

N.M. Oil Cons. DIV-Div. 2

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1301 W. Grand Avenue
Artesia, NM 88210

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-112273	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Marbob Energy Corporation		7. If Unit or CA Agreement, Name and No.	
3a. Address PO Box 227, Artesia, NM 88211-0227		8. Lease Name and Well No. Collinscopy Federal #1	
3b. Phone No. (include area code) 505-748-3303		9. API Well No. 30-015-33758	
4. Location of Well (Report location and acreage with State requirements) At surface 1095' FSL & 430' FWL, Lot 4 At proposed prod. zone 1650' FS & 660' FWL per SN dated 11-2-04 B.H.D.		10. Field and Pool, or Exploratory Burton Flat; Morrow, East	
14. Distance in miles and direction from nearest town or post office*		11. Sec., T., R., M., or Blk. and Survey or Area Section 7, T20S, R30E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish Eddy	13. State NM
16. No. of Acres in lease 637.92		17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 12300'		20. BLM/BIA Bond No. on file 585716	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3310' GR		22. Approximate date work will start* 11/11/04	
		23. Estimated duration 21 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Melanie J. Parker</i>	Name (Printed Typed) Melanie J. Parker	Date 10/11/04
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Title

Land Department

Approved by (Signature) <i>William S. Credit</i>	Name (Printed Typed) William S. Credit	Date NOV 29 2004
Title FOR STATE DIRECTOR	Office 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.

APPROVAL FOR 1 YEAR

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 reverse)

Carbon Controlled Water Basin

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004
For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: **Marbob Energy Corporation**

Telephone: **505-748-3303**

e-mail address: **land2@marbob.com**

Address: **PO Box 227, Artesia, NM 88211-0227**

Facility or well name: **Collinsoscopy Federal No. 1** API #: _____

U/L or Qtr/Qtr **SWSW** Sec **7** T **20S** R **30E**

County: **Eddy**

Latitude _____

Longitude _____

NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness **12** mil Clay ☐ Volume _____ bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

RECEIVED

OCT 22 2004

OOB-ARTESIA

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)	
	50 feet or more, but less than 100 feet	(10 points)	
	100 feet or more	(0 points)	0 points
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)	
	No	(0 points)	0 points
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)	
	200 feet or more, but less than 1000 feet	(10 points)	
	1000 feet or more	(0 points)	0 points
	Ranking Score (Total Points)		0 points

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒, or an (attached) alternative OGD-approved plan ☐
Date: **October 22, 2004**

Printed Name/Title: **Melanie J. Parker / Land Department**

Signature _____

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval _____

Date: _____

Printed Name/Title _____

Signature _____

1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department.

1301 W. GRAND AVENUE, ARTESIA, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	73320	Burton Flat; Morrow, East (Gas)
Property Code	Property Name	Well Number
	COLLINSOSCOPY FEDERAL	1
OGRID No.	Operator Name	Elevation
14049	MARBOB ENERGY CORPORATION	3310'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	7	20-S	30-E		1095	SOUTH	430	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
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Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>LOT 1</p> <p>39.49 AC.</p> <p>LOT 2</p> <p>39.44 AC. LOT 3 39.33 AC.</p> <p style="text-align: center;">GEODETC COORDINATES NAD 27 NME</p> <p style="text-align: center;">Y=576144.4 N X=597137.0 E</p> <p style="text-align: center;">LAT.=32°35'00.71" N LONG.=104°01'04.69" W</p> <p>3313.5' 3295.8'</p> <p>600' 600'</p> <p>LOT 4</p> <p>430' 3316.0' 3306.2'</p> <p>1095'</p> <p>39.24 AC.</p>	<h3 style="text-align: center;">OPERATOR CERTIFICATION</h3> <p style="font-size: small; text-align: center;">I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.</p> <div style="margin-top: 20px;"> <p style="text-align: right; font-weight: bold;">Melanie J. Parker</p> </div> <p>Printed Name</p> <p>10/01/04</p> <p>Title</p> <p>Land Department</p> <p>Date</p> <hr/> <h3 style="text-align: center;">SURVEYOR CERTIFICATION</h3> <p style="font-size: small; text-align: center;">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 style="text-align: center; font-weight: bold;">SEPTEMBER 10, 2004</p> <p>Date Surveyed LA REV: 9/13/04</p> <p>Signature & Seal of Professional Surveyor</p> <div style="margin-top: 20px;"> <p style="text-align: right; font-weight: bold;">Gary L. Eidson 9/16/04</p> <p style="text-align: center; font-weight: bold;">04.11.1036</p> </div> <p>Certificate No. GARY EIDSON 12641</p>
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MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Collinsoscopy Federal #1
1095' FSL & 430' FWL, Lot 4
Section 7, 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:

Top of Salt	400'	Bone Spring	6300'
Base of Salt	1600'	Wolfcamp	9700'
Yates	1825'	Strawn	10750'
Capitan	2275'	Atoka	11100'
Delaware	3400'	Morrow	11800'
		TD	12300'

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

Capitan	2275'	Water
Delaware	3400'	Oil
Wolfcamp	9700'	
Strawn	10750'	Gas
Atoka	11100'	
Morrow	11800'	

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
17 1/2"	0 – 1825'	13 3/8"	54.5	J-55
12 1/4"	0 – 3400'	8 5/8"	32#	J-55 Buttress
7 7/8"	0 – 13200'	5 1/2"	17#	S-95/P110

Proposed Cement Program:

20" Surface Casing: Cement w/ 675 sx Premium Plus. Circulate to surface.

13 3/8" Intermediate Casing: Cement w/ 1100 sx Class C. Circulate to surface.

8 5/8" Intermediate Casing: Cement w/ 1000 sx Class C. Attempt to tie in to 13 3/8" csg.

5 1/2" Production Casing: Cement w/ 1050 sx Class C. TOC to be 200' above all oil and gas bearing zones.

5. Pressure Control Equipment: See Exhibit 1. Marbob proposes to nipple up on the 20" and 13 3/8" casing with a 2M system, testing it to 1000# with rig pumps, then nipple up on the 8 5/8" casing with a 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 – 1825'	Cut Brine	9.9 – 10.2	28 – 32	N.C.
1825 – 3400'	Fresh Wtr	8.4 – 8.6	28 – 32	N.C.
3400 – 12300'	Cut Brine	8.7 – 9.5	28 – 34	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.

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Collinsoscopy Federal #1
1095' FSL & 430' FWL, Lot 4
Section 7, 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 Eddy County Road 238 (Burton Flat) and Eddy County Road 239 (Buckeye), to northeast on Buckeye for 1.2 miles to a good caliche road on left. Turn left and go north 1.6 miles to the Marbob Coinflip State #1 well location. From the northwest corner of pad follow road survey 2983' to location.

2. PLANNED ACCESS ROAD:

A new access road of 2983' will be necessary. The new road will be constructed as follows:

- 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 is productive, to be located on Collinsoscopy Federal #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:

Dean Chumbley, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5988


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.

10/11/04
Date


Melanie J. Parker
Land Department

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

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: September 15, 2004

Lease #: **NM-112273**
Collinsoscopy Federal

Legal Description: All of Sec. 7-T20S-R30E
Eddy County, New Mexico

Formation(s): Morrow

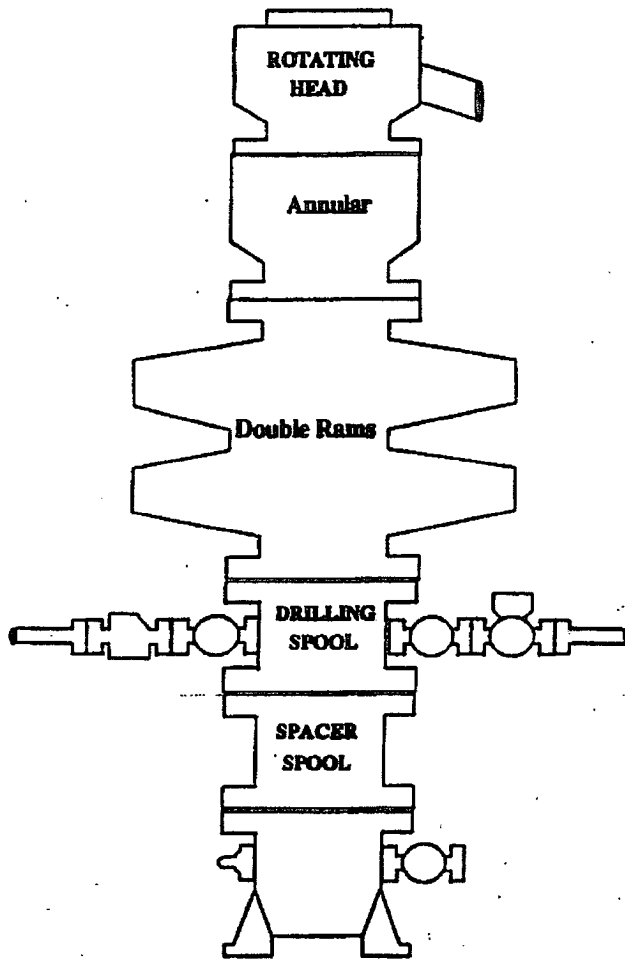
Bond Coverage: Statewide

BLM Bond File #: 585716

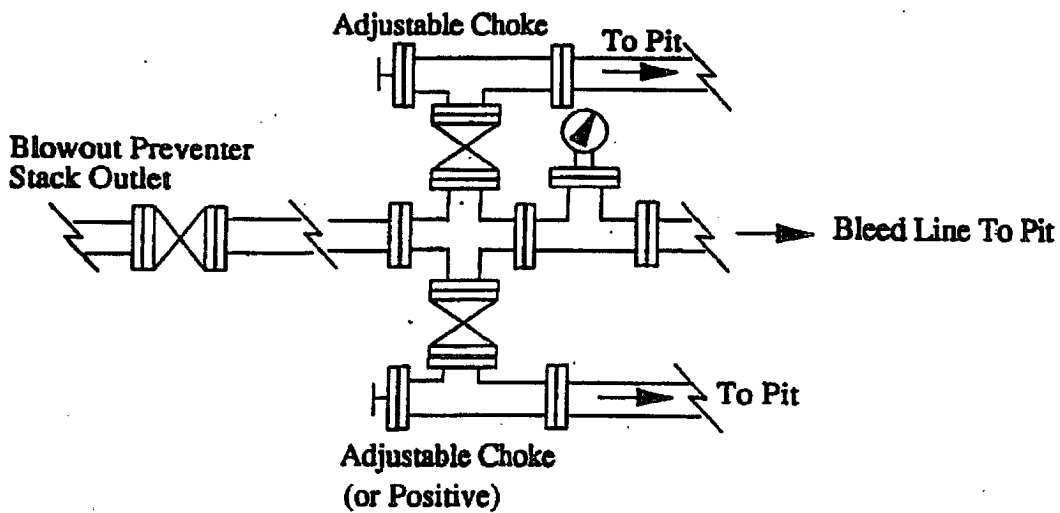
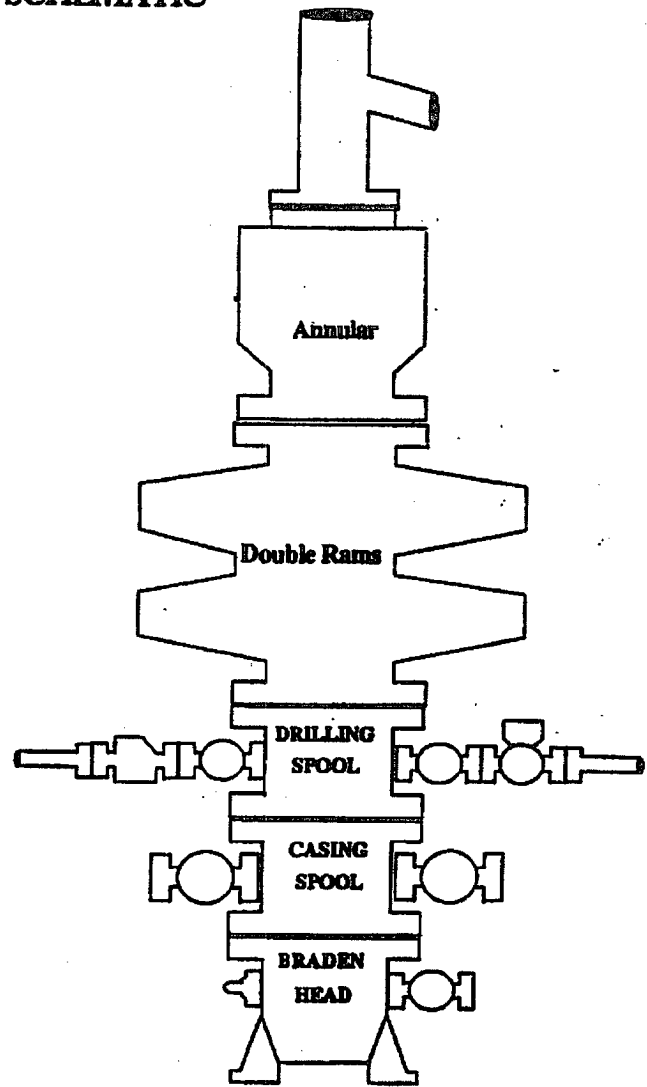


Melanie J. Parker
Land Department

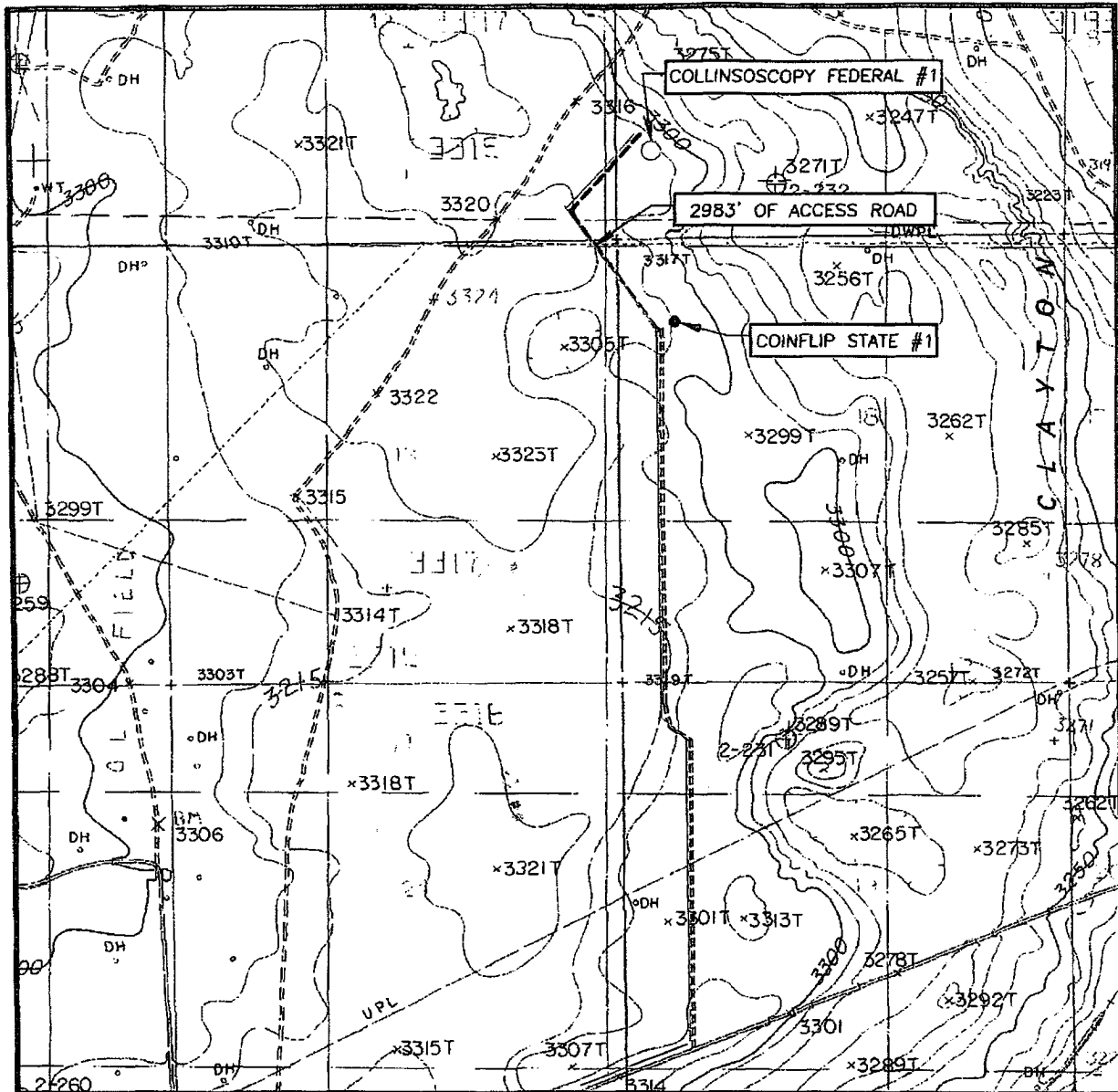
BOPE SCHEMATIC



Choke Manifold



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 7 TWP. 20-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1095' FSL & 430' FWL

ELEVATION 3310'

OPERATOR MARBOB ENERGY CORPORATION

LEASE COLLINSOSCOPY FEDERAL

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

— Road

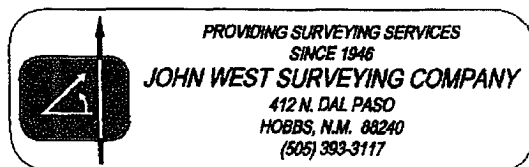
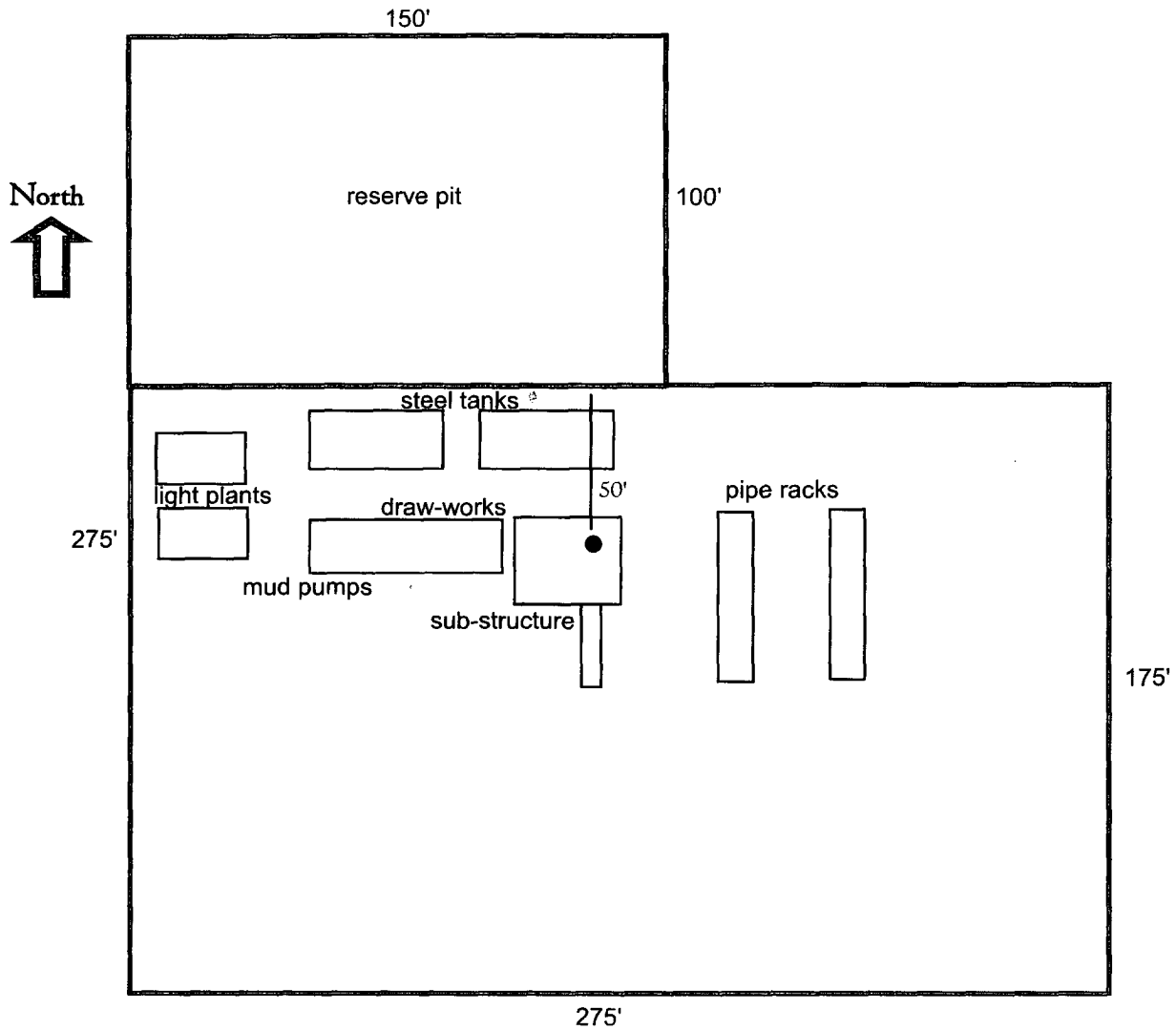


Exhibit Two

Well Site Lay-Out Plat



Collinscopy Federal #1
1095' FSL & 430' FWL
Section 7, T20S, R30E
Eddy County, New Mexico

EXHIBIT THREE

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: **MARBOB ENERGY CORPORATION**
Well Name & No. **1 - COLLINSOSCOPY FEDERAL**
Location: **1095' FSL & 430' FWL - SEC 7 - T20S - R30E - EDDY COUNTY SHL**
Lease: **NM-112273**
Location: **1650' / S. & 660' / W. SEC 7 - T20S - R30E - Eddy County, BHL**

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 20 inch 13-3/8 inch 8-5/8 inch 5-1/2 inch

C. BOP tests

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. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCDC shall be included on the subsequent report of setting the first casing string.

5. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 20 inch surface casing shall be set at 300 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 13-3/8 inch salt protection casing is **circulate cement to the surface.**

3. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is **circulate cement to the surface.**

4. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.**

ORIG. SGD J LES BABYAK

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 8-5/8 inch casing shall be 5000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- **Variance approved to nipple up on the 20" and 13-3/8" casing with a 2M system, testing it to 1000# with the rig pumps is approved.**
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

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. Monitoring equipment shall consist of the following:

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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Div-Dist. 2
1201 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004

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.

5. Lease Serial No.

NMNM-112273

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Collinsoscopy Federal #1

9. API Well No.

10. Field and Pool, or Exploratory Area

Burton Flat; Morrow, East

11. County or Parish, State

Eddy County, New Mexico

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Marbob Energy Corporation

3a. Address

PO Box 227, Artesia, NM 88211-0227

3b. Phone No. (include area code)

505-748-3303 505-746-2523 fax

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

1095' FSL & 430' FWL, Lot 4, Section 7, T20S, R30E at Surface

1650' FSL & 660' FWL, Lot 3, Section 7, T20S, R30E at Bottom

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

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other Change bottom hole location

3. 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 recompleat 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 recompleat 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.)

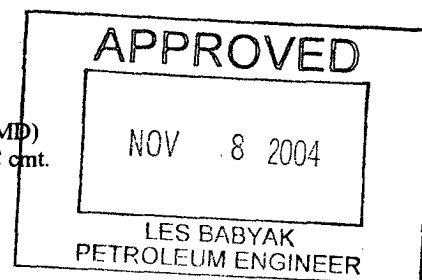
Marbob Energy Corporation wishes to amend the APD submitted electronically on October 11, 2004 as follows:

Bottom hole location: 1650' FSL & 660' FWL, Lot 3, Section 7, T20S, R30E

A directional drilling plan and revised C-102 (location and acreage dedication plat) are attached.

Change in proposed mud and casing program: 7 7/8" hole drilled w/ cut brine water from 3400'-12366' (MD)
5 1/2" 17# S-95/P110 casing set at TD w/ 1050 sx Class C cnt.
TOC to be 200' above all oil and gas bearing zones.

**SUBJECT TO
LIKE APPROVAL
BY NMOCD**



RECEIVED

NOV 09 2004

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Melanie J. Parker

Title Land Department

Signature

Date November 2, 2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature)

Name
(Printed/Typed)

Title

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

Date

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 next page)

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 & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 73320		3 Pool Name Burton Flat; Morrow, East (Gas)	
4 Property Code		5 Property Name Collinsoscopy Federal			6 Well Number 1
7 OGRID No. 14049		8 Operator Name Marbob Energy Corporation			9 Elevation 3310'

10 Surface Location

UL or lot no. 4	Section 7	Township 20S	Range 30E	Lot Idn 4	Feet from the 1095	North/South line South	Feet from the 430	East/West line West	County Eddy
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11 Bottom Hole Location If Different From Surface

UL or lot no. 3	Section 7	Township 20S	Range 30E	Lot Idn 4	Feet from the 1650	North/South line South	Feet from the 660	East/West line West	County Eddy
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12 Dedicated Acres 318.68	13 Joint or Infill	14 Consolidation Code	15 Order No.
------------------------------	--------------------	-----------------------	--------------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 	RECEIVED NOV 09 2004 OCD-ARTESIA	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <u>Melanie J. Parker</u> Printed Name Land Department Title and E-mail Address November 2, 2004 Date
	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	Date of Survey Signature and Seal of Professional Surveyor:
	Certificate Number	



Company: Marbob Energy		Date: 11/1/2004		Time: 14:12:51		Page: 1				
Field: Collinsoscopy Federal #1		Co-ordinate(NE) Reference: Well: Collinsoscopy Federal #1								
Site: Section 7, T-20S, R-30E		Vertical (TVD) Reference: SITE 0.0								
Well: Collinsoscopy Federal #1		Section (VS) Reference: Well (0.00N,0.00E,22.51Azi)								
Wellpath: Orginal Hole		Plan: Plan #2 110104								
Field: Collinsoscopy Federal #1										
Map System: US State Plane Coordinate System 1927				Map Zone:		New Mexico, Eastern Zone				
Geo Datum: NAD27 (Clarke 1866)				Coordinate System:		Well Centre				
Sys Datum: Mean Sea Level				Geomagnetic Model:		igr2000				
Site: Section 7, T-20S, R-30E										
Eddy County, NM										
Site Position:		Northing:		Latitude:						
From: Lease Line		Easting:		Longitude:						
Position Uncertainty: 0.00 ft				North Reference:		True				
Ground Level: 0.00 ft				Grid Convergence:		0.00 deg				
Well: Collinsoscopy Federal #1				Slot Name:						
Well Position:		Northing:		Latitude:						
+N/-S 0.00 ft		0.00 ft		30 59 24.512 N						
+E/-W 0.00 ft		Easting : 0.00 ft		Longitude:		105 55 44.137 W				
Position Uncertainty: 0.00 ft										
Wellpath: Orginal Hole				Drilled From: Surface						
Current Datum: SITE		Height 0.00 ft		Tie-on Depth:		0.00 ft				
Magnetic Data: 9/14/2004				Above System Datum:		Mean Sea Level				
Field Strength: 0 nT				Declination:		0.00 deg				
Vertical Section:				Mag Dip Angle:		0.00 deg				
Depth From (TVD)		+N/-S		+E/-W		Direction				
ft		ft		ft		deg				
0.00		0.00		0.00		22.51				
Plan: Plan #2 110104				Date Composed:		11/1/2004				
Principal: No				Version:		1				
				Tied-to:		From Surface				
Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	22.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6500.00	0.00	22.51	6500.00	0.00	0.00	0.00	0.00	0.00	22.51	
7463.25	14.45	22.51	7453.07	111.61	46.25	1.50	1.50	0.00	22.51	
8902.63	14.45	22.51	8846.93	443.39	183.75	0.00	0.00	0.00	0.00	
9865.88	0.00	22.51	9800.00	555.00	230.00	1.50	-1.50	0.00	180.00	Target @ 9800' TVD
12365.88	0.00	22.51	12300.00	555.00	230.00	0.00	0.00	0.00	22.51	
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
0.00	0.00	22.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	22.51	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	22.51	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	22.51	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	22.51	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	22.51	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	22.51	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	22.51	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	22.51	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	22.51	900.00	0.00	0.00					

PathFinder

Planning Report

Company: Marbob Energy
 Field: Collinsoscopy Federal #1
 Site: Section 7, T-20S, R-30E
 Well: Collinsoscopy Federal #1
 Wellpath: Original Hole

Date: 11/1/2004 Time: 14:12:51 Page: 2
 Co-ordinate(NE) Reference: Well: Collinsoscopy Federal #1
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,22.51Azi)
 Plan: Plan #2 110104

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
1500.00	0.00	22.51	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1600.00	0.00	22.51	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1700.00	0.00	22.51	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	22.51	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	22.51	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	22.51	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	22.51	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	22.51	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	22.51	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	22.51	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	22.51	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	22.51	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	22.51	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	22.51	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	22.51	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	22.51	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	22.51	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	22.51	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	22.51	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3400.00	0.00	22.51	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	22.51	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3600.00	0.00	22.51	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	22.51	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	22.51	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3900.00	0.00	22.51	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	
4000.00	0.00	22.51	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4100.00	0.00	22.51	4100.00	0.00	0.00	0.00	0.00	0.00	0.00	
4200.00	0.00	22.51	4200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4300.00	0.00	22.51	4300.00	0.00	0.00	0.00	0.00	0.00	0.00	
4400.00	0.00	22.51	4400.00	0.00	0.00	0.00	0.00	0.00	0.00	
4500.00	0.00	22.51	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4600.00	0.00	22.51	4600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4700.00	0.00	22.51	4700.00	0.00	0.00	0.00	0.00	0.00	0.00	
4800.00	0.00	22.51	4800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4900.00	0.00	22.51	4900.00	0.00	0.00	0.00	0.00	0.00	0.00	
5000.00	0.00	22.51	5000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5100.00	0.00	22.51	5100.00	0.00	0.00	0.00	0.00	0.00	0.00	
5200.00	0.00	22.51	5200.00	0.00	0.00	0.00	0.00	0.00	0.00	
5300.00	0.00	22.51	5300.00	0.00	0.00	0.00	0.00	0.00	0.00	
5400.00	0.00	22.51	5400.00	0.00	0.00	0.00	0.00	0.00	0.00	
5500.00	0.00	22.51	5500.00	0.00	0.00	0.00	0.00	0.00	0.00	
5600.00	0.00	22.51	5600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5700.00	0.00	22.51	5700.00	0.00	0.00	0.00	0.00	0.00	0.00	
5800.00	0.00	22.51	5800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5900.00	0.00	22.51	5900.00	0.00	0.00	0.00	0.00	0.00	0.00	
6000.00	0.00	22.51	6000.00	0.00	0.00	0.00	0.00	0.00	0.00	
6100.00	0.00	22.51	6100.00	0.00	0.00	0.00	0.00	0.00	0.00	
6200.00	0.00	22.51	6200.00	0.00	0.00	0.00	0.00	0.00	0.00	
6300.00	0.00	22.51	6300.00	0.00	0.00	0.00	0.00	0.00	0.00	
6400.00	0.00	22.51	6400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6500.00	0.00	22.51	6500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6600.00	1.50	22.51	6599.99	1.21	0.50	1.31	1.50	1.50	0.00	
6700.00	3.00	22.51	6699.91	4.84	2.00	5.23	1.50	1.50	0.00	
6800.00	4.50	22.51	6799.69	10.88	4.51	11.77	1.50	1.50	0.00	

PathFinder

Planning Report

Company: Marbob Energy	Date: 11/1/2004	Time: 14:12:51	Page: 3
Field: Collinsoscopy Federal #1	Co-ordinate(NE) Reference: Well: Collinsoscopy Federal #1		
Site: Section 7, T-20S, R-30E	Vertical (TVD) Reference: SITE 0.0		
Well: Collinsoscopy Federal #1	Section (VS) Reference: Well (0.00N,0.00E,22.51Azi)		
Wellpath: Original Hole	Plan: Plan #2 110104		

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	6.00	22.51	6899.27	19.33	8.01	20.92	1.50	1.50	0.00	
7000.00	7.50	22.51	6998.57	30.19	12.51	32.68	1.50	1.50	0.00	
7100.00	9.00	22.51	7097.54	43.44	18.00	47.03	1.50	1.50	0.00	
7200.00	10.50	22.51	7196.09	59.09	24.49	63.96	1.50	1.50	0.00	
7300.00	12.00	22.51	7294.16	77.11	31.96	83.47	1.50	1.50	0.00	
7400.00	13.50	22.51	7391.70	97.50	40.40	105.54	1.50	1.50	0.00	
7463.25	14.45	22.51	7453.07	111.61	46.25	120.81	1.50	1.50	0.00	
7500.00	14.45	22.51	7488.66	120.08	49.76	129.98	0.00	0.00	0.00	
7600.00	14.45	22.51	7585.50	143.13	59.32	154.93	0.00	0.00	0.00	
7700.00	14.45	22.51	7682.33	166.18	68.87	179.89	0.00	0.00	0.00	
7800.00	14.45	22.51	7779.17	189.23	78.42	204.84	0.00	0.00	0.00	
7900.00	14.45	22.51	7876.01	212.28	87.97	229.79	0.00	0.00	0.00	
8000.00	14.45	22.51	7972.85	235.33	97.52	254.74	0.00	0.00	0.00	
8100.00	14.45	22.51	8069.68	258.38	107.08	279.69	0.00	0.00	0.00	
8200.00	14.45	22.51	8166.52	281.43	116.63	304.64	0.00	0.00	0.00	
8300.00	14.45	22.51	8263.36	304.48	126.18	329.59	0.00	0.00	0.00	
8400.00	14.45	22.51	8360.19	327.53	135.73	354.54	0.00	0.00	0.00	
8500.00	14.45	22.51	8457.03	350.58	145.29	379.50	0.00	0.00	0.00	
8600.00	14.45	22.51	8553.87	373.63	154.84	404.45	0.00	0.00	0.00	
8700.00	14.45	22.51	8650.71	396.68	164.39	429.40	0.00	0.00	0.00	
8800.00	14.45	22.51	8747.54	419.73	173.94	454.35	0.00	0.00	0.00	
8902.63	14.45	22.51	8846.93	443.39	183.75	479.96	0.00	0.00	0.00	
9000.00	12.99	22.51	8941.52	464.72	192.59	503.05	1.50	-1.50	0.00	
9100.00	11.49	22.51	9039.24	484.30	200.70	524.25	1.50	-1.50	0.00	
9200.00	9.99	22.51	9137.49	501.52	207.84	542.88	1.50	-1.50	0.00	
9300.00	8.49	22.51	9236.19	516.35	213.98	558.93	1.50	-1.50	0.00	
9400.00	6.99	22.51	9335.27	528.79	219.14	572.39	1.50	-1.50	0.00	
9500.00	5.49	22.51	9434.68	538.82	223.30	583.26	1.50	-1.50	0.00	
9600.00	3.99	22.51	9534.33	546.45	226.46	591.52	1.50	-1.50	0.00	
9700.00	2.49	22.51	9634.17	551.67	228.62	597.17	1.50	-1.50	0.00	
9800.00	0.99	22.51	9734.12	554.48	229.78	600.20	1.50	-1.50	0.00	
9865.88	0.00	22.51	9800.00	555.00	230.00	600.77	1.50	-1.50	0.00	
9900.00	0.00	22.51	9834.12	555.00	230.00	600.77	0.00	0.00	0.00	
10000.00	0.00	22.51	9934.12	555.00	230.00	600.77	0.00	0.00	0.00	
10100.00	0.00	22.51	10034.12	555.00	230.00	600.77	0.00	0.00	0.00	
10200.00	0.00	22.51	10134.12	555.00	230.00	600.77	0.00	0.00	0.00	
10300.00	0.00	22.51	10234.12	555.00	230.00	600.77	0.00	0.00	0.00	
10400.00	0.00	22.51	10334.12	555.00	230.00	600.77	0.00	0.00	0.00	
10500.00	0.00	22.51	10434.12	555.00	230.00	600.77	0.00	0.00	0.00	
10600.00	0.00	22.51	10534.12	555.00	230.00	600.77	0.00	0.00	0.00	
10700.00	0.00	22.51	10634.12	555.00	230.00	600.77	0.00	0.00	0.00	
10800.00	0.00	22.51	10734.12	555.00	230.00	600.77	0.00	0.00	0.00	
10900.00	0.00	22.51	10834.12	555.00	230.00	600.77	0.00	0.00	0.00	
11000.00	0.00	22.51	10934.12	555.00	230.00	600.77	0.00	0.00	0.00	
11100.00	0.00	22.51	11034.12	555.00	230.00	600.77	0.00	0.00	0.00	
11200.00	0.00	22.51	11134.12	555.00	230.00	600.77	0.00	0.00	0.00	
11300.00	0.00	22.51	11234.12	555.00	230.00	600.77	0.00	0.00	0.00	
11400.00	0.00	22.51	11334.12	555.00	230.00	600.77	0.00	0.00	0.00	
11500.00	0.00	22.51	11434.12	555.00	230.00	600.77	0.00	0.00	0.00	
11600.00	0.00	22.51	11534.12	555.00	230.00	600.77	0.00	0.00	0.00	
11700.00	0.00	22.51	11634.12	555.00	230.00	600.77	0.00	0.00	0.00	
11800.00	0.00	22.51	11734.12	555.00	230.00	600.77	0.00	0.00	0.00	
11900.00	0.00	22.51	11834.12	555.00	230.00	600.77	0.00	0.00	0.00	

PathFinder Planning Report

Company: Marbob Energy	Date: 11/1/2004	Time: 14:12:51	Page: 4
Field: Collinsoscopy Federal #1	Co-ordinate(NE) Reference: Well: Collinsoscopy Federal #1		
Site: Section 7, T-20S, R-30E	Vertical (TVD) Reference: SITE 0.0		
Well: Collinsoscopy Federal #1	Section (VS) Reference: Well (0.00N,0.00E,22.51Azi)		
Wellpath: Original Hole	Plan: Plan #2 110104		

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
12000.00	0.00	22.51	11934.12	555.00	230.00	600.77	0.00	0.00	0.00	
12100.00	0.00	22.51	12034.12	555.00	230.00	600.77	0.00	0.00	0.00	
12200.00	0.00	22.51	12134.12	555.00	230.00	600.77	0.00	0.00	0.00	
12300.00	0.00	22.51	12234.12	555.00	230.00	600.77	0.00	0.00	0.00	
12365.88	0.00	22.51	12300.00	555.00	230.00	600.77	0.00	0.00	0.00	

Marbob Energy

Collinsoscopy Federal #1

Eddy County, New Mexico

Plan #1 110104

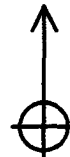
PATHFINDER

ENERGY SERVICES

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	22.51	0.00	0.00	0.00	0.00	0.00	0.00	
2	6500.00	0.00	22.51	6500.00	0.00	0.00	0.00	22.51	0.00	
3	7463.25	14.45	22.51	7453.07	111.61	46.25	1.50	22.51	120.81	
4	8902.63	14.45	22.51	8846.93	443.39	183.75	0.00	0.00	479.96	
5	9865.88	0.00	22.51	9800.00	555.00	230.00	1.50	180.00	600.77	Target @ 9800' TVD
6	12365.88	0.00	22.51	12300.00	555.00	230.00	0.00	22.51	600.77	

TM



Azimuths to True North
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 9/14/2004
Model: igrf2000

SITE DETAILS

Section 7, T-20S, R-30E
Eddy County, NM

Water Depth: 0.00
Positional Uncertainty: 0.00
Convergence: 0.00

