

OCD-ARTESIA

SECRETARY'S POTASH

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

5 Lease Serial No

NM-114976

6 If Indian, Allottee or Tribe Name

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No

Golden Lane Federal 31 #1

9 API Well No

30-015-35763

10 Field and Pool, or Exploratory

Golden Lane, Morrow (Gas)

11 Sec, T., R, M, or Blk and Survey or Area

Section 31, T20S - R30E

12 County or Parish

Eddy County

13 State

NM

1a Type of Work ☒ DRILL

☐ REENTER

1b Type of Well ☐ Oil Well ☒ Gas Well ☐ Other

☒ Single Zone

☐ Multiple Zone

2 Name of Operator

Marbob Energy Corporation

3a Address

P.O. Box 227, Artesia, NM 88211-0227

3b Phone No (include area code)

505-748-3303

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface 400' FSL & 980' FWL

At proposed prod zone BHL: 660' FSL & 1980' FWL

CAPTAN CONTROLLED WATER BASIN

14 Distance in miles and direction from nearest town or post office*

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

320

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

19. Proposed Depth

12900

20. BLM/BIA Bond No on file

NMB00412

NMB 000412

CR 6/01/07

21 Elevations (Show whether DF, KDB, RT, GL, etc.)

3406'

22 Approximate date work will start*

July 1, 2007

23 Estimated duration

45 Days

24. Attachments

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

1 Well plat certified by a registered surveyor

2 A Drilling Plan

3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)

4 Bond to cover the operations unless covered by 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 authorized officer

25 Signature

Title

Land Department

Approved by (Signature)

Title

Name (Printed Typed)

Nancy Agnew

Date

6/1/07

Name (Printed Typed)

Office

Date

7-23-07

NM STATE OFFICE

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 States any false, fictitious or fraudulent statements

*(Instructions on reverse)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL FOR TWO YEARS

willfully to make to any department or agency of the United

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED



NSL Drill Only

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Date: June 1, 2007

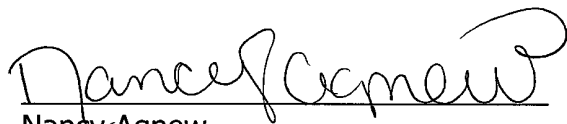
Lease #: **NM-114976**
Golden Lane Federal 31 #1

Legal Description: Sec. 31-T20S-R30E
Eddy County, New Mexico

Formation(s): Morrow

Bond Coverage: Statewide

BLM Bond File #: ~~NMB00412~~ *NMB 000 412* *CR*
6/1/07


Nancy Agnew
Land Department



DISTRICT I
1625 N. FRENCH DR., HOBBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

DISTRICT II
1501 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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 77560	Pool Name GOLDEN LANE; MORROW (GAS)
Property Code	Property Name GOLDEN LANE 31 FEDERAL	Well Number 1
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3405'

Surface Location

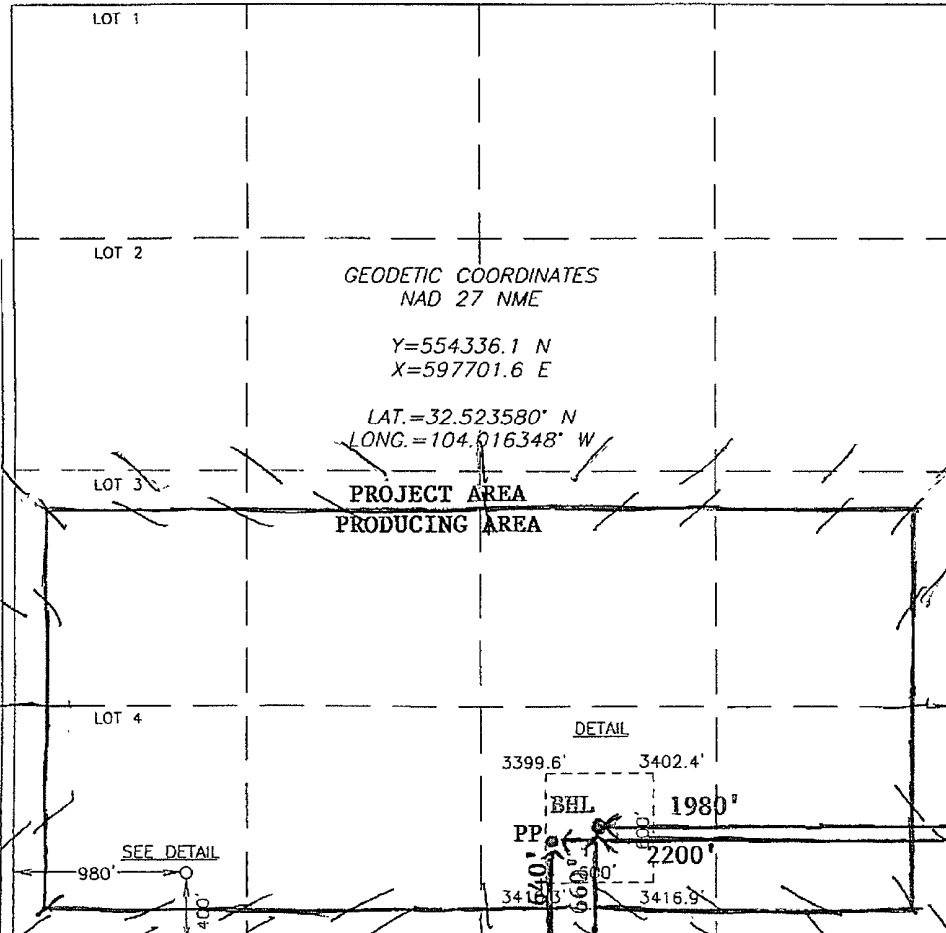
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	31	20-S	30-E		400	SOUTH	980	WEST	EDDY

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
0	31	20-S	30-E		660	SOUTH	1980	EAST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><u>Nancy T. Agnew</u> 8/20/07 Signature Date</p> <p>Nancy T. Agnew Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>MAY 15, 2007 Date Surveyed AR</p> <p>Signature & Seal of Professional Surveyor <u>Ronald J. Eidson</u> 5/23/07 07.11.0551</p> <p>Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239</p>
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Pathfinder Energy Planning Report

Company: Marbob Energy		Date: 08/14/2007	Time: 11:02:36	Page: 1
Field: Golden Lane 31 Federal #1		Co-ordinate(NE) Reference: Site: Golden Lane 31 Federal #1		
Site: Golden Lane 31 Federal #1		Vertical (TVD) Reference: RKB 3421.0		
Well: Golden Lane 31 Federal #1		Section (VS) Reference: Well (0.00N,0.00E,83.61Azi)		
Wellpath: OH		Plan: Plan #2 8-14-07		

Field: Golden Lane 31 Federal #1				
Map System:US State Plane Coordinate System 1927		Map Zone: New Mexico, Eastern Zone		
Geo Datum: NAD27 (Clarke 1866)		Coordinate System: Site Centre		
Sys Datum: Mean Sea Level		Geomagnetic Model: igrf2005		

Site: Golden Lane 31 Federal #1				
Site Position:	Northing:	554336.10 ft	Latitude:	32 31 24.888 N
From: Map	Easting:	597701.60 ft	Longitude:	104 0 58.852 W
Position Uncertainty:	0.00 ft		North Reference:	Grid
Ground Level:	3405.00 ft		Grid Convergence:	0.17 deg

Well: Golden Lane 31 Federal #1				
Slot Name:				
Well Position:	+N-S	0.00 ft	Northing:	554336.10 ft
	+E-W	0.00 ft	Easting :	597701.60 ft
Position Uncertainty:	0.00 ft		Latitude:	32 31 24.888 N
			Longitude:	104 0 58.852 W

Wellpath: OH		Drilled From:		Surface
		Tie-on Depth:		0.00 ft
Current Datum:	RKB	Height	3421.00 ft	Above System Datum:
Magnetic Data:	08/14/2007			Mean Sea Level
Field Strength:	49178 nT			Declination:
Vertical Section:	Depth From (TVD)	+N-S		Mag Dip Angle:
	ft	ft		ft
				Direction
				deg
	12900.00	0.00	0.00	83.61

Plan: Plan #2 8-14-07		Date Composed:		08/14/2007
Principal: No		Version:		1
		Tied-to:		From Surface

Plan Section Information										
MD	Incl	Azim	TVD	+N-S	+E-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	83.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	83.61	4000.00	0.00	0.00	0.00	0.00	0.00	83.61	
4503.63	15.11	83.61	4497.82	7.35	65.61	3.00	3.00	0.00	83.61	
13206.67	15.11	83.61	12900.00	260.00	2320.00	0.00	0.00	0.00	0.00	Target PBHL 8/14/07

Survey										
MD	Incl	Azim	TVD	+N-S	+E-W	VS	DLS	Build	Turn	Tool/Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	83.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	83.61	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	83.61	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	83.61	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	83.61	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	83.61	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	83.61	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	83.61	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	83.61	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	83.61	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	83.61	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	83.61	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	83.61	1200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1300.00	0.00	83.61	1300.00	0.00	0.00	0.00				

Pathfinder Energy

Planning Report

Company: Marbob Energy
Field: Golden Lane 31 Federal #1
Site: Golden Lane 31 Federal #1
Well: Golden Lane 31 Federal #1
Wellpath: OH

Date: 08/14/2007 **Time:** 11:02:36 **Page:** 2
Co-ordinate(NE) Reference: Site: Golden Lane 31 Federal #1
Vertical (TVD) Reference: RKB 3421.0
Section (VS) Reference: Well (0.00N,0.00E,83.61Azi)
Plan: Plan #2 8-14-07

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1700.00	0.00	83.61	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	83.61	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	83.61	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	83.61	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	83.61	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	83.61	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	83.61	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	83.61	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	83.61	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	83.61	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	83.61	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	83.61	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	83.61	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	83.61	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	83.61	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	83.61	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	83.61	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3400.00	0.00	83.61	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	83.61	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3600.00	0.00	83.61	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	83.61	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	83.61	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3900.00	0.00	83.61	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	83.61	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 4000' MD/TVD w/ 3"
4100.00	3.00	83.61	4099.95	0.29	2.60	2.62	3.00	3.00	0.00	
4200.00	6.00	83.61	4199.63	1.17	10.40	10.46	3.00	3.00	0.00	
4300.00	9.00	83.61	4298.77	2.62	23.37	23.51	3.00	3.00	0.00	
4400.00	12.00	83.61	4397.08	4.65	41.48	41.74	3.00	3.00	0.00	
4500.00	15.00	83.61	4494.31	7.25	64.67	65.08	3.00	3.00	0.00	EOB @ 4504' MD/4498' TVD
4503.63	15.11	83.61	4497.82	7.35	65.61	66.02	3.00	3.00	0.00	
4600.00	15.11	83.61	4590.85	10.15	90.57	91.14	0.00	0.00	0.00	
4700.00	15.11	83.61	4687.40	13.05	116.48	117.20	0.00	0.00	0.00	
4800.00	15.11	83.61	4783.94	15.96	142.38	143.27	0.00	0.00	0.00	
4900.00	15.11	83.61	4880.48	18.86	168.28	169.34	0.00	0.00	0.00	
5000.00	15.11	83.61	4977.02	21.76	194.19	195.40	0.00	0.00	0.00	
5100.00	15.11	83.61	5073.57	24.67	220.09	221.47	0.00	0.00	0.00	
5200.00	15.11	83.61	5170.11	27.57	245.99	247.53	0.00	0.00	0.00	
5300.00	15.11	83.61	5266.65	30.47	271.90	273.60	0.00	0.00	0.00	
5400.00	15.11	83.61	5363.20	33.37	297.80	299.66	0.00	0.00	0.00	
5500.00	15.11	83.61	5459.74	36.28	323.70	325.73	0.00	0.00	0.00	
5600.00	15.11	83.61	5556.28	39.18	349.61	351.80	0.00	0.00	0.00	
5700.00	15.11	83.61	5652.83	42.08	375.51	377.86	0.00	0.00	0.00	
5800.00	15.11	83.61	5749.37	44.99	401.41	403.93	0.00	0.00	0.00	
5900.00	15.11	83.61	5845.91	47.89	427.32	429.99	0.00	0.00	0.00	
6000.00	15.11	83.61	5942.46	50.79	453.22	456.06	0.00	0.00	0.00	
6100.00	15.11	83.61	6039.00	53.70	479.12	482.12	0.00	0.00	0.00	
6200.00	15.11	83.61	6135.54	56.60	505.03	508.19	0.00	0.00	0.00	
6300.00	15.11	83.61	6232.09	59.50	530.93	534.26	0.00	0.00	0.00	
6400.00	15.11	83.61	6328.63	62.40	556.84	560.32	0.00	0.00	0.00	
6500.00	15.11	83.61	6425.17	65.31	582.74	586.39	0.00	0.00	0.00	
6600.00	15.11	83.61	6521.72	68.21	608.64	612.45	0.00	0.00	0.00	
6700.00	15.11	83.61	6618.26	71.11	634.55	638.52	0.00	0.00	0.00	
6800.00	15.11	83.61	6714.80	74.02	660.45	664.58	0.00	0.00	0.00	

Pathfinder Energy

Planning Report

Company: Marbob Energy Field: Golden Lane 31 Federal #1 Site: Golden Lane 31 Federal #1 Well: Golden Lane 31 Federal #1 Wellpath: OH	Date: 08/14/2007 Co-ordinate(NE) Reference: Site: Golden Lane 31 Federal #1 Vertical (TVD) Reference: RKB 3421.0 Section (VS) Reference: Well (0.00N,0.00E,83.61Azi) Plan: Plan #2 8-14-07
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Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6900.00	15.11	83.61	6811.34	76.92	686.35	690.65	0.00	0.00	0.00	
7000.00	15.11	83.61	6907.89	79.82	712.26	716.71	0.00	0.00	0.00	
7100.00	15.11	83.61	7004.43	82.72	738.16	742.78	0.00	0.00	0.00	
7200.00	15.11	83.61	7100.97	85.63	764.06	768.85	0.00	0.00	0.00	
7300.00	15.11	83.61	7197.52	88.53	789.97	794.91	0.00	0.00	0.00	
7400.00	15.11	83.61	7294.06	91.43	815.87	820.98	0.00	0.00	0.00	
7500.00	15.11	83.61	7390.60	94.34	841.77	847.04	0.00	0.00	0.00	
7600.00	15.11	83.61	7487.15	97.24	867.68	873.11	0.00	0.00	0.00	
7700.00	15.11	83.61	7583.69	100.14	893.58	899.17	0.00	0.00	0.00	
7800.00	15.11	83.61	7680.23	103.05	919.48	925.24	0.00	0.00	0.00	
7900.00	15.11	83.61	7776.78	105.95	945.39	951.31	0.00	0.00	0.00	
8000.00	15.11	83.61	7873.32	108.85	971.29	977.37	0.00	0.00	0.00	
8100.00	15.11	83.61	7969.86	111.75	997.19	1003.44	0.00	0.00	0.00	
8200.00	15.11	83.61	8066.41	114.66	1023.10	1029.50	0.00	0.00	0.00	
8300.00	15.11	83.61	8162.95	117.56	1049.00	1055.57	0.00	0.00	0.00	
8400.00	15.11	83.61	8259.49	120.46	1074.91	1081.63	0.00	0.00	0.00	
8500.00	15.11	83.61	8356.04	123.37	1100.81	1107.70	0.00	0.00	0.00	
8600.00	15.11	83.61	8452.58	126.27	1126.71	1133.77	0.00	0.00	0.00	
8700.00	15.11	83.61	8549.12	129.17	1152.62	1159.83	0.00	0.00	0.00	
8800.00	15.11	83.61	8645.66	132.08	1178.52	1185.90	0.00	0.00	0.00	
8900.00	15.11	83.61	8742.21	134.98	1204.42	1211.96	0.00	0.00	0.00	
9000.00	15.11	83.61	8838.75	137.88	1230.33	1238.03	0.00	0.00	0.00	
9100.00	15.11	83.61	8935.29	140.78	1256.23	1264.09	0.00	0.00	0.00	
9200.00	15.11	83.61	9031.84	143.69	1282.13	1290.16	0.00	0.00	0.00	
9300.00	15.11	83.61	9128.38	146.59	1308.04	1316.23	0.00	0.00	0.00	
9400.00	15.11	83.61	9224.92	149.49	1333.94	1342.29	0.00	0.00	0.00	
9500.00	15.11	83.61	9321.47	152.40	1359.84	1368.36	0.00	0.00	0.00	
9600.00	15.11	83.61	9418.01	155.30	1385.75	1394.42	0.00	0.00	0.00	
9700.00	15.11	83.61	9514.55	158.20	1411.65	1420.49	0.00	0.00	0.00	
9800.00	15.11	83.61	9611.10	161.11	1437.55	1446.55	0.00	0.00	0.00	
9900.00	15.11	83.61	9707.64	164.01	1463.46	1472.62	0.00	0.00	0.00	
10000.00	15.11	83.61	9804.18	166.91	1489.36	1498.68	0.00	0.00	0.00	
10100.00	15.11	83.61	9900.73	169.81	1515.26	1524.75	0.00	0.00	0.00	
10200.00	15.11	83.61	9997.27	172.72	1541.17	1550.82	0.00	0.00	0.00	
10300.00	15.11	83.61	10093.81	175.62	1567.07	1576.88	0.00	0.00	0.00	
10400.00	15.11	83.61	10190.36	178.52	1592.98	1602.95	0.00	0.00	0.00	
10500.00	15.11	83.61	10286.90	181.43	1618.88	1629.01	0.00	0.00	0.00	
10600.00	15.11	83.61	10383.44	184.33	1644.78	1655.08	0.00	0.00	0.00	
10700.00	15.11	83.61	10479.98	187.23	1670.69	1681.14	0.00	0.00	0.00	
10800.00	15.11	83.61	10576.53	190.13	1696.59	1707.21	0.00	0.00	0.00	
10900.00	15.11	83.61	10673.07	193.04	1722.49	1733.28	0.00	0.00	0.00	
11000.00	15.11	83.61	10769.61	195.94	1748.40	1759.34	0.00	0.00	0.00	
11100.00	15.11	83.61	10866.16	198.84	1774.30	1785.41	0.00	0.00	0.00	
11200.00	15.11	83.61	10962.70	201.75	1800.20	1811.47	0.00	0.00	0.00	
11300.00	15.11	83.61	11059.24	204.65	1826.11	1837.54	0.00	0.00	0.00	
11400.00	15.11	83.61	11155.79	207.55	1852.01	1863.60	0.00	0.00	0.00	
11500.00	15.11	83.61	11252.33	210.46	1877.91	1889.67	0.00	0.00	0.00	
11600.00	15.11	83.61	11348.87	213.36	1903.82	1915.74	0.00	0.00	0.00	
11700.00	15.11	83.61	11445.42	216.26	1929.72	1941.80	0.00	0.00	0.00	
11800.00	15.11	83.61	11541.96	219.16	1955.62	1967.87	0.00	0.00	0.00	
11900.00	15.11	83.61	11638.50	222.07	1981.53	1993.93	0.00	0.00	0.00	
12000.00	15.11	83.61	11735.05	224.97	2007.43	2020.00	0.00	0.00	0.00	
12100.00	15.11	83.61	11831.59	227.87	2033.33	2046.06	0.00	0.00	0.00	
12200.00	15.11	83.61	11928.13	230.78	2059.24	2072.13	0.00	0.00	0.00	

Pathfinder Energy

Planning Report

Company: Marbob Energy Field: Golden Lane 31 Federal #1 Site: Golden Lane 31 Federal #1 Well: Golden Lane 31 Federal #1 Wellpath: OH	Date: 08/14/2007 Time: 11:02:36 Page: 4 Co-ordinate(NE) Reference: Site: Golden Lane 31 Federal #1 Vertical (TVD) Reference: RKB 3421.0 Section (VS) Reference: Well (0.00N,0.00E,83.61Azi) Plan: Plan #2 8-14-07
---	--

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
12300.00	15.11	83.61	12024.68	233.68	2085.14	2098.19	0.00	0.00	0.00	
12400.00	15.11	83.61	12121.22	236.58	2111.05	2124.26	0.00	0.00	0.00	
12500.00	15.11	83.61	12217.76	239.49	2136.95	2150.33	0.00	0.00	0.00	
12600.00	15.11	83.61	12314.30	242.39	2162.85	2176.39	0.00	0.00	0.00	
12700.00	15.11	83.61	12410.85	245.29	2188.76	2202.46	0.00	0.00	0.00	
12800.00	15.11	83.61	12507.39	248.19	2214.66	2228.52	0.00	0.00	0.00	
12900.00	15.11	83.61	12603.93	251.10	2240.56	2254.59	0.00	0.00	0.00	
13000.00	15.11	83.61	12700.48	254.00	2266.47	2280.65	0.00	0.00	0.00	
13100.00	15.11	83.61	12797.02	256.90	2292.37	2306.72	0.00	0.00	0.00	
13200.00	15.11	83.61	12893.56	259.81	2318.27	2332.79	0.00	0.00	0.00	
13206.67	15.11	83.61	12900.00	260.00	2320.00	2334.52	0.00	0.00	0.00	Target PBHL 8/14/07

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
Target PBHL 8/14/07 -Plan hit target		12900.00	260.00	2320.00	554596.10	600021.60	32	31	27.391 N	104	0	31.745 W

Annotation

MD ft	TVD ft	
4000.00	4000.00	KOP @ 4000' MD/TVD w/ 3° DLS
4503.63	4497.81	EOB @ 4504' MD/4498' TVD @ 15.11° Inc.

Marbob Energy

COMPANY DETAILS

Marbob Energy
2208 W Main St
Alameda, New Mexico

PATHFINDER

Field: Golden Lane 31 Federal #1

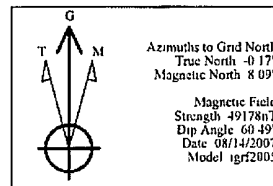
Site: Golden Lane 31 Federal #1

Well: Golden Lane 31 Federal #1

Wellpath: OH

Plan: Plan #2 8-14-07

Calculation Method Minimum Curvature
Error System Systematic Ellipse
Scan Method Closest Approach 3D
Error Surface Elliptical Cone
Warning Method Error Ratio



TARGET DETAILS

Name	TVD	+N-S	+E-W	Shape
Target PBHL 8/14/07	12900.00	260.00	2320.00	Point

FIELD DETAILS

Golden Lane 31 Federal #1

Geodetic System US State Plane Coordinate System 1927
 Ellipsoid NAD27 (Clarke 1866)
 Zone New Mexico, Eastern Zone
 Magnetic Model igrf2005
 System Datum Mean Sea Level
 Local North Grid North

SITE DETAILS

Golden Lane 31 Federal #1

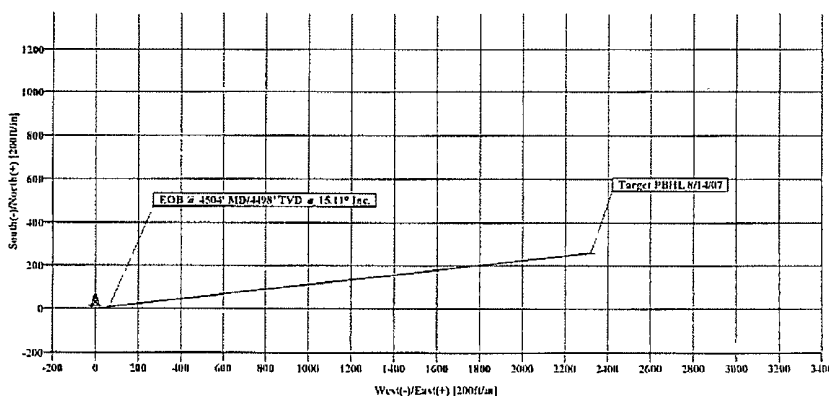
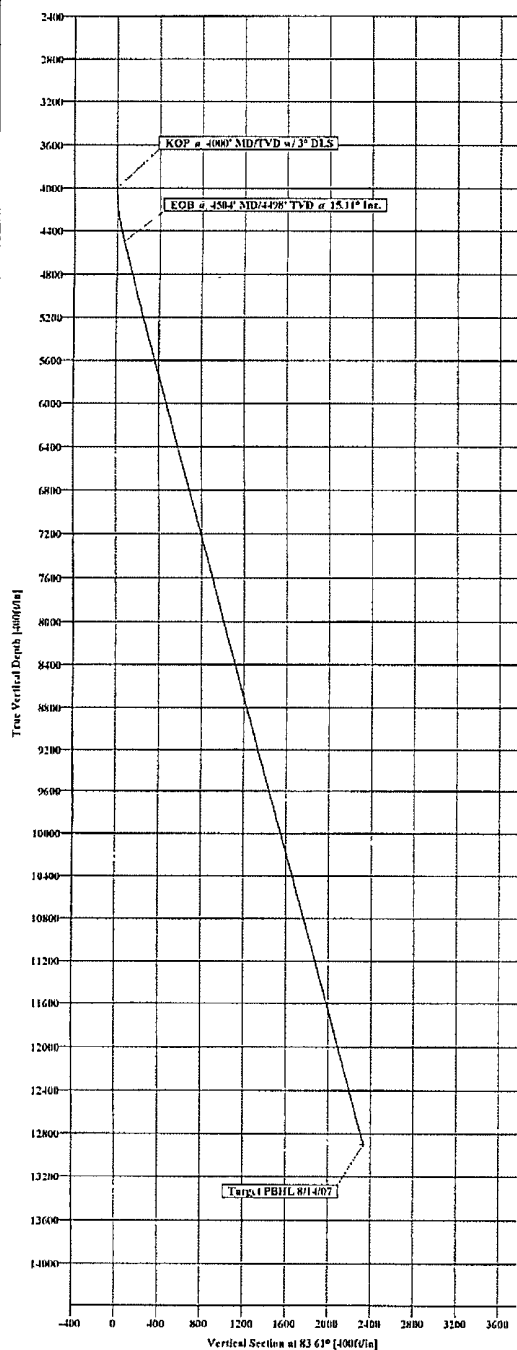
Site Centre Northing 554356.10
 Easting 597701.60
 Ground Level 3405.00
 Positional Uncertainty 0.00
 Convergence 0.17

ANNOTATIONS

No	TVD	MD	Annotation
1	4000.00	4000.00	KOP @ 4000' MD/TVD w/ 3" DLS
2	4497.81	4503.63	EOB @ 4504' MD/4498' TVD @ 15.11° Inc.

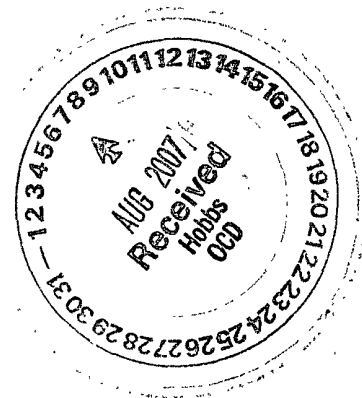
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	83.61	0.00	0.00	0.00	0.00	0.00	0.00	
2	4000.00	0.00	83.61	4000.00	0.00	0.00	0.00	83.61	0.00	
3	4503.63	15.11	83.61	4497.82	7.35	65.61	3.00	83.61	66.02	
4	13206.67	15.11	83.61	12900.00	260.00	2320.00	0.00	0.00	2334.52	Target PBHL 8/14/07



**MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM**

**Golden Lane Federal 31 #1
400' FSL & 980' FWL
BHL: 660' FSL & 1980' FWL
Section 31-T20S-R30E
Eddy County, New Mexico**



In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following ten items of pertinent information in accordance with BLM requirements.

1. The geological surface formation is Permian.
2. The estimated tops of geologic markers are as follows:

Rustler	275	Bone Spring	6500
Top of Salt	500	Wolfcamp	9900
Base of Salt	1600	Strawn	11100
Yates	1700	Atoka	11500
Capitan	2100	Morrow	12200
Delaware	3700	TD	12900

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Delaware	3700'	Oil
Bone Spring	6500'	Oil
Wolfcamp	9900'	Oil
Strawn	11100'	Oil
Atoka	11500'	Gas
Morrow	12200'	Gas

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 20" casing at 300' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons above 200'.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	Wt	Grade	
26"	0 – 300'	20"	94#	H-40	Buttress
17 1/2"	300'–1700'	13 3/8"	54#	J-55	STC
12 1/4"	1700' - 3700'	9 5/8"	36#	J-55	STC
7 7/8"	3700'-12900'	5 1/2"	17#	P110	LTC

5. Proposed Cement Program:

20" Surface Casing: Cement w/ 400 sx Class C. Circulate to surface.

13 3/8" Intermediate Casing: Cement w/ 700 sx Class C. Circulate to surface.

9 5/8" Intermediate Casing: Cement w/ 700 sx Class C. TOC 1500'.

5 1/2" Production Casing: Cement w/ 850 sx Class C. TOC 3400'.

5. Pressure Control Equipment: See Exhibit 1. Marbob proposes to nipple up on the 20" casing with a 2M system, testing it to 1000# with rig pumps, then nipple up on the 13 3/8" casing with a 2M system, tested to 1000# with rig pumps, then nipple up on the 9 5/8" casing with the 5M System, tested to 5000# before drilling out.

6. Mud Program: The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 - 300'	Fresh Wtr	8.4 - 9.2	32 - 36	N.C.
300'-1700'	Brine	9.9 - 10.2	28 - 32	N.C.
1700' - 3700'	Fresh Wtr	8.8 - 9.2	28 - 32	N.C.
3700'-12900'	Cut Brine	9.9 - 10.2	28 - 32	N.C.

7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.

8. Testing, Logging and Coring Program:

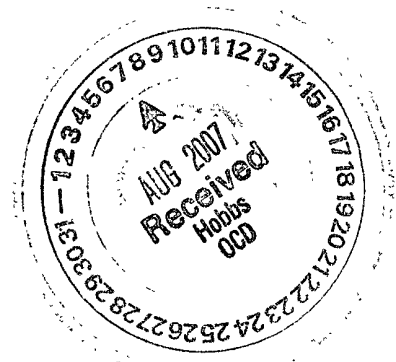
No drillstem tests are anticipated.

The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csg Log, and Depth Control Log.

No conventional coring is anticipated.

9. No abnormal pressures or temperatures are anticipated.

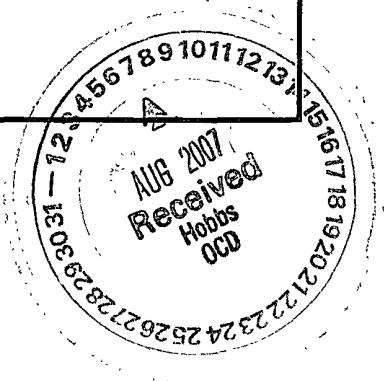
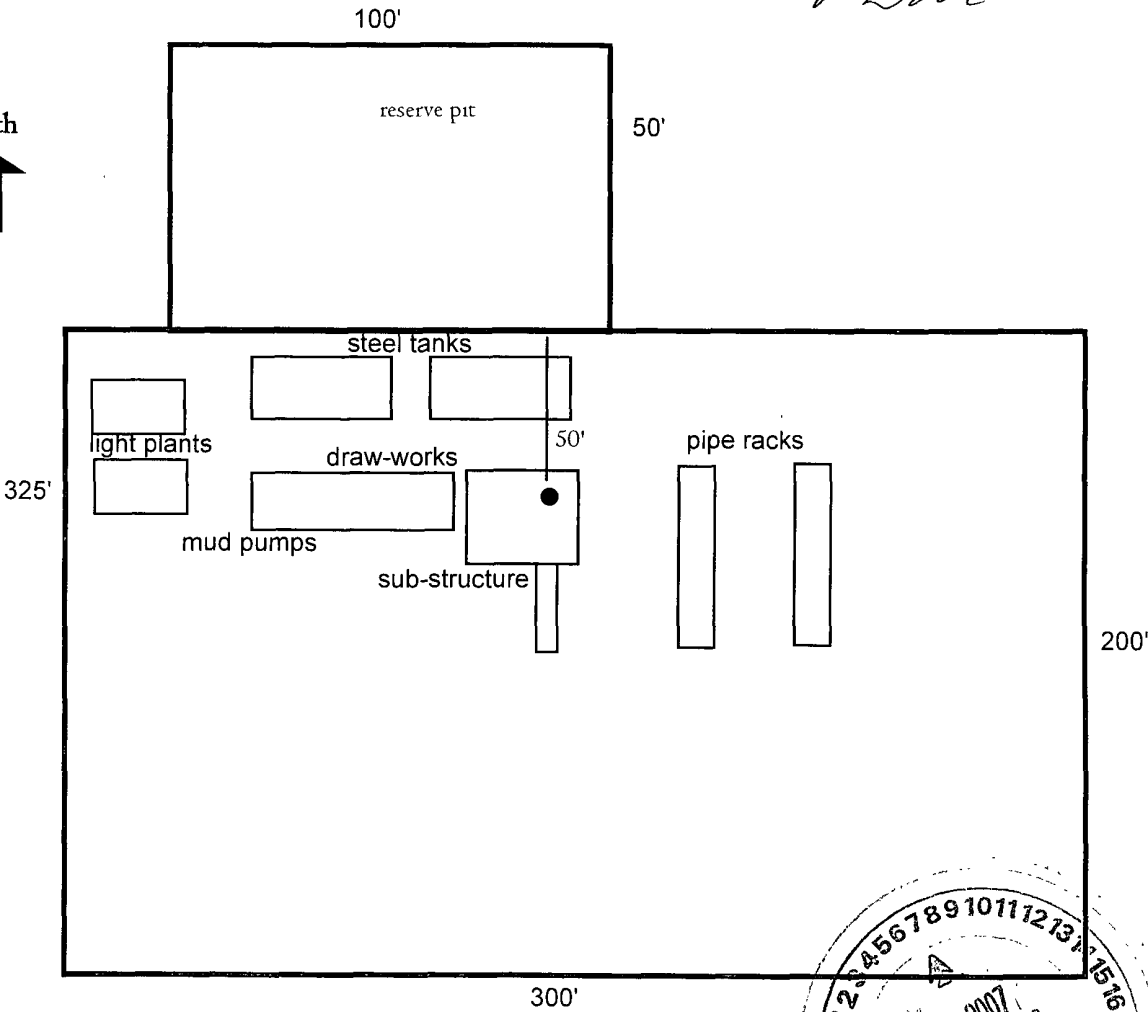
10. Anticipated starting date: As soon as possible after approval.



Well Site Lay-Out Plat

(Deep)

*Pite Southeast
V-Door Southwest*



Golden Lane Federal 31 #1
400' FSL & 980' FWL
BHL: 660' FSL & 1980' FWL
Section 31, T20S, R30E
Eddy County, New Mexico

EXHIBIT THREE

BOPE SCHEMATIC

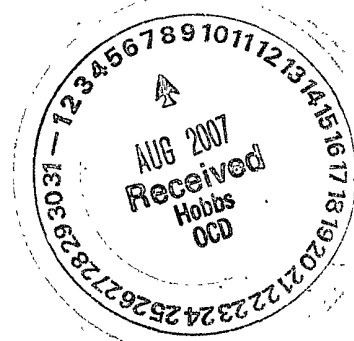
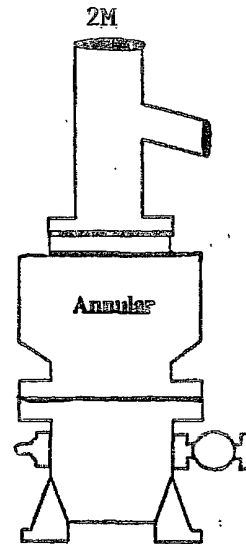
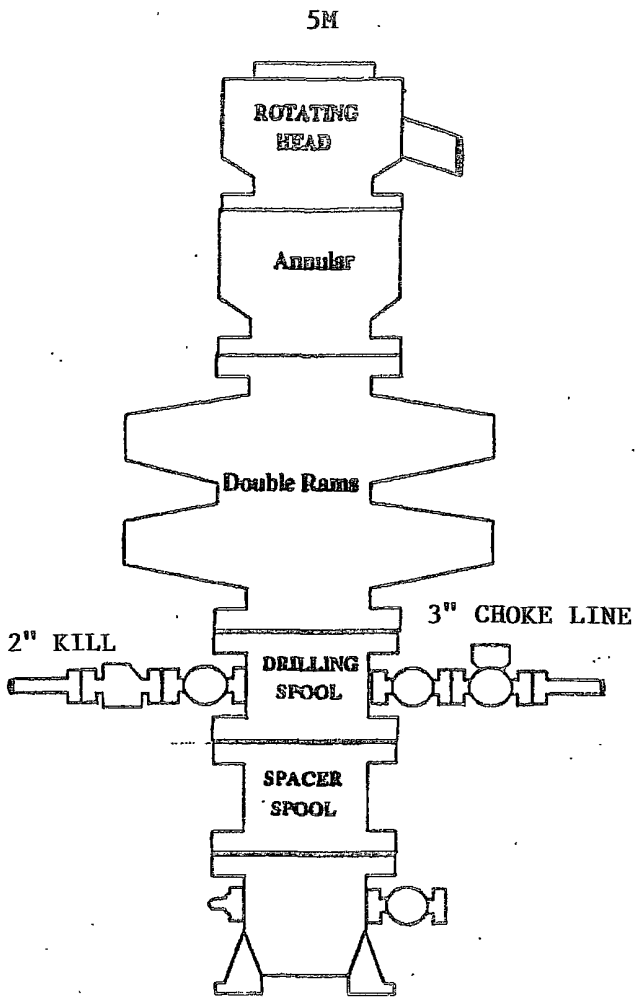
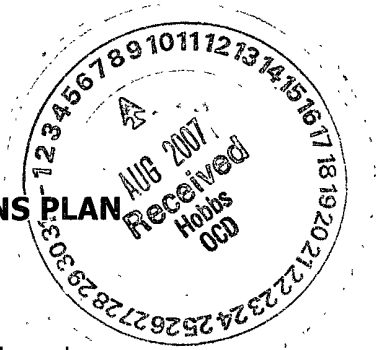


Exhibit One

MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN



I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- A. The hazards and characteristics of hydrogen sulfide (H₂S).
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- A. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II.**H₂S SAFETY EQUIPMENT AND SYSTEMS**

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well Control Equipment:

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H₂S detection and monitoring equipment:

2 - portable H₂S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

D. Visual warning systems:

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.



E. Mud Program:

The mud program has been designed to minimize the volume of H₂S circulated to the surface.

A mud-gas separator will be utilized.



F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

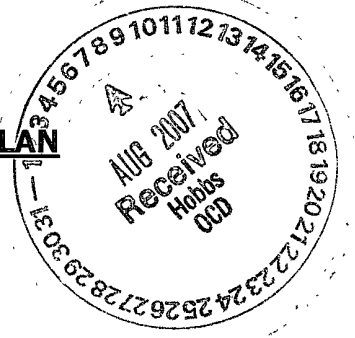
- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE**

MARBOB ENERGY CORPORATION

1-505-748-3303

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Golden Lane Federal 31 #1
400' FSL & 980' FWL
BHL: 660' FSL & 1980' FWL
Section 31-T20S-R30E
Eddy County, New Mexico



This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2.

DIRECTIONS:

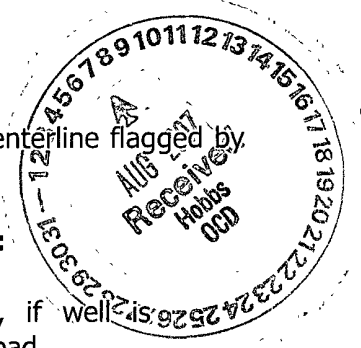
From the intersection of U.S. HWY. #62-180 and St. Hwy. #360 go East on U.S. Hwy. #62-180 for approx. 1.0 mile. Turn right and go south on winding caliche lease Rd. approx. 1.1 miles. Turn right on two track road and go Northwest approx. 1.0 miles. This location is approx. 230 feet to the right.

2. PLANNED ACCESS ROAD:

An existing access road is already in place.

- A. The maximum width of the running surface will be 10'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low-water crossings, or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM-approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.

- F. The proposed access road as shown in Exhibit 2 has been centerline flagged by John West Engineering.



3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. Marbob Energy Corporation proposes a collection facility, if well productive, to be located on Golden Lane Federal 31 #1 well pad.

4. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the lined pit.
- B. Drilling fluids will be allowed to evaporate in the lined pit until the pit is dry.
- C. Water produced during completion may be disposed into the lined reserve pit.
- D. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained to prevent scattering by the wind.

5. WELLSITE LAYOUT:

- A. Exhibit 3 shows the relative location and dimensions of the well pad, the pit.
- B. The reserve pit will be lined with high quality plastic sheeting.

6. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Reserve pit will be fenced until they have dried and been leveled.
- C. All rehabilitation and/or vegetation requirements of the BLM will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level within 90 days after abandonment.

7. SURFACE OWNERSHIP:

The well site and lease are located on Federal surface

- A. The area around the well site is grassland and the top soil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- B. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

8. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

9. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

Ross Duncan, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)513-2544

B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5489

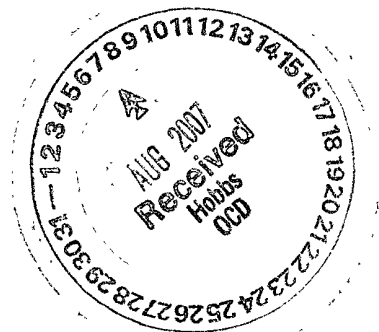
10. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

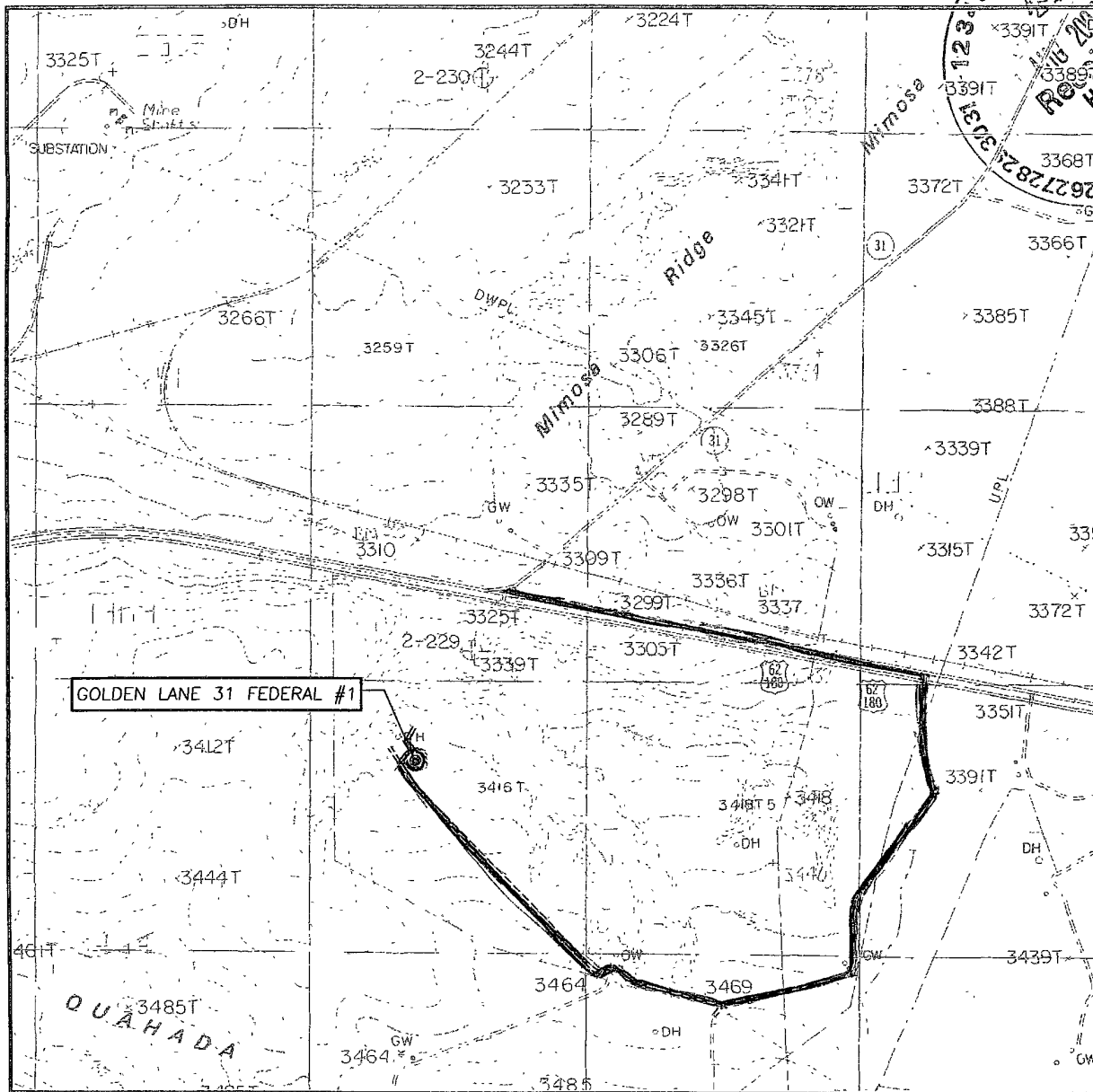
Date

6/1/07

Ross Duncan
Land Department



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
ILLINOIS CAMP-SE, N.M. - 10'
SUPPLEMENTAL - 5'

SEC. 31 TWP. 20-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO


DESCRIPTION 400' FSL & 980' FWL

ELEVATION 3405'

OPERATOR MARBOB ENERGY CORPORATION

LEASE GOLDEN LANE 31 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
ILLINOIS CAMP-SE, N.M.

 EXISTING ROADS

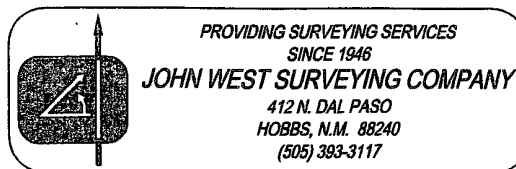
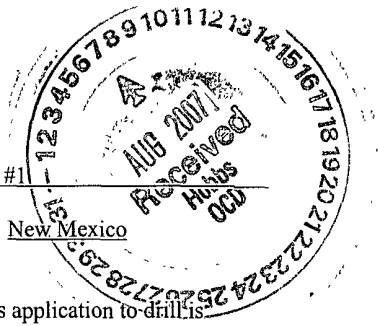


EXHIBIT #2

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Marbob Energy Corporation Well Name & #: Golden Lane 31 Fed. #1
 Location 400 F S L & 980 F W L; Sec. 31, T. 20 S., R. 30 E.
 Lease #: NM-114976 County: Eddy State: New Mexico
 Bottom Hole: 660 FSL & 1980 FWL, Section 31, T. 20 S., R. 30 E



The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- () Lesser Prairie Chicken (stips attached) () Flood plain (stips attached)
 () San Simon Swale (stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

- (x) The BLM will monitor construction of this drill site. Notify the (x) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.
 (x) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.
 () All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.
 (x) Other. **V-Door Southwest (Reserve pits to the Southeast). Restrict pad size to the Northwest and to the Northeast to 125 ft. due to close proximity of a drainage.**

III. WELL COMPLETION REQUIREMENTS

- () A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.
 (x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. If broadcasting, the seeding rate must be doubled.
 () A. Seed Mixture 1 (Loamy Sites)
 Side Oats Grama (*Bouteloua curtipendula*) 5.0
 Sand Dropseed (*Sporobolus cryptandrus*) 1.0
 Plains lovegrass (*Eragrostis intermedia*) 0.5
 (x) B. Seed Mixture 2 (Sandy Sites)
 Sand Dropseed (*Sporobolus crptandrus*) 1.0
 Sand Lovegrass (*Eragrostis trichodes*) 1.0
 Plains Bristlegrass (*Setaria magrostachya*) 2.0
 () C. Seed Mixture 3 (Shallow Sites)
 Side oats Grama (*Bouteloua curtipendula*) 5.0
 Green Spangletop (*Leptochloa dubia*) 2.0
 Plains Bristlegrass (*Setaria magrostachya*) 1.0
 () D. Seed Mixture 4 (Gypsum Sites)
 Alkali Sacaton (*Sporobolus airoides*) 1.0
 Four-Wing Saltbush (*Atriplex canescens*) 5.0
 () OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

Painting Requirement:

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, shale green, Munsell Soil Color Chart Number 5Y 4/2.

() Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

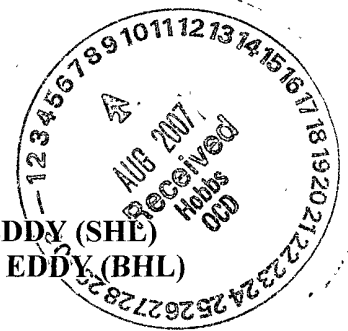
All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.



CONDITIONS OF APPROVAL – DRILLING

Operator's Name: MARBOB ENERGY CORPORATION
Well Name & No. 1 – GOLDEN LANE FEDERAL 31
Location: 400' FSL & 980' FWL – SEC 31 – T20S – R30E – EDDY (SHL)
660' FSL & 1980' FWL – SEC 31 – T20-S – R30E – EDDY (BHL)
Lease: NM-114976

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I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:
1. Spudding well
 2. Setting and/or Cementing of all casing strings
 3. BOPE tests
- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. 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.
- C. If floor controls are required, (3M or Greater) 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.

II. CASING:

- A. The 20 inch surface casing shall be set at 300 feet and cemented to the surface.
1. 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.
 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 4. If cement falls back, remedial action will be done prior to drilling out that string.
- B. The minimum required fill of cement behind the 13-3/8 inch intermediate casing is cement shall circulate to the surface. If cement does not circulate see A.1 thru 4.
- C. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is cement shall tie back 200 feet into the 13-3/8 inch casing.

D. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall tie back 200 feet into the 9-5/8 inch casing.

E. 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 I joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

- A. 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 Chap. 17 - API RP 53.
- B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) PSI.
- C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be 5000 (5M) PSI.
- D. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
1. The tests shall be done by an independent service company.
 2. The results of the test shall be reported to the appropriate BLM office.
 3. 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.
 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. 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.
 5. A variance to test the surface and intermediate casing and BOP/BOPE to the reduced pressure of 1000 psi with the rig pumps is approved.

IV. DRILLING MUD:

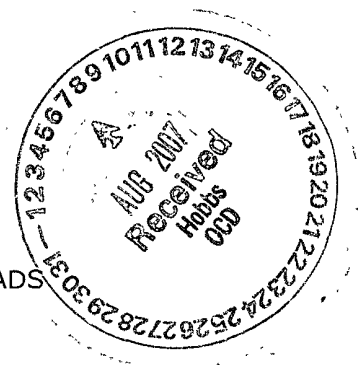
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well

LBabyak 6/6/07



BLM Lease #: NM-114976
Company Reference: Marbob Energy
Well # & Name: Golden Lane 31 #1



STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
CARLSBAD FIELD OFFICE

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

- A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all

damages to Federal lands resulting there from the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar. The Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☐ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

☒ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

☐ Flat-blading is authorized on segment(s) delineated on the attached map.



3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, out-sloping, in-sloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

X 300 foot intervals.

☐ locations staked in the field as per spacing intervals above.

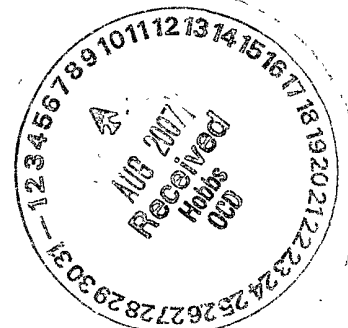
☐ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

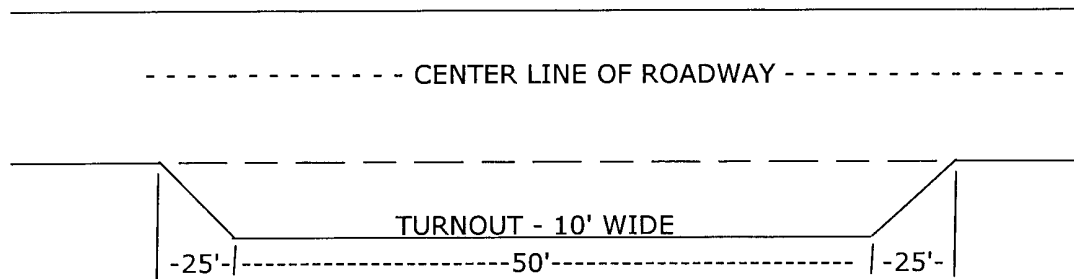
$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet



4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.



7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS:

