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RCVD MAR 21 '13
OIL CONS. DIV.
DIST. 3

NOV 28 2012

Farmington Field Office
Bureau of Land Management

Form 3160-3
(August 2007)

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. Lic **Contract 464**

6. If Indian, Allottee or Tribe Name **Jicarilla Apache Tribe**

7. If Unit or CA Agreement, Name and No.

1a. Type of Work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. **Jicarilla 464-30 #724D**

2. Name of Operator **Black Hills Gas Resources**

9. API Well No. 30-039-31159

3a. Address **P.O. Box 249/3200 N 1st St Bloomfield, NM 87401**

3b. Phone No. *(include area code)* **(505) 634-5104**

10. Field and Pool, or Exploratory **Basin Mancos**

4. Location of well *(Report location clearly and In accordance with any State requirements.*)*
At surface **1,497' FNL & 835' FEL SE/NE (UL: H)**
At proposed prod. zone **674' FNL & 668' FEL NE/NE (UL: A)**

11. Sec., T., R., M., or Blk. And Survey or Area
SHL: Section 30, T30N R2W
BHL: Section 29, T30N R2W

14. Distance in miles and direction from the nearest town or post office*
20 Miles Southwest of Dulce, New Mexico

12. County or Parish **Rio Arriba**

13. State **New Mexico**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) **Approx. 1,754'**

16. No. of acres in lease 2409.64 **Approx. 2,387 ac**

17. Spacing Unit dedicated to this well
340ac E/2 of Section 30 337.35
344ac N/2 of Section 29 336.15

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **50'**

19. Proposed Depth **TVD 7,692' MD 13,144'**

20. BLM/ BIA Bond No. on file **BLM- 6645840 / BIA 6645839**

21. Elevations (Show whether DF. RT, GR, etc.) **7,227'**

22. Aproximate date work will start* **June 1, 2014**

23. Estimated duration **45-60 Days drlg & compl.**

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

24. Attachments

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

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 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 a authorized officer.

25. Signature	Name *(Printed/ Typed)*	Date
Title: **Regulatory Technician**	**Daniel Manus**	11-28-12
Approved By *(Signature)*	Name *(Printed/ Typed)*	Date 3/19/13
Title AFM	Office FFO	

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 page 2)*

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

MAY 16 2013

NMOCD

Hold C104
for Directional Survey
and "As Drilled" plat

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

Hold C104 for Directional Survey and "As Drilled" plat

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

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NOV 28 2012
Farmington Field Office
Bureau of Land Management

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-31159	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
20469	JICARILLA 464-30	724D

[7] OGRID No.	[8] Operator Name	[9] Elevation
013925	BLACK HILLS GAS RESOURCES	7227'

[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
H	30	30-N	3-W		1497	NORTH	835	EAST	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	29	30-N	3-W		674	NORTH	668	EAST	RIO ARRIBA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
375.15 344 ACRES, N/2 SEC. 29			R-13449

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.

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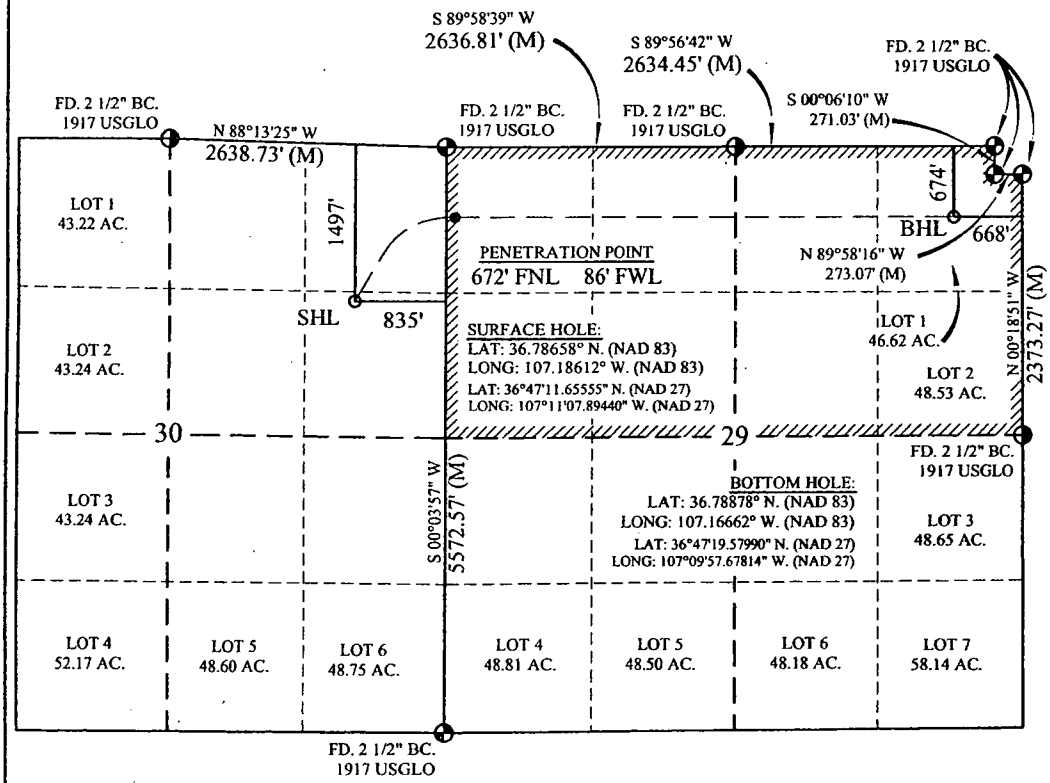

NOTE:
DEDICATED ACREAGE CALCULATED USING GOVERNMENT GLO PLAT.

APPROXIMATE BOTTOM HOLE
BHL FOOTAGES ARE APPROXIMATE AND PROVIDED BY BHGR CLIENT

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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 11/28/12 Date

DANIEL MANUS
Printed Name

daniel.manus@blackhillsgp.com
E-mail Address

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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 08, 2011
Date of Survey

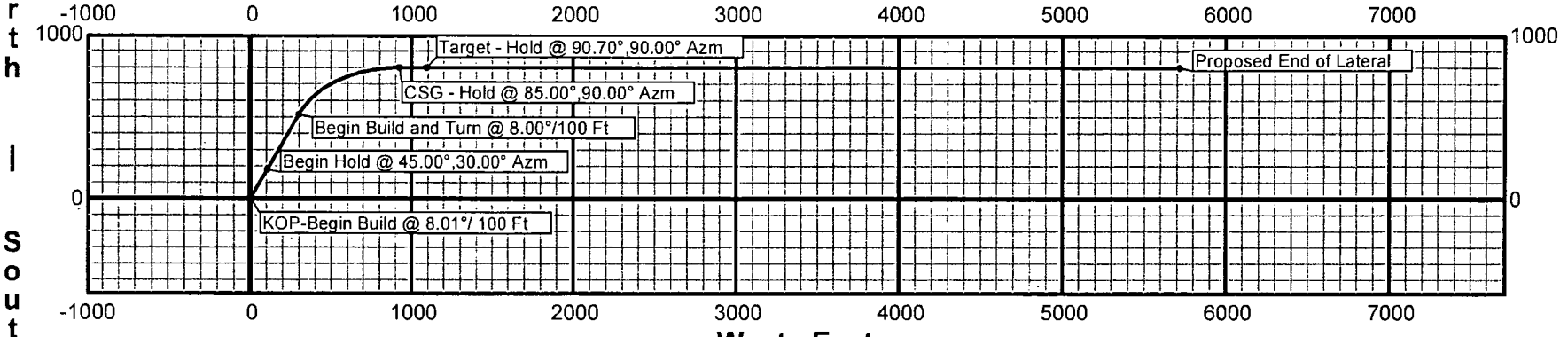
Signature and Seal of Professional Surveyor:

RONALD J. EIDSON
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR
11-20-12

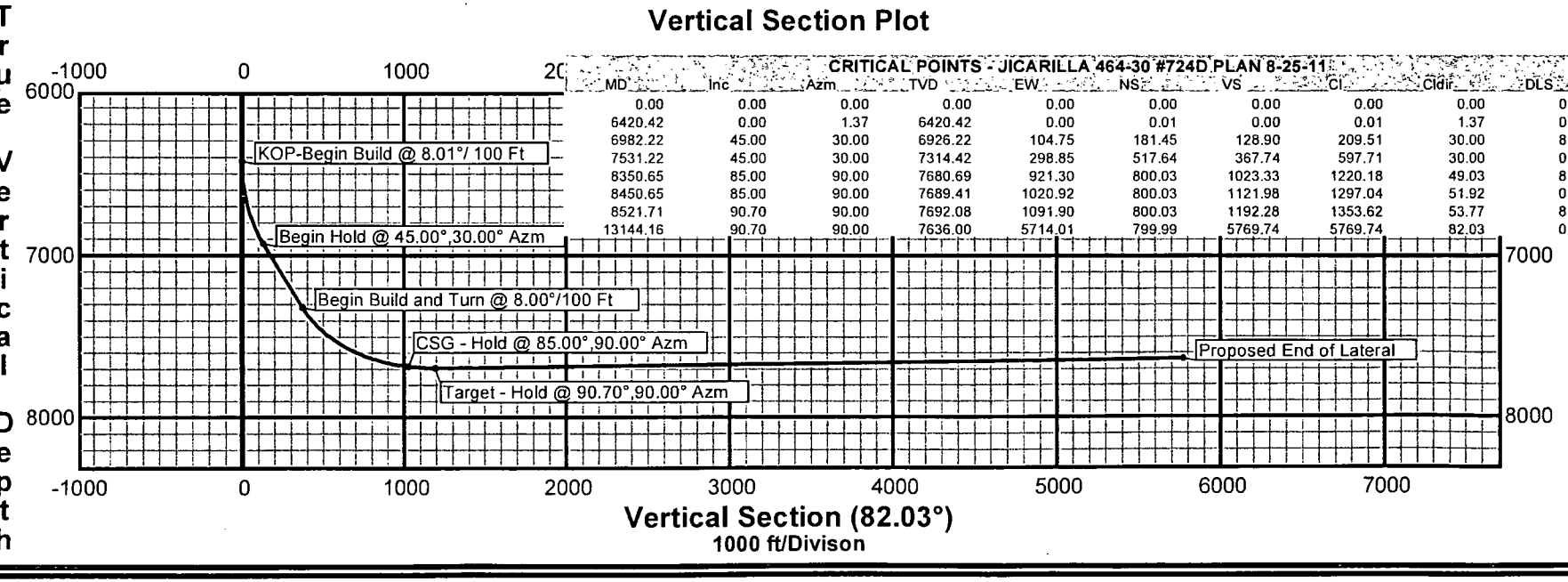
Certificate Number

Job ID : 11xxx		Elevation (To MSL) : 7226 ft
Company : Black Hills Gas Resources		RKB : 20 ft
Lease/Well : Jicarilla 464-30 #724D		North Reference : True North
Location : Rio Arriba County, NM		Latitude : 36°47'11.1840" N
Rig Name :		Longitude : -107°11'11.0400" W

Horizontal Plot



Vertical Section Plot



CRITICAL POINTS - JICARILLA 464-30 #724D PLAN 8-25-11

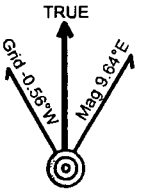
MD	Inc	Azm	TVD	EW	NS	VS	Cl	Cldir	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6420.42	0.00	1.37	6420.42	0.00	0.01	0.00	0.01	1.37	0.00
6982.22	45.00	30.00	6926.22	104.75	181.45	128.90	209.51	30.00	8.01
7531.22	45.00	30.00	7314.42	298.85	517.64	367.74	597.71	30.00	0.00
8350.65	85.00	90.00	7680.69	921.30	800.03	1023.33	1220.18	49.03	8.00
8450.65	85.00	90.00	7689.41	1020.92	800.03	1121.98	1297.04	51.92	0.00
8521.71	90.70	90.00	7692.08	1091.90	800.03	1192.28	1353.62	53.77	8.01
13144.16	90.70	90.00	7636.00	5714.01	799.99	5769.74	5769.74	82.03	0.00

Job Number: 11xxx
Company: Black Hills Gas Resources
Lease/Well: Jicarilla 464-30 #724D
Location: Rio Arriba County, NM
Rig Name:
State/County: NM/ Rio Arriba
Country: USA
API Number:

Elevation (To MSL): 7226.00 ft
RKB: 20.00 ft
Projection System: US State Plane 1983
Projection Group: New Mexico Central Zone
Projection Datum: GRS80
Magnetic Declination: 9.64
Grid Convergence: -0.56078 W
Date: Thursday, August 25, 2011

NOVA Directional, Inc.
Directional Survey Report

Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 82.03°
Northing: 2106890.49 Easting: 1366218.53
Latitude: 36°47'11.1840" N Longitude: -107°11'11.0400" W
Well Location: 1550 FNL, 920 FEL, Section 30, T30N, R3W, Meridian 23, Rio Arriba County, NM
Direction Reference: True North



Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100Ft
Surface									
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.04	0.00
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.03	0.00
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.03	0.00
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.02	0.00
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.02	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.02	0.00
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.01	0.00
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.01	0.00
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	0.00	0.01	0.00
6000.00	0.00	0.00	6000.00	0.01	0.00	0.00	0.01	0.01	0.00
KOP-Begin Build @ 8.01°/ 100 Ft									
6420.42	0.00	1.37	6420.42	0.01	0.00	0.00	0.01	1.37	0.00
6450.42	2.40	30.00	6450.41	0.55	0.31	0.39	0.64	29.66	8.01
6480.42	4.81	30.00	6480.35	2.18	1.26	1.55	2.52	29.94	8.01
6510.42	7.21	30.00	6510.18	4.91	2.82	3.48	5.66	29.91	8.01
6540.42	9.61	30.00	6539.86	8.70	5.02	6.18	10.05	29.98	8.01
6570.42	12.01	30.00	6569.33	13.57	7.84	9.64	15.67	30.00	8.01
6600.42	14.42	30.00	6598.53	19.52	11.26	13.86	22.53	29.99	8.01
6630.42	16.82	30.00	6627.41	26.51	15.30	18.83	30.61	30.00	8.01
6660.42	19.22	30.00	6655.94	34.55	19.94	24.54	39.89	30.00	8.01
6690.42	21.63	30.00	6684.05	43.62	25.18	30.98	50.36	30.00	8.01
6720.42	24.03	30.00	6711.70	53.69	31.00	38.14	62.00	30.00	8.01
6750.42	26.43	30.00	6738.84	64.77	37.39	46.01	74.79	30.00	8.01
6780.42	28.84	30.00	6765.41	76.82	44.35	54.57	88.70	30.00	8.01
6810.42	31.24	30.00	6791.39	89.82	51.85	63.81	103.71	30.00	8.01
6840.42	33.64	30.00	6816.70	103.76	59.90	73.71	119.81	30.00	8.01
6870.42	36.04	30.00	6841.32	118.60	68.47	84.26	136.94	30.00	8.01
6900.42	38.45	30.00	6865.20	134.32	77.55	95.42	155.10	30.00	8.01
6930.42	40.85	30.00	6888.30	150.90	87.11	107.20	174.24	30.00	8.01
6960.42	43.25	30.00	6910.57	168.30	97.17	119.56	194.34	30.00	8.01
Begin Hold @ 45.00°,30.00° Azm									
6982.22	45.00	30.00	6926.22	181.45	104.75	128.90	209.51	30.00	8.01
7482.22	45.00	30.00	7279.77	487.64	281.53	346.42	563.07	30.00	0.00
Begin Build and Turn @ 8.00°/100 Ft									
7531.22	45.00	30.00	7314.42	517.64	298.85	367.74	597.71	30.00	0.00
7561.22	45.81	33.17	7335.49	535.83	310.05	381.35	619.07	30.05	8.00

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100Ft
7591.22	46.71	36.25	7356.23	553.64	322.39	396.04	640.66	30.21	8.00
7621.22	47.68	39.24	7376.61	571.03	335.87	411.80	662.48	30.46	8.00
7651.22	48.73	42.14	7396.61	587.99	350.45	428.59	684.50	30.80	8.00
7681.22	49.85	44.94	7416.18	604.47	366.11	446.39	706.70	31.20	8.00
7711.22	51.04	47.64	7435.28	620.44	382.83	465.16	729.05	31.68	8.00
7741.22	52.29	50.26	7453.90	635.89	400.58	484.88	751.54	32.21	8.00
7771.22	53.59	52.78	7471.98	650.78	419.32	505.50	774.17	32.79	8.00
7801.22	54.94	55.23	7489.50	665.09	439.02	527.00	796.92	33.43	8.00
7831.22	56.35	57.59	7506.43	678.79	459.65	549.33	819.78	34.10	8.00
7861.22	57.79	59.87	7522.74	691.85	481.17	572.45	842.73	34.82	8.00
7891.22	59.28	62.08	7538.40	704.26	503.55	596.33	865.76	35.56	8.00
7921.22	60.80	64.22	7553.38	715.99	526.74	620.93	888.88	36.34	8.00
7951.22	62.35	66.30	7567.66	727.03	550.69	646.18	912.05	37.14	8.00
7981.22	63.93	68.32	7581.22	737.35	575.39	672.07	935.28	37.97	8.00
8011.22	65.55	70.29	7594.02	746.93	600.77	698.53	958.56	38.81	8.00
8041.22	67.18	72.21	7606.05	755.77	626.79	725.53	981.86	39.67	8.00
8071.22	68.84	74.08	7617.28	763.83	653.41	753.01	1005.18	40.54	8.00
8101.22	70.52	75.91	7627.70	771.11	680.59	780.93	1028.50	41.43	8.00
8131.22	72.22	77.70	7637.28	777.60	708.26	809.23	1051.80	42.33	8.00
8161.22	73.93	79.46	7646.02	783.28	736.38	837.88	1075.08	43.23	8.00
8191.22	75.66	81.18	7653.89	788.15	764.92	866.81	1098.31	44.14	8.00
8221.22	77.40	82.88	7660.88	792.19	793.82	895.99	1121.47	45.06	8.00
8251.22	79.15	84.56	7666.98	795.40	823.01	925.34	1144.55	45.98	8.00
8281.22	80.90	86.22	7672.17	797.77	852.46	954.84	1167.53	46.90	8.00
8311.22	82.67	87.86	7676.46	799.30	882.11	984.41	1190.38	47.82	8.00
8341.22	84.44	89.49	7679.83	800.00	911.91	1014.02	1213.08	48.74	8.00
CSG - Hold @ 85.00°,90.00° Azm									
8350.65	85.00	90.00	7680.69	800.03	921.30	1023.33	1220.18	49.03	8.00
Begin Build @ 8.01°/ 100 Ft									
8450.65	85.00	90.00	7689.41	800.03	1020.92	1121.98	1297.04	51.92	0.00
8480.65	87.40	90.00	7691.40	800.03	1050.85	1151.63	1320.73	52.72	8.01
8510.65	89.81	90.00	7692.13	800.03	1080.84	1181.33	1344.72	53.49	8.01
Target - Hold @ 90.70°,90.00° Azm									
8521.71	90.70	90.00	7692.08	800.03	1091.90	1192.28	1353.62	53.77	8.01
9021.71	90.70	90.00	7686.01	800.03	1591.86	1687.41	1781.59	63.32	0.00
9521.71	90.70	90.00	7679.95	800.02	2091.83	2182.55	2239.59	69.07	0.00
10021.71	90.70	90.00	7673.88	800.02	2591.79	2677.68	2712.45	72.85	0.00
10521.71	90.70	90.00	7667.82	800.01	3091.75	3172.81	3193.58	75.49	0.00
11021.71	90.70	90.00	7661.75	800.01	3591.72	3667.95	3679.73	77.44	0.00
11521.71	90.70	90.00	7655.69	800.00	4091.68	4163.08	4169.15	78.94	0.00
12021.71	90.70	90.00	7649.62	800.00	4591.64	4658.21	4660.81	80.12	0.00
12521.71	90.70	90.00	7643.55	800.00	5091.61	5153.35	5154.07	81.07	0.00
13021.71	90.70	90.00	7637.49	799.99	5591.57	5648.48	5648.51	81.86	0.00
Proposed End of Lateral									
13144.16	90.70	90.00	7636.00	799.99	5714.01	5769.74	5769.74	82.03	0.00

TARGET DATA

Name	Shape	Latitude	Longitude	Subsea TVD (Ft)	NS (Ft)	EW (Ft)	Side A (Ft)	Side B (Ft)	Diameter (Ft)
jic724D BHL	CYLINDER	36°47'19.0905" N	-107°10'0.7944" W	390.00	800.00	5714.00	100.00	100.00	100.00

Black Hills Gas Resources

Jicarilla 464-30 #724D
Surface Location: 1,497' FNL 835' FEL (SE/NE)
Sec.30 T30N R3W
Bottom Hole Location: 674' FNL 668' FEL (NE/NE)
Sec. 29 T30N R3W
Rio Arriba County, New Mexico
Lease: Contract 464

DRILLING PROGRAM

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 October 26, 2011 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.

SURFACE FORMATION – San Jose

GROUND ELEVATION – 7,227'

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

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	2,031'	Sandstone, shales & siltstones
Ojo Alamo	3,304'	Sandstone, shales & siltstones
Fruitland Coal	3,769'	Sandstone, shales, siltstones & coal
Pictured Cliffs	3,819'	Sandstone, shales & siltstones
Lewis	3,916'	Sandstone, shales & siltstones
Mesaverde	5,979'	Sandstone, shales & siltstones
Mancos	6,663'	Sandstone, shales & siltstones
Lower Niobrara	8,119'	Sandstone, shales & silstones
TOTAL DEPTH		**7,692'** TVD **13,144'** MD

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

Nacimiento	2,031'	Gas, water, sand
Ojo Alamo	3,304'	Gas, water, sand
Fruitland Coal	3,769'	Gas, water, sand
Pictured Cliffs	3,819'	Gas, water, sand
Lewis	3,916'	Gas, water, sand
Mesaverde	5,979'	Gas, water, sand
Mancos	6,663'	Gas, water, sand

HORIZONTAL DRILLING PROGRAM

Kick-Off Point is estimated to be ± 6,420' TVD

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' - 600'MD	17 ½"	13 ⅜"	54.5# J-55	**Surface** 20bbl H_2O flush followed by ±618sks Premium cmt (126bbls) w/ 0.125 lbm/sks Poly-E-Fake & 1% CaCl. Displace w/ ±70bbls H_2O Yield 1.16 ft³/sks : wt 15.80 lbm/gal
0' - 6,420'MD	12 ¼"	9 ⅝"	40# L-80 HC	**Intermediate** **Lead:** 20bbl H_2O flush, 20bbl SUPER FLUSH 101, 20bbl H_2O Spacer, followed w/ 1404sks of Light Premium w/ 5 lbm/sks Gilsonite, 0.125 lbm/sks Poly-E- Fake. Yield 1.82ft³/sks : wt. 12.50 lbm/gal. **Tail:** 180sks Premium w/ 0.125 lbm/sks Poly-E-Flake, 0.2% Halad®-9. Slurry yield 1.15ft³/sks : wt 15.80 lbm/gal, Displace w/ 375 bbls H_2O.
6220' - 8,522'MD	8 ¾"	7"	23# L-80 HC	**Liner** 40bbl Tuned SPACER (12 lbm/gal) w/ 0.1gal/bbl Musol, 0.1gal/bbl SEM-7, 175.4 lbm/bbl Barite 690sks HALCEM Premium w/ 0.4% Halad®-334, 2.5 lbm/sks Kol-seal, 0.3% D-Air 3000, 0.05% HR-5, Yield 1.31ft³/sks : wt 13.5 lbm/gal. Displace cmt w/ OBM (9 lbm/gal) 217bbl
0' - 13,144' MD	6 1/4"	4 ½"	11.6# P-110	**Long String Cement** 40bbl Turned Spacer III, .05gal/bbl Musol A, 0.5 gal/bbl SEM-7, 291 lbm/bbl Barite, 375bbl WBM (13.5 lbm/gal) (displace out OBM), 10bbl Tuned Spacer III (14lbm/gal), 0.5gal/bbl SEM-7, 0.5gal/bbl Musol A, 291 lbm/bbl Darite **Unfoamed Lead**: 75sks Type V cmt, 0.2% Halad®-766, 0.3% Halad®-344. Slurry yield 1.18ft³/sks : wt 15.6 lbm/gal **Foamed Lead:** 655sks Type V cmt, 0.2% Halad®-766, 0.3% Halad®-344, 2% Chem-foamer 760. Yield 1.18ft³/sks : wt 15.6 lbm/gal **Foamed Tail:** 447sks 50/50 Poz cmt, 0.2% Versaset, 0.15% Halad®-766, 25 Chem-foamed 760. Yield 1.43ft³/sks : wt 13 lbm/gal **Unfoamed Tail:** 58sks 50/50 Poz cmt, 0.2 % Versaset, 0.15% Halad®-766. Yield 1.43ft³ : wt 13 lbm/gal, Displace cmt w/ 293bbl H_2O

* 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 to be isolated from casing by test plug and tested to 5,000psi for 10 minutes. 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 1,500 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 5M 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

	Interval to	Type	M.W.	Vis	W.L.	Sld's
Surface	0' -600'	Fresh Water / Spud Mud	±8.4 - 9.0 ppg	28 - 32 sec	n/c	1 – 5%
Intermidate	600' MD – 6,420' MD	Low solids non-dispersed	±9.0 - 10.2 ppg	40 - 50 sec	≥ 6 - 8 cc	≥ 6%
Liner	6220' MD – 8,522' MD	Low solids non-dispersed **Raise as deviation rises**	±10.5 – 11.9 ppg	40 - 50 sec	≥ 4 - 6 cc	≥ 6%
BIC to TD of Lateral	8,522' MD – 13,144' MD	Invert OBM **Recommend 12.5 ppg**	±12.3 - 13.6 ppg	28 - 32 sec	n/c	1 - 2%

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:	Mud log	2-Man Unit	4500' to 13,144'
		Lateral	MWD/GR	8522' to 13,144'
			Measurement while drilling-GR	
B)	Coring:	None		
C)	Testing:	DST – None anticipated. Drill stem tests may be run on shows of interest		
		Manned mudlogging unit from 4000' to 13,144'		
		Samples	100 ft samples from 600' to 6420'	
			30 ft samples from 6420' to 8522'	
			10 ft samples from 8522' to 13,144'	

ABNORMAL CONDITIONS

A)	Pressures:	No abnormal conditions are anticipated
		Bottom hole pressure gradient – 0.62 psi/ft
B)	Temperatures:	No abnormal conditions are anticipated
C)	H_2S:	See attached H_2S plan in event H_2S is encountered.
D)	Estimated bottomhole pressure:	4,769 psi

ANTICIPATED START DATE

June 1, 2014

COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. BHGR plans to complete the well as follows: Perforate and perform multi-stage slickwater frac in lateral section using plug & perf method for each stage. Perforation intervals and frac volumes will be determined once well logs are run. A sundry notice will be submitted with a revised completion program if warranted.

Black Hills Gas Resources

Jicarilla 464-30 #724D
1,497' FNL 835' FEL (SE/NE) Unit H
Sec.30 T30N R3W
Rio Arriba County, New Mexico
Lease: Contract 464

SURFACE USE PLAN

INTRODUCTION:
The new proposed natural gas well, Jicarilla 464-30 #724D, will be co-located 100 feet and will utilize the existing well pad the existing Jicarilla 464-30 #724 well pad.

1) EXISTING ROADS:
   A) The existing access roads are shown on the attached maps/plat. The established roads will be utilized during drilling and production operations.
   B) Existing roads will be maintained in conditions equal to or better than those existing prior to the commencement of operations. Maintenance of the roads used to access the drill site location will continue until abandonment and reclamation of the well.
   C) ***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 3 miles. Turn left to the existing well-pad. (See 'Access to Jicarilla 464-30 #724D' Map)***

2) PROPOSED ACCESS ROADS
   A) There will be no new or proposed access road. The existing access road to the Jicarilla 464-30 #724 well pad will be utilized. Maintenance for the existing access road is explained above.
   B) In an effort to minimize disturbance, equipment and vehicles will be confined to travel these corridors.
   C) Dust will be controlled on the roads and locations during construction and drilling by approved periodic dust mitigation measures.

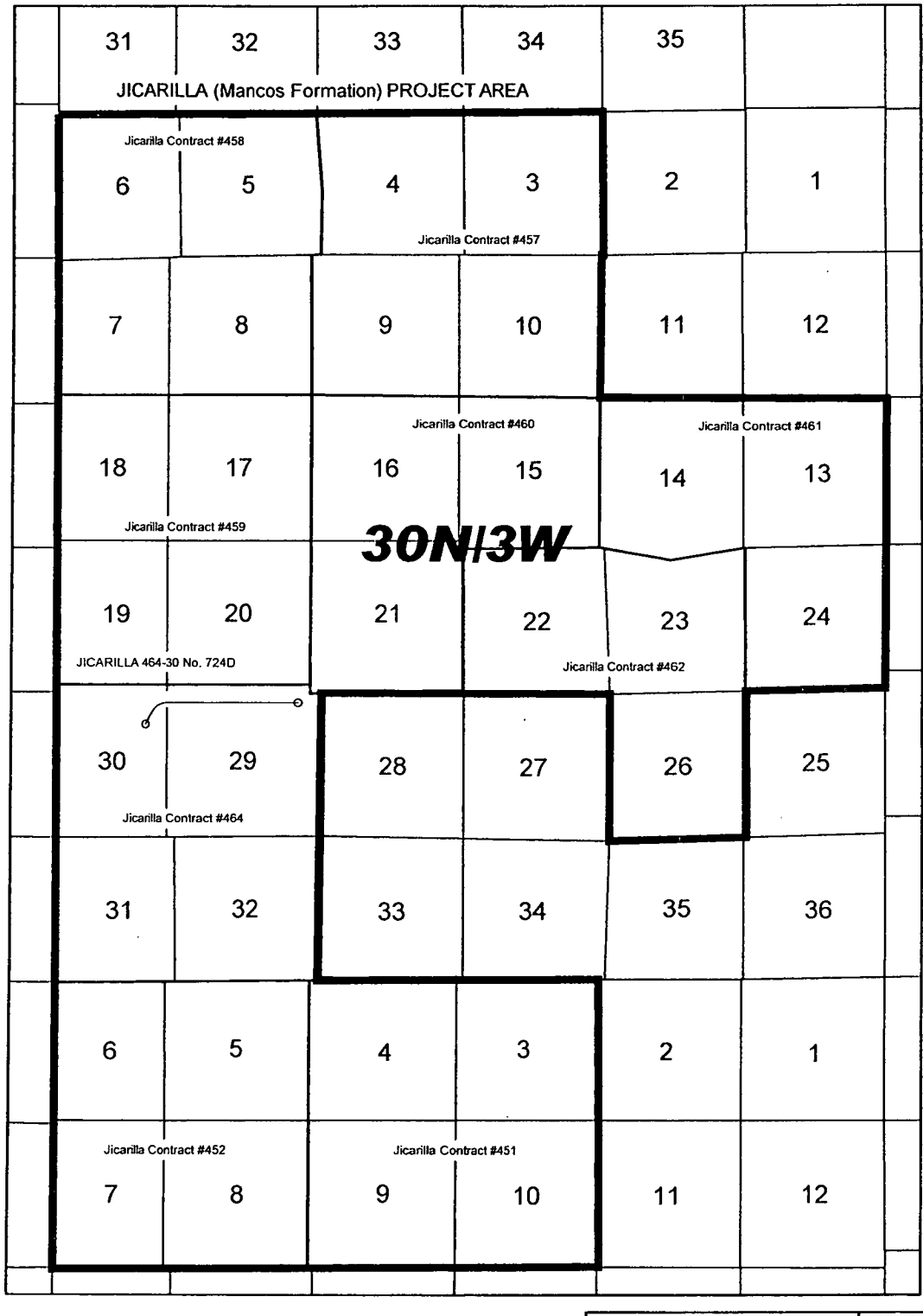
3) LOCATION OF EXISTING WELLS
   Within a 1-mile radius (See attached 'Jicarilla 459-19 #724D One Mile Map')

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

4) LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES
   A) Existing production facilities for the Jicarilla 464-30 #724 well include meter, above ground 95bbl pit tank, and separator; all will be removed before the drilling commences.
   B) The existing pipeline right-of-way to be utilized which include, approximately 200', alongside the existing access road and will tie into Black Hills high pressure gathering line. The pipelines will consist of; one 12" steel pipe for gas, two 8" poly-urethane pipe; one for disposal of produce water and the other for transporting water to location for drilling and completing the well.
   C) Proposed production facilities shall be located and arranged to facilitate safety and maximize interim reclamation opportunities, e.g. located at the access road end of the pad. As practical, access to production facilities will be provided by a teardrop-shaped road through the production area, so that the driving area may be clearly defined and limited and so that the teardrop center may be revegetated.
   D) Surface equipment will be painted a flat, non-reflective color as determined by the BLM.
   E) Should drilling result in established commercial production the following will be shown:
      1. Proposed location and attendant lines, by flagging, if off well pad.
      2. Dimensions of facilities.

BLACK HILLS GAS RESOURCES
JICARILLA (MANCOS FORMATION) PROJECT AREA
JICARILLA 464-30 No. 724D
EXHIBIT "A"

EAST BLANCO FIELD - SAN JUAN BASIN
RIO ARRIBA COUNTY, NEW MEXICO



JICARILLA (Mancos Formation) PROJECT AREA

ORDER # R-13449

REVISION'S	REV. BY	DATE

Daggett Enterprises, Inc.
Surveying and Oil Field Services
P. O. Box 510 Farmington, NM 87499
Phone (505) 326-1772 Fax (505) 326-6019
REGISTERED LAND SURVEYOR
NEW MEXICO No. 8894

PAGE 1 OF 1	CADFILE: MN641 PRJ AREA
DRAWN BY: G.V.	ROW# MN641	DATE: 8/10/12

5000 psi System

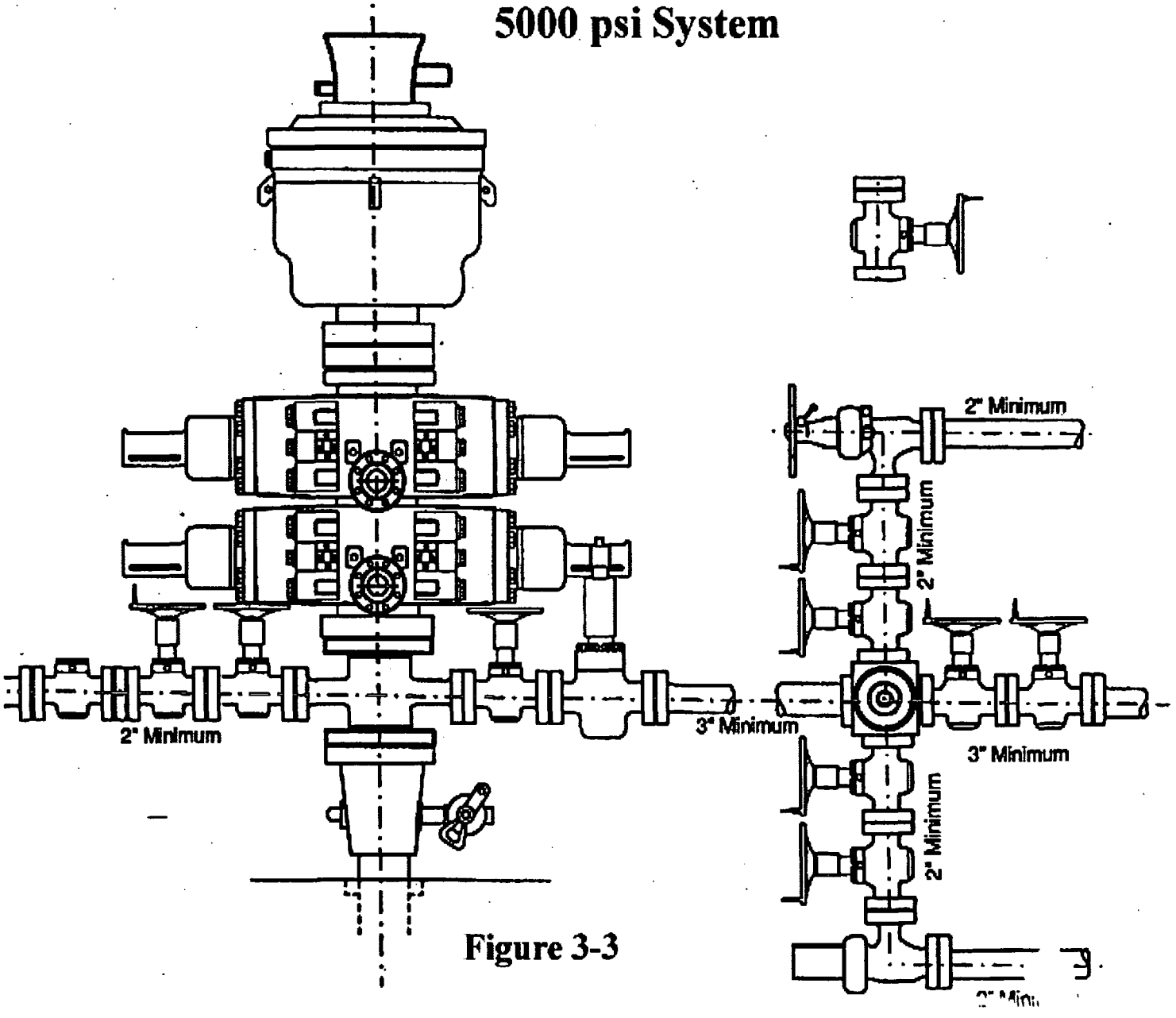


Figure 3-3