W. JOURS

10/27/06

NSZ

APP NO. PTDS 06-30043004

ABOVE THIS LINE FOR DIMSION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -1220 South St. Francis Drive, Santa Fe, NM 87505



T	THIS CHECKLIST IS N	MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REC	GULATIONS
A ppil	DHC-Dow PC-Pe	WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE ns: andard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication with the Comming of the Comm	ea <u>i</u>
[1]	[A]	PPLICATION - Check Those Which Apply for [A] Location - Spacing Unit - Simultaneous Dedication NSL NSP SD ck One Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM	
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery WFX PMX SWD IPI EOR PPR)
	[D]	Other: Specify	1
[2]	[A]	TION REQUIRED TO: - Check Those Which Apply, or Ooes Not Apply Working, Royalty or Overriding Royalty Interest Owners)
	[B]	Offset Operators, Leaseholders or Surface Owner	
	[C]	Application is One Which Requires Published Legal Notice	
	[D]	Notification and/or Concurrent Approval by BLM or SLO U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office	
	[E]	For all of the above, Proof of Notification or Publication is Attached, and/or,	
	[F]	Waivers are Attached	
[3]		CCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS TI CATION INDICATED ABOVE.	не түре
	oval is accurate a	ATION: I hereby certify that the information submitted with this application for admit and complete to the best of my knowledge. I also understand that no action will be trequired information and notifications are submitted to the Division.	
_	Note	te: Statement must be completed by an individual with managerial and/or supervisory capacity.	,
<u>)c</u>	ean Mun	ds-Dry Ocean Hlunds-Dry attorney	10-25-06 Date hart.com
Print	or Type Name	Signature Title	Date
		e-mail Address	na(1.60



Ocean Munds-Dry Associate

omundsdry@hollandhart.com

November 9, 2006

HAND DELIVERY

Mr. William Jones
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

ew Mexico 87505

Re: Amended Application of Black Hills Gas Resources, Inc. for administrative approval of an unorthodox well location for its Many Canyons 30-04-12 Well No. 44H (API No. 30-039-29889) in the East Blanco Pictured Cliffs Pool at a surface location 755 feet from the South line and 885 feet from the East line and a bottomhole location 721 feet from the West line and 438 feet from the South line of Section 12, Township 30 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico.

Dear Mr. Jones:

Black Hills Gas Resources, Inc. ("Black Hills") hereby seeks administrative approval pursuant to the provisions of Division Rule 104 F (2)-(4), of an unorthodox well location for its Many Canyons 30-04-12 Well No. 44H, which is located at a surface location 755 feet from the South line and 885 feet from the East line and an unorthodox bottomhole location 721 feet from the West line and 438 feet from the South line of Section 12 (Unit M), Township 30 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico. This amended application supplements the previous application filed for this well and hopefully answers the questions in your e-mail communication of November 8, 2006.

This location in the Pictured Cliffs formation is unorthodox because it is governed by the Division's statewide rules that provide for wells on 320-acre spacing units to be located no closer than 660 feet to the outer boundary of the quarter section on which the well is located. The well location is unorthodox because it is only 438 feet from the southern boundary of the dedicated spacing unit. Black Hills applied for a standard bottomhole location of 775 feet from the South line and 660 feet from the West line. However, as the attached directional survey shows, the bottomhole location is 438 feet from the South line and 721 feet from the West line of said Section 12.



Administrative Application November 9, 2006 Page 2

The S/2 of Section 12 is in the process of being communitized with the Bureau of Land Management. A copy of the communitization agreement is attached.

The wellbore enters the top of the Pictured Cliffs formation at 755 feet from the South line and 885 feet from the East line, of Section 12, Township 30 North, Range 4 West, NMPM. The bottomhole location is 455 feet from the South line and 1358 feet from the West line of Section 12. This is confirmed by the directional survey previously provided to you as **Exhibit C**.

The wellbore is an open hole completion and was not fractured at all.

Black Hills is the operator in both Section 12 and Section 13 where this well is encroaching to the south. Pursuant to Rule 1210(b), when the unorthodox well's operator is also the operator of the adjoining spacing unit "and ownership is not common between the adjoining spacing unit and the spacing unit contained the proposed unorthodox well," then the application shall notify all interest owners in the adjoining spacing unit. However, as noted in the original application all mineral, royalty and working interest owners are common in the offsetting spacing unit except for Questar Exploration and Production Company. Questar has indicated that it waives any objection. See Exhibit E. Therefore, there are no affected parties who need to be notified of this application.

Lastly, the Simms Com #7 Well is on the same well pad as the subject well. Black Hills is planning to abandon the Pictured Cliffs in the Simms Com #7 and will file the appropriate documentation with the district office.

Your attention to this application is appreciated.

ATTORNEY FOR BLACK HILLS GAS

RESOURCES

Enclosures

COMMUNITIZATION AGREEMENT

BETWEEN

THE BUREAU OF LAND MANAGEMENT

AND

BLACK HILLS GAS RESOURCES, INC.

WELL: MANY CANYONS 30-04-12 #44H

Communitization Agreement S/2 Section 12, T30N, R4W Many Canyons 30-04-12 #44H

COMMUNITIZATION AGREEMENT

Contract No.	

THIS AGREEMENT, entered into as of the date shown in Section 10 hereof by and between the parties subscribing, ratifying, or consenting hereto, such Parties being hereinafter referred to as "parties hereto."

WITNESSETH:

WHEREAS, the Act of February 25, 1920 (41 Stat. 437), as amended and supplemented, authorizes communitization or drilling agreements communitizing or pooling a Federal oil and gas lease, or any portion thereof, with other lands, whether or not owned by the United States, when separate tracts under such Federal lease cannot be independently developed and operated in conformity with an established well-spacing program for the field or area and such communitization or pooling is determined to be in the public interest; and

WHEREAS, the Parties own working, royalty or other leasehold interests, or operating rights, under the oil and gas leases and lands subject to this Agreement which cannot be independently developed and operated in conformity with the well-spacing program established for the field or area in which said lands are located; and

WHEREAS, the Parties desire to communitize and pool their respective mineral interests in lands subject to this Agreement for the purpose of developing and producing communitized substances in accordance with the terms and conditions of this Agreement:

NOW, THEREFORE, in consideration of the premises and the mutual advantages to the Parties, it is mutually covenanted and agreed by and between the Parties as follows:

1. The lands covered by this Agreement (hereinafter referred to as "Communitized Area") are described as follows:

Township 30 North, Range 4 West, N.M.P.M. Section 12: S/2
Rio Arriba County, New Mexico

containing 321.69 acres, more or less, and this agreement shall include only the Pictured Cliffs Formation underlying said lands and the natural gas and associated liquid hydrocarbons, hereinafter, referred to as "communitized substances, producible from such formation(s).

2. Attached hereto, and made a part of this Agreement for all purposes is Exhibit "A",

- a plat designating the Communitized Area and, Exhibit "B", designating the operator of the Communitized Area and showing the acreage, percentage and ownership of oil and gas interests in all lands within the Communitized Area, and the authorization, if any, for communitizing or pooling any patented or fee lands within the Communitized Area.
- 3. All matters of operations shall be governed by the operator under and pursuant to the terms and provisions of this Agreement. A successor operator may be designated by the owners of the working interest in the Communitized Area, and four (4) executed copies of a designation of successor operator shall be filed with the Authorized Officer.
- 4. The operator shall furnish the Secretary of the Interior, or her authorized representative, with a log and history of any well drilled on the Communitized Area, monthly reports of operations, statements of oil and gas sales and royalties and such other reports as are deemed necessary to compute monthly the royalty due the United States, as specified in the applicable oil and gas regulations.
- 5. The Communitized Area shall be developed and operated as an entirety, with the understanding and agreement between the Parties that all Communitized Substances produced therefrom shall be allocated among the leaseholds comprising said area in the proportion that the acreage interest of each leasehold bears to the entire acreage interest committed to this Agreement (refer to Exhibit A-1, Recapitulation, for allocation).
 - All proceeds, 8/8ths, attributed to unleased Federal, State or fee lands included within the Communitized Area are to be placed in an interest earning escrow or trust account by the designated operator until the land is leased or ownership is established.
- 6. The royalties payable on Communitized Substances allocated to the individual leases comprising the Communitized Area and the rentals provided for in said leases shall be determined and paid on the basis prescribed in each of the individual leases. Payments of rentals under the terms of leases subject to this Agreement shall not be affected by this Agreement except as provided for under the terms and provisions of said leases or as may herein be otherwise provided. Except as herein modified and changed, the oil and gas leases subject to this Agreement shall remain in full force and effect as originally made and issued.

It is agreed that for any Federal lease bearing a sliding or step-scale rate of royalty, such rate shall be determined separately as to production from each communitization agreement to which such lease may be committed, and separately as to any noncommunitized lease production, provided, however, as to leases where the rate of royalty for gas is based on total lease production per day, such rate shall be determined by the sum of all communitized production allocated to such a lease plus any noncommunitized lease production.

Communitization Agreement S/2 Section 12, T30N, R4W Many Canyons 30-04-12 #44H

- 7. There shall be no obligation on the lessees to offset any well or wells completed in the same formation as covered by this Agreement on separate component tracts into which the Communitized Area is now or may hereafter be divided, nor shall any lessee be required to measure separately Communitized Substances by reason of the diverse ownership thereof, but the lessees hereto shall not be released from their obligation to protect said Communitized Area from drainage of Communitized Substances by a well or wells which may be drilled offsetting said area.
- 8. The commencement, completion, continued operation or production of a well or wells for Communitized Substances on the Communitized Area shall be construed and considered as the commencement, completion, continued operation or production on each and all of the lands within and comprising said Communitized Area, and operations or production pursuant to this Agreement shall be deemed to be operations or production as to each lease committed hereto.
- 9. Production of Communitized Substances and disposal thereof shall be in conformity with allocation, allotments, and quotas made or fixed by any duly authorized person or regulatory body under applicable Federal or State statutes. This Agreement shall be subject to all applicable Federal and State laws or executive orders, rules and regulations, and no party hereto shall suffer a forfeiture or be liable in damages for failure to comply with any of the provisions of this Agreement if such compliance is prevented by, or if such failure results from, compliance with any such laws, orders, rules or regulations.
- 10. This Agreement is effective February 1, 2005, upon execution by the necessary parties, notwithstanding the date of execution and upon approval by the Secretary of the Interior or by her duly authorized representative, and shall remain in force and effect for a period of two (2) years and for so long as Communitized Substances are, or can be, produced from the Communitized Area in paying quantities: Provided, that prior to production in paying quantities from the Communitized Area and upon fulfillment of all requirements of the Secretary of the Interior, or her duly authorized representative, with respect to any dry hole or abandoned well, this Agreement may be terminated at any time by mutual agreement of the Parties. This Agreement shall not terminate upon cessation of production if, within sixty (60) days thereafter, reworking or drilling operations on the Communitized Area are commenced and are thereafter conducted with reasonable diligence during the period of non-production. The two-year term of this Agreement will not in itself serve to extend the term of any Federal lease, which would otherwise expire during said period.
- 11. The covenants herein shall be construed to be covenants running with the land with respect to the communitized interests of the Parties and their successors in interests until this Agreement terminates and any grant, transfer, or conveyance of any such land or interest subject hereto, whether voluntary or not, shall be and hereby is conditioned upon the assumption of all obligations hereunder by the grantee,

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

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised June 10, 2003

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

OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

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

DISTRICT III

Santa Fe, NM 87505 1000 Rio Brazos Rd., Aztec, N.M. 87410 DISTRICT IV 1220 South St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

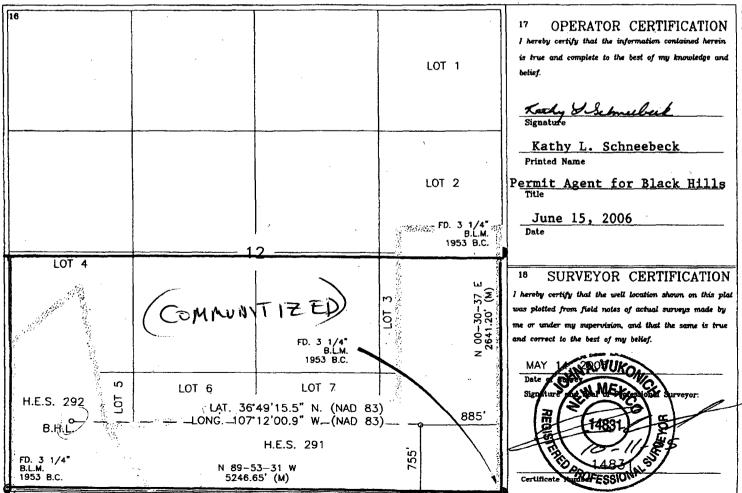
WELL LOCATION AND ACREAGE DEDICATION PLAT Pictured Cliffs Well Number Property Name Property Code MANY CANYONS 30-04-12 44H OGRID No. Operator Name • Elevation 013925 BLACK HILLS GAS RESOURCES 6970

¹⁰ Surface Location

	UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County	
	Р	12	30-N	4-W		755	SOUTH	885	EAST	RIO ARRIBA	
¹¹ Bottom Hole Location If Different From Surface											
	III. or lot no	Section	Township	Panes	Lot Idn	Feet from the	North (South line	Feet from the	East /West line	Countr	

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
M	12	30-N	4-W		775	SOUTH	660	WEST	RIO ARRIBA		
Dedicated Acres 320 See Attached			15 Joint or	Infill	¹⁴ Consolidation C	ode	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



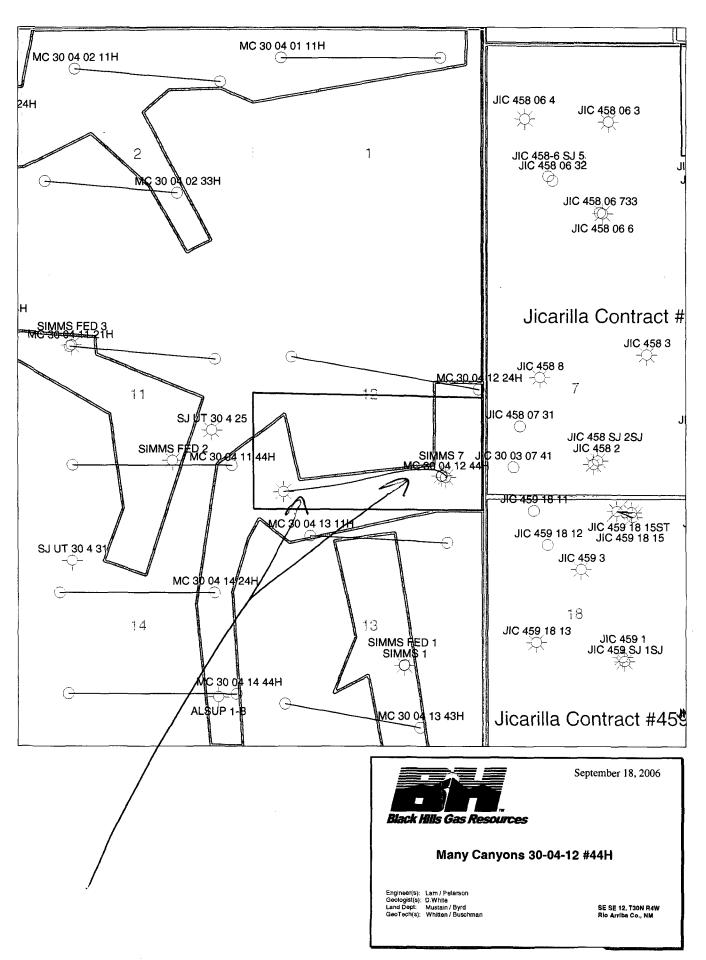


EXHIBIT B

30-034-29971



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

Job Number: 61191 Company: Black Hills E&P

Lease/Well: Many Canyons 30-04-12 #44

Location: Rio Arriba Co., NM

Rig Name: 🛭

RKB: 0

G.L. or M.S.L.: []

State/Country: NM/USA

Declination: 10.20556

Grid: -0.35

File name: N:\BLACKH-1\2006\81191M-1\30041244.SVY

Date/Time: 28-Aug-06 / 08:52

Curve Name: Actual

Surface 755/5 888/E Horizongin, 780/5 909/E, Horiztern. 465/5 1359/W

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method Vertical Section Plane 264.57

Md, 3803 TVLI 3749 Vertical Section Referenced to Wellhead Rectangular Coordinates Referenced to Wellhead pud 2 6817 TV623693

Measured	incl	incl Drift	True	Vertical			CLO	Dogleg	
Depth FT	Angle Deg	Direction Deg	Vertical Depth	Section FT	N-S FT	E-W FT	Distance FT	Direction Deg	Severity Deg/100
Tie-In									
3629.00	1.07	53.30	3628.50	-15.92	-41.10	19.90	45.66	154.16	.00
First Nevi	s MWD Su	rvey							
3657.00	6.90	312.60	3656.43	-15.02	-39.80	18.87	44.05	154.64	25.63
3667.00	12.20	311.70	3666.29	-13.90	-38.69	17.64	42.52	155.49	53.02
3677.00	17.50	306.50	3675.95	-12.06	-37.09	15.64	40.26	157.14	54.60
3688.00	23.50	309.00	3686.25	-9.26	-34.73	12.60	36.94	160.05	55.11
3719.00	40,40	313.90	3712.47	1.78	-23.79	.47	23.80	178.87	55.11
3750.00	57.00	312.10	3732.85	17.22	-8.00	-16.53	18.37	244.18	53.72
3781.00	74.20	311.90	3745.61	36.24	10.82	-37.44	38.97	286.12	55.49
3803.00	88.10	311.30	3748.99	51.03	25.21	-53.65	59.28	295.17	63.24
3815.00	94.30	309.30	3748.74	59.40	32.97	-62.80	70.93	297.70	54.28
3846.00	102.30	300.30	3744.26	82.76	50.46	-87.93	101.38	299.85	38.60
3877.00	105.00	295.60	3736.94	107.90	64.58	-114.52	131.48	299.42	17.11
3908.00	105.80	291.00	3728.70	134.10	76.40	-141.96	161.22	298.29	14.54
3940.00	102.00	287.20	3721.01	162.35	86.55	-171.31	191.93	296.81	16.55
3971.00	97.00	286.50	3715.90	190.63	95.41	-200.56	222.10	295.44	16.28
4003.00	92.90	284.70	3713.14	220.38	103.98	-231.26	253.56	294.21	13.98
4034.00	04.00	070.00	0740.00	040.00	440.55	204 50			40.01
4034.00 4070.00	91.00	279.80	3712.08	249.89	110.55	-261.53	283.93	292.92	16.94
	88.40	275.30	3712.27	284.96	115.28	-297.20	318.78	291.20	14.44
4101.00	87.60	274.50	3713.35	315.44	117.93	-328.07	348.62	289.77	3.65
4133.00 4164.00	86.50 88.60	274.20 270.40	3715.00 3716.33	346.93	120.35	-359.93	379.52	288.49	3.56
4104.00	00.00	270.40	31 10.33	377.61	121.59	-390.87	409.35	287.28	13.99
					41-1				

HOLD C104 POR NSL

Page 1

Measured	Incl	Drift	True	Vertical				SURE	Dogleg
Depth	Angle	Direction	Vertical	Section	N-S	E-W	Distance	Direction	Severity
FT	Deg	Deg	Depth	FT	FT	FT	FT	Deg	Deg/100
4196.00	89.10	270.30	3716.97	409.44	121.79	-422.86	440.05	286.07	1.59
4227.00	88.70	270.40	3717.56	440.28	121.98	-453.86	469.96	285.04	1.33
4258.00	89.70	268.00	3718.00	471.17	121.55	-484.85 545.83	499.85	284.07	8.39
4289.00	89.60	268.30	3718.19	502.11	120.55	-515.83	529.73	283.15	1.02
4321.00	90.20	267.10	3718.24	534.06	119.26	-547.81	560.64	282.28	4.19
4252.00	90.70	200 00	2740 27	565.04	117.61	-578.76	590.59	281.49	1.88
4352.00	89.70 90.10	266.80 267.30	3718.27 3718.32	596.01	116.02	-609.72	620.66	280.77	2.07
4383.00 4415.00	90.00	267.30 267.00	37 18.32 3718.29	627.97	114.43	-641.68	651.80	280.77	.99
4446.00	91.10	266.00	3718.00	658.95	112.53	-672.62	681.97	279.50	4.80
4477.00	91.00	265.40	3717.43	689.94	110.21	-703.53	712.11	278.90	1.96
4111.00	0 1.00	200. 10							
4509.00	91.10	265.40	3716.84	721.93	107.64	-735.42	743.26	278.33	.31
4536.00	91.30	266.00	3716.28	748.92	105.62	-762.34	769.62	277.89	2.34
4567.00	91.00	264.70	3715.65	779.91	103.11	-793.23	799.90	277.41	4.30
4599.00	91.10	264.70	3715.07	811.91	100.15	-825.09	831.14	276.92	.31
4630.00	90.90	264.40	3714.53	842.90	97.21	-855.94	861.44	276.48	1.16
4000.00	00.00	200 00	2744.00	974 90	02.67	997.74	892.67	276.02	4.69
4662.00 4702.00	90.90 91.00	262.90 262.90	3714.02 3713.36	874.89 914.87	93.67 88.73	-887.74 -927.43	931.66	275.46	.25
4702.00	91.00	262.40	3712.98	935.86	86.04	-948.25	952.15	275.18	2.43
4754.00	91.10	262.00	3712.38	966.82	81.83	-978.96	982.37	274.78	1.29
4786.00	91.40	261.60	3711.68	998.78	77.27	-1010.63	1013.58	274.37	1.56
47.00.00	0 710	201.00	07 11.00	000.10		10 10.00	10.0.00		
4817.00	91.90	261.30	3710.79	1029.72	72.66	-1041.27	1043.80	273.99	1.88
4848.00	89.30	260.30	3710.47	1060.65	67.71	-1071.86	1074.00	273.61	8.99
4880.00	89.90	260.70	3710.69	1092.57	62.43	-1103.42	1105.19	273.24	2.25
4911.00	89.90	259.80	3710.74	1123.48	57.18	-1133.98	1135.42	272.89	2.90
4942.00	90.30	260.00	3710.69	1154.37	51.74	-1164.50	1165.64	272.54	1.44
4972.00	90.20	259.00	3710.56	1184.26	46.27	-1193.99	1194.89	272.22	3.35
5003.00	90.10	258.60	3710.48	1215.10	40.25	-1224.40	1225.06	271.88	1.33
5035.00	90.20	258.00	3710.39	1246.91	33.76	-1255.74	1256.19	271.54	1.90
5066.00	90.10	257.20	3710.31	1277.68	27.11	-1286.01	1286.30	271.21	2.60
5097.00	90.10	257.20	3710.26	1308.42	20.24	-1316.24	1316.40	270.88	.00
5129.00	90.20	256.80	3710.17	1340.14	13.04	-1347.42	1347.49	270.55	1.29
5160.00	89.90	254.60	3710.15	1370.77	5.38	-1377.46	1377.47	270.22	7.16
5192.00	90.30	253.50 255.40	3710.09	1402.23	-3.41	-1408.23	1408.23	269.86	3.66
5223.00 5254.00	90. 00 89. 80		3710.01	1432,75	-11.72	-1438.09	1438.14	269.53	6.20
5254.00	09.00	255.40	3710.06	1463.35	-19.53	-1468.09	1468.22	269.24	.65
5286.00	88.40	257.20	3710.57	1495.01	-27.11	-1499.17	1499.42	268.96	7.13
5316.00	88.30	257.30	3711.43	1524.76	-33.73	-1528.42	1528.79	268.74	.47
5348.00	88.20	257.00	3712.41	1556.47	-40.84	-1559.61	1560.14	268,50	.99
5379.00	88.10	256.60	3713.41	1587.17	-47.92	-1589.77	1590.49	268.27	1.33
5410.00	88.10	257,60	3714.44	1617.89	-54.84	-1619.97	1620.90	268.06	3.22
5442.00	88.40	257.80	2745 44	1649.65	64 CE	1654.00	46E0 07	067.06	4 40
5473.00	88.50	257.60 257.70	3715.41 3716.25	1680.42	-61.65 -68.22	-1651.22 -1681.51	1652.37 1682.89	267.86 267.68	1.13 .46
5484.00	88.50	258.00	3716.54	1691.34	-06.22 -70.54	-1692.26	1693.73	267.60 267.61	.46 2.73
5516.00	88.00	257.20	3717.52	1723.09	-70.3 4 -77.41	-1723.49	1725.23	267.43	2.75
5547.00	87.90	257.30	3718.63	1753.81	-84.24	-1753.71	1755.73	267.25	.46

5578.00 88.70 258.50 3719.28 1784.60 -90.74 -1784.01 1786.32 267.09 6.98 5610.00 90.00 258.70 3719.36 1816.42 -97.07 -1815.38 1817.98 268.94 1.13 5641.00 90.20 258.70 3719.31 1847.26 -103.14 -1845.78 1848.66 266.80 .65 6672.00 90.70 258.40 3719.06 1878.09 -109.29 -1876.16 1879.34 256.67 1.88 5703.00 91.20 258.20 3718.55 1908.90 -115.58 -1906.52 1910.02 266.53 1.74 185.70 190.00 89.10 258.00 3718.02 1971.46 -128.78 -1908.11 1972.52 266.25 5.57 5622.00 89.10 258.00 3718.02 1971.46 -128.78 -1998.11 1972.52 268.26 5.57 5622.00 89.10 258.00 3718.01 2034.04 -141.88 -2029.73 2034.68 266.00 .00 590.00 89.10 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 255.75 1.16 1859.10 89.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 255.75 1.16 1859.00 89.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 255.75 1.16 1859.00 89.90 258.50 3721.02 2189.96 -174.75 2183.22 2190.21 255.54 9.77 5985.00 90.50 258.50 3721.02 2189.96 -174.75 2183.22 2190.21 255.54 9.77 5985.00 90.50 258.50 3721.02 2189.96 -174.75 2183.22 2190.21 255.54 1.87 6017.00 90.00 258.40 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 186 142.00 90.00 258.00 3718.03 2374.93 2314.32 1-199.96 -2305.65 2314.31 255.04 4.46 6111.00 90.00 258.00 3718.03 2374.93 2314.32 1-199.96 -2305.65 2314.31 255.04 4.46 6111.00 90.00 258.00 3718.03 2374.93 2314.32 1-199.96 -2305.65 2314.31 255.04 4.46 6111.00 90.00 258.00 3718.03 2374.93 2314.32 1-199.70 -2275.29 2283.52 265.13 4.44 6111.00 90.00 258.00 3718.03 2374.93 2314.23 1-199.96 -2305.65 2314.31 255.04 4.46 6111.00 90.00 258.00 3718.03 2374.50 2283.99 2314.23 1-199.96 -2305.65 2314.31 255.04 4.46 6111.00 90.00 258.00 3718.03 2374.02 2283.99 2314.23 1-199.96 -2305.65 2314.31 255.04 4.46 6111.00 90.00 258.00 3718.03 2345.05 20.00 2710 259.00 3718.03 2345.00 230.00 259.00 3718.03 2345.00 230.00 259.00 3718.03 2345.00 230.00 259.00 3718.03 2345.00 230.00 259.00 3718.03 2345.00 230.00 259.00 3718.03 2345.00 230.00 259.00 3718.03 2345.00 2300.00 258.00 3714.94 2499.57 2249.95 2249.95 2345.70 2444.9 2407.77 2444.9 2407.77 24	Measured Depth FT	Inci Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLO Distance FT	SURE Direction Deg	Dogleg Severity Deg/100
\$61000 90.00 258.70 3719.36 1816.42 -97.07 -1816.38 1817.98 266.94 1.13 5641.00 90.20 258.70 3719.36 1818.09 -109.29 -1876.16 1879.34 266.67 1.86 5672.00 90.70 258.40 3718.55 1906.90 -109.29 -1876.16 1879.34 266.67 1.88 5703.00 91.20 258.20 3718.55 1906.90 -115.58 -1906.52 1910.02 266.53 1.74 5735.00 90.80 257.70 3717.99 1940.68 -122.26 -1937.81 1971.46 266.53 1.74 5735.00 89.10 258.00 3718.02 1971.46 -126.78 -1937.81 1971.46 266.55 57 5823.00 89.10 258.00 3719.01 2034.04 -141.88 -2028.73 2034.68 266.00 .00 5891.00 258.00 3719.01 2034.04 -141.88 -2028.73 2034.68 266.00 .00 5891.00 88.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 5822.00 88.60 257.70 3720.71 2126.35 -161.77 -2120.56 2126.72 265.64 .97 5954.00 89.90 258.50 3721.13 2158.14 -168.37 -2151.87 2158.44 265.53 4.77 5958.00 90.50 258.50 3721.02 2189.96 -174.75 2430.0 220.98 265.38 1.94 5607.00 90.50 258.50 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 .32 6048.00 90.20 258.40 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.10 258.30 3720.42 2283.41 -193.70 -2275.29 2283.52 265.53 1.61 6080.00 90.10 258.00 3718.83 2345.06 -205.95 -2305.66 2314.31 265.04 .46 6142.00 92.10 259.30 3718.43 2376.91 -211.81 -2367.49 2375.94 2264.89 2.67 607.00 93.20 259.60 3718.43 2376.91 -211.81 -2367.49 2375.94 2407.77 264.69 1.02 6237.00 93.40 259.30 3711.45 2501.19 -236.60 2251.70 284.89 1.02 6239.00 92.50 259.00 3714.74 2470.38 -229.02 -2459.74 2470.38 264.89 1.02 6239.00 93.00 92.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.99 1.02 6337.00 93.40 259.30 3714.94 2439.57 -227.19 -238.50 238.66 2345.12 264.95 7.37 6637.00 93.30 260.80 3706.58 2594.77 -251.81 -2367.49 2375.94 2407.77 264.69 1.02 6239.00 93.50 259.00 3711.45 2501.19 -234.64 -249.15 2501.20 264.89 1.02 6239.00 93.00 263.80 3704.76 2688.66 -263.76 -267.67 0 2688.67 264.35 1.33 6467.00 90.00 263.80 3704.76 2688.66 -263.76 -267.67 0 2688.67 264.35 2.58 6550.00 90.00 263.80 3704.76 2688.66 -263.76 -26						90.74	-1784 O1	1786 32	267.09	6.98
Septiment Sept										
\$672.00 90.70 258.40 3719.06 1878.09 -109.29 -1876.16 1879.34 266.67 1.88 5703.00 91.20 258.20 3718.55 1908.90 -115.58 -1906.52 1910.02 268.53 1.74 1.75 1.75 1.75 1.75 1.75 1.75 1.75 1.75										
5703.00 91.20 258.20 3718.55 1908.90 -115.58 -1906.52 1910.02 266.53 1.74 5735.00 90.80 257.70 3717.99 1940.68 -122.26 -1937.81 1941.66 266.39 2.00 5766.00 89.10 256.00 3718.02 1971.46 -128.78 -1968.11 1972.32 266.26 5.57 5829.00 89.10 256.00 3719.01 2340.40 +141.88 -2029.73 2034.68 260.0 .00 5860.00 89.10 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 5891.00 88.90 257.70 3720.71 2126.35 -161.77 -2120.56 2126.72 265.64 .97 5954.00 89.90 258.50 3721.13 2158.14 -168.37 -2151.87 2158.44 265.53 4.77 5986.00 90.50 258.50 3721.02 2189.96 -174.75 -2130.52 2190.21 265.42 1.87 5017.00 90.60 258.50 3720.72 2220.79 -180.93 2213.60 2220.98 265.33 .32 6048.00 90.20 258.30 3720.72 2220.79 -180.93 2213.60 2220.98 265.33 .32 6048.00 90.10 258.30 3720.72 2231.49 -193.70 -2275.29 2283.52 265.13 .44 6111.00 90.00 258.40 3720.39 2314.23 -199.96 -2306.65 2314.31 -266.04 .46 6142.00 92.10 259.30 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6237.00 93.40 259.00 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.68 1.02 6237.00 93.40 259.30 3714.94 2439.57 -221.31 -2397.94 2407.77 264.61 3.37 6330.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.50 259.00 3713.67 2470.38 -229.02 -2459.75 2561.20 264.61 3.37 6330.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3704.53 2561.79 -227.59 268.67 264.35 2.99 6424.00 91.00 262.40 3705.68 2783.64 -277.07 -257.59 268.67 264.35 2.99 6425.00 93.00 263.80 3704.76 2868.66 -263.76 -267.70 268.67 264.35 2.99 6426.00 93.00 263.80 3704.76 2868.66 -263.76 -267.70 268.67 264.35 2.99 6426.00 93.00 263.80 3704.53 256.91 -277.65 227.79.42 2470.35 264.95 1.33 6487.00 90.00 263.80 3704.76 2868.66 -263.76 -267.70 255.84 2407.77 264.45 .91 6488.00 90.00 263.80 3704.53 259.07 3704.50 2250.00 263.80 3704.76 2868.66 -263.76 -267.70 265.84 240.77 264.45 .91 6498.00 90.00 263.80 3704.76 2868.66 -263.76 -267.70 264.35 2.99 6489.00										
5735.00 90.80 257.70 3717.99 1940.68 -122.26 -1937.81 1941.66 266.39 2.00 5768.00 89.10 258.00 3718.02 1971.46 -128.78 -1968.11 1972.32 266.26 5.57 5829.00 89.10 258.00 3719.01 2034.04 -141.88 -2029.73 2034.68 266.00 .00 5860.00 89.10 257.40 3719.49 2064.82 -148.48 -2026.01 2055.35 266.88 1.94 5891.00 88.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 200.00 89.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 200.00 89.90 258.50 3721.13 2158.14 -168.37 -2151.87 2158.44 265.53 4777 5964.00 89.90 258.50 3721.13 2158.14 -168.37 -2151.87 2158.44 265.53 4777 5964.00 90.50 258.50 3721.12 2126.96 -174.75 -2123.22 199.21 265.42 1.87 6017.00 90.60 258.50 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 .32 2048.00 90.20 258.20 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 .32 2048.00 90.20 258.20 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 .32 2048.00 90.20 258.40 3720.32 2214.23 -199.96 -2306.65 2314.31 265.04 46 6142.00 90.10 258.40 3720.39 2314.23 -199.96 -2306.65 2314.31 265.04 46 6142.00 92.10 259.90 3718.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.83 2375.91 -211.81 -2367.49 2373.94 2407.77 264.82 1.02 6268.00 93.50 259.00 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6268.00 93.50 259.00 3711.85 260.11 9 -244.84 -2490.15 250.10 264.61 3.37 6330.00 92.90 259.40 3701.45 260.11 9 -244.84 -2490.15 250.10 264.61 3.37 6330.00 92.90 259.40 3701.45 260.11 9 -244.84 2490.15 250.12 264.68 1.02 6289.00 93.10 260.60 3706.31 2663.89 -246.12 -2552.05 2563.89 264.49 3.60 6330.00 93.30 260.80 3706.31 2663.89 -246.75 -2520.58 253.03 264.55 1.33 6362.00 93.10 260.60 3706.31 2663.89 -246.70 -2520.58 253.00 264.30 3704.75 2653.89 -246.12 -2552.05 2563.89 264.49 3.60 3704.75 2653.80 3704.75 2653.80 3704.75 2653.80 3704.75 2653.80 3704.75 2653.80 3704.75 2653.80 267.70 263.30 3704.75 2653.80 3704.75 2653.90 2653.00 3704										
\$758.00 89.10 258.00 3718.02 1971.46 -128.78 -1968.11 1972.32 266.26 5.57 5829.00 89.10 258.00 3719.01 2034.04 -141.88 -2029.73 2034.68 266.00 .00 5860.00 89.10 257.40 3719.49 2064.82 -148.48 -2060.01 2065.35 265.88 1.94 5891.00 88.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 5822.00 88.60 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 5822.00 88.60 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 5822.00 88.60 257.70 3720.11 2126.35 -161.77 -2120.56 2126.72 265.64 .97 2954.00 89.90 258.50 3721.13 2158.14 -158.37 -2151.87 2158.44 265.53 4.77 25986.00 90.50 258.50 3721.02 2129.99 8 -174.75 -2183.22 2190.21 265.42 1.87 6017.00 90.60 258.50 3720.50 2220.79 -180.93 -2213.50 2220.98 265.33 .32 6048.00 90.20 258.20 3720.50 22251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6111.00 90.00 258.40 3720.39 2314.23 -159.96 -2306.65 2314.31 265.04 46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6268.00 93.50 259.00 3713.30 2360.05 259.00 3713.30 240.05 269.00 3713.30 240.05 269.00 3713.30 240.05 269.00 3713.30 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.30 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 259.47 244.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -248.91 2657.70 264.45 9.1 364.60 90.70 262.10 3704.95 2657.67 -259.96 -246.12 -2552.05 2563.89 264.49 3.80 6518.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.45 9.1 3664.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.45 9.1 3664.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.26 6706.00 93.70 262.10 3703.96 2783.64 -270.67 -2738.32 2751.67 264.35 2.26 6706.00 93.70 263	5/03.00	91.20	258.20	3/18.55	1908.90	-115.56	-1900.52	1910.02	200.03	1.14
\$829.00 89.10 258.00 3719.01 2034.04 -141.88 -2029.73 2034.68 2266.00 .00 5980.00 89.10 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 \$\$891.00 88.90 257.70 3720.03 2095.58 -155.17 -2090.28 2096.03 265.75 1.16 \$\$922.00 88.60 257.70 3720.71 2126.35 -161.77 -2120.56 2126.72 265.64 .97 \$\$954.00 89.90 258.50 3721.13 2158.14 -168.37 -2151.67 2198.44 265.53 4.77 \$\$986.00 90.50 258.50 3721.02 2198.96 -174.75 -2183.22 2190.21 265.42 1.87 \$\$017.00 90.60 258.50 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 .32 \$\$6048.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 \$\$6080.00 90.10 258.30 3720.42 2283.41 -193.70 -2275.29 2283.52 265.13 .44 \$\$6111.00 90.00 258.40 3720.39 2314.23 -199.96 -2306.65 2314.31 265.04 .46 \$\$6114.00 92.10 2593.00 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 \$\$6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2267.49 2376.94 264.96 7.37 \$\$6174.00 92.90 259.00 3718.43 2376.91 -211.81 -2267.49 2376.94 264.89 267 \$\$6250.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 \$\$6280.00 93.50 259.00 3713.07 2470.38 -229.00 -246.97 4270.38 -249.00 32.50 259.00 3713.07 2470.38 -229.00 -246.97 4270.38 264.68 1.02 \$\$6290.00 93.50 259.00 3713.47 2470.38 -229.00 -240.57 -2550.58 253.20 324.95 \$\$630.00 93.50 259.00 3713.07 2470.38 -229.00 -240.57 -2550.58 253.20 3264.55 1.33 \$\$632.00 93.50 259.00 3704.76 2593.00 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 \$\$6280.00 93.50 259.00 3713.07 2470.38 -229.00 -240.57 -2550.58 2532.03 264.51 1.33 \$\$632.00 92.90 259.40 3709.99 2532.20 2-240.57 -2550.68 2532.03 264.55 1.33 \$\$632.00 93.30 260.80 3704.76 2568.80 -267.70 2588.66 2584.94 3.80 \$\$\$645.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.49 3.80 \$\$\$645.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.26 6706.00 93.70 263.20 369.75 2907.47 -2551.65 -267.16 -2706.52 2719.67 264.35 2.26 6706.00 93.70 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.26 6706.00 93.70 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.3	5735.00	90.80	257.70	3717.99			-1937.81			
\$880.00	5766.00	89.10	258.00	3718.02	1971.46	-128.78				
\$891.00	5829.00	89.10	258.00	3719.01	2034.04	-141.88	-2029.73			
5922 00 88.60 257.70 3720.71 2126.35 -161.77 -2120.56 2126.72 265.64 .97 5954.00 89.90 258.50 3721.73 2158.14 -168.37 -2151.87 2158.44 265.53 4.77 5986.00 90.50 258.50 3721.02 2189.96 -174.75 -2183.22 2190.21 265.42 1.87 6017.00 90.60 258.50 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 32 26048.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.20 258.40 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 611.00 90.00 258.40 3720.50 2314.23 -199.96 -2305.65 2314.31 265.04 46 6141.00 92.90 259.60 3718.83 2345.06 -205.96 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.63 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -224.84 -2480.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.59 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3706.58 2594.77 -251.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2562.59 2594.77 264.45 .91 6426.00 91.00 262.40 3706.58 2557.07 -2550.58 2532.03 264.49 3.80 6487.00 90.00 263.80 3704.76 2568.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2783.64 -274.02 -2770.14 2783.36 264.35 2.79 6844.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.36 264.35 2.79 6844.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.36 264.35 2.79 6844.00 93.00 264.30 3704.76 2783.64 -274.02 -2770.14 2783.36 264.35 2.79 6844.00 93.00 263.60 3704.76 2783.64 -274.02 -2770.14 2783.36 264.35 2.79 6844.00 93.00 263.60 3704.76 2783.64 -274.02 -2770.14 2783.36 264.35 2.79 6844.00 93.00 264.30 3701.38 2845.59 -280.23 -2803.30 2907.50 264.33 5.32 1.33 6790.00 91.90 263.60 3704.76 2783.64 -274.02 -2770.14 278	5860.00	89.10	257.40	3719.49	2064.82	-148.48	-2060.01			
\$\frac{5954.00}{5956.00}\$ \frac{99.90}{90.50}\$ \frac{258.50}{258.50}\$ \frac{3721.13}{3721.02}\$ \frac{2158.14}{2158.44}\$ \frac{-2158.24}{-174.75}\$ \frac{2158.24}{-174.75}\$ \frac{2158.24}{-174.75}\$ \frac{2158.24}{-174.75}\$ \frac{2158.24}{-174.75}\$ \frac{2158.24}{-174.75}\$ \frac{2219.21}{-2219.21}\$ \frac{265.53}{-2213.60}\$ \frac{2220.98}{-2213.60}\$ \frac{2220.98}{-2251.75}\$ \frac{255.23}{-255.23}\$ \frac{1.87}{1.61}\$ \frac{6080.00}{-187.18}\$ \frac{90.10}{-2243.96}\$ \frac{2251.75}{-2251.75}\$ \frac{255.23}{-255.23}\$ \frac{1.61}{1.61}\$ \frac{6080.00}{-187.18}\$ \frac{90.10}{-2243.96}\$ \frac{2251.75}{-2251.75}\$ \frac{255.23}{-255.23}\$ \frac{1.61}{1.61}\$ \frac{6080.00}{-187.18}\$ \frac{90.10}{-2245.29}\$ \frac{258.40}{-2350.65}\$ \frac{2314.31}{-2365.04}\$ \frac{265.65}{-46}\$ \frac{2345.12}{-2453.60}\$ \frac{249.56}{-2336.65}\$ \frac{2314.31}{-2345.12}\$ \frac{269.96}{-2366.65}\$ \frac{2314.31}{-2345.12}\$ \frac{269.96}{-236.60}\$ \frac{2345.12}{-249.56}\$ \frac{249.95}{-249.00}\$ \frac{2376.94}{-2366.94}\$ \frac{264.89}{-246.12}\$ \frac{237.99}{-2429.35}\$ \frac{2435.92}{-246.95}\$ \frac{249.95}{-2360.00}\$ \frac{237.99}{-2346.92}\$ \frac{264.89}{-2360.00}\$ \frac{237.99}{-2346.92}\$ \frac{237.99}{-249.93}\$ \frac{2439.58}{-246.12}\$ \frac{2470.38}{-2490.15}\$ \frac{2470.38}{-2490.15}\$ \frac{2470.38}{-2490.15}\$ \frac{246.75}{-2450.70}\$ \frac{2470.38}{-246.12}\$ \frac{2470.38}{-2490.15}\$ \frac{246.85}{-246.12}\$ \frac{250.20}{-249.77}\$ \frac{264.65}{-2520.58}\$ \frac{253.03}{-264.65}\$ \frac{256.25}{-264.99}\$ \frac{256.25}{-264.99}\$ \frac{264.45}{-249.15}\$ \frac{256.25}{-264.99}\$ \frac{264.45}{-249.15}\$ \frac{256.45}{-265.12}\$ \frac{264.45}{-246.95}\$ \frac{91}{-234.44}\$ \frac{249.15}{-246.85}\$ \frac{2561.20}{-2560.58}\$ \frac{264.45}{-2560.12}\$ \frac{264.45}{-264.95}\$ \frac{91}{-234.45}\$ \frac{249.77}{-2550.58}\$ \frac{259.20}{-2560.58}\$ \frac{256.45}{-267.10}\$ \frac{264.45}{-267.57}\$ \frac{256.25}{-267.10}\$ \frac{264.45}{-267.57}\$ \frac{264.45}{-267.57}\$ \frac{264.45}{-264.35}\$ \frac{258.65}{-267.10}\$ \frac{264.35}{-264.35}\$ \frac{264.35}{-264.35}\$	5891.00	88.90	257.70	3720.03	2095.58	-155.17	-2090.28	2096.03	265.75	1.16
5954.00 89.90 258.50 3721.13 2158.14 -168.37 -2151.87 2158.44 265.53 4.77 5986.00 90.50 258.50 3721.02 2189.96 -174.75 -218.32 2190.21 265.42 1.87 6017.00 90.60 258.50 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 .32 6048.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.10 258.30 3720.72 2230.79 -180.93 -2213.60 2220.98 265.33 .32 6048.00 90.10 258.30 3720.72 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 611.00 90.00 258.40 3720.39 2314.23 -199.96 -2305.65 2314.31 265.04 46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6227.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6448.00 90.70 262.10 3704.95 2657.07 -255.64 -2613.24 2655.71 264.41 9.04 6465.00 90.70 262.10 3704.95 2657.07 -255.64 -2613.24 2655.71 264.45 91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2655.71 264.45 91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2655.71 264.45 91 6424.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 650.00 93.70 263.20 3703.80 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 650.00 93.70 263.20 3703.80 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 650.00 93.00 263.30 3704.76 2688.66 -263.76 -2675.70 2688.67 264.35 2.58 650.00 93.00 263.30 3704.76 2688.66 -263.76 -2675.70 2688.67 264.35 2.58 650.00 93.70 263.20 3704.76 2688.66 -263.76 -2706.52 2719.67 264.35 2.58 650.00 93.70 263.20 3704.76 2719.65 -267.16 -2706.52 2719.67 264.	5922.00	88.60	257.70	3720.71	2126.35	-161.77	-2120.56	2126.72	265.64	.97
5986.00 90.50 258.50 3721.02 2189.96 -174.75 -2183.22 2190.21 265.42 1.87 6017.00 90.60 258.50 3720.72 2220.79 -180.93 -2213.60 2220.98 265.33 32 6048.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.10 258.30 3720.42 2283.41 -193.70 -2275.29 2283.52 265.13 .44 6111.00 90.00 258.40 3720.39 2314.23 -199.96 -2306.65 2314.31 265.04 .46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3708.58 2594.77 -251.12 -2582.59 2594.77 264.45 91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.75 2673.66 2673.69 -2807.16 -2706.52 2719.67 264.35 2.59 266.30 90.00 263.80 3704.75 2673.66 2676.6 2675.70 268.67 264.37 5.93 6644.00 91.00 262.40 3704.76 2678.66 267.67 -259.96 2644.94 2657.68 264.37 5.93 6648.00 90.00 263.80 3704.75 2791.65 -267.16 -2706.52 2719.67 264.35 2.58 6642.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.76 2791.65 -267.16 -2706.52 2719.67 264.35 2.58 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2803.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3704.95 2697.67 -280.96 264.94 2657.67 264.35 2.58 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2803.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3704.76 2791.65 267.06 2275.60 2933.00 2907.50 264.34 2.10 6737.00 92.10 263.60 3704.75 2791.65 267.06 2294.17 -2955.83 2970.43 284.32 1.13							-2151.87	2158.44		
6048.00 90.20 258.20 3720.50 2251.60 -187.18 -2243.96 2251.75 265.23 1.61 6080.00 90.10 258.40 3720.39 2314.23 -199.96 -2305.65 2314.31 265.04 46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.69 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2525.68 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -2520.5 264.94 262.37 1.36 6467.00 90.00 263.80 3704.76 2688.66 -263.76 264.94 267.57 264.36 .65 6550.00 90.80 263.80 3704.76 2688.66 -263.76 264.94 267.57 264.35 264.39 1.33 6467.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 6562.00 91.60 264.20 3703.86 2763.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.76 2688.66 -263.76 2675.70 2688.67 264.35 2.58 65650.00 90.80 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 65650.00 93.70 263.20 369.75 2907.47 -286.80 -2893.30 2907.50 264.34 2.10 67937.00 92.10 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13	5986.00	90.50	258.50	3721.02	2189.96	-174.75	-2183.22	2190.21		
6080.00 90.10 258.30 3720.42 2283.41 -193.70 -2275.29 2283.52 265.13 .44 6111.00 90.00 258.40 3720.39 2314.23 -199.96 -2305.65 2314.31 265.04 .46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.68 1.02 6286.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2688.66 -263.76 -2575.70 2688.67 264.37 5.93 6518.00 90.00 263.60 3704.76 2688.66 -263.76 -2575.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2688.66 -263.76 -2706.52 2719.67 264.36 .65 6550.00 90.80 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.37 5.93 6518.00 90.00 263.60 3704.75 2970.40 -294.17 -2955.83 2970.43 264.35 2.79 664.00 93.70 263.20 3697.75 2907.47 -258.80 -2706.52 2719.67 264.35 2.79 664.00 93.70 263.20 3704.75 2719.65 -267.16 -2706.52 2719.67 264.35 2.79 664.00 93.70 263.20 3704.75 2719.65 -267.16 -2706.52 2719.67 264.35 2.79 6737.00 92.10 263.60 3704.75 2970.40 -294.17 -2955.83 2970.43 264.32 1.13	6017.00	90.60	258.50	3720.72	2220.79	-180.93	-2213.60			
6111.00 90.00 258.40 3720.39 2314.23 -199.96 -2305.65 2314.31 265.04 46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6289.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3708.58 2594.77 -251.12 -2582.59 2594.77 264.45 91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.99 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.35 264.90 1.33 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 664.40 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 664.40 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 664.40 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 664.40 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 1.13	6048.00	90.20	258.20	3720.50	2251.60	-187.18	-2243.96	2251.75	265.23	1.61
6111.00 90.00 258.40 3720.39 2314.23 -199.96 -2305.65 2314.31 265.04 46 6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.35 264.90 91.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 91.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 90.80 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 1.13	6080.00	90.10	258.30	3720.42	2283.41	-193.70	-2275.29	2283.52	265.13	.44
6142.00 92.10 259.30 3719.83 2345.06 -205.95 -2336.06 2345.12 264.96 7.37 6174.00 92.90 259.60 3718.43 2376.91 -211.81 -2367.49 2376.94 264.89 2.67 6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3714.95 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.36 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.36 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.36 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2845.59 -280.23 -2831.78 2845.61 264.35 2.79 6644.00 93.00 263.60 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.79 6644.00 93.00 263.60 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.60 3896.18 2838.43 -290.52 -2924.06 2938.45 264.33 5.32 6790.00 91.90 263.30 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3896.18 2838.43 -290.52 -2924.06 2938.45 264.33 5.32 6790.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13		90.00		3720.39	2314.23	-199.96	-2305.65	2314.31	265.04	.46
6205.00 93.20 259.70 3716.78 2407.75 -217.37 -2397.94 2407.77 264.82 1.02 6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2719.65 -267.16 -2675.70 2888.67 264.37 5.93 6518.00 90.00 263.80 3704.75 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2751.65 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13								2345.12	264.96	7.37
6237.00 93.40 259.30 3714.94 2439.57 -223.19 -2429.35 2439.58 264.75 1.40 6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 655.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.80 3704.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.79 6644.00 93.00 263.80 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.79 6644.00 93.00 263.80 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13					2376.91	-211.81	-2367.49	2376.94	264.89	2.67
6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.00 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.00 3697.75 2907.47 -269.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Projection to TD	6205.00	93.20	259.70	3716.78	2407.75	-217.37	-2397.94	2407.77	264.82	1.02
6268.00 93.50 259.00 3713.07 2470.38 -229.02 -2459.74 2470.38 264.68 1.02 6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2562.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 65644.00 93.00 264.30 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 263.20 3697.75 2907.47 -269.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	6237.00	93.40	259.30	3714.94	2439.57	-223.19	-2429.35	2439.58	264.75	1.40
6299.00 92.50 259.30 3711.45 2501.19 -234.84 -2490.15 2501.20 264.61 3.37 6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Projection to TD						-229.02			264.68	1.02
6330.00 92.90 259.40 3709.99 2532.03 -240.57 -2520.58 2532.03 264.55 1.33 6362.00 93.10 260.60 3708.31 2563.89 -246.12 -2552.05 2563.89 264.49 3.80 6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.80 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.32 1.13										3.37
6393.00 93.30 260.80 3706.58 2594.77 -251.12 -2582.59 2594.77 264.45 .91 6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 652.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.32 1.13									264.55	
6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Projection to TD	6362.00	93.10	260.60	3708.31	2563.89	-246.12	-2552.05	2563.89	264.49	3.80
6424.00 91.00 262.40 3705.42 2625.70 -255.64 -2613.24 2625.71 264.41 9.04 6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Projection to TD	6393.00	93,30	260,80	3706.58	2594.77	-251.12	-2582.59	2594.77	264.45	.91
6456.00 90.70 262.10 3704.95 2657.67 -259.96 -2644.94 2657.68 264.39 1.33 6487.00 90.00 263.80 3704.76 2688.66 -263.76 -2675.70 2688.67 264.37 5.93 6518.00 90.00 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	6424.00					-255.64				
6518.00 90.00 263.60 3704.76 2719.65 -267.16 -2706.52 2719.67 264.36 .65 6550.00 90.80 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	6456.00	90.70	262.10	3704.95	2657.67	-259.96	-2644.94		264.39	1.33
6550.00 90.80 263.80 3704.53 2751.65 -270.67 -2738.32 2751.67 264.35 2.58 6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13	6487.00	90.00	263.80	3704.76	2688.66	-263.76	-2675.70	2688.67	264.37	5.93
6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	6518.00	90.00	263.60	3704.76	2719.65	-267.16	-2706.52	2719.67	264.36	.65
6582.00 91.60 264.20 3703.86 2783.64 -274.02 -2770.14 2783.66 264.35 2.79 6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD		90.80	263.80	3704.53	2751.65	-270.67	-2738.32	2751.67	264.35	2.58
6644.00 93.00 264.30 3701.38 2845.59 -280.23 -2831.78 2845.61 264.35 2.26 6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13	6582.00	91.60								
6706.00 93.70 263.20 3697.75 2907.47 -286.96 -2893.30 2907.50 264.34 2.10 6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD										
6737.00 92.10 263.60 3696.18 2938.43 -290.52 -2924.06 2938.45 264.33 5.32 Last Nevis MWD Survey 6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	6706.00									
6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	6737.00									
6769.00 91.90 263.30 3695.07 2970.40 -294.17 -2955.83 2970.43 264.32 1.13 Projection to TD	Last Nev	is MWD Su	rvev			<u> </u>				1
Projection to TD	11		-	3695.07	2970.40	-294.17	-2955.83	2970.43	264.32	1.13
2222	Projectio	n to TD								
	11		263.20	3693.43	3018.36	-299.81	-3003.47	3018.39	264.30	.29

Page 3
Actual File: N:\BLACKH~1\2006\61191M~1\

MC30-4-12#44 PC HORIZ P 12 30-4SURF! 755 FS - 885 FE

-300 -3063

455 FS 5247

BOTTOM:
HILE:

Black Hills Gas Resources

A Black Hills Corporation Enterprise

350 Indiana Street, Suite 400 Golden, CO 80401

Jim Bob Byrd Land Consultant Bus: (303) 204-1258

Fax: (720) 210-1363

September 26, 2006

Questar Exploration and Production Company 1050 17th St., Suite 500 Denver, Colorado 80265 Attention: Cory Miller

RE: Waiver/Request for Unorthodox Location Approval

Many Canyons 30-04-12 #44H T30N, R4W, Sec. 24: S/2 Rio Arriba County, New Mexico

Dear Mr. Miller,

Black Hills Gas Resources, Inc. ("BHGR") has recently drilled and completed the captioned well within the spacing unit comprised of the S/2 of Section 12. Township 30 North, Range 4 West, NMPM, Rio Arriba County, New Mexico. The well was spud from a surface location 755 feet from the south line and 885 feet from the east line of said Section 12 to a bottom hole location 721 feet from the west line and 438 feet from the south line of the section. Based on the rules and regulations of the New Mexico Oil Conservation Division, a portion of this wellbore is situated within the 660 foot setback from the section line as dictated for a S/2 spacing unit. Accordingly, BHGR is providing this notice to Questar as required by the NMOCD pursuant to Section 19.15.3.104.F(4) of the NMOCD Rules regarding unorthodox locations. BHGR is making application to the NMOCD for approval to produce the subject well, and respectfully requests that Questar (1) indicate its approval for BHGR to produce said well as currently drilled and completed, and (2) waive the twenty (20) day notice period as provided by rule 19.15,3.104F(4) for filing any objection to the NMOCD administrative approval of the unorthodox wellbore location.

Attached please find a copy of the completed approved Application for Permit to Drill the captioned well filed with the Bureau of Land Management and the

NMOCD, including the Forms C-101 and C-102 which indicate the proposed spacing unit for said well. Should you have technical questions or require additional information with regard to the subject well, please contact Brenda Mustain at 720-210-1313 or via email at bmustain@bhep.com. Thank you for your assistance and cooperation in this matter.

Yours very truly,

BLACK HILLS GAS RESOURCES, LLC

Jim Bob Byrd Land Consultant

Rule 19.15.3.104 waiver granted this ______ day of _______, 2006

Questar Exploration and Production Company