New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

Form 3160-3
(August 2007)

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.
SL NMLC 105887 BHL State of NM

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.
Andromeda Federal #2H <36797>

2. Name of Operator COG Operating, LLC <229137>

9 API Well No.
30-005-27976

3a. Address 550 West Texas, Suite 1300
Midland, TX 79701

3b Phone No. (include area code)
(432)- 685-9158

10. Field and Pool, or Exploratory
~~Undesignated~~ Wolfcamp

4. Location of Well (Report location clearly and in accordance with any State requirements *)
At surface 1980' FNL & 850' FEL, Unit H
At proposed prod. zone 1980' FNL & 330' FWL, Unit E

11. Sec., T. R. M. or Blk. and Survey or Area
Section 14, T15S, R31E

14. Distance in miles and direction from nearest town or post office*
Approx 15 miles North of Maljamar, New Mexico

12 County or Parish
Chaves Co..

13. State
NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any)	16 No. of acres in lease	17 Spacing Unit dedicated to this well
330	640	160

18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth	20 BLM/BIA Bond No. on file
N/A	13000' MD 8810' TVD	NMB 000215

21 Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
4375' GL	12/15/2007	45 Days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name (Printed/Typed)	Date
Title: Agent for COG Operating LLC	Dwaine Moore	09/12/2007

Approved by (Signature) /S/ Angel Mayes	Name (Printed/Typed) /S/ Angel Mayes	Date OCT 16 2007
Title Assistant Field Manager, Lands And Minerals	Office ROSWELL FIELD OFFICE	APPROVED FOR 2 YEARS

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

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

RECEIVED
OCT 2007
OCD
Hobbs

DECLARED WATER BASIN

CEMENT BEHIND THE 13⅜" CASING MUST BE CIRCULATED

WITNESS

Exhibit "A"

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised October 12, 2005

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-005-27976		Wildcat Undesignated Wolfcamp

Property Code	Property Name	Well Number
36797	ANDROMEDA FEDERAL	2H

OGRID No.	Operator Name	Elevation
229137	C.O.G. OPERATING L.L.C.	4375'

Surface Location

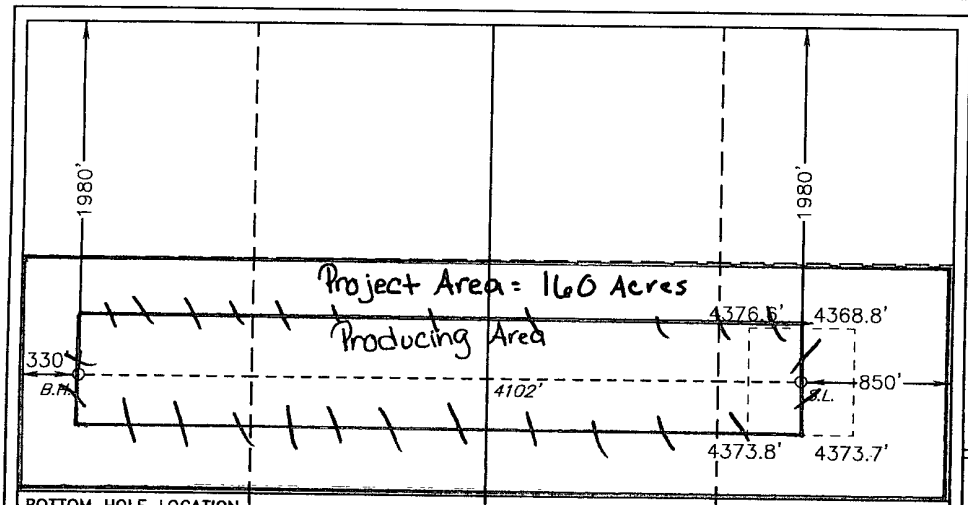
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	14	15 S	31 E		1980	NORTH	850	EAST	CHAVES

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	14	15 S	31 E		1980	NORTH	330	WEST	CHAVES

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



BOTTOM HOLE LOCATION
LAT.: N 33°01'03.9"
LONG.: W103°47'59.5"
SPC- N.: 734407.51
E.: 704854.24
(NAD-83)

SURFACE LOCATION
LAT.: N 33°01'04.07"
LONG.: W103°47'11.35"
SPC- N.: 734444.6
E.: 708956.8
(NAD-83)

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 9/12/07 Date

Ownership Records Agent for COG
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

JULY 27, 2007
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 23365

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

ATTACHMENT TO FORM 3160-3
COG Operating, LLC
Andromeda Federal # 2H
SL: 1980' FNL & 850' FEL, Unit H
BHL: 1980' FNL & 330' FWL, Unit E
Sec 14, T15S, R31E
Chaves County, NM

1. Proration Unit Spacing: 160 Acres

2. Ground Elevation: 4375'

3. Proposed Depths: Pilot hole TD = 9090', Horizontal TVD = 8810', MD = 13000'

4. Estimated tops of geological markers:

Quaternary	Surface
Yates	2450'
Queen	3250'
San Andres	3930'
Tubb	6800'
Abo	7490'
Wolfcamp	8790'

5. Possible mineral bearing formations:

Water sand	150'	Fresh Water
Yates	2450'	Oil / Gas
Queen	3250'	Oil / Gas
San Andres	3930'	Oil / Gas
Tubb	6800'	Oil / Gas
Abo	7490'	Oil / Gas
Wolfcamp	8790'	Oil / Gas

6. Casing Program - **Proposed**

Hole size	Interval	OD of Casing	Weight	Cond.	Collar	Grade
17-1/2"	0' - +/-400'	13-3/8"	48#	New	STC	H40
Collapse sf – 3.78, Burst sf – 7.20, Tension sf – 15.72						
12 1/4"	0' - 4000'	9-5/8"	40#	New	STC	J-55
Collapse sf – 1.285, Burst sf – 1.17, Tension sf – 3.25						
8-3/4"	0' – 8400'	5-1/2"	17#	New	LTC	P-110
Collapse sf – 1.74, Burst sf – 2.32, Tension sf – 2.74						
7-7/8"	8400' – 13000'	5-1/2"	17#	New	BTC	P-110
Collapse sf – 1.66, Burst sf – 2.36, Tension sf – 76.28						

7. Cement Program

13 3/8" Surf. Csg. Set at +/- 400', Circ to Surf with +/- 400 sx Class "C" w/ 2% CaCl2, 1.35 yd.

9 5/8" Intrmd. Csg. Set at +/- 4000'. Circ to Surf with +/- 800 sx 35/65 Poz "C", 2.05 yd. & 200 sx Class "C" w/ 2% CaCl2, 1.35 yd.

5 ½" Prod. Csg. Set at +/- 13000' MD. Cement casing with +/- 200 sx. 50/50/2 "C", 1.37 yd & +/- 850 sx Class "H", 1.18 yd. Est. TOC @ 8400'.

8. Pressure Control Equipment:

After setting 13 3/8" casing and installing 3000 psi casing head, NU 13 5/8" 3000 psi annular BOP. Test annular BOP, casing and manifold with clear fluid to 800 psi w/ rig pump. After setting 9 5/8" casing and installing 3000 psi casing spool, NU 3000 psi double ram BOP and 3000psi annular BOP. Test double ram BOP and manifold to 3000# with clear fluid and annular to 1500 psi using an independent tester and used continuously until TD is reached. Blind rams will be operationally checked on each trip out of hole. Pipe rams will be operationally checked each 24 hour period. These checks will be noted on daily tour sheets. Other accessories to the BOP equipment include a Kelly cock and floor safety valves, choke lines and choke manifold with 3000 psi WP rating.

9. Proposed Mud Circulating System

Interval	Mud Wt.	Visc.	FL	Type Mud System
0' - 400'	8.5	28	NC	Fresh water native mud w/ paper for seepage and sweeps. Lime for PH.
400'- 4000'	9.1	30	NC	Cut brine mud, lime for PH and paper for seepage and sweeps.
4000'- 7500'	9.1	29	NC	Drill section with fresh water/cut brine circulating the reserve utilizing periodic sweeps of paper as needed for seepage control and solids removal.
7500' - 13000'	9.5	36	10	Drill pilot hole, curve and horizontal section with XCD polymer / cut brine / starch.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

10. Auxiliary Well Control and Monitoring Equipment

A. Kelly cock will be kept in the drill string at all times.

B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

11. Production Hole Drilling Summary:

Drill 8-3/4" Pilot hole thru Wolfcamp, run open hole logs. Spot 150 sx. "H" Kick off plug from +/- 8900' to +/-8400'. Time drill and kick off 7-7/8" hole at +/- 8400', building curve over +/- 475' to horizontal at 8810' TVD. Drill horizontal section in a westerly direction for +/-4100' lateral. Run production casing and cement.

12. Logging, Testing and Coring Program:

A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be ran from T.D. in vertical pilot hole to 9 5/8" casing shoe.

B. The mud logging program will consist of lagged 10' samples from intermediate casing point to T.D. in vertical pilot hole and from Kick off point to TD in Horizontal hole.

C. Drill Stem test is not anticipated.

D. No conventional coring is anticipated.

E. Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD based on drill shows and log evaluation.

13. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 3815 psig. Low levels of Hydrogen sulfide have been monitored in producing wells in the area, so H2S may be present while drilling of the well. An H2S plan is attached to the Drilling Program. No major loss of circulation zones has been reported in offsetting wells.

14. Anticipated Starting Date

Drilling operations will commence approximately on December 15, 2007 with drilling and completion operations lasting approximately 45 days.

Planned Wellpath Report

Plan #1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Concho O&G**	Slot	**#2H_SHL**
Area	**Chavez County, NM**	Well	**#2H**
Field	**Section 14 T15S R31E (Andromeda)**	Wellbore	**#2H PWB**
Facility	**Andromeda Federal #2H**		

REPORT SETUP INFORMATION			
Projection System	**NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect™ 1.2**
North Reference	**Grid**	User	**Gomeoscr**
Scale	**0.999941**	Report Generated	**09/12/07 at 17:15:24**
Wellbore last revised	**09/12/07**	Database/Source file	**WA_Midland/#2H_PWB.xn**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North [feet]	**East [feet]**	**Easting [US feet]**	**Northing [US feet]**	**Latitude [°]**	**Longitude [°]**
Slot Location	**0.00**	**0.00**	708956.80	734444.60	33 01 04.042N	103 47 11.334W
Facility Reference Pt			**708956.80**	**734444.60**	33 01 04.042N	103 47 11.334W
Field Reference Pt			**709469.50**	**735769.10**	33 01 17.120N	103 47 05.231W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on #2H_SHL (RT) to Facility Vertical Datum	**0.00 feet**
Horizontal Reference Pt	**Facility Center**	Rig on #2H_SHL (RT) to GRN. ELEV.	**4375.00 feet**
Vertical Reference Pt	**Rig on #2H_SHL (RT)**	Facility Vertical Datum to Mud Line (Facility)	**0.00 feet**
MD Reference Pt	**Rig on #2H_SHL (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**GRN. ELEV.**	Section Azimuth	**269.48°**

Planned Wellpath Report

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Field	**Section 14 T15S R31E (Andromeda)**	Wellbore	**#2H PWB**
Facility	**Andromeda Federal #2H**		

WELLPATH DATA (54 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
0.00	0.000	269.482	0.00	0.00	0.00	0.00	0.00	Tie On	
2450.00†	0.000	269.482	2450.00	0.00	0.00	0.00	0.00		Yates
3250.00†	0.000	269.482	3250.00	0.00	0.00	0.00	0.00		Queen
3930.00†	0.000	269.482	3930.00	0.00	0.00	0.00	0.00		San Andres D
6800.00†	0.000	0.000	6800.00	0.00	0.00	0.00	0.00		Tubb
7490.00†	0.000	269.482	7490.00	0.00	0.00	0.00	0.00		Abo
8330.00	0.000	269.482	8330.00	0.00	0.00	0.00	0.00	KOP	
8430.00†	11.930	269.482	8429.28	10.37	-0.09	-10.37	11.93		
8530.00†	23.860	269.482	8524.27	41.05	-0.37	-41.04	11.93		
8630.00†	35.790	269.482	8610.87	90.69	-0.82	-90.69	11.93		
8730.00†	47.720	269.482	8685.33	157.17	-1.42	-157.16	11.93		
8830.00†	59.650	269.482	8744.45	237.60	-2.15	-237.59	11.93		
8930.00†	71.580	269.482	8785.66	328.51	-2.97	-328.50	11.93		
8944.38†	73.296	269.482	8790.00	342.22	-3.09	-342.21	11.93		Wolfcamp
9030.00†	83.510	269.482	8807.19	425.98	-3.85	-425.96	11.93		
9092.40	90.954	269.482	8810.20	488.26	-4.41	-488.24	11.93	EOC	
9130.00†	90.954	269.482	8809.57	525.86	-4.75	-525.84	0.00		
9230.00†	90.954	269.482	8807.91	625.85	-5.66	-625.82	0.00		
9330.00†	90.954	269.482	8806.24	725.83	-6.56	-725.80	0.00		
9430.00†	90.954	269.482	8804.58	825.82	-7.47	-825.78	0.00		
9530.00†	90.954	269.482	8802.91	925.80	-8.37	-925.77	0.00		
9630.00†	90.954	269.482	8801.25	1025.79	-9.27	-1025.75	0.00		
9730.00†	90.954	269.482	8799.58	1125.78	-10.18	-1125.73	0.00		
9830.00†	90.954	269.482	8797.92	1225.76	-11.08	-1225.71	0.00		
9930.00†	90.954	269.482	8796.25	1325.75	-11.99	-1325.70	0.00		

Planned Wellpath Report

Plan #1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Concho O&G**	Slot	**#2H_SHL**
Area	**Chavez County, NM**	Well	**#2H**
Field	**Section 14 T15S R31E (Andromeda)**	Wellbore	**#2H PWB**
Facility	**Andromeda Federal #2H**		

WELLPATH DATA (54 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
10030.00†	90.954	269.482	8794.59	1425.74	-12.89	-1425.68	0.00		
10130.00†	90.954	269.482	8792.92	1525.72	-13.79	-1525.66	0.00		
10230.00†	90.954	269.482	8791.26	1625.71	-14.70	-1625.64	0.00		
10330.00†	90.954	269.482	8789.59	1725.69	-15.60	-1725.62	0.00		
10430.00†	90.954	269.482	8787.93	1825.68	-16.50	-1825.61	0.00		
10530.00†	90.954	269.482	8786.26	1925.67	-17.41	-1925.59	0.00		
10630.00†	90.954	269.482	8784.60	2025.65	-18.31	-2025.57	0.00		
10730.00†	90.954	269.482	8782.93	2125.64	-19.22	-2125.55	0.00		
10830.00†	90.954	269.482	8781.27	2225.62	-20.12	-2225.53	0.00		
10930.00†	90.954	269.482	8779.60	2325.61	-21.02	-2325.52	0.00		
11030.00†	90.954	269.482	8777.94	2425.60	-21.93	-2425.50	0.00		
11130.00†	90.954	269.482	8776.27	2525.58	-22.83	-2525.48	0.00		
11230.00†	90.954	269.482	8774.60	2625.57	-23.74	-2625.46	0.00		
11330.00†	90.954	269.482	8772.94	2725.56	-24.64	-2725.44	0.00		
11430.00†	90.954	269.482	8771.27	2825.54	-25.54	-2825.43	0.00		
11494.54†	90.954	269.482	8770.20	2890.07	-26.13	-2889.96	0.00		Wolfcamp
11530.00†	90.954	269.482	8769.61	2925.53	-26.45	-2925.41	0.00		
11630.00†	90.954	269.482	8767.94	3025.51	-27.35	-3025.39	0.00		
11730.00†	90.954	269.482	8766.28	3125.50	-28.26	-3125.37	0.00		
11830.00†	90.954	269.482	8764.61	3225.49	-29.16	-3225.35	0.00		
11930.00†	90.954	269.482	8762.95	3325.47	-30.06	-3325.34	0.00		
12030.00†	90.954	269.482	8761.28	3425.46	-30.97	-3425.32	0.00		
12130.00†	90.954	269.482	8759.62	3525.44	-31.87	-3525.30	0.00		
12230.00†	90.954	269.482	8757.95	3625.43	-32.78	-3625.28	0.00		
12330.00†	90.954	269.482	8756.29	3725.42	-33.68	-3725.26	0.00		

Planned Wellpath Report

Plan #1

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Concho O&G**	Slot	**#2H_SHL**
Area	**Chavez County, NM**	Well	**#2H**
Field	**Section 14 T15S R31E (Andromeda)**	Wellbore	**#2H PWB**
Facility	**Andromeda Federal #2H**		

WELLPATH DATA (54 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
12430.00†	90.954	269.482	8754.62	3825.40	-34.58	-3825.25	0.00		
12530.00†	90.954	269.482	8752.96	3925.39	-35.49	-3925.23	0.00		
12630.00†	90.954	269.482	8751.29	4025.37	-36.39	-4025.21	0.00		
12707.61	90.954	269.482	8750.00	4102.98	-37.09	-4102.81	0.00	#2H BOL	

HOLE & CASING SECTIONS Ref Wellbore: #2H PWB Ref Wellpath: Plan #1

String/Diameter	Start MD [feet]	End MD [feet]	Interval [feet]	Start TVD [feet]	End TVD [feet]	Start N/S [feet]	Start E/W [feet]	End N/S [feet]	End E/W [feet]
8.75in Open Hole	8330.00	9092.40	762.40	8330.00	8810.20	0.00	0.00	-4.41	-488.25
7.875in Open Hole	9092.40	12707.61	3615.21	8810.20	8750.00	-4.41	-488.25	-37.09	-4102.81

TARGETS

Name	MD [feet]	TVD [feet]	North [feet]	East [feet]	Grid East [us survey feet]	Grid North [us survey feet]	Latitude [°]	Longitude [°]	Shape
1) #2H BHL	12707.61	8750.00	-37.09	-4102.81	704854.24	734407.51	33 01 03.883N	103 47 59.518W	point

SURVEY PROGRAM Ref Wellbore: #2H PWB Ref Wellpath: Plan #1

Start MD [feet]	End MD [feet]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	12707.61	NaviTrak (Standard)		#2H PWB

Concho O&G

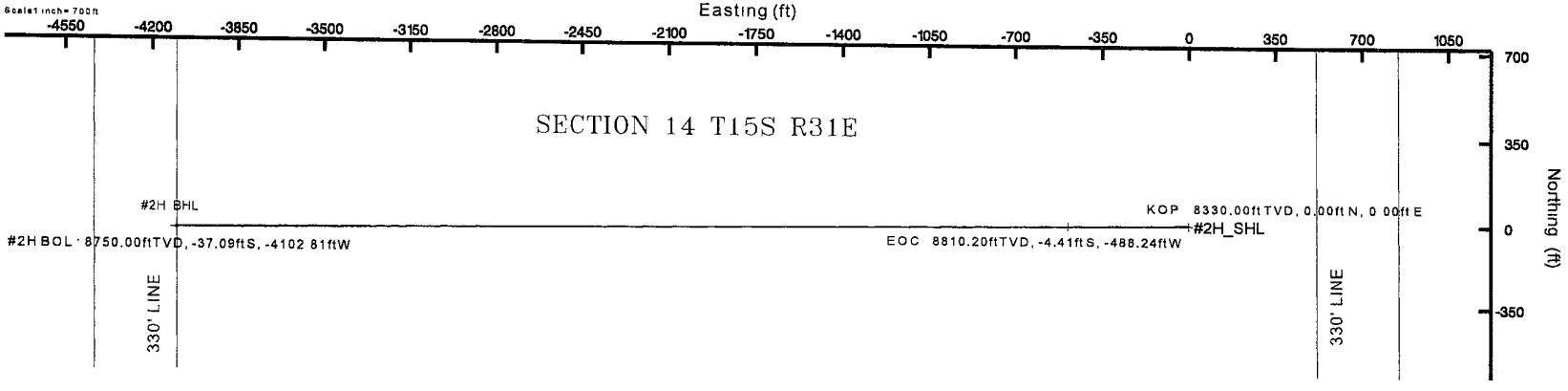
Location ChavezCounty,NM
Field Section14T15SR31E(Andromeda)
Facility AndromedaFederal#2H

Slot #2H_SHL
Well #2H
Wellbore #2HPWB

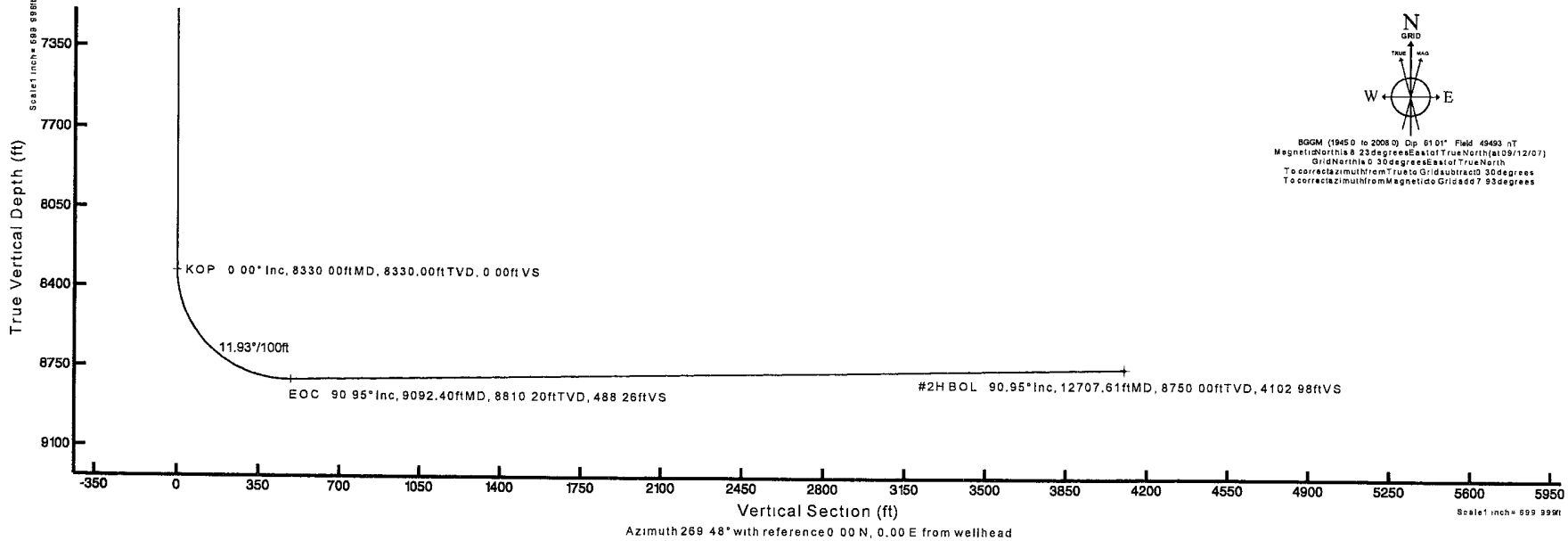
BAKER HUGHES INTEQ

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	269.482	0.00	0.00	0.00	0.00	0.00
KOP	8330.00	0.000	269.482	8330.00	0.00	0.00	0.00	0.00
EOC	9092.40	90.954	269.482	8810.20	-4.41	-488.24	11.93	488.26
#2H BOL	12707.61	90.954	269.482	8750.00	-37.09	-4102.81	0.00	4102.98

Plot reference wellpath is Plan #1	
True vertical depths are referenced to Rig on #2H_SHL(RT)	Grid System NAD83/TM New Mexico Siate Planes Eastern Zone (3001) US feet
Measured depths are referenced to Rig on #2H_SHL(RT)	North Reference Grid north
Rig on #2H_SHL(RT) to GRN_ELEV 4375 feet	Scale True distance
GRN_ELEV to Mud line (Facility Andromeda Federal #2H) 4375 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by gomeos on 9/12/2007

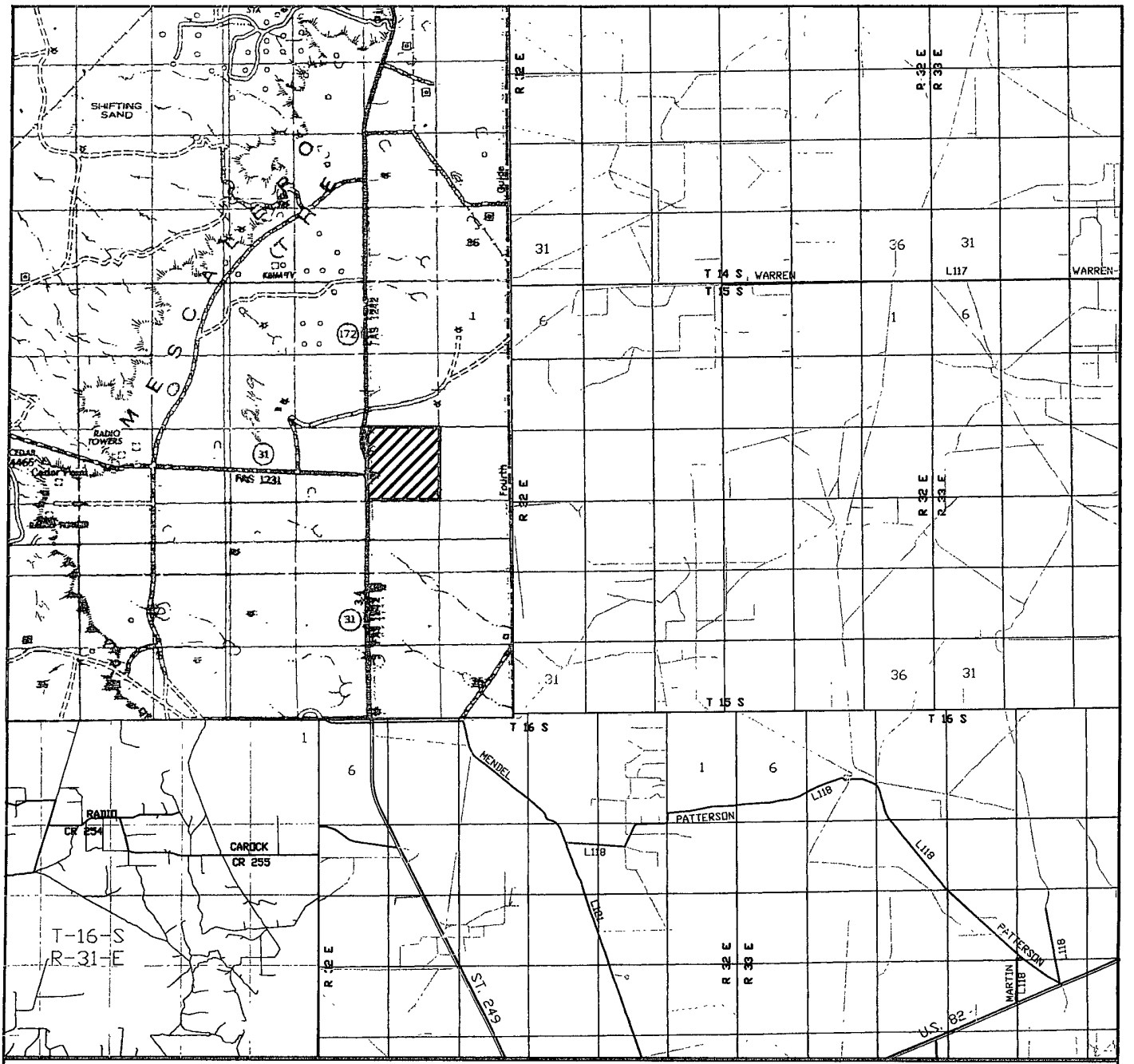


SECTION / HARD LINES ARE ESTIMATE ONLY AND ARE SUBJECT TO CUSTOMER APPROVAL.



Azimuth 269.48° with reference 0.00 N, 0.00 E from wellhead

Exhibit "B"



ANDROMEDA FEDERAL #2H
Located at 1980' FNL and 850 FEL
Section 14, Township 15 South, Range 31 East,
N.M.P.M., Chaves County, New Mexico.

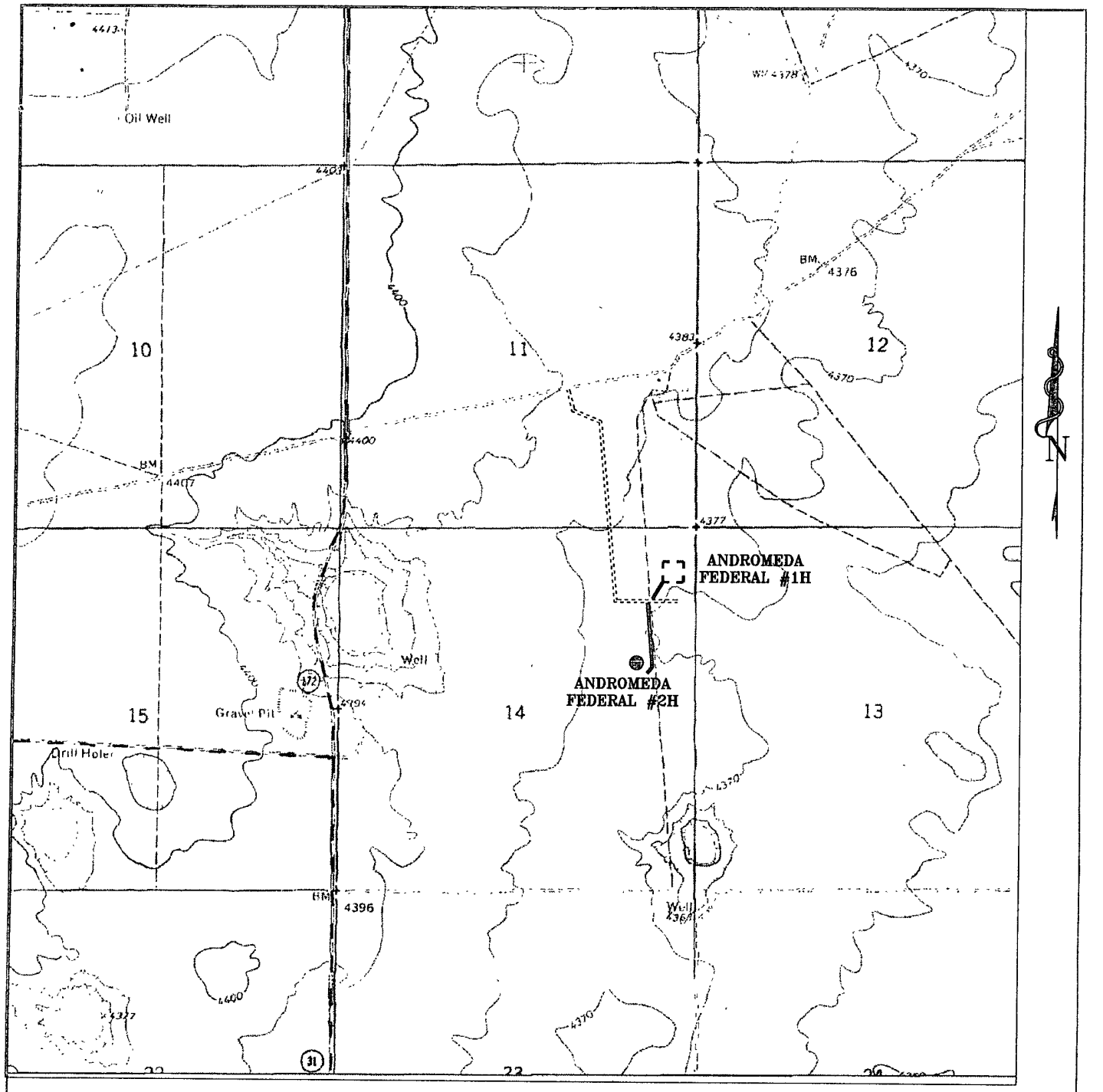
Basin Surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 – Office
(505) 392-3074 – Fax
basinsurveys.com

W.O. Number:	JMS 18365TR
Survey Date:	07-27-2007
Scale:	1" = 2 MILES
Date:	07-30-2007

C.O.G. OPERATING L.L.C.

Exhibit "D"



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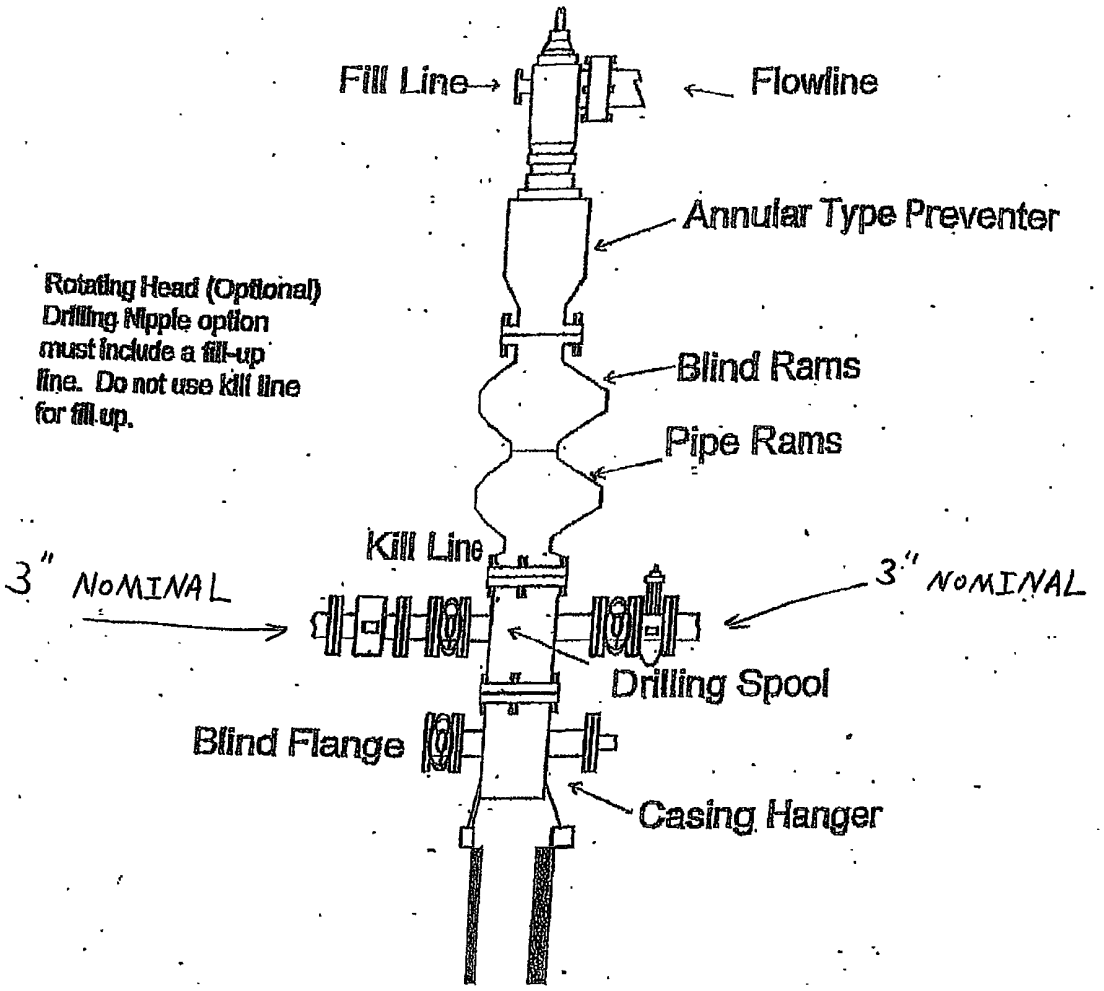
basinsurveys.com

W.O. Number: JMS 18365T
Survey Date: 07-27-2007
Scale: 1" = 2000'
Date: 07-30-2007

C.O.G. OPERATING L.L.C.

Exhibit "I"

BOPE SCHEMATIC



900 SERIES