAL sender ***

NMOC
AV

24

Use caution before responding. **DO NOT** open attachments or click links from unknown senders or unexpected email. If this email appears to be sent from a BHC employee or department, verify its authenticity before acting or responding. Contact the Helpdesk with any questions.

[Quoted text hidden]

This electronic message transmission contains information from Black Hills Corporation, its affiliate or subsidiary, which may be confidential or privileged. The information is intended to be for the use of the individual or entity named above. If you are not the intended recipient, be aware the disclosure, copying, distribution or use of the contents of this information is prohibited. If you received this electronic transmission in error, please reply to sender immediately; then delete this message without copying it or further reading.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

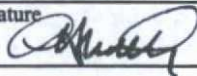
FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. Jicarilla 457
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Jicarilla Apache Nation
2. Name of Operator Black Hills Gas Resources		7. If Unit or CA Agreement, Name and No. NA
3a. Address PO Box 249/3200 1st Street Bloomfield, NM 87413	3b. Phone No. (include area code) 505-634-1111 ext 27	8. Lease Name and Well No. Jicarilla 457-04 #732
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1450' FSL 2425' FWL (NE/SW) At proposed prod. zone		9. API Well No. 30-039-30283
14. Distance in miles and direction from nearest town or post office* 20 miles Southwest of Dulce, New Mexico		10. Field and Pool, or Exploratory Basin Dakota Mancos
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1476 ft. W		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 04 T30N R3W
16. No. of Acres in lease Approx. 2560	17. Spacing Unit dedicated to this well 320 acre 3/2	12. County or Parish Rio Arriba
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50 feet (Twin loc)	19. Proposed Depth 8000' 8900 feet bgs	13. State NM
20. BLM/BIA Bond No. on file NMB000230/SLCMMSP0266	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7104' GR	22. Approximate date work will start* 8/1/2007
23. Estimated duration 45-60 days drig & compl		

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 	Name (Printed/Typed) Lynn H. Benally	Date 6/20/2007
Title Regulatory Specialist/Black Hills Gas Resources		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	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.

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 reverse)

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

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

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised October 12, 2005

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

2007 JUN 25 PM 4:11

RECEIVED
BLM
SANTA FE, NM
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 71599	³ Pool Name Basin Dakota Mancos
⁴ Property Code 22865	⁵ Property Name JICARILLA 457-04	⁶ Well Number 732
⁷ OGRID No. 013925	⁸ Operator Name BLACK HILLS GAS RESOURCES	⁹ Elevation 7104'

¹⁰Surface Location

UL or lot no. K	Section 4	Township 30-N	Range 3-W	Lot Idn	Feet from the 1450	North/South line SOUTH	Feet from the 2425	East/West line WEST	County RIO ARRIBA
--------------------	--------------	------------------	--------------	---------	-----------------------	---------------------------	-----------------------	------------------------	----------------------

¹¹Bottom 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
¹² Dedicated Acres 320 - S/2			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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	LOT 4	LOT 3	LOT 2	LOT 1
QTR. CORNER FD. 2 1/2" B.C. G.L.O. 1917				
N 00-11-45 W 2631.90' (M)	LAT. 36.83774° N (NAD 83) LONG. 107.15588° W (NAD 83)			
2425'	4			
SEC. CORNER FD. 2 1/2" B.C. G.L.O. 1917	S 89-56-54 W 2575.36' (M)	QTR. CORNER FD. 2 1/2" B.C. G.L.O. 1917		
	1450'			

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.

Signature: Daniel Mancos Date: 6/20/07
Printed Name: Daniel Mancos

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.

SEPTEMBER 26 2006
Date of Survey


Signature and Seal of Registered Professional Surveyor

Certificate Number

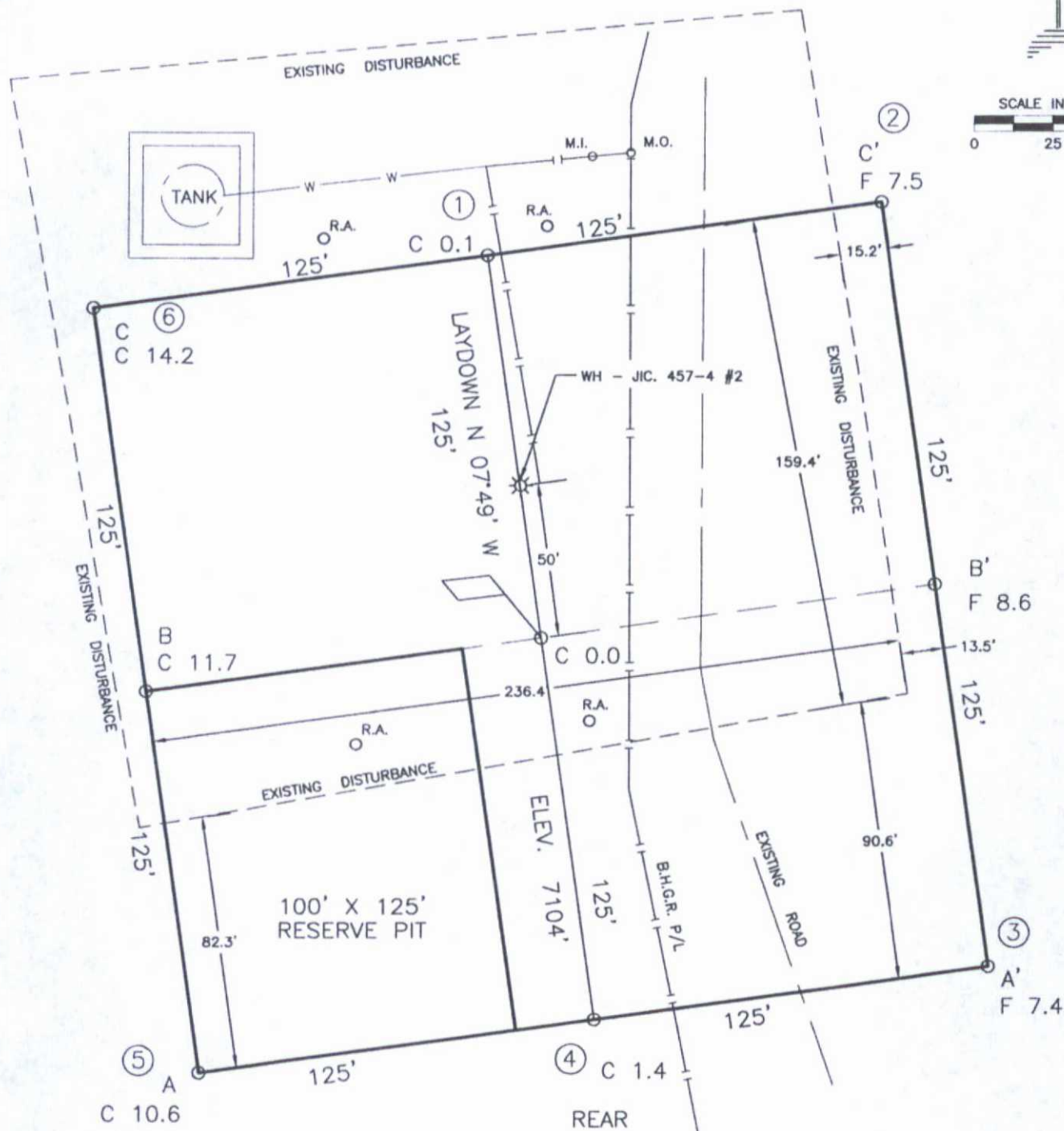
COMPANY: BLACK HILLS GAS RESOURCES
LEASE: JICARILLA 457-04 #732
FOOTAGE: 1450 FSL, 2425 FWL
SEC.: 4, TWN: 30-N, RNG: 3-W, NMPM
ELEVATION: 7104'




SCALE IN FEET



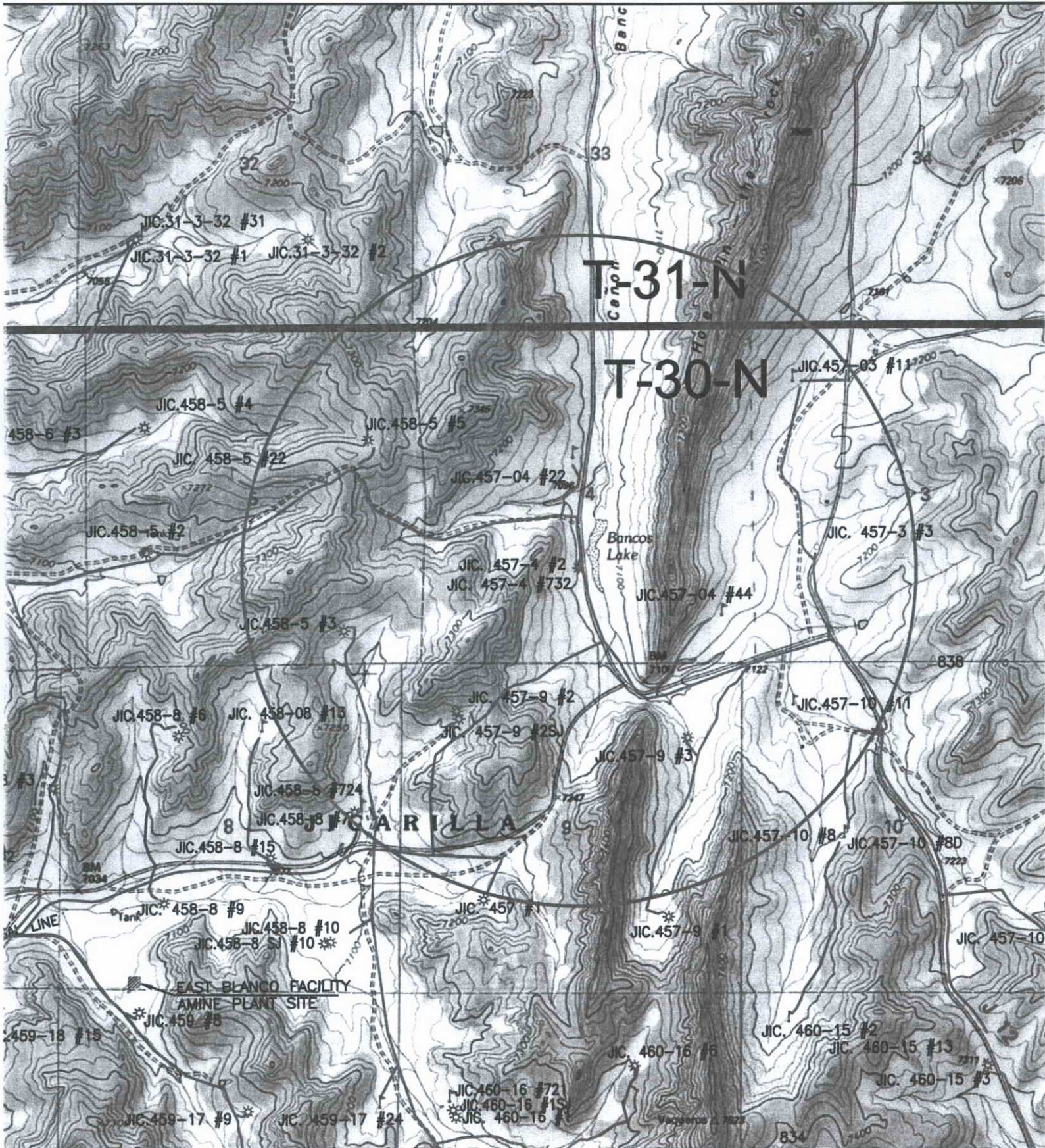
0 25 50



DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

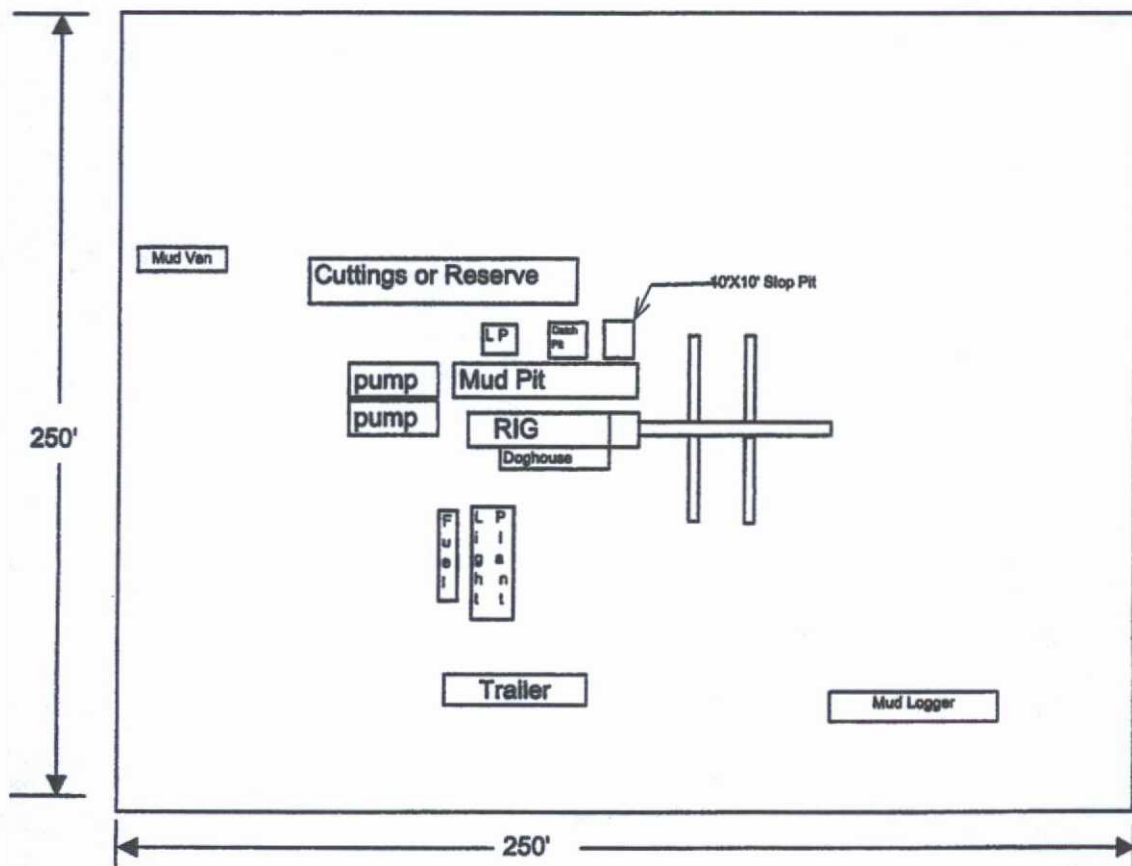
REVISION:	DATE:	REVISED BY:
 <p>Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15068 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-6019 NEW MEXICO L.S. 8894</p>		
DRAWN BY: B.L.	CADFILE: MN520PL8	
ROW#: MN520	DATE: 10/18/06	

BLACK HILLS GAS RESOURCES
JICARILLA 457-04 No. 732
1450 FSL 2425 FWL
SEC. 4, T30N, R3W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO



Drilling Site Layout

Jicarilla 457-04 #732



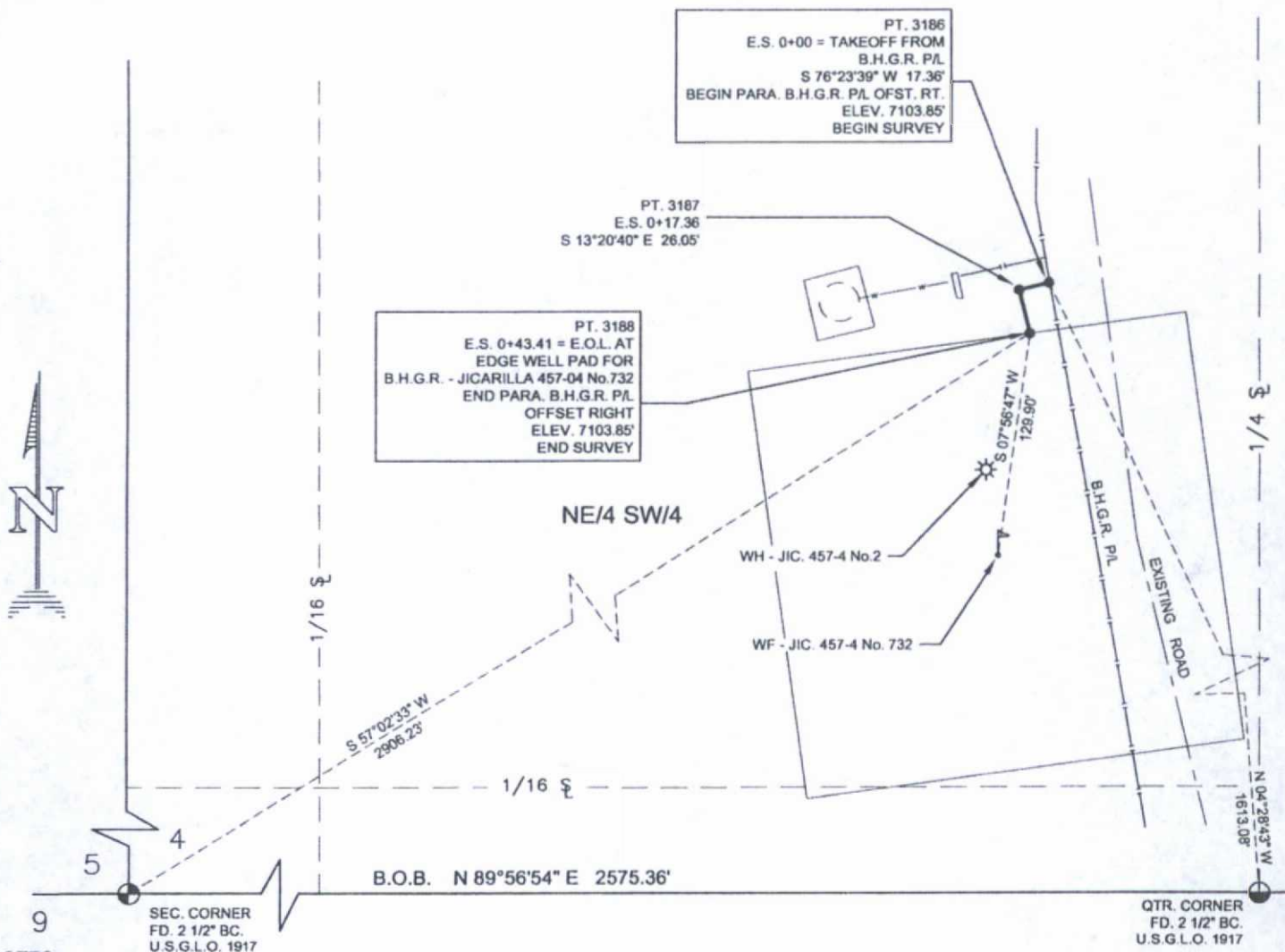
A PRELIMINARY SURVEY OF A 40 FOOT EASEMENT CROSSING JICARILLA APACHE LANDS FOR

BLACK HILLS GAS RESOURCES JICARILLA 457-04 No. 732 PIPELINE

NE/4 SW/4 SEC. 4, TOWNSHIP 30 NORTH, RANGE 3 WEST, N.M.P.M.

LOCATED SOUTHWEST OF DULCE,

RIO ARriba COUNTY, NEW MEXICO



NOTES:

1) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH QUARTER CORNER OF SEC. 4, T30N, R3W, N.M.P.M. LINE BEARS N 89°56'54\" E A DISTANCE OF 2575.36 FEET PER G.P.S. MEASUREMENT.


2) DATE OF SURVEY: SEPT. 26, 2006

3) DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

4) ELEVATION BASED ON N.A.S.D. 1988



OWNER	STATION	FT./RODS
JIC. APACHE	E.S. 0+00 TO E.S. 0+43.41	43.41/2.63

REVISION	REV. BY	DATE
		
Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15068 Farmington, NM 87401 Phone (505) 326-1772 Fax (505) 326-6019 REGISTERED LAND SURVEYOR NEW MEXICO No.8894		
SHEET 1 OF 1		CADFILE: MN520P01
DRAWN BY: B.L.	ROW#: MN520	DATE: 10/18/06

DATE: 10-23-06

I, ROY A. RUSH, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY PERFORMED BY ME OR UNDER MY DIRECTION, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

I FURTHER CERTIFY THAT THIS IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

Daggett Enterprises, Inc.

Surveying and Oil Field Services

P. O. Box 15068 ♦ Farmington, NM 87401 U.S.A.
Phone (505) 326-1772 (800) 264-6692 Fax (505) 326-6019
Email ♦ daggett@4daggett.com

A LEGAL DESCRIPTION FOR BLACK HILLS GAS RESOURCES CROSSING JICARILLA APACHE LANDS PROPOSED JICARILLA 457-04 NO. 732 PIPELINE

AN EASEMENT FOR BLACK HILLS GAS RESOURCES, LOCATED IN THE NE/4 SW/4 OF SECTION 4, TOWNSHIP 30 NORTH, RANGE 3 WEST, N.M.P.M., LOCATED SOUTHWEST OF DULCE, RIO ARriba COUNTY, NEW MEXICO. BEING MORE PARTICULARLY DESCRIBED AS BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

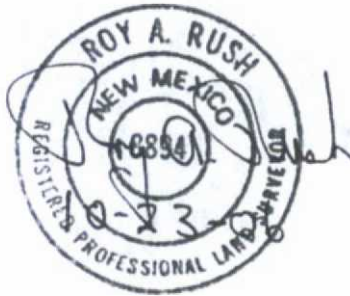
COMMENCING AT A POINT LOCATED IN THE NE/4 SW/4 OF SAID SECTION 4, BEING THE "TRUE POINT OF BEGINNING", SAID POINT BEARS N 04-28-43 W, A DISTANCE OF 1613.08 FEET, FROM A 2 1/2" U.S.G.L.O. BRASS CAP, FOR THE SOUTH QUARTER CORNER OF SAID SECTION 4.

THENCE: S 76-23-39 W A DISTANCE OF 17.36 FEET;

THENCE: S 13-20-40 E A DISTANCE OF 26.05 FEET TO THE "TRUE POINT OF ENDING" FOR THIS DESCRIPTION WHENCE THE SOUTHWEST CORNER OF SAID SECTION 4, BEARS S 57-02-33 W, A DISTANCE OF 2906.23 FEET.

THE BASIS OF BEARING BEING N 89-56-54 E A DISTANCE OF 2575.36 FEET FROM THE SOUTHWEST CORNER TO THE SOUTH QUARTER CORNER OF SAID SECTION 4.

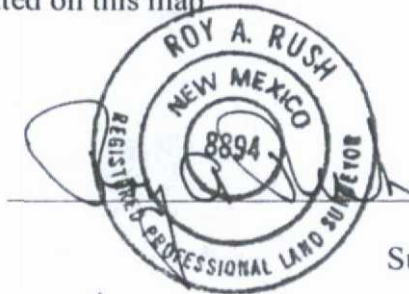
TOTAL LENGTH IS 43.41 FEET OR 2.63 RODS. CONTAINS 0.04 ACRES OF LAND MORE OR LESS.



SURVEYOR'S AFFIDAVIT

STATE OF NEW MEXICO
COUNTY OF RIO ARRIBA

I, Roy A. Rush, P.S., being first duly sworn, deposes and states that I am the New Mexico Professional Surveyor for Black Hills Gas Resources.; that the survey was made by me (or under my direct supervision); that I have examined the field notes for the survey for a **JICARILLA 457-04 No. 732 PIPELINE** as described and shown on this map; that this map was prepared under my direction from said field notes: and that said site being 0.04 acres in size, being in Section 4, T. 30N, R.3W, N.M.P.M., Rio Arriba County, New Mexico is accurately located on this map



Surveyor's Signature

Subscribed and sworn before me this 23rd day of Oct. 2006.

Deborah Schwab

Deborah Schwab - Notary Public

My Commission expires on June 9, 2007





Black Hills Gas Resources

Jicarilla 457-04 #732
 1,450' FSL 2,425' FWL (NE/SW) Unit K
 Sec.04 T30N R3W
 Rio Arriba County, New Mexico
 Lease: Contract 457

2007 JUN 29 AM 11: 58

RECEIVED
 BLM
 210 FARMINGTON NM

DRILLING PROGRAM (Per Rule 320)

This Application for Permit to Drill (APD) was initiated under the NOS process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process includes an onsite meeting which was held on December 5, 2006 as determined by Bureau of Indian Affairs (BIA) and Jicarilla Oil & Gas Administration (JOGA) and at which time the specific concerns of Black Hills Gas Resources (BHGR), BIA, and JOGA were discussed.

The initial APD for this location was approved February 18, 1998 for the Jicarilla 457-04 #2. BHGR is proposing to drill the Jicarilla 457-04 #732 as a twin well co-located Dakota well on the existing Jicarilla 457-04 #2 location.

SURFACE FORMATION – San Jose

GROUND ELEVATION – 7,104'

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

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	1,991'	Sandstone, shales & siltstones
Ojo Alamo	3,117'	Sandstone, shales & siltstones
Fruitland Coal	3,506'	Sandstone, shales & siltstones
Pictured Cliffs	3,657'	Sandstone, shales & siltstones
Lewis	3,779'	Sandstone, shales & siltstones
Mesa Verde	5,654'	Sandstone, shales & siltstones
Mancos	6,581'	Sandstone, shales & siltstones
Gallup	7,411'	Sandstone, shales & siltstones
Greenhorn	8,101'	Sandstone

TOTAL DEPTH 8,050'

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

Nacimiento	1,991'	Gas, water, sand
Ojo Alamo	3,117'	Gas, water, sand
Fruitland Coal	3,506'	Gas, water, sand
Pictured Cliffs	3,657'	Gas, water, sand
Lewis	3,779'	Gas, water, sand, shale
Mesa Verde	5,654'	Gas, water, sand, shale
Mancos	6,581'	Gas, water, sand, shale
Gallup	7,411'	Gas, water, sand, shale
Greenhorn	8,101'	Gas, oil, water, sand, shale

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0'-275'	12-1/4"	9 5/8"	J-55 36# ST&C	+/-140 sxs Standard Type II cement (yield 1.18 cu ft/sx:weight 15.6 lb/gal) *
0'-6731"	8-3/4"	7"	N-80 23# LT&C	+/- 410 sxs lite or 65:35 poz (yield 1.49 cu ft/sx:weight 13.1 lb/gal)* and +/- 300 sxs 50:50 poz (yield 2.89 cu ft/sx:weight 11.5 lb/gal)*
6731'-TD	6-1/4"	4-1/2"	J-55 11.5# LT&C	Uncemented Retrievable Liner

* 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.

Black Hills Gas Resources (BHGR) proposes that the subject well be drilled such that the Greenhorn Limestone Member of the Mancos Formation will not be penetrated. This will allow evaluation of the Mancos / Gallup and shallower formations.

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 2,000 psi. Annular type preventor will be pressure tested to 50% of the rated working pressure, not to exceed 2,000 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

0'	-	275'	Fresh water – M.W. 8.5 ppg, Vis 30-33
275'	-	6731'	Klean Faze- Low solids non-dispersed
			M.W. 8.5 – 9.2 ppg
			Vis – 28 – 50 sec
			W.L. 15cc or less
6731'	-	TD	Air & N2 unit – Deliver ± 1800 SCFM (Air) @ 1700 psi & 35 gpm fluid.. Drill with compressed nitrogen.

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: DIL- CNL-FDC-GR - TD - BSC (GR to surface)
Sonic (BSC to TD)
- B) Coring: None
- C) Testing: Possible DST – None anticipated. Drill stem tests may be run on shows of interest

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) H₂S: See attached H₂S plan in event H₂S is encountered.
- D) Estimated bottomhole pressure: 2496 psi

ANTICIPATED START DATE

August 1, 2007

COMPLETION

The location pad will be 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.

Jicarilla 457-04 #732
 1450' FSL 2425' FWL (NE /4 SW /4) Surface Location
 Sec. 4 T 30 N R 3 W
 Rio Arriba County, New Mexico
 Contract: 457

SURFACE CASING AND CENTRALIZER DESIGN

Proposed Total Depth: 8,050 '
 Proposed Depth of Surface Casing: 275 '
 Estimated Pressure Gradient: 0.31 psi/ft
 Bottom Hole Pressure at 8,050 '
 $0.31 \text{ psi/ft} \times 8,050' = 2,496 \text{ psi}$
 Hydrostatic Head of gas/oil mud: 0.22 psi/ft
 $0.22 \text{ psi/ft} \times 8,050' = 1,771 \text{ psi}$

Maximum Design Surface Pressure

Bottom Hole Pressure – Hydrostatic Head =
 $(0.31 \text{ psi/ft} \times 8,050') - (0.22 \text{ psi/ft} \times 8,050') =$
 $2,496 \text{ psi} - 1,771 \text{ psi} = 725 \text{ psi}$

Casing Strengths 7 N-80 23# ST&C

Wt.	Tension (lbs)	Burst (psi)	Collapse (psi)
23 #	442,000	6,340	3,830
#			

Safety Factors

Tension (Dry):	1.8	Burst: 1.0	Collapse: 1.125
Tension (Dry):	23 # / ft x	275 ' =	6,325 #
Safety Factor =	$\frac{442,000}{6,325}$	=	69.88 ok
Burst:	Safety Factor =	$\frac{6,340 \text{ psi}}{725 \text{ psi}}$	= 8.75 ok
Collapse:	Hydrostatic =	$0.052 \times 9.0 \text{ ppg} \times 275' = 129 \text{ psi}$	
Safety Factor =	$\frac{3,830 \text{ psi}}{129 \text{ psi}}$	= 29.76	ok

Use 275 ' 7 N-80 23# ST&C

Use 2,000 psi minimum casinghead and BOP's but will test to 2,000 psi

Centralizers

5 Total
 1 near surface at 40'
 2 -1 each at middle of bottom joint, second joint
 2 -1 each at every other joint 40' spacing
 Total centralized ± 200 ' (75 ' – 275 ')

Note that field experience indicates that additional centralizers greatly increase the chance of "sticking" the surface casing prior to reaching surface casing total depth.



Black Hills Gas Resources

Jicarilla 457-04 #732

1,450' FSL 2,425' FWL (NE/SW)

Sec.04 T30N R3W

Rio Arriba County, New Mexico

Lease: Contract 457

SURFACE USE PLAN

WELL LOCATION AND INTRODUCTION:

The surveyed location is 1,450' FSL 2,425' FWL (NE/SW) of Sec. 04 T30N R3W. The well site was surveyed and staked by Daggett Enterprises, Inc.

This Application for Permit to Drill (APD) was initiated under the NOS process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process includes an onsite meeting which was held on December 5, 2006 as determined by Bureau of Indian Affairs (BIA) and Jicarilla Oil & Gas Administration (JOGA), and at which time the specific concerns of Black Hills Gas Resources (BHGR), BIA and JOGA were discussed.

The initial APD for this location was approved February 18, 1998 for the Jicarilla 457-04 #2. BHGR is proposing to drill the Jicarilla 457-04 #732 as a twin well co-located Dakota well on the existing Jicarilla 457-04 #2 location.

1) EXISTING ROADS:

- A) The well site for the proposed well and access roads to the location are shown on the attached maps/plat. The existing established roads will be utilized during drilling and production operations. Upgrade of the existing roads prior to drilling will not be necessary.
- B) *Directions to location: From Bloomfield, New Mexico, travel approximately 50.4 miles east on Highway 64 to J-10 Road. Turn left (North) on J-10 Road and travel for approximately 6.9 miles to J-26. Turn left (North) and travel for approximately 0.25 miles to existing well-pad.*
- C) Routine grading and maintenance of existing roads will be conducted as necessary.

2) PLANNED ACCESS ROADS (See attached map)

- A) The current Jicarilla J-26 road leads to the existing location and will be utilized. Water will be diverted where necessary to avoid accumulation, prevent erosion, and maintain drainage.
- B) The average grade will be less than 3%.
- C) Water turnouts and water bars/wing ditches will be utilized as necessary.
- D) No fence cuts, gates and/or cattle guards will be necessary.
- E) Low-water crossings, if necessary, will be installed prior to drilling operations. In the access road, culverts or gravel bottom low water crossings, if necessary, will be placed on firm uniform beds and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
- F) Surfacing material will consist of native soil and if necessary sandstone material.

3) LOCATION OF EXISTING WELLS

Within a 1-mile radius:

Proposed	See Table 1
Drilling	See Table 1
Abandoned	See Table 1
Disposal injection	See Table 1
Shut-In	See Table 1
Producing	See Table 1

4) NEW PRODUCTION FACILITIES PROPOSED

- A) If the twin well proves to be successful, necessary production facilities and tanks will be installed on the drilling pad. The new well will also be tied into the existing piping on location which may include the following: up to two (2) pipelines will be installed in a single trench as follows: 1) gas pipeline to be 4" poly; and 2) water pipeline 3" poly. The maximum anticipated working pressure is 200 psi.
- B) Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons. All above ground permanent structures will be painted Munsell Color Juniper Green, based on BLM guidelines.

5) LOCATION OF WATER SUPPLY

It is planned to drill the proposed well with water obtained from private or commercial sources which will be transported to the location. No water wells will be drilled on the location.

6) SOURCE OF CONSTRUCTION MATERIALS

No additional earth materials are expected to be hauled in for construction purposes.

7) WASTE DISPOSAL

- A) Drill cuttings not retained for evaluation purposes will be disposed of in the lined reserve pit, measuring approximately 100' x 125' x 8'.
- B) A portable chemical toilet will be provided for onsite personnel during the drilling and completion operations.
- C) Garbage and trash produced during drilling or completion operations will be contained in a portable trash basket and hauled to an approved disposal facilities. No toxic waste or hazardous chemicals will be produced by this operation.
- D) After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. The cuttings and pit will be completely fenced and flagged and kept closed until it has dried. As weather permits, the unused portion of the well site will be leveled and reseeded per BIA specifications. Only that part of the pad required for production facilities will be kept in use.

8) ANCILLARY FACILITIES

No ancillary facilities will be necessary.

9) WELLSITE LAYOUT

- A) No cut and fill is anticipated, location will be leveled, weeds if any removed and existing surface equipment removed.
- B) See attached plat for the planned orientation for the production layout.
- C) The reserve pit will be lined with a synthetic liner.

10) SURFACE PREPARATION

- A) Upon completion of the proposed operations, if the well is to be abandoned, the pit area, after being allowed to dry, will be broken out and leveled. Topsoil will be returned to the entire location, which will be leveled and contoured to as nearly the original topography as possible.
- B) The disturbed area will be revegetated as recommended by the BIA.
- C) All small flare pits or lined water pits will be fenced while in use, and dried and reclaimed upon completion or abandonment of well.

11) PIPELINES AND FLOWLINES

Black Hills Gas Resources proposes to tie into the existing gas gathering system pipeline as shown on the attached plat. One pipeline would transport gas from the well to the main gas gathering system. The gas pipeline will be 4" poly. The second pipeline will transport produced water, and will be in the same trench as the gas gathering pipeline and will be constructed at the same time. The water pipeline will be 3" poly.

12) GENERAL INFORMATION

- A) The Project Area is roughly 20 miles southeast of Navajo Reservoir, and roughly 14 miles southwest of the town of Dulce, New Mexico. The well site is located in the northeastern portion of the San Juan Basin, completely within Rio Arriba County and within the boundaries of the Jicarilla Apache Reservation. Additionally for reference, the well locations can be found on the Bixler Ranch, N.M. (1963) and Cement Lake, N.M. (1963) U.S. Geological Survey (USGS) 7.5' topographic quadrangle maps (Geo Community 2007). The well is located on the south side of U.S. Highway 64 and would be accessed from existing roads branching from Jicarilla Road J-58.
- B) Topographic and geologic features - The topographic pattern of the area is varied consisting of defined ridges, deep and relatively incised valleys and canyons, savannahs, and open meadows ranging from 6,000 to 9,000 feet above mean sea level (BIA 1994). The Project Area can be described as somewhat mountainous having a relatively high relief between the ridge tops and the valleys below. Valley floors range from narrow to wide with the wider valleys having deeper and wider arroyos. A few plateaus with steep to very steep slopes are also present in the area. According to published geologic mapping (Manley et al. 1987), the Eocene San Jose Formation is present immediately below the surface within the Project Area, and the proposed wells will be drilled into the Cretaceous Dakota and Fruitland Formations.
- C) Soil characteristics - Soil compositions found in the Project Area include contents of fine sandy loams, sandy clay loams, and weathered and unweathered bedrock. Soils types in the Project Area consist of the Sparham clay loam, Orlie loam, Orlie fine sandy loam, Losindios-Escrito-Parkelei complex, Parkelei-Menefee-Vessilla complex, Vosburg-Millpaw complex, and the Losindios-Jaythree complex (Natural Resources Conservation Service [NRCS] 2006).
- D) Flora consists of: Inter-mountain Basins Big Sagebrush Shrubland: This ecological system occurs throughout much of the western U.S., typically in broad basins between mountain ranges, plains, and foothills. Soils are typically deep, well-drained and non-saline. These shrublands are dominated by big sagebrush and/or Wyoming big sagebrush (spp. *wyomingensis*). Scattered juniper, greasewood (*Sarcobatus vermiculatus*), and saltbush (*Atriplex* spp.) may be present in some stands. Perennial herbaceous components typically contribute less than 25 percent vegetative cover. Common graminoid species include Indian ricegrass (*Achnatherum hymenoides*), blue grama grass, thickspike wheatgrass (*Elymus lanceolatus*), Idaho fescue (*Festuca idahoensis*), needle and thread (*Hesperostipa comata*), and western wheatgrass (*Pascopyrum smithii*).

- E) Fauna – none observed, assume deer, Elk, Wild Horses, coyotes, rabbits, raptors, and rodents.
- F) Concurrent surface use - grazing.
- G) Mineral Lessor: Jicarilla Apache Nation
- H) Surface Owner: Jicarilla Apache Nation
Drillsite: Jicarilla Apache Nation
Access: Jicarilla Apache Nation
- I) Proximity of water, occupied dwellings or other features – unnamed intermittent drainage – ±200 feet east of the location is Cañon Bancos. There are two perennial streams on the Jicarilla Apache Reservation, the Navajo River and Willow Creek. Neither of these streams is located within or near the Project Area. All other water features on the Reservation and near the Project Area are intermittent or ephemeral in nature and flow only in response to snowmelt or precipitation events. Most of these ephemeral streams are small sandy washes with defined channels. The wider valleys and larger catchments tend to have deeper and wider arroyos (BIA 1994).
- J) A previous and current archeological report was done Verlarde Energy Service of Dulce, New Mexico.

13) LESSEE'S OR OPERATOR'S REPRESENTATIVE:

Operator

Black Hills Gas Resources

350 Indiana St., Suite 400

Golden, CO 80401

Main Phone 720.210.1300

Fax 720.210.1301

Doran Newlin – Operations Manger

Direct Phone 303.568.5983

Field Office

P.O. Box 249

Bloomfield, NM 87413

Main Phone 505.634.1111

Fax 505.634.1116

**** Lynn H. Benally – Regulatory Specialist**

Direct Phone 505.634.1111 ext 27

**** Contact for any questions or comments regarding this permit.**

14) CERTIFICATION:

Black Hills Gas Resources (BHGR) is responsible under the terms and conditions of the lease to conduct lease operations in conjunction with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BHGR under their nationwide bond, BLM Bond NMB000230 and BIA Bond SLCMMSP02668.

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road; that I am familiar with the conditions which presently exist; that the statements made in this plan area, to the best of my knowledge, are true and correct; and that the work associated with the operations proposed herein will be performed by Black Hills Gas Resources and its contractors and sub-contractors in conformity with this plan 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.

June 20, 2007

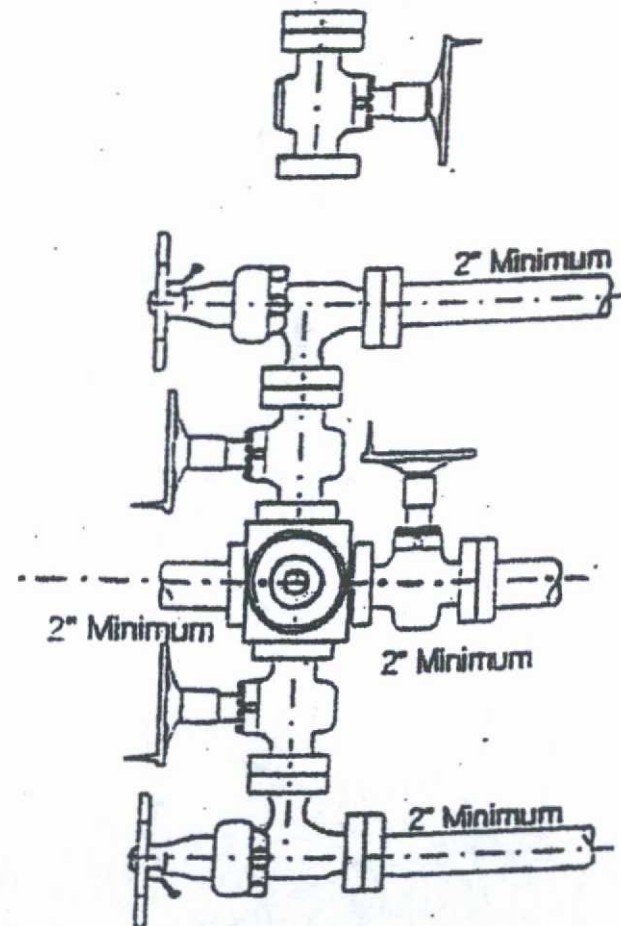
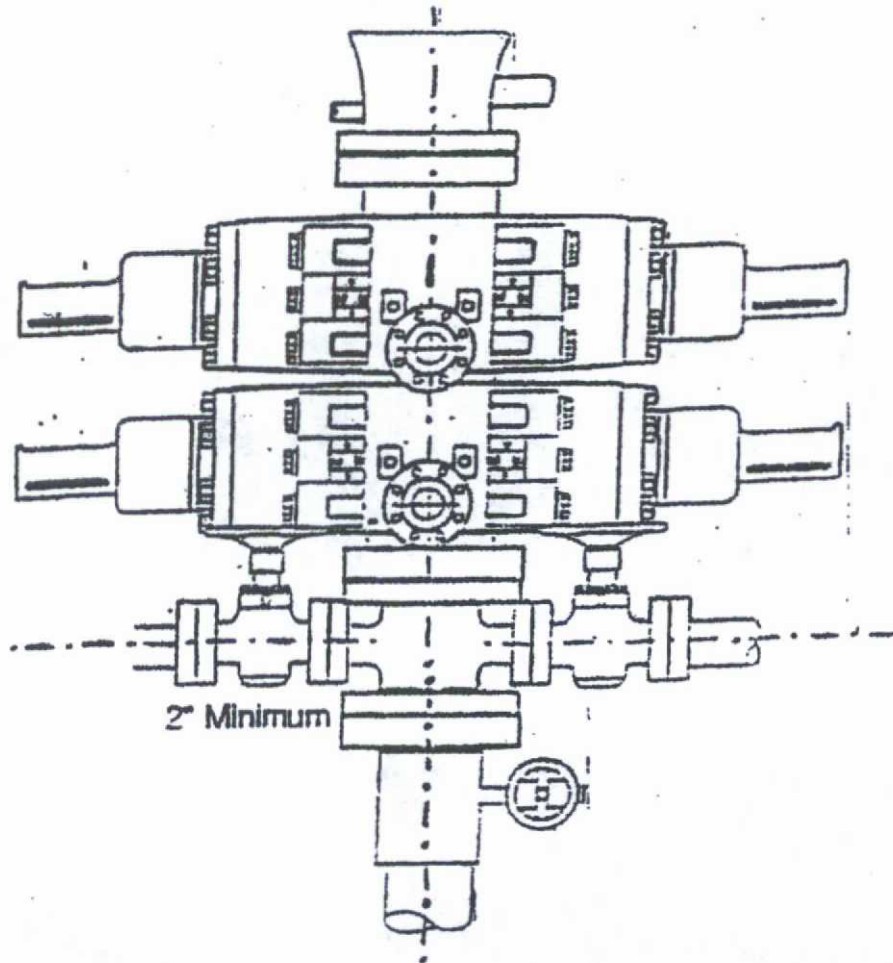


Lynn H. Benally
Regulatory Specialist/Black Hills Gas Resources

2-M SYSTEM

Black Hills Gas Resources, Inc.

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





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.

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 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 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 Surniveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.
- C. H₂S detection and monitoring equipment:
1. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and aquilbesirens when H₂S levels of 10ppm.
- 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 programs has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.
- F. Metallurgy:
1. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
 2. All elastomers used for packing and seals shall be H₂S 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 H₂S environment will use the closed chamber method of testing.

Submit 3 Copies To Appropriate District Office
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

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-039-
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Tract 457
8. Well Number Jicarilla 457-04 #732
9. OGRID Number 013925
10. Pool name or Wildcat 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
Black Hills Gas Resources, Inc.

3. Address of Operator
P.O. Box 249 Bloomfield, NM 87413

4. Well Location

Unit Letter: **K** : **1,450** feet from the **South** line and **2,425** feet from the **West** line

Section: **4** Township **30N** Range **3W** NMPM County: **Rio Arriba**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
7,104'

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type: **Drilling** Depth to Groundwater **> 100** Distance from nearest fresh water well **> 1000** Distance from nearest surface water **> 200**

Pit Liner Thickness: **15** 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: **Pit Registration**



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.

Drilling Pit Registration

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  TITLE: Regulatory Technician DATE 6/20/2007

Type or print name: **Daniel R. Manus** E-mail address: **dmanus@bhep.com** Telephone No. **(505) 634-1111 ext. 28**

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____



TABLE 1

Jicarilla 457-04 # 732
NE/SW Sec.04 T30N R3W N.M.P.M.
Wells in a 1-Mile Radius
Black Hills Gas Resources

ST	STAT	ACTUAL WELL NAME	FIELD	FORMATION	TD	API#	Qrt/Qrt	SEC.	TWN	RNG	Contract #	COUNTY	BASIN	PROD	OPERATOR
NM	ACT	Jicarilla 457-04 #2	CABRESTO CANYON	SJ/NAC	3,980	30-039-25780	NESW	4	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	Proposed	Jicarilla 457-04 #22				30-039-	SENE	4	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	Proposed	Jicarilla 457-04 #44				30-039-	SESE	4	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	PR	Jicarilla 458-05 #3	CABRESTO CANYON	SJ/OA	4,090	30-039-25911	SWSE	5	30N	3W	458	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	PR	Jicarilla 458-05 #5	E BLANCO	PC-H	4,200	30-039-25947	SENE	5	30N	3W	458	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	PA	Jicarilla 457-03 #3	E BLANCO	PC-H	3,688	30-039-25779	NWSW	3	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	Proposed	Jicarilla 457-03 #11				30-039-	NWNW	3	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	ACT	Jicarilla 457-10 #11	CABRESTO CANYON	OA	3,787	30-039-29326	NWNW	10	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	SI	Jicarilla 457-09 #3	CABRESTO CANYON	SJ	3,935	30-039-25863	NENE	9	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	PR	Jicarilla 457-09 #2	E BLANCO	PC-H	3,763	30-039-26064	NWNW	9	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	PR	Jicarilla 457-09 #2 SJ	CABRESTO CANYON	SJ	1,800	30-039-25905	NWNW	9	30N	3W	457	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	PR	Jicarilla 458-08 #7	E BLANCO/CABRESTO CANYON	PC/OA	3,950	30-039-25759	SENE	8	30N	3W	458	Rio Arriba	San Juan	Gas	Black Hills Gas Resources
NM	Proposed	Jicarilla 458-08 #724				30-039-	SENE	8	30N	3W	458	Rio Arriba	San Juan	Gas	Black Hills Gas Resources