OCD Artesia

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NMOCD ARTESIA

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160 - 3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5. Lease Serial No
NM0543280A

6 If Indian, Allottee or Tribe Name

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

1. Type of Well
☑ Oil Well ☐ ☐ ☐ Gas Well ☐ ☐ ☐ Other

8 Well Name and No.
Hudson 1 Federal #9H

2 Name of Operator **BOPCO, L. P.**

9. API Well No.
30-015-37310

3a Address
P. O. Box 2760 Midland, TX 79702

3b Phone No *(include area code)*
432-683-2277

10 Field and Pool, or Exploratory Area
Quahada Ridge SE (Delaware)

4 Location of Well *(Footage, Sec., T, R., M, or Survey Description)*

Surface: NWSE, 2375' FSL, 1780' FEL, Sec 1, T23S, R30S, Lat N32.33330, Lon W103.83138
BHL: SWNW, 1980' FSL, 330' FWL, Sec 2, T23S, R30E, Lat N32.332281, Long W103.859225

11 County or Parish, State
Eddy Co., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☑ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports shall be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

BOPCO requests approval for the revised horizontal casing program.

The 7" casing program will be changed form 7855' of 7", 26#, P-110, LT&C to 7823' of 7", 26#, P-110, LT&C.

The 4-1/2" casing program will also be changed from 8008' of 4-1/2", 11.6#, P-110, LT&C with Baker packers for isolation and the liner hanger will be set at approximately 7705' to 8010' of 4-1/2", 11.6#, P-110, LT&C with Baker packers for isolation and the liner hanger will be set at approximately 7673'.

The revised horizontal drilling plan is attached.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVED
APR 12 2010
/s/ Myles Kristof
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

14 I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Annette Childers Title **Regulatory Clerk**

Signature Annette Childers Date 2-10-2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon	Office	

Title 18 U S C Section 1001 and Title 43 U S C. Section 1212, make it a crime for any person knowingly and willfully to make 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)

DSS

ADK

BOPCO, L.P.

Location Eddy County, NM
Field Quahada Ridge, SE (Delaware)
Facility Hudson 1 Fed No 9H

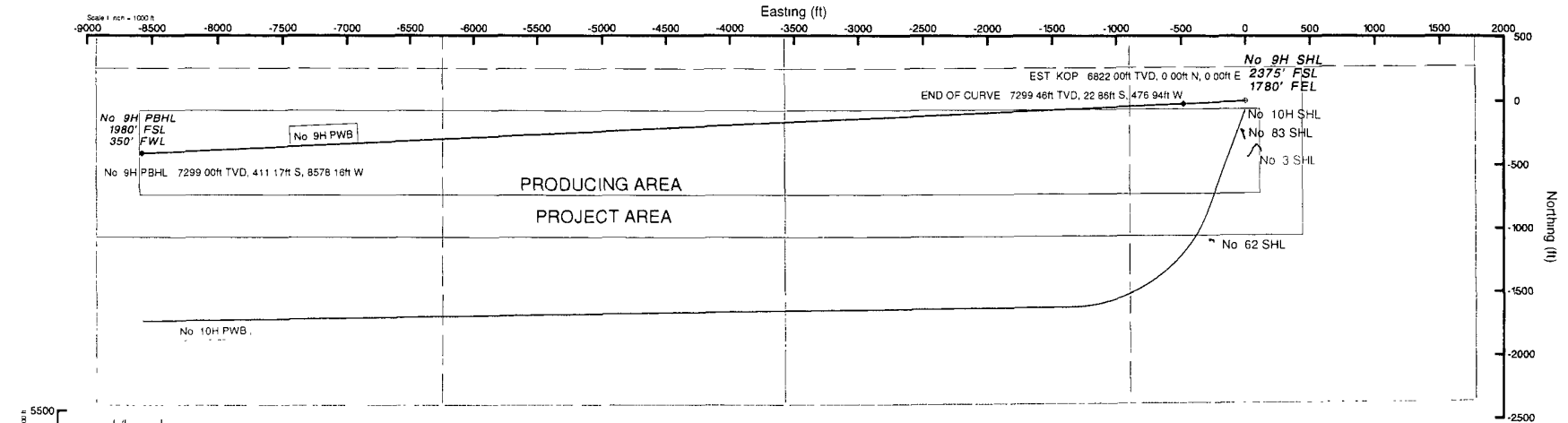
Slot No 9H SHL
Well No 9H
Wellbore No 9H PWB

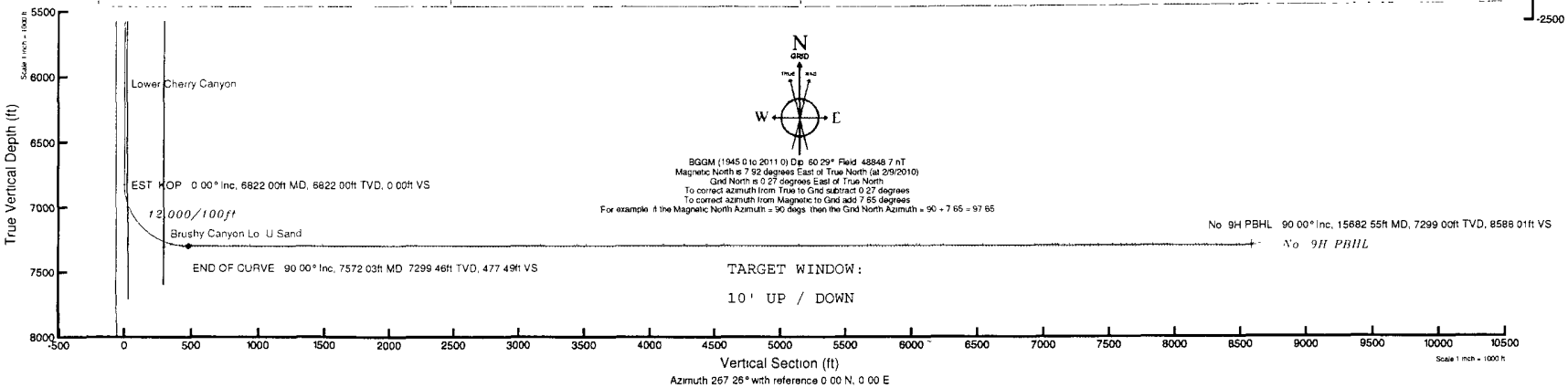
Plot reference wellpath is Plan #3	
True vertical depths are referenced to Rig on No 9H SHL (RT)	Grid System NAD83 / TM New Mexico State Planes Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 9H SHL (RT)	North Reference Grid north
Rig on No 9H SHL (RT) to Mean Sea Level 3309 feet	Scale True distance
Mean Sea Level to Mud line (Facility Hudson 1 Fed No 9H) 3290 feet	Depths are in feet
Coordinates are in feet referenced to Surface Location	*Created by Victor Hernandez on 2/9/2010*

BAKER HUGHES INTEQ

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0 00	0 000	267 256	0 00	0 00	0 00	0 00	0 00
EST KOP	6822 00	0 000	267 256	6822 00	0 00	0 00	0 00	0 00
END OF CURVE	7572 03	90 003	267 256	7299 46	-22 86	-476 94	12 00	477 49
No 9H PBHL	15682 55	90 003	267 256	7299 00	-411 17	-8578 16	0 00	8588 01





BGGM (1945 0 to 2011 0) Dip 60 29° Field 48848 7 nT
Magnetic North is 7 92 degrees East of True North (at 2/9/2010)
Grid North is 0 27 degrees East of True North
To correct azimuth from True to Grid subtract 0 27 degrees
To correct azimuth from Magnetic to Grid add 7 65 degrees
For example if the Magnetic North Azimuth = 90 degs then the Grid North Azimuth = 90 + 7 65 = 97 65

Azimuth 267 26° with reference 0 00 N, 0 00 E

Planned Wellpath Report

Plan #3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	**BOPCO, L.P.**	Slot	**No. 9H SHL**
Area	**Eddy County, NM**	Well	**No. 9H**
Field	**Quahada Ridge, SE (Delaware)**	Wellbore	**No. 9H PWB**
Facility	**Hudson 1 Fed No. 9H**		

REPORT SETUP INFORMATION

Projection System	**NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Victor Hernandez**
Scale	**0.999937**	Report Generated	**2/9/2010** at **11:47:57 AM**
Convergence at slot	**0.27° East**	Database/Source file	**WA_Midland/No._9H_PWB.xml**

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[USft]**	**Northing[USft]**	**Latitude**	**Longitude**
Slot Location	**0.00**	**0.00**	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W
Facility Reference Pt			**696371.30**	**485350.50**	32°19'59.887"N	103°49'52.981"W
Field Reference Pt			**696371.30**	**485350.50**	32°19'59.887"N	103°49'52.981"W

WELLPATH DATUM

Calculation method	**Minimum curvature**	Rig on No. 9H SHL (RT) to GL	**19.00ft**
Horizontal Reference Pt	**Surface Location**	Rig on No. 9H SHL (RT) to Mean Sea Level	**3309.00ft**
Vertical Reference Pt	**Rig on No. 9H SHL (RT)**	GL to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 9H SHL (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**267.26°**

Planned Wellpath Report

Plan #3

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REFERENCE WELLPATH IDENTIFICATION			
Operator	**BOPCO, L.P.**	Slot	**No. 9H SHL**
Area	**Eddy County, NM**	Well	**No. 9H**
Field	**Quahada Ridge, SE (Delaware)**	Wellbore	**No. 9H PWB**
Facility	**Hudson 1 Fed No. 9H**		

WELLPATH DATA (100 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0 00	0 000	267.256	0.00	0.00	0.00	0 00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Tie On
197.00†	0 000	267.256	197.00	0.00	0.00	0.00	696371 30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Rustler
507.00†	0.000	267.256	507.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Base / Rustler
515.00†	0.000	267.256	515.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Salt
3654.00†	0.000	267.256	3654.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Base / Salt
3892.00†	0.000	267.256	3892.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Lamar
3937.00†	0.000	267 256	3937.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Ramsey
6047.00†	0.000	267.256	6047.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59.887"N	103°49'52.981"W	0.00	Lower Cherry Canyon
6822 00	0 000	267.256	6822.00	0.00	0.00	0.00	696371.30	485350.50	32°19'59 887"N	103°49'52.981"W	0.00	EST KOP
6922.00†	12.000	267.256	6921 27	10.43	-0.50	-10.42	696360.88	485350.00	32°19'59.882"N	103°49'53.102"W	12.00	
7022 00†	24.000	267 256	7016.20	41 28	-1.98	-41.23	696330 07	485348.52	32°19'59.869"N	103°49'53.461"W	12 00	
7122.00†	36.000	267.256	7102.65	91.19	-4.37	-91.08	696280.22	485346.13	32°19'59.848"N	103°49'54 042"W	12.00	
7222 00†	48 000	267 256	7176.83	157.98	-7.56	-157.80	696213.51	485342.94	32°19'59.819"N	103°49'54.820"W	12.00	
7322.00†	60.000	267.256	7235.50	238.73	-11.43	-238.46	696132.86	485339.07	32°19'59.784"N	103°49'55.760"W	12.00	
7422.00†	72.000	267.256	7276.10	329.92	-15.80	-329.54	696041.78	485334.71	32°19'59.745"N	103°49'56.822"W	12.00	
7431 70†	73 164	267.256	7279.00	339.18	-16 24	-338 79	696032 53	485334.26	32°19'59.742"N	103°49'56.930"W	12.00	Brushy Canyon Lo U Sand
7522.00†	84.000	267.256	7296.85	427.56	-20.47	-427.07	695944.26	485330.03	32°19'59.704"N	103°49'57.959"W	12.00	
7572.03	90.003	267 256	7299.46	477.49	-22.86	-476.94	695894.39	485327.64	32°19'59.682"N	103°49'58.541"W	12.00	END OF CURVE
7622.00†	90.003	267.256	7299.46	527.46	-25.25	-526.86	695844.47	485325.25	32°19'59.661"N	103°49'59.122"W	0.00	
7722.00†	90.003	267.256	7299.46	627.46	-30.04	-626.75	695744.60	485320.46	32°19'59.618"N	103°50'00.287"W	0.00	
7822 00†	90 003	267.256	7299 45	727.46	-34.83	-726.63	695644.72	485315 67	32°19'59.576"N	103°50'01.451"W	0.00	
7922.00†	90 003	267.256	7299.44	827.46	-39.62	-826.52	695544.84	485310.89	32°19'59.533"N	103°50'02.615"W	0.00	
8022.00†	90.003	267.256	7299.44	927.46	-44.40	-926.40	695444.96	485306.10	32°19'59.490"N	103°50'03.780"W	0.00	
8122.00†	90.003	267.256	7299.43	1027.46	-49.19	-1026.29	695345.08	485301.31	32°19'59.447"N	103°50'04.944"W	0.00	
8222.00†	90.003	267.256	7299.43	1127.46	-53.98	-1126.17	695245.20	485296.52	32°19'59.404"N	103°50'06.109"W	0.00	
8322.00†	90 003	267.256	7299.42	1227.46	-58.77	-1226.06	695145.32	485291.74	32°19'59 362"N	103°50'07.273"W	0.00	
8422.00†	90 003	267 256	7299.42	1327.46	-63.56	-1325.94	695045.44	485286.95	32°19'59.319"N	103°50'08.437"W	0.00	
8522.00†	90.003	267.256	7299.41	1427.46	-68.34	-1425.83	694945.57	485282.16	32°19'59.276"N	103°50'09.602"W	0.00	
8622.00†	90.003	267.256	7299.40	1527.46	-73.13	-1525.71	694845.69	485277.37	32°19'59.233"N	103°50'10.766"W	0.00	
8722.00†	90.003	267.256	7299.40	1627.46	-77.92	-1625.60	694745.81	485272.59	32°19'59.191"N	103°50'11.930"W	0.00	

Planned Wellpath Report

Plan #3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 9H SHL
Area	Eddy County, NM	Well	No. 9H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 9H PWB
Facility	Hudson 1 Fed No. 9H		

WELLPATH DATA (100 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8822.00†	90 003	267.256	7299.39	1727.46	-82 71	-1725 48	694645.93	485267.80	32°19'59.148"N	103°50'13.095"W	0.00	
8922.00†	90.003	267.256	7299.39	1827 46	-87.49	-1825.37	694546.05	485263.01	32°19'59.105"N	103°50'14 259"W	0.00	
9022.00†	90.003	267.256	7299.38	1927 46	-92.28	-1925.25	694446.17	485258.22	32°19'59.062"N	103°50'15 424"W	0.00	
9122.00†	90.003	267.256	7299.38	2027.46	-97.07	-2025.14	694346.29	485253 44	32°19'59 019"N	103°50'16.588"W	0.00	
9222.00†	90.003	267.256	7299.37	2127.46	-101.86	-2125.03	694246.41	485248.65	32°19'58.977"N	103°50'17.752"W	0.00	
9322.00†	90.003	267.256	7299.36	2227.46	-106.64	-2224.91	694146.53	485243.86	32°19'58.934"N	103°50'18.917"W	0.00	
9422.00†	90.003	267.256	7299.36	2327.46	-111.43	-2324.80	694046.66	485239.08	32°19'58.891"N	103°50'20.081"W	0.00	
9522 00†	90.003	267 256	7299.35	2427.46	-116 22	-2424.68	693946 78	485234.29	32°19'58.848"N	103°50'21.245"W	0.00	
9622 00†	90.003	267.256	7299.35	2527.46	-121.01	-2524.57	693846.90	485229.50	32°19'58.805"N	103°50'22.410"W	0.00	
9722.00†	90.003	267.256	7299.34	2627.46	-125.80	-2624.45	693747.02	485224.71	32°19'58.762"N	103°50'23.574"W	0.00	
9822 00†	90 003	267.256	7299.34	2727.46	-130.58	-2724.34	693647.14	485219.93	32°19'58 720"N	103°50'24.739"W	0.00	
9922.00†	90.003	267.256	7299.33	2827.46	-135.37	-2824.22	693547.26	485215.14	32°19'58.677"N	103°50'25.903"W	0.00	
10022.00†	90.003	267.256	7299.32	2927.46	-140.16	-2924 11	693447 38	485210.35	32°19'58.634"N	103°50'27 067"W	0.00	
10122.00†	90.003	267.256	7299.32	3027.46	-144.95	-3023.99	693347.50	485205.56	32°19'58.591"N	103°50'28.232"W	0.00	
10222.00†	90.003	267.256	7299.31	3127.46	-149.73	-3123.88	693247.63	485200.78	32°19'58.548"N	103°50'29.396"W	0.00	
10322.00†	90.003	267.256	7299.31	3227.46	-154.52	-3223.76	693147.75	485195.99	32°19'58.505"N	103°50'30 560"W	0 00	
10422.00†	90.003	267.256	7299.30	3327.46	-159.31	-3323.65	693047.87	485191.20	32°19'58.463"N	103°50'31 725"W	0.00	
10522.00†	90.003	267.256	7299.30	3427.46	-164.10	-3423.53	692947.99	485186.41	32°19'58.420"N	103°50'32.889"W	0.00	
10622.00†	90.003	267.256	7299.29	3527.46	-168.88	-3523.42	692848.11	485181.63	32°19'58.377"N	103°50'34.053"W	0.00	
10722.00†	90.003	267.256	7299.28	3627.46	-173.67	-3623.30	692748.23	485176.84	32°19'58.334"N	103°50'35.218"W	0.00	
10822.00†	90.003	267.256	7299.28	3727.46	-178.46	-3723.19	692648.35	485172.05	32°19'58.291"N	103°50'36.382"W	0.00	
10922.00†	90 003	267.256	7299.27	3827.46	-183.25	-3823.08	692548.47	485167.26	32°19'58.248"N	103°50'37.547"W	0.00	
11022.00†	90.003	267.256	7299.27	3927.46	-188.04	-3922.96	692448.60	485162.48	32°19'58.206"N	103°50'38.711"W	0.00	
11122.00†	90.003	267.256	7299.26	4027.46	-192.82	-4022.85	692348.72	485157.69	32°19'58.163"N	103°50'39.875"W	0.00	
11222.00†	90.003	267.256	7299.26	4127.46	-197.61	-4122.73	692248.84	485152.90	32°19'58.120"N	103°50'41.040"W	0.00	
11322 00†	90.003	267.256	7299.25	4227.46	-202.40	-4222.62	692148.96	485148.11	32°19'58.077"N	103°50'42.204"W	0.00	
11422.00†	90.003	267.256	7299.24	4327.46	-207 19	-4322.50	692049.08	485143.33	32°19'58.034"N	103°50'43.368"W	0.00	
11522 00†	90 003	267.256	7299.24	4427 46	-211.97	-4422.39	691949.20	485138.54	32°19'57.991"N	103°50'44.533"W	0.00	
11622.00†	90 003	267.256	7299.23	4527.46	-216 76	-4522.27	691849.32	485133.75	32°19'57.948"N	103°50'45.697"W	0.00	
11722.00†	90.003	267.256	7299.23	4627.46	-221.55	-4622.16	691749.44	485128.96	32°19'57.905"N	103°50'46.861"W	0.00	

Planned Wellpath Report

Plan #3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 9H SHL
Area	Eddy County, NM	Well	No. 9H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 9H PWB
Facility	Hudson 1 Fed No. 9H		

WELLPATH DATA (100 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11822.00†	90.003	267.256	7299.22	4727.46	-226.34	-4722.04	691649.57	485124.18	32°19'57.863"N	103°50'48.026"W	0.00	
11922.00†	90.003	267.256	7299.22	4827.46	-231.12	-4821.93	691549.69	485119.39	32°19'57.820"N	103°50'49.190"W	0.00	
12022.00†	90.003	267.256	7299.21	4927.46	-235.91	-4921.81	691449.81	485114.60	32°19'57.777"N	103°50'50.355"W	0.00	
12122.00†	90.003	267.256	7299.20	5027.46	-240.70	-5021.70	691349.93	485109.82	32°19'57.734"N	103°50'51.519"W	0.00	
12222.00†	90.003	267.256	7299.20	5127.46	-245.49	-5121.58	691250.05	485105.03	32°19'57.691"N	103°50'52.683"W	0.00	
12322.00†	90.003	267.256	7299.19	5227.46	-250.28	-5221.47	691150.17	485100.24	32°19'57.648"N	103°50'53.848"W	0.00	
12422.00†	90.003	267.256	7299.19	5327.46	-255.06	-5321.36	691050.29	485095.45	32°19'57.605"N	103°50'55.012"W	0.00	
12522.00†	90.003	267.256	7299.18	5427.46	-259.85	-5421.24	690950.41	485090.67	32°19'57.562"N	103°50'56.176"W	0.00	
12622.00†	90.003	267.256	7299.18	5527.46	-264.64	-5521.13	690850.53	485085.88	32°19'57.519"N	103°50'57.341"W	0.00	
12722.00†	90.003	267.256	7299.17	5627.46	-269.43	-5621.01	690750.66	485081.09	32°19'57.476"N	103°50'58.505"W	0.00	
12822.00†	90.003	267.256	7299.16	5727.46	-274.21	-5720.90	690650.78	485076.30	32°19'57.434"N	103°50'59.669"W	0.00	
12922.00†	90.003	267.256	7299.16	5827.46	-279.00	-5820.78	690550.90	485071.52	32°19'57.391"N	103°51'00.834"W	0.00	
13022.00†	90.003	267.256	7299.15	5927.46	-283.79	-5920.67	690451.02	485066.73	32°19'57.348"N	103°51'01.998"W	0.00	
13122.00†	90.003	267.256	7299.15	6027.46	-288.58	-6020.55	690351.14	485061.94	32°19'57.305"N	103°51'03.163"W	0.00	
13222.00†	90.003	267.256	7299.14	6127.46	-293.37	-6120.44	690251.26	485057.15	32°19'57.262"N	103°51'04.327"W	0.00	
13322.00†	90.003	267.256	7299.14	6227.46	-298.15	-6220.32	690151.38	485052.37	32°19'57.219"N	103°51'05.491"W	0.00	
13422.00†	90.003	267.256	7299.13	6327.46	-302.94	-6320.21	690051.50	485047.58	32°19'57.176"N	103°51'06.656"W	0.00	
13522.00†	90.003	267.256	7299.12	6427.46	-307.73	-6420.09	689951.63	485042.79	32°19'57.133"N	103°51'07.820"W	0.00	
13622.00†	90.003	267.256	7299.12	6527.46	-312.52	-6519.98	689851.75	485038.00	32°19'57.090"N	103°51'08.984"W	0.00	
13722.00†	90.003	267.256	7299.11	6627.46	-317.30	-6619.86	689751.87	485033.22	32°19'57.047"N	103°51'10.149"W	0.00	
13822.00†	90.003	267.256	7299.11	6727.46	-322.09	-6719.75	689651.99	485028.43	32°19'57.004"N	103°51'11.313"W	0.00	
13922.00†	90.003	267.256	7299.10	6827.46	-326.88	-6819.64	689552.11	485023.64	32°19'56.961"N	103°51'12.477"W	0.00	
14022.00†	90.003	267.256	7299.10	6927.46	-331.67	-6919.52	689452.23	485018.85	32°19'56.918"N	103°51'13.642"W	0.00	
14122.00†	90.003	267.256	7299.09	7027.46	-336.45	-7019.41	689352.35	485014.07	32°19'56.875"N	103°51'14.806"W	0.00	
14222.00†	90.003	267.256	7299.08	7127.46	-341.24	-7119.29	689252.47	485009.28	32°19'56.832"N	103°51'15.970"W	0.00	
14322.00†	90.003	267.256	7299.08	7227.46	-346.03	-7219.18	689152.60	485004.49	32°19'56.790"N	103°51'17.135"W	0.00	
14422.00†	90.003	267.256	7299.07	7327.46	-350.82	-7319.06	689052.72	484999.71	32°19'56.747"N	103°51'18.299"W	0.00	
14522.00†	90.003	267.256	7299.07	7427.46	-355.61	-7418.95	688952.84	484994.92	32°19'56.704"N	103°51'19.464"W	0.00	
14622.00†	90.003	267.256	7299.06	7527.46	-360.39	-7518.83	688852.96	484990.13	32°19'56.661"N	103°51'20.628"W	0.00	
14722.00†	90.003	267.256	7299.06	7627.46	-365.18	-7618.72	688753.08	484985.34	32°19'56.618"N	103°51'21.792"W	0.00	

Planned Wellpath Report

Plan #3

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 9H SHL
Area	Eddy County, NM	Well	No. 9H
Field	Quahada Ridge, SE (Delaware)	Wellbore	No. 9H PWB
Facility	Hudson 1 Fed No. 9H		

WELLPATH DATA (100 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14822.00†	90.003	267.256	7299.05	7727.46	-369.97	-7718.60	688653.20	484980.56	32°19'56.575"N	103°51'22.957"W	0.00	
14922.00†	90.003	267.256	7299.04	7827.46	-374.76	-7818.49	688553.32	484975.77	32°19'56.532"N	103°51'24.121"W	0.00	
15022.00†	90.003	267.256	7299.04	7927.46	-379.54	-7918.37	688453.44	484970.98	32°19'56.489"N	103°51'25.285"W	0.00	
15122.00†	90.003	267.256	7299.03	8027.46	-384.33	-8018.26	688353.56	484966.19	32°19'56.446"N	103°51'26.450"W	0.00	
15222.00†	90.003	267.256	7299.03	8127.46	-389.12	-8118.14	688253.69	484961.41	32°19'56.403"N	103°51'27.614"W	0.00	
15322.00†	90.003	267.256	7299.02	8227.46	-393.91	-8218.03	688153.81	484956.62	32°19'56.360"N	103°51'28.778"W	0.00	
15422.00†	90.003	267.256	7299.01	8327.46	-398.69	-8317.92	688053.93	484951.83	32°19'56.317"N	103°51'29.943"W	0.00	
15522.00†	90.003	267.256	7299.01	8427.46	-403.48	-8417.80	687954.05	484947.04	32°19'56.274"N	103°51'31.107"W	0.00	
15622.00†	90.003	267.256	7299.00	8527.46	-408.27	-8517.69	687854.17	484942.26	32°19'56.231"N	103°51'32.271"W	0.00	
15682.55	90.003	267.256	7299.00	8588.01	-411.17	-8578.16	687793.70	484939.36	32°19'56.205"N	103°51'32.976"W	0.00	No 9H PBHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 9H PBHL	15682.55	7299.00	-411.17	-8578.16	687793.70	484939.36	32°19'56.205"N	103°51'32.976"W	point

SURVEY PROGRAM Ref Wellbore: No. 9H PWB Ref Wellpath: Plan #3

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	15682.55	NaviTrak (Standard)		No. 9H PWB

OCD-ARTESIA

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5 Lease Serial No
NM0543280A

6 If Indian, Allottee or Tribe Name

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

1. Type of Well
☑ Oil Well ☐ ☐ Gas Well ☐☐ ☐ Other

8 Well Name and No.
Hudson 1 Federal #9H

2 Name of Operator **BOPCO, L. P.**

9 API Well No
30-015-37310

3a Address
P. O. Box 2760 Midland, TX 79702

3b. Phone No *(include area code)*
432-683-2277

10 Field and Pool, or Exploratory Area
Quahada Ridge SE (Delaware)

4 Location of Well *(Footage, Sec, T, R, M, or Survey Description)*

Surface: NWSE, 2375' FSL, 1780' FEL, Sec 1, T23S, R30S, Lat N32.33330, Lon W103.83138
BHL: SWNW, 1980' FSL, 330' FWL, Sec 2, T23S, R30E, Lat N32.332281, Long W103.859225

11 County or Parish, State
Eddy Co., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☑ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOPCO requests approval for the revised surface casing program.

The 13 3/8" casing program will be changed from 48# H-40, ST&C set @ 486', to 13 3/8" 54.5# J-55, ST&C set @ 572'.

BOPCO L.P. Bond # on file: COB000050

APPROVED
APR 12 2010
/s/ Myles Kristof
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Annette Childers Title **Regulatory Clerk**

Signature Annette Childers Date 2-8-2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office

Title 18 U S C. Section 1001 and Title 43 U S C Section 1212, make it a crime for any person knowingly and willfully to make 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)

OCD-ARTESIA

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5. Lease Serial No.
NM0543280A

6 If Indian, Allottee or Tribe Name

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

1 Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8 Well Name and No.
Hudson 1 Federal #9H

2 Name of Operator **BOPCO, L. P.**

9 API Well No.
30-015-37310

3a Address
P. O. Box 2760 Midland, TX 79702

3b. Phone No *(include area code)*
432-683-2277

10 Field and Pool, or Exploratory Area
Quahada Ridge SE (Delaware)

4 Location of Well *(Footage, Sec , T., R., M., or Survey Description)*

Surface: NWSE, 2375' FSL, 1780' FEL, Sec 1, T23S, R30S, Lat N32.33330, Lon W103.83138
BHL: SWNW, 1980' FSL, 330' FWL, Sec 2, T23S, R30E, Lat N32.332281, Long W103.859225

11. County or Parish, State
Eddy Co., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other **Alter cement**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

BOPCO requests approval for the revised cement program.

See attached

APPROVED
APR 12 2010
/s/ Myles Kristof
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

14 I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Annette Childers Title **Regulatory Clerk**

Signature Annette Childers Date 2-8-2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon Office

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(Instructions on page 2)

DD

ADH

BOPCO requests approval for the revised cement program.

From:

INTERVAL	Amount Sxs	Ft of Fill	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE						
Lead						
(100% excess Circ to surface)	250	286	EconoCem HLC + 2.7 #/sk Salt	10.25	12.8	1.88
Tail			HalCem-C + 2%			
(100% excess)	210	200	$CaCl_2$	6 398	14.8	1 35
INTERMEDIATE						
Lead						
(100% excess Circ to surface)	1100	3393	EconoCem HLC + 2.7 #/sk Salt	10.27	12.8	1.89
Tail						
(100% excess)	250	500	HalCem-C	6.34	14 8	1.33
2nd INTERMEDIATE						
Stage 1						
Lead						
(50% excess circ to surface)	200	1650	EconoCem-HLH	11.06	12.5	1 97
Tail			HalCem H + 0.6%			
(50% excess)	200	1050	Halad 9	4.89	16	1 13
DV Tool @ 5000'						
Stage 2						
Lead						
(50% excess)	400	4900	EconoCem-HLC	11.6	12.5	1.97
Tail						
(50% excess)	50	100	Class "C" Neat	6.34	14.8	1.34

To:

INTERVAL	Amount Sxs	Ft of Fill	TYPE	GALS/SX	PPG	FT3/SX
SURFACE						
Lead				9.154	13 50	1.74
(100% excess Circ to surface)	375	382	Class C + D020 + S001 + D130			
Tail			Class C + S001 +	6 348	14 80	1 34
(100% excess)	200	190	D130			
INTERMEDIATE						
Lead			LiteCrete + D046			
(50% excess Circ to surface)	655	3043	+D065 + D042 + D124	7.475	10.20	2 17
Tail						
(50% excess)	300	850	Class C Neat	6.365	14.80	1 33
2nd INTERMEDIATE						
Stage 1						
Lead			LiteCrete + D166 +			
(30% excess circ to surface)	157	1555	D042 +D046 + D013 + D124	8.937	9.90	2.40
Tail	181	1300	TXI + D167 + D065 + D013 + D042 +			
(30% excess)			D049	7.027	13 00	1.41
DV Tool @ 5000'						
Stage 2						
Lead	425	4320	35/65 Poz + D044 + D020 + D042 + D046 + D132			
(30% excess)				10 916	12 60	1.98
Tail						
(30% excess)	100	680	Class C + D013	6 352	14 80	1.33

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO, L.P.
LEASE NO.:	NM02884B
WELL NAME & NO.:	HUDSON 1 FEDERAL #9H
SURFACE HOLE FOOTAGE:	2375 FSL & 1780' FEL SEC 1, T23S, R30E
BOTTOM HOLE FOOTAGE:	1980' FSL & 330' FWL SEC 2, T23S, R30E
LOCATION:	Section 1, T. 23 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Due to recent H2S encounters in the salt formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P Potash
High cave/karst.
Possible lost circulation in the Delaware and Bone Spring formations.

1. The **13-3/8** inch surface casing shall be set **at approximately 572 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If the salt is encountered at a shallower depth, the casing is to be set a minimum of 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is: **Casing to be set within the Fletcher Anhydrite or Lamar Limestone zone.**

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash and cave/karst concerns.**

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

3. The minimum required fill of cement behind the **7** inch production casing is:

a. First stage to DV tool, cement shall:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

☒ No cement required. Operator is using a packer liner system.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

6. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi. **Operator is using a 5M system, but testing as a 3M.**

    a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. Casing cut-off and BOP installation will not be initiated until the cement has had a minimum of 8 hours setup time for a water basin. The casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. In the potash area, the minimum time is 12 hours and the casing shall remain stationary and under pressure during this time period. Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.

    b. The tests shall be done by an independent service company utilizing a test plug.

    c. The results of the test shall be reported to the appropriate BLM office.

    d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

MAK 030810

13 3/8 surface csg in a 17 1/2 inch hole. **Design Factors** **SURFACE**

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	54.50	J 55	ST&C	16.49	4.42	1.35	572	31,174
"B"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500			Tail Cmt	does	circ to sfc.	Totals:	572	31,174

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	**575**	921	**301**	205	**8.60**	1166	**2M**	1.56

9 5/8 casing inside the 13 3/8 casing. **Design Factors** **INTERMEDIATE**

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	40.00	J 55	LT&C	3.34	1.27	1.06	3,893	155,720
"B"							**0**	**0**
"C"							**0**	**0**
"D"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,066						Totals:	3,893	155,720

The cement volume(s) proposed may achieve a top 0 feet from surface.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	**955**	1820	**1266**	44	**10.00**	2119	**3M**	0.81

7 casing inside the 9 5/8 **Design Factors** **INTERMEDIATE**

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	26.00	P 110	LT&C	2.03	1.45	2.88	7,823	203,398
"B"							**0**	**0**
"C"							0	0
"D"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,613						Totals:	7,823	203,398

A Segment Design Factors would be 3.64 1.66 if it were a vertical wellbore.

The cement volume(s) proposed may achieve a top 0 feet from surface.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess DVT Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.1503	**863**	1607	**1231**	Check	**9.80**	1829	**2M**	0.55

4 1/2 Liner w/top @ 7673 **Design Factors** **LINER**

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	11.60	P 110	LT&C	1.32	1.52	2.25	8,010	92,916
"B"							**0**	**0**
"C"							0	0
"D"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,609						Totals:	8,010	92,916

A Segment Design Factors would be: ∞ 1.84 if it were a vertical wellbore.

The cement volume(s) proposed may achieve a top 0 feet from surface.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
6 1/8	0.0942			**1578**	PACKER	**9.00**			0 81