Form 3160-3 (April 2004)

UNITED STATES 7 DEPARTMENT OF THE INTERIOR 2006 JUL BUREAU OF LAND MANAGEMENT

FORM APPROVE OMB No. 1004-0137 Expires March 31, 2007

(C)

AUG 2006

5. Lease Serial No.

	NMN	M18325	100
6.	If Indian,	Allottee or Tribe	Name

DONEAGO! LAND!		LIVI.	į.	14141141110020	the state of the s	
RECEIVED				6. If Indian, Allottee or Trib	e Name	
O APPLICATION FOR PERMIT		Contract of the second				
1a. Type of Work X DRILL REEN	TER			7. If Unit or CA Agreement	, Name and Non Call	
	8. Lease Name and Well No.					
1b. Type of Well Oil Well X Gas Well Other	X Single	Zone Multiple Zo	one	Many Canyons 2	29-04-26 33	
2. Name of Operator E-mail:	lbenally@bhep	o.com	i	9. API Well No.		
Black Hills Gas Resources, Inc.	Contact: L	<u> </u>			<u>9-29988</u>	
3a Address P. O. Box 249 Bloomfield NM 87413	31	b. Phone No. (include area o 505-634-1111	code)	10. Field and Pool, or Exp	ctured Cliffs	
4. Location of Well (Report location clearly and in accordance with any State F	Requirements.*)			11. Sec., T., R., M., or Blk	. and Survey or Area	
At surface 1,960' FSL 1,915' FEL	N/	W /4 SE /4				
Lat: 36° 41' 39.8"	Long: 107°	13' 16.4"		<u>Sec.</u> 26 T 2	29N R 4W	
At proposed production zone				V		
14. Distance in miles and direction from nearest town or post office. *				12. County or parish	13, State	
Well is approximately 52 miles east of Bloomfield, NM.				Rio Arriba	New Mexico	
	L		47.0			
15. Distance from proposed location to nearest Unit= n/a property of lease line, ft. (Also nearest Drig, unit line, if any) Lease= ±680'	16. No. of acres in	320.00	17. Spa 16	icing Unit dedicated to this	Weil	
10 Diskurs from managed leasting to second	19. Proposed dep	th	20 BLN	M/BIA Bond No. on file		
well, drilling, completed or applied for, on this lease, ft. Schalk 29 \$\pmu\$ \$\pmu\$ 1,805 \ \displays 4 #007	4,500' TVD NMB000230					
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate d	late work will start *	-	23. Estimated duration		
7,396 ' GR	August 7, 2006 45-60 days drlg +			irlg + completion		
	24. Attach	ments				
The following, completed in accordance with the requirements of Or	nshore Oil and G	Gas Order No. 1, shall be	attach	ed to this form:		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Fore System Lands, the SUPO shall be filed with the appro 		on file (see Iten 5. Operator certifi	n 20 abo cation.	ations unless covered l ove). c information and/or pla	-	
Forest Service Office).		required by the	authori	zed officer.		
25. Signature	Name (Print	ted/Typed)		Date		
Kardy Schneibelk	Kathy L.	Schneebeck, 303-82	20-448	30 July	y 6, 2006	
Permit Agent for Black Hills Gas Resource	es, Inc.					
Approved by (Signature)	Name (Print	ted/Typed)		Date		
Juan bylade				8	15 06	
Arlms AM Muses	Office				7	
Application approval does not warran or certify that the applicant holds legal thereon. Conditions of approval, if any, are attached.					· .	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section1212, make it a crime fictitious, or fraudulent statements or representations as to any matter within it	• •	owingly and willfully to mak	e to any	department or agency of t	ne United States any false,	

(continued on page 2)

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

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 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 June 10, 2003 Submit to Appropriate District Office

ubmit to Appropriate District Offic State Lease – 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

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

		W]	ELL LO	CATION	AND AC	REAGE DEDI	CATION PL	АТ	
	API Number 7 Pool Code Pool Name Chaza Mc Aictured Cliffs (GAS)								
Property Code Property Name Well Number							Well Number		
3595	a			М	IANY CANYONS	29-04-26			33
OGRID No					⁰ Operator	Name			⁹ Elevation
013925				В	ACK HILLS GA	AS RESOURCES			7396'
					10 Surface	Location			
UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West li	ne County
J	26	29-N	4-W		1960	SOUTH	1915	EAST	RIO ARRIBA
			11 Botto	om Hole	Location	f Different Fro	om Surface		
UL or lot no. Section Township Range Lot Idn			Lot ldn	Feet from the	North/South line	Feet from the	East/West li	ne County	
18 Dedicated Acres 18 Joint or Infill 14 Consolidation Code 18 Order 160 acres - SW/4					¹⁸ 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									
CALC'D COR. BY D.P. METHOD 17 OPERATOR CE					ERTIFICATION				

I hereby certify that the information contained herein is true and complete to the best of my knowledge and Landy Sischneibeck Signature Kathy L. Schneebeck Printed Name Permit Agent for Black Hills July 6, 2006 -01-53 6.5' (C) 00+0 5245. SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat LAT.= 36-41-39.8 N (NAD 83) LONG.= 107-13-16.4 (NAD 83) 1915' was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true N 89-52-38 W 5150.43 (C) CALC'D COR. BY CALC'D COR. BY D.P. METHOD O.P. METHOD

District I 1625 N. French Dr., Hobbs, NM 88240 District II

1301 W. Grand Avenue, Artesia, NM 88210

District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

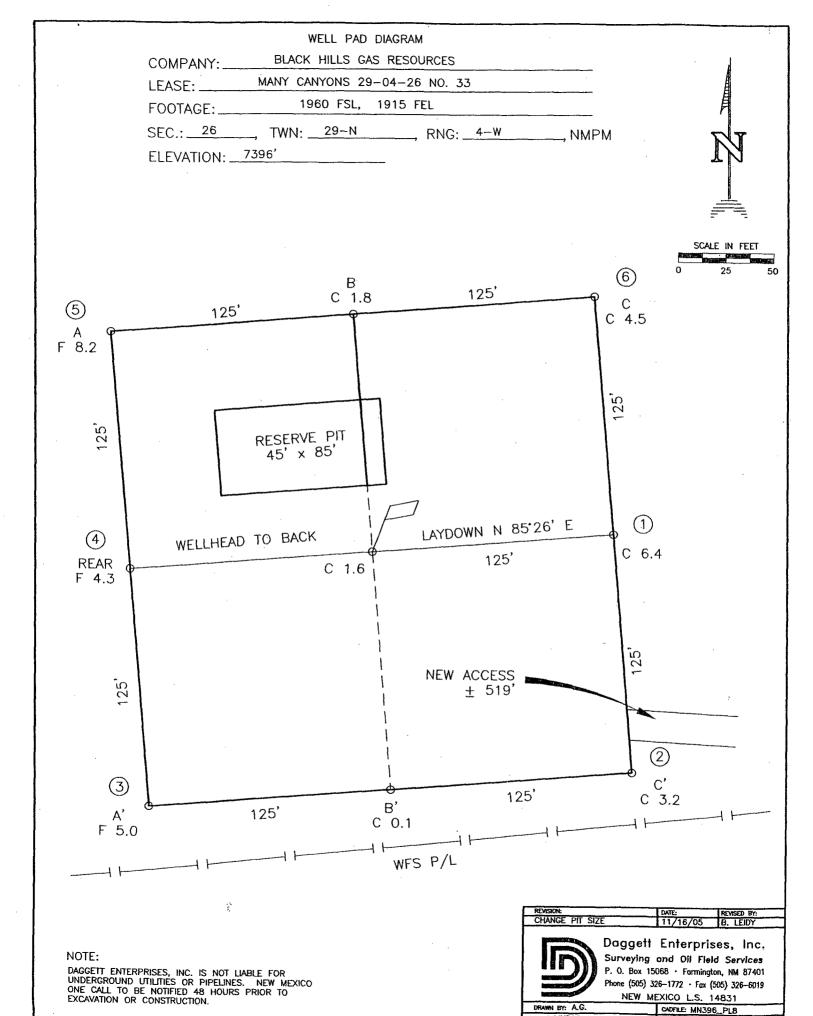
Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144

June 30, 2005

Pit or Below-Grade Tank Registration or Closure	
Is pit or below-grade tank covered by a "general plan"? Yes No	
Type of action: Registration of a pit or below-grade tank 🛛 Closure of a pit or below-grade tank	

Diel Wil-Co Down Jo	Talanhana	lhonellh (Chl
	Telephone:	idenany(a)onep.com
Address: P.O. Box 249, Bloomfield, NM 87413 Facility or well name: Many Canyons 29-04-26 33 API #: 3	A D30- 700 88 11/1 on Oth/Oth 81	W// SE// Sec. 26 T 20N D 4N/
County: Rio Arriba Latitude 36° 41' 39.8" Longitude 107° 13' 1		•
County: Kio Arrioa Latitude 36 41 39.8 Longitude 107 13 1	10.4 NAD: 1927 1983 Surface Owner Fed	. State Frivate Indian
Pit	Below-grade tank	
Type: Drilling Production Disposal	Volume:bbl Type of fluid:	
Workover	Construction material:	
Lined Unlined	Double-walled, with leak detection? Yes If I	not, explain why not.
Liner type: Synthetic ⊠ Thickness <u>15</u> mil Clay ⊠		
Pit Volume <u>±17.811</u> bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet	(20 points)
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)
ingh water elevation of ground water.)	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)	No	(0 points)
water source, or reas than 1000 feet from an other water sources.)	Less than 200 feet	(20 points)
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(10 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet or more	(0 points)
		(o points)
i i	Ranking Score (Total Points)	0 points
If this is a pit closure: (1) attach a diagram of the facility showing the pit's	s relationship to other equipment and tanks. (2) Ind	icate disposal location: (check the onsite box if
your are burying in place) onsite offsite I If offsite, name of facility_	(3) Attach a genera	al description of remedial action taken including
remediation start date and end date. (4) Groundwater encountered: No	Yes If yes, show depth below ground surface	ft. and attach sample results. (5)
Attach soil sample results and a diagram of sample locations and excavation	ns.	
Additional Comments:		
		,
		77.
·		
I hereby certify that the information above is true and complete to the best has been/will be constructed or closed according to NMOCD guidelin Date: 07/6/06		
Printed Name/Title Kathy L. Schneebeck - Permit Agent for Black	Hills Gas Resources, Inc. Signature	Lathy & Schneibeck
Your certification and NMOCD approval of this application/closure does otherwise endanger public health or the environment. Nor does it relieve regulations.	not relieve the operator of liability should the conte	nts of the pit or tank contaminate ground water or
Approval: DEPUTY OIL & GAS INSPECTOR, DIST. 63	1. 61.	AUG 1 7 2006
Printed Name/Title	Signature	Date:



DATE: 07/19/05

WELL PAD CROSS-SECTIONAL DIAGRAM

	COMPANY:	BLACK HILLS GAS RESOURCES				
	LEASE:	MANY CANYONS 29-04				
	FOOTAGE:	TAGE:1960 FSL, 1915 FEL				
	SEC.: 26	, TWN:29-N	, RNG:4-W	·, NMPM		
	ELEVATION:			·		
	· ·	•	NOTE:			
			DAGGETT ENTERPRISES UNDERGROUND UTILITY ONE CALL TO BE NO	S, INC. IS NOT LIABLE FOR IES OR PIPELINES. NEW MEXICO TIFIED 48 HOURS PRIOR TO		
			EXCAVATION OR CONS	TRUCTION.		
55 A-	_ ^ ,	- <i>t</i>	·			
ELEV. A-		c/L				
7420						
7410						
7400						
7390						
7380				-		
7360						
7350						
ELEV. B-	-B'	C/L				
7420						
7410						
7400						
7390						
7380						
7360						
7350						
ELEV. C-	-c,	C/L		Inc. Inc. 8-6019		
7420				GRAM (GRAM 0.V. Serv N.		
7410				WELL PAD DIAGRAM WELL PAD DIAGRAM Livoryos Enterprises, and Oil Field Sen 368 · Famington, NM 36-1772 · Fax (505) 328 EMILE MN396_CFB wrth 207/19/05		
7400				Enter Ind Oil		
7390				— + * ± ½ ½ <u>₹</u>		
7380				Daggett Surveying P. 0. Box 15 Phone (505) 3.		
7360	<u> </u>			_ ⁵		
7350				REF. DWG. RESTANC RESTANC RESTANC RESTANC RECOMM. Br. A.G. RCOMM. Br. A.G.		
				RESTACE DESTACE RESTACE RESTAC		

Black Hills Gas Resources, Inc. **Many Canyons 29-04-26 33** 1,960' FSL 1,915' FEL (NW/4 SE/4) Sec. 26 T29N R4W

Rio Arriba County, New Mexico Federal Lease: NMNM18325

DRILLING PROGRAM

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process included an on-site meeting on November 28, 2005, prior to the submittal of the application, at which time the specific concerns of Black Hills Gas Resources, Inc. (Black Hills) and the United States Forest Service – Jicarilla Ranger District (USFS) were discussed. USFS is the Surface Management Agency (SMA) for this wellpad and access road. All specific concerns of the USFS representatives are addressed herein, as are specific stipulations from the BLM.

This is a new vertical well to be drilled into the Pictured Cliffs formation. See also the attached Horizontal Drilling Program.

SURFACE FORMATION – San Jose

GROUND ELEVATION - 7,396'

ESTIMATED FORMATION TOPS	 (Water. 	oil.	gas and/or other	minera	d-bearing	formations)

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	2,220'	Sandstone, shales & siltstones
Ojo Alamo	3,650	Sandstone, shales & siltstones
Kirkland	3,800'	Sandstone, shales & siltstones
Fruitland Coal	3,970'	Sandstone, shales & siltstones
Pictured Cliffs	4,105	Sandstone, shales & siltstones
Lewis	4,380'	Sandstone, shales & siltstones

TOTAL DEPTH 4,500' TVD

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

Tertiary

San Jose	surface	Gas
Nacimiento	2,220'	Gas
Ojo Alamo	3,650'	Gas
Fruitland Coal	3,970°	Gas
Pictured Cliffs	4,105'	Gas
Lewis	4,380'	Gas

HORIZONTAL DRILLING PROGRAM

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' - 250' TVD	12-1/4"	8-5/8"	J-55 24# ST&C New	To surface (±175 sxs Standard Cement containing 2% CaCl2 and 0.25 lb/sx LCM) **
0' - 4,500 TVD'	7-7/8"	5-1/2"	J-55 15.5# LT&C New	TD to surface (Lead: ±300 sxs Lite Standard Cement. Tail: 400 sxs 50:50 POZ containing 0.25 lb/sx LCM)* **

^{*} Actual cement volume to be determined by caliper log.

Yields:

Surface: Standard Cement yield: = 1.2 ft³/sx (mixed at 15.6 lb/gal)

Production: Lite Standard Cement yield: = 1.59 ft³/sx (mixed at 13.4 lb/gal)

 $50:50 \text{ POZ yield} = 1.27 \text{ ft}^3/\text{sx} \text{ (mixed at 14.15 lb/gal)}$

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.

^{**} Cement will be circulated to surface.

MUD PROGRAM

0' - 250' Fresh water - M.W. 8.5 ppg, Vis 30-33

250' - TD' Clean Faze - 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

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 H₂S Plan if H₂S is encountered.

D) Estimated bottomhole pressure: 1,395 psi

ANTICIPATED START DATE

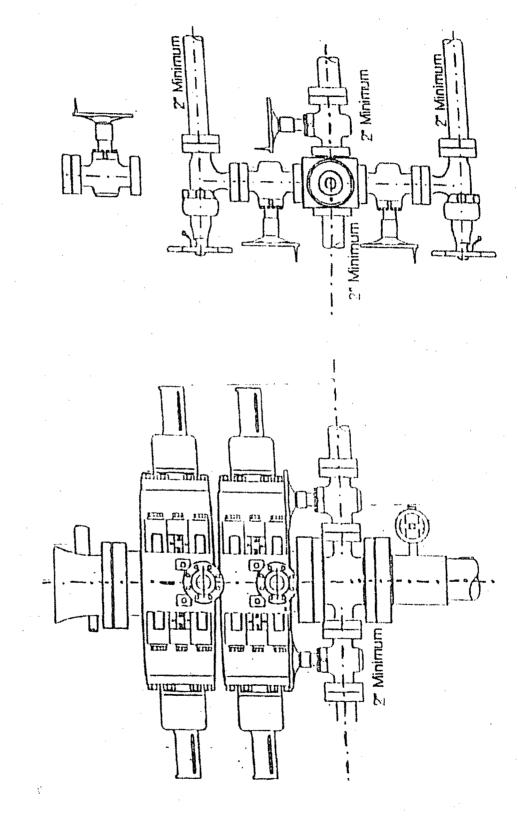
August 7, 2006

COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. A string of 2-7/8" PH-6 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 PS!



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 (H₂S).
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H₂S 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 H₂S 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 H₂S 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. H₂S 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.

Black Hills Gas Resources, Inc.

- 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. H₂S detection and monitoring equipment:
 - 1. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 10 ppm are reached.
- D. Visual warning systems:
 - 1. Wind direction indicators as shown on well site diagram.
 - 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:

The mud program 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 preventors, drilling spools, 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:
 - 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.