Carlsbad Field Office / **OCD Artesia** — NM OIL CONSERVATION ARTESIA DISTRICT FEB 22 2017 RECEIVED

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM 56426

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.: 317454
PAVO MACHO 31 B2LI FEDERAL 1H

2. Name of Operator: MEWBOURNE OIL COMPANY

9. API Well No.: 30-015-44066

3a. Address: PO Box 5270 Hobbs NM 88240

3b. Phone No. *(include area code)*: (575)393-5905

10. Field and Pool, or Exploratory: PALMILLO EAST BONE SPRING OIL

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

At surface: LOT 3 / 1980 FSL / 185 FWL / LAT 32.7027354 / LONG -104.1207789

At proposed prod. zone: NESE / 1800 FSL / 330 FEL / LAT 32.7020288 / LONG -104.1060519

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 31 / T18S / R29E / NMP

14. Distance in miles and direction from nearest town or post office*: 20 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 185 feet

16. No. of acres in lease: 1046.15

17. Spacing Unit dedicated to this well: 152.8

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 330 feet

19. Proposed Depth: 7454 feet / 7500 feet 11940 MD

20. BLM/BIA Bond No. on file: FED: NM1693

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3397 feet

22. Approximate date work will start*: 08/16/2016

23. Estimated duration: 60 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Bradley Bishop / Ph: (575)393-5905	07/08/2016

Title: Regulatory

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	02/10/2017

Title	Office
Supervisor Multiple Resources	CARLSBAD

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

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

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Accepted for record - NMOCD
RWP 2-24-2017

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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 August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-44066	49553	PALMILLO EAST BONE SPRING OIL

4 Property Code	5 Property Name	6 Well Number
317454	PAVO MACHO 31 B2LI FED COM	1H

7 OGRID NO.	8 Operator Name	9 Elevation
14744	MEWBOURNE OIL COMPANY	3397'

10 Surface Location

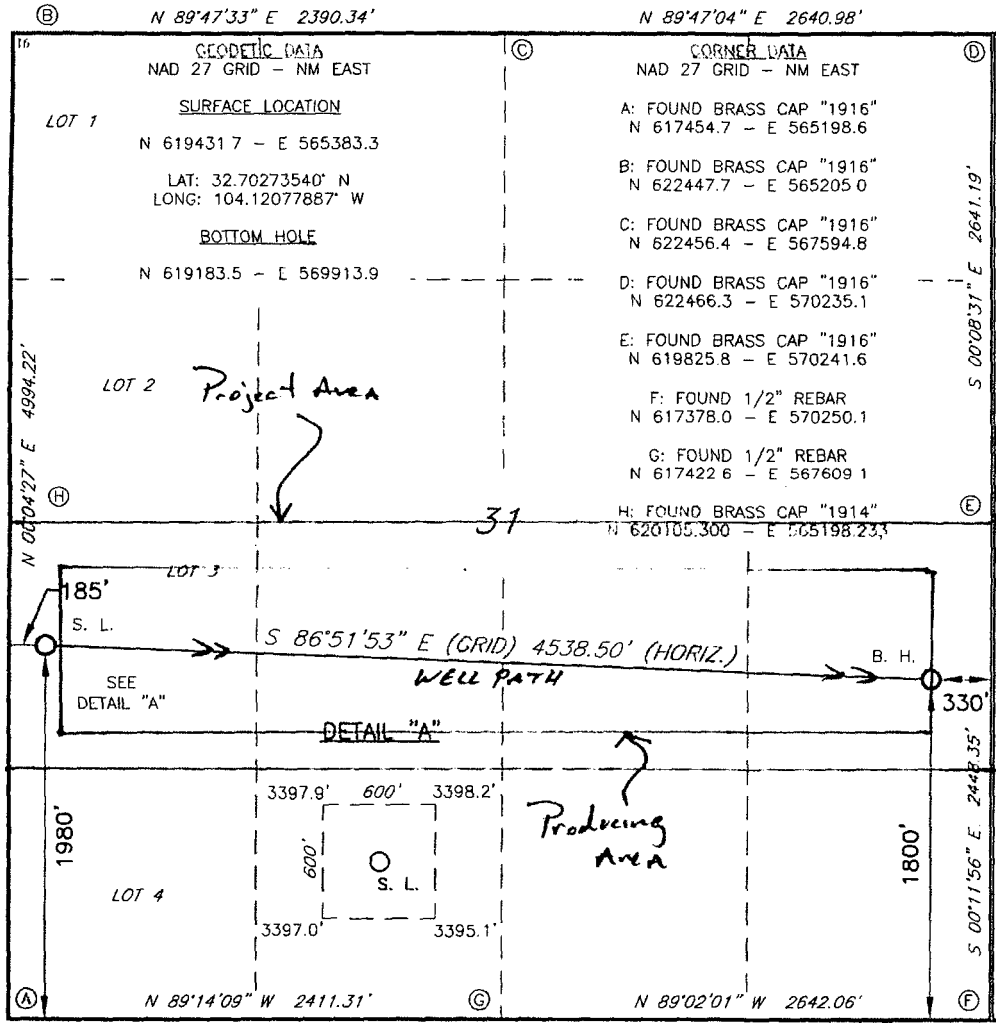
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
3	31	18S	29E		1980	SOUTH	185	WEST	EDDY

11 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
I	31	18S	29E		1800	SOUTH	330	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160	# 152.8		

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

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

Bradley Bay 7-6-16
Signature Date

BRADLEY BAY
Printed Name

E-mail Address

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.

7-17-2015
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

Robert M. Howett

19680
Certificate Number

RRC – Firm No.: TX 10193838 NM 4655451 – Job No.: LS1507345

APD ID: 10400001918
Submission Date: 07/08/2016
Highlight All Changes

Operator Name: MEWBOURNE OIL COMPANY
Federal/Indian APD: FED

Well Name: PAVO MACHO 31 B2LI FEDERAL
Well Number: 1H

Well Type: OIL WELL
Well Work Type: Drill

Application

Section 1 - General

APD ID: 10400001918
Tie to previous NOS?
Submission Date: 07/08/2016

BLM Office: CARLSBAD
User: Bradley Bishop
Title: Regulatory

Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM 56426
Lease Acres: 1046.15

Surface access agreement in place?
Allotted?
Reservation:

Agreement in place? NO
Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO
APD Operator: MEWBOURNE OIL COMPANY

Operator letter of designation: Pavo Macho 31 B2LI Fed 1H_Operator letter of designation_07-20-2016.pdf

Keep application confidential? YES

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

Operator Address: PO Box 5270

Zip: 88240

Operator PO Box:

Operator City: Hobbs
State: NM

Operator Phone: (575)393-5905

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Mater Development Plan name:

Well in Master SUPO? NO
Master SUPO name:

Well in Master Drilling Plan? NO
Master Drilling Plan name:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** PALMILLO EAST BONE SPRING OIL **Pool Name:**

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: SINGLE WELL **Multiple Well Pad Name:** **Number:**

Well Class: HORIZONTAL **Number of Legs:**

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 20 Miles **Distance to nearest well:** 330 FT **Distance to lease line:** 185 FT

Reservoir well spacing assigned acres Measurement: 152.8 Acres

Well plat: Pavo Macho 31 B2LI Fed 1H_Well plat_07-20-2016.pdf

Well work start Date: 08/16/2016 **Duration:** 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 1

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** EDDY
	Latitude: 32.7027354	**Longitude:** -104.1207789	
SHL	**Elevation:** 3397	**MD:** 0	**TVD:** 0
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMNM56426	
	NS-Foot: 1980	**NS Indicator:** FSL	
	EW-Foot: 185	**EW Indicator:** FWL	
	Twsp: 18S	**Range:** 29E	**Section:** 31
	Aliquot:	**Lot:** 3	**Tract:**

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** EDDY
	Latitude: 32.7027354	**Longitude:** -104.1207789	
KOP	**Elevation:** -3702	**MD:** 7099	**TVD:** 7099
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMNM56426	
	NS-Foot: 1980	**NS Indicator:** FSL	
	EW-Foot: 185	**EW Indicator:** FWL	
	Twsp: 18S	**Range:** 29E	**Section:** 31
	Aliquot:	**Lot:** 3	**Tract:**
	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** EDDY
	Latitude: 32.7027132	**Longitude:** -104.1203086	
PPP	**Elevation:** -4057	**MD:** 7500	**TVD:** 7454
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMNM56426	
	NS-Foot: 1980	**NS Indicator:** FSL	
	EW-Foot: 185	**EW Indicator:** FWL	
	Twsp: 18S	**Range:** 29E	**Section:** 31
	Aliquot:	**Lot:** 3	**Tract:**
	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** EDDY
	Latitude: 32.7020288	**Longitude:** -104.1060519	
EXIT	**Elevation:** -4057	**MD:** 7500	**TVD:** 7454
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMNM56426	
	NS-Foot: 1800	**NS Indicator:** FSL	
	EW-Foot: 330	**EW Indicator:** FEL	
	Twsp: 18S	**Range:** 29E	**Section:** 31
	Aliquot: NESE	**Lot:**	**Tract:**
	STATE: NEW MEXICO	**Meridian:** NEW MEXICO PRINCIPAL	**County:** EDDY
	Latitude: 32.7020288	**Longitude:** -104.1060519	
BHL	**Elevation:** -4057	**MD:** 7500	**TVD:** 7454
Leg #: 1	**Lease Type:** FEDERAL	**Lease #:** NMNM56426	
	NS-Foot: 1800	**NS Indicator:** FSL	
	EW-Foot: 330	**EW Indicator:** FEL	

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Twsp: 18S **Range:** 29E **Section:** 31

Aliquot: NESE **Lot:** **Tract:**

Drilling Plan

Section 1 - Geologic Formations

ID: Surface formation **Name:** UNKNOWN

Lithology(ies):

Elevation: 3397 **True Vertical Depth:** 27 **Measured Depth:** 27

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 1 **Name:** BOTTOM SALT

Lithology(ies):

SALT

Elevation: 2707 **True Vertical Depth:** 690 **Measured Depth:** 690

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2 **Name:** YATES

Lithology(ies):

SANDSTONE

Elevation: 2552 **True Vertical Depth:** 845 **Measured Depth:** 845

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 3 **Name:** SEVEN RIVERS

Lithology(ies):

DOLOMITE

Elevation: 2187 **True Vertical Depth:** 1210 **Measured Depth:** 1210

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 4 **Name:** QUEEN

Lithology(ies):

SANDSTONE

DOLOMITE

Elevation: 1622 **True Vertical Depth:** 1775 **Measured Depth:** 1775

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 5 **Name:** SAN ANDRES

Lithology(ies):

DOLOMITE

Elevation: 767 **True Vertical Depth:** 2630 **Measured Depth:** 2630

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 6 **Name:** BONE SPRING LIME

Lithology(ies):

LIMESTONE

SHALE

Elevation: 27 **True Vertical Depth:** 3370 **Measured Depth:** 3370

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 7 **Name:** BONE SPRING 1ST

Lithology(ies):

SANDSTONE

Elevation: -3123 **True Vertical Depth:** 6520 **Measured Depth:** 6520

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8 **Name:** BONE SPRING 2ND

Lithology(ies):

SANDSTONE

Elevation: -3908 **True Vertical Depth:** 7305 **Measured Depth:** 7305

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Section 2 - Blowout Prevention

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Pressure Rating (PSI): 3M **Rating Depth:** 7837

Equipment: Annular, Pipe Ram, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold.

Testing Procedure: Test Annular to 1500#. Test Rams to 3000#.

Choke Diagram Attachment:

Pavo Macho 31 B2LI Federal 1H_3M BOPE Choke Diagram_07-20-2016.pdf

BOP Diagram Attachment:

Pavo Macho 31 B2LI Federal 1H_13.625 Inch 3M BOPE Schematic_07-20-2016.pdf

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Pressure Rating (PSI): 3M **Rating Depth:** 11910

Equipment: Annular, Pipe Ram, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold.

Testing Procedure: Test Annular to 1500# Test Rams to 3000#

Choke Diagram Attachment:

Pavo Macho 31 B2LI Federal 1H_3M BOPE Choke Diagram_07-20-2016.pdf

BOP Diagram Attachment:

Pavo Macho 31 B2LI Federal 1H_13.625 Inch 3M BOPE Schematic_07-20-2016.pdf

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Pressure Rating (PSI): 3M **Rating Depth:** 1125

Equipment: Annular

Requesting Variance? NO

Variance request:

Testing Procedure: Test to 1500#

Choke Diagram Attachment:

Pavo Macho 31 B2LI Federal 1H_3M BOPE Choke Diagram_07-20-2016.pdf

BOP Diagram Attachment:

Pavo Macho 31 B2LI Federal 1H_13.625 Inch 3M BOPE Schematic_07-20-2016.pdf

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Section 3 - Casing

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

String Type: SURFACE **Other String Type:**

Hole Size: 17.5

Top setting depth MD: 0 **Top setting depth TVD:** 0

Top setting depth MSL: 3397

Bottom setting depth MD: 415 **Bottom setting depth TVD:** 415

Bottom setting depth MSL: 2982

Calculated casing length MD: 415

Casing Size: 13.375 **Other Size**

Grade: H-40 **Other Grade:**

Weight: 48

Joint Type: STC **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 3.43 **Burst Design Safety Factor:** 8.02

Joint Tensile Design Safety Factor type: DRY **Joint Tensile Design Safety Factor:** 16.16

Body Tensile Design Safety Factor type: DRY **Body Tensile Design Safety Factor:** 27.16

Casing Design Assumptions and Worksheet(s):

Pavo Macho 31 B2LI Fed 1H_Casing Assumptions_07-20-2016.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

String Type: INTERMEDIATE **Other String Type:**

Hole Size: 12.25

Top setting depth MD: 0 **Top setting depth TVD:** 0

Top setting depth MSL: 3397

Bottom setting depth MD: 1125 **Bottom setting depth TVD:** 1125

Bottom setting depth MSL: 2272

Calculated casing length MD: 1125

Casing Size: 9.625 **Other Size**

Grade: J-55 **Other Grade:**

Weight: 36

Joint Type: LTC **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 3.45 **Burst Design Safety Factor:** 6.02

Joint Tensile Design Safety Factor type: DRY **Joint Tensile Design Safety Factor:** 11.19

Body Tensile Design Safety Factor type: DRY **Body Tensile Design Safety Factor:** 13.93

Casing Design Assumptions and Worksheet(s):

Pavo Macho 31 B2LI Fed 1H_Casing Assumptions_07-20-2016.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

String Type: PRODUCTION **Other String Type:**

Hole Size: 8.75

Top setting depth MD: 0 **Top setting depth TVD:** 0

Top setting depth MSL: 3397

Bottom setting depth MD: 7837 **Bottom setting depth TVD:** 7576

Bottom setting depth MSL: -4179

Calculated casing length MD: 7837

Casing Size: 7.0 **Other Size**

Grade: P-110 **Other Grade:**

Weight: 26

Joint Type: LTC **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.98 **Burst Design Safety Factor:** 2.53

Joint Tensile Design Safety Factor type: DRY **Joint Tensile Design Safety Factor:** 3.4

Body Tensile Design Safety Factor type: DRY **Body Tensile Design Safety Factor:** 4.07

Casing Design Assumptions and Worksheet(s):

Pavo Macho 31 B2LI Fed 1H_Casing Assumptions_07-20-2016.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

String Type: LINER **Other String Type:**

Hole Size: 6.125

Top setting depth MD: 7098 **Top setting depth TVD:** 7098

Top setting depth MSL: 3397

Bottom setting depth MD: 11910 **Bottom setting depth TVD:** 7677

Bottom setting depth MSL: -4280

Calculated casing length MD: 4812

Casing Size: 4.5 **Other Size**

Grade: P-110 **Other Grade:**

Weight: 13.5

Joint Type: LTC **Other Joint Type:**

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 2.67 **Burst Design Safety Factor:** 3.11

Joint Tensile Design Safety Factor type: DRY **Joint Tensile Design Safety Factor:** 5.2

Body Tensile Design Safety Factor type: DRY **Body Tensile Design Safety Factor:** 6.5

Casing Design Assumptions and Worksheet(s):

Pavo Macho 31 B2LI Fed 1H_Casing Assumptions_07-20-2016.pdf

Section 4 - Cement

Casing String Type: SURFACE

Stage Tool Depth:

Lead

Top MD of Segment: 0 **Bottom MD Segment:** 415 **Cement Type:** Class C

Additives: Salt, Gel, Extender, LCM **Quantity (sks):** 190 **Yield (cu.ff./sk):** 2.12

Density: 12.5 **Volume (cu.ft.):** 403 **Percent Excess:** 100

Tail

Top MD of Segment: 0 **Bottom MD Segment:** 415 **Cement Type:** Class C

Additives: Retarder **Quantity (sks):** 200 **Yield (cu.ff./sk):** 1.34

Density: 14.8 **Volume (cu.ft.):** 268 **Percent Excess:** 100

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0 **Bottom MD Segment:** 1125 **Cement Type:** Class C

Additives: Salt, Gel, Extender, LCM **Quantity (sks):** 105 **Yield (cu.ff./sk):** 2.12

Density: 12.5 **Volume (cu.ft.):** 222 **Percent Excess:** 25

Tail

Top MD of Segment: 0 **Bottom MD Segment:** 1125 **Cement Type:** Class C

Additives: Retarder **Quantity (sks):** 200 **Yield (cu.ff./sk):** 1.34

Density: 14.8 **Volume (cu.ft.):** 268 **Percent Excess:** 25

Casing String Type: PRODUCTION

Stage Tool Depth:

Lead

Top MD of Segment: 925 **Bottom MD Segment:** 7837 **Cement Type:** Class C

Additives: Gel, Retarder, Defoamer, Extender **Quantity (sks):** 400 **Yield (cu.ff./sk):** 2.12

Density: 12.5 **Volume (cu.ft.):** 848 **Percent Excess:** 25

Tail

Top MD of Segment: 925 **Bottom MD Segment:** 7837 **Cement Type:** Class H

Additives: Retarder, Fluid Loss, Defoamer **Quantity (sks):** 400 **Yield (cu.ff./sk):** 1.18

Density: 15.6 **Volume (cu.ft.):** 472 **Percent Excess:** 25

Casing String Type: LINER

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Stage Tool Depth:

Lead

Top MD of Segment: 7098 **Bottom MD Segment:** 11910 **Cement Type:** Class C

Additives: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent **Quantity (sks):** 205 **Yield (cu.ff./sk):** 2.97

Density: 11.2 **Volume (cu.ft.):** 609 **Percent Excess:** 25

Tail

Top MD of Segment: 925 **Bottom MD Segment:** **Cement Type:**

Additives: **Quantity (sks):** **Yield (cu.ff./sk):**

Density: **Volume (cu.ft.):** **Percent Excess:** 25

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Top Depth: 0 **Bottom Depth:** 415

Mud Type: SPUD MUD

Min Weight (lbs./gal.): 8.6 **Max Weight (lbs./gal.):** 8.8

Density (lbs/cu.ft.): **Gel Strength (lbs/100 sq.ft.):**

PH: **Viscosity (CP):**

Filtration (cc): **Salinity (ppm):**

Additional Characteristics:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Top Depth: 415 **Bottom Depth:** 1125

Mud Type: SALT SATURATED

Min Weight (lbs./gal.): 10 **Max Weight (lbs./gal.):** 10

Density (lbs/cu.ft.): **Gel Strength (lbs/100 sq.ft.):**

PH: **Viscosity (CP):**

Filtration (cc): **Salinity (ppm):**

Additional Characteristics:

Top Depth: 1125 **Bottom Depth:** 7098

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.6 **Max Weight (lbs./gal.):** 9.5

Density (lbs/cu.ft.): **Gel Strength (lbs/100 sq.ft.):**

PH: **Viscosity (CP):**

Filtration (cc): **Salinity (ppm):**

Additional Characteristics:

Top Depth: 7098 **Bottom Depth:** 7677

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.6 **Max Weight (lbs./gal.):** 9.5

Density (lbs/cu.ft.): **Gel Strength (lbs/100 sq.ft.):**

PH: **Viscosity (CP):**

Filtration (cc): **Salinity (ppm):**

Additional Characteristics:

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GR/CNL from KOP (7098') to surface

List of open and cased hole logs run in the well:

CNL,DS,GR,MWD,MUDLOG

Coring operation description for the well:

None

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3793 **Anticipated Surface Pressure:** 2153.12

Anticipated Bottom Hole Temperature(F): 140

Anticipated abnormal proessures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Pavo Macho 31 Fed 1H_H2S Plan_07-20-2016.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Pavo Macho 31 B2LI Fed 1H_Directional Plan_07-20-2016.pdf

Pavo Macho 31 B2LI Fed 1H_Directional Plot_07-20-2016.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

Pavo Macho 31 B2LI Fed 1H_Flex Line Specs_10-26-2016.pdf

SUPO

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Pavo Macho 31 B2LI Fed 1H_Existing road map_08-05-2016.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Pavo Macho 31 B2LI Fed 1H_Existing well map_07-20-2016.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

Production Facilities description: All proposed production facilities that are located on the well pad will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location. Production from the proposed well will be located on the South side of location.
Production Facilities map:

reclaimed area _07-06-2016.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING
Water source type: IRRIGATION

Describe type:

Source longitude: -104.12306

Source latitude: 32.70535

Source datum: NAD83

Water source permit type: PRIVATE CONTRACT,WATER WELL

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: STATE

Water source volume (barrels): 1940

Source volume (acre-feet): 0.2500526

Source volume (gal): 81480

Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING
Water source type: IRRIGATION

Describe type:

Source longitude: -104.12311

Source latitude: 32.62002

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1940

Source volume (acre-feet): 0.2500526

Source volume (gal): 81480

Water source and transportation map:

Pavo Macho 31 B2LI Fed 1H_Water source and transportation map2_10-26-2016.pdf

Pavo Macho 31 B2LI Fed 1H_Water source and transportation map_10-26-2016.pdf

Water source comments: water at Wild Turkey Frac pond purchased from Gregory Rockhouse Ranch. Gregory purchases water from private owners.

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche - one of the following State of NM pits will be used.

Construction Materials source location attachment:

Pavo Macho 31 B2LI Fed 1H_construction material source_10-26-2016.pdf

Pavo Macho 31 B2LI Fed 1H_construction material source2_10-26-2016.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

Safe containment description: Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

Waste type: SEWAGE

Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: 2,000 gallon plastic container

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: City of Carlsbad Water Treatment facility

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Enclosed trash trailer

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Pavo Macho 31 B2LI Fed 1H_Well site diagram 2_07-20-2016.pdf
Pavo Macho 31 B2LI Fed 1H_Well site layout diagram_07-20-2016.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Wellpad long term disturbance (acres): 1.239 **Wellpad short term disturbance (acres):** 2.65

Access road long term disturbance (acres): 0.289 **Access road short term disturbance (acres):** 0

Pipeline long term disturbance (acres): 0 **Pipeline short term disturbance (acres):** 0

Other long term disturbance (acres): 0 **Other short term disturbance (acres):** 0

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Total long term disturbance: 1.528 **Total short term disturbance:** 2.65

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.
Soil treatment: NA

Existing Vegetation at the well pad: Various brush & grasses

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type: **Seed source:**

Seed name:

Source name: **Source address:**

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre: **Proposed seeding season:**

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Bradley **Last Name:** Bishop

Phone: (575)393-5905 **Email:** bbishop@mewbourne.com

Seedbed prep: Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Seed BMP: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Seed method: drilling or broadcasting seed over entire reclaimed area.

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: NA

Weed treatment plan attachment:

Monitoring plan description: vii. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion and invasive/noxious weeds are controlled.
Monitoring plan attachment:

Success standards: regrowth within 1 full growing season of reclamation.

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: New lease road will not be required. This lease road was approved & constructed with the Pavo Macho 31 B2MP well. Therefore no new lease road will be required.
Use a previously conducted onsite? YES

Previous Onsite information: JUL 16 2015 Met with Chad Young & Cassie (BLM) & RRC Surveying & staked location @ 1800' FSL & 185' FWL, Sec 31, T18S, R29E, Eddy Co., NM. This location was unacceptable due to electric line. Moved location to 1980' FSL & 185' FWL, Sec 31, T18S, R29E, Eddy Co., NM (Elevation @ 3397'). This appears to be a drillable location with pit area to the N. New road needed entering SE corner heading E to lease road. If battery needed, it will be on W side. Topsoil will be stockpiled 30' on the E side of pad. Reclaim 70' on N, E & S with battery. Reclaim 70' on N, S, E, & W with no battery. This will be a 340' x 340' pad. Arch approved through MOA.

Other SUPO Attachment

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM1693

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Bradley Bishop **Signed on:** 07/06/2016

Title: Regulatory

Street Address: PO Box 5270

City: Hobbs **State:** NM **Zip:** 88240

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

Field Representative

Representative Name:

Street Address:

Operator Name: MEWBOURNE OIL COMPANY

Well Name: PAVO MACHO 31 B2LI FEDERAL **Well Number:** 1H

City: **State:** **Zip:**

Phone:

Email address:

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 25SL009C

United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Mewbourne Oil Company
Street or Box: P.O. Box 5270
City, State: Hobbs, New Mexico
Zip Code: 88241

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

Lease Number: NMNM 56426

Legal Description of Land: Section 31, T-18S, R-29E Eddy County, New Mexico.
Location @ 1980' FSL & 185' FWL.

Formation (if applicable): Bone Spring Second Sand

Bond Coverage: $150,000

BLM Bond File: NM1693 Nationwide, NMB 000919

Approved by:

Authorized Signature: _____

Name: Robin Terrell
Title: District Manager
Date: 07-20-2016

3M BOPE & Closed Loop Equipment Schematic

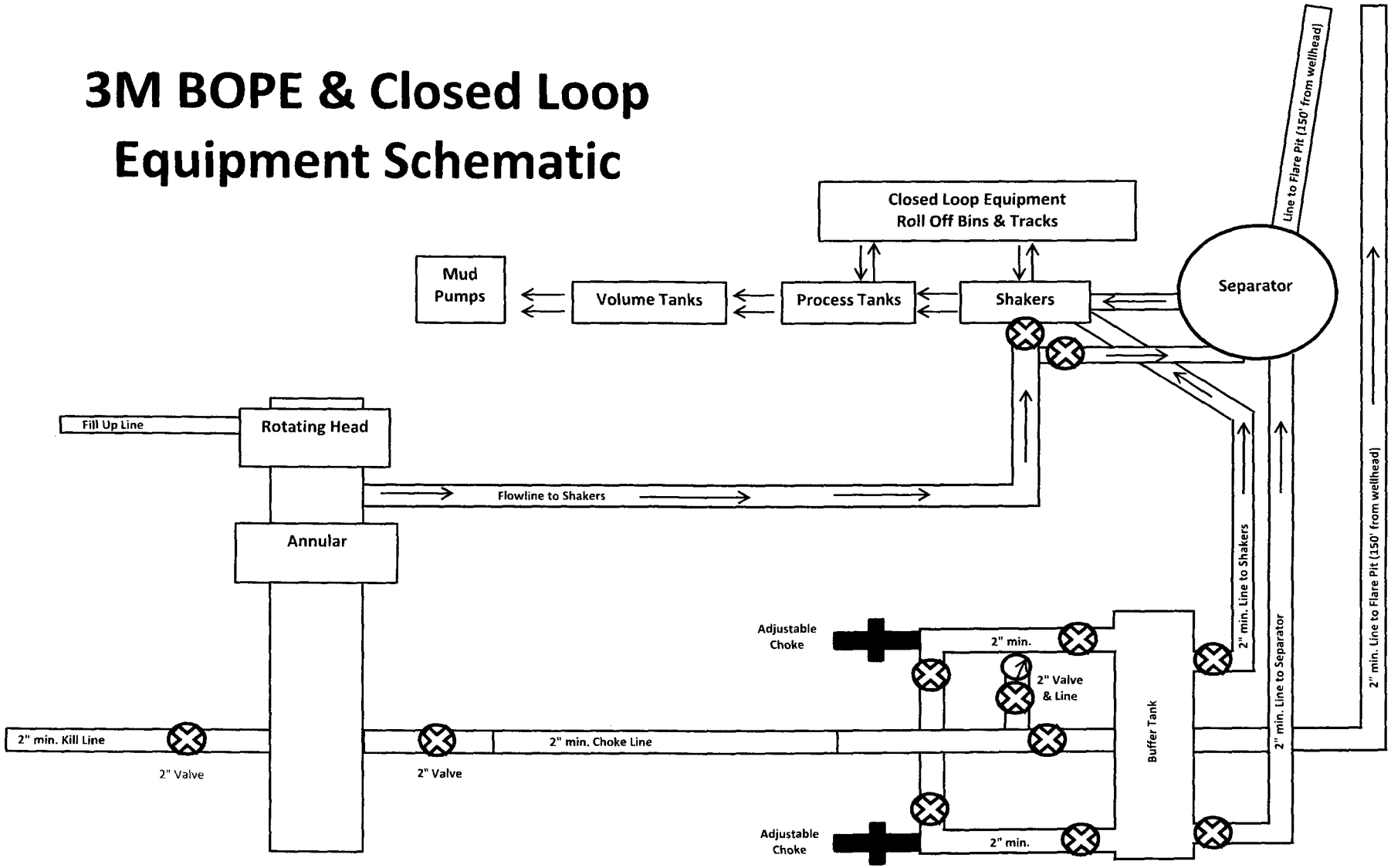


Exhibit "2"

Mewbourne Oil Company
BOP Schematic for

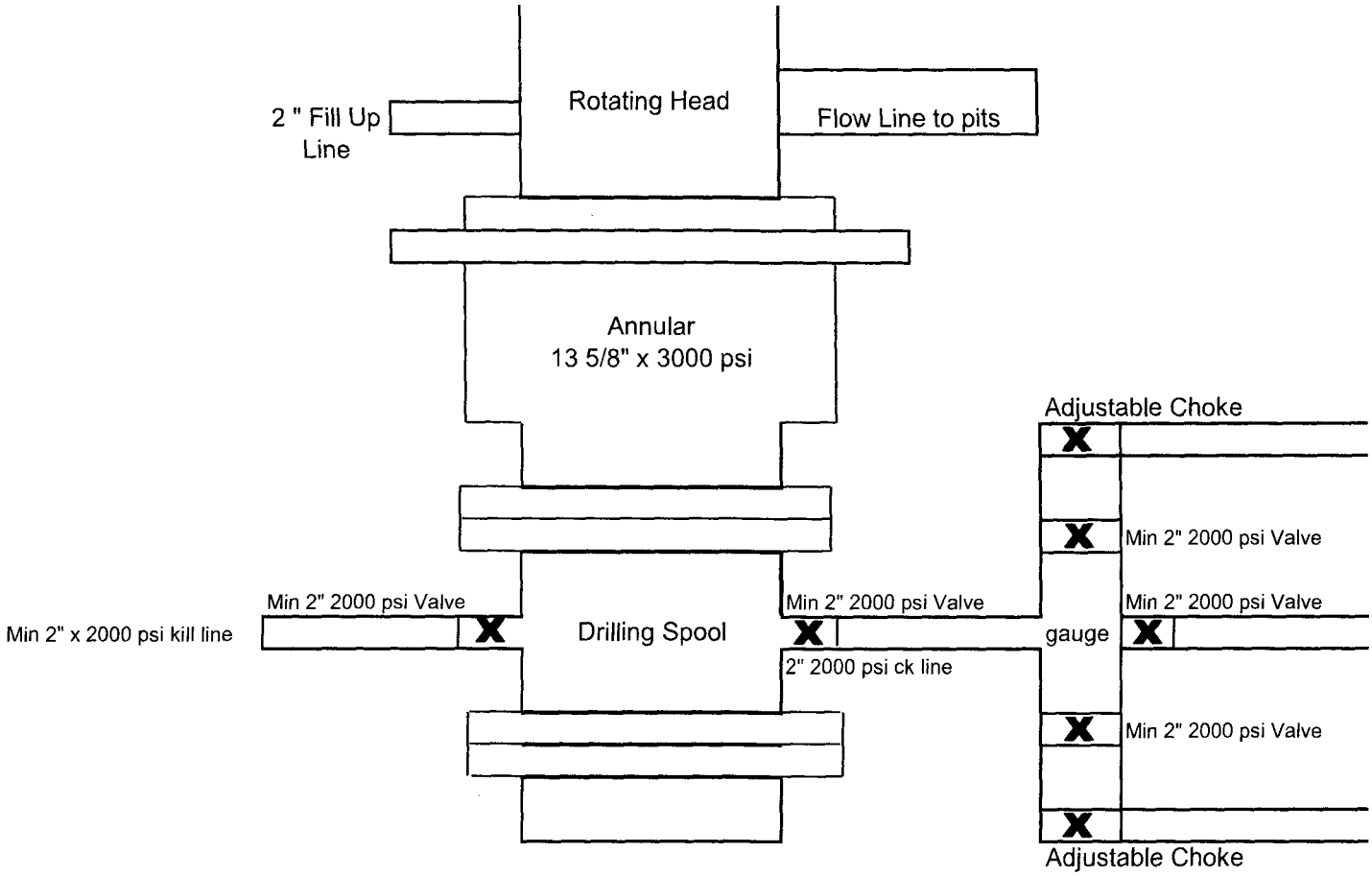


Exhibit #2

ENGINEERING & SERVICES

GATES E & S NORTH AMERICA, INC.
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: *Tim.Cantu@gates.com*
WEB: www.gates.com

10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER

Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE

End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager :	QUALITY	Produciton:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :		Signature :	

Form PTC - 01 Rev.0 2

Gates

60 MIN.
30
25
20
15
10
5
HOSE I.D. 3/4"
LENGTH 48"
END 1 1/4"
GRADE 104
WORKING PRESSURE 10,000 P.S.I.
TEST PRESSURE 15,000 P.S.I.
ASSEMBLY DATE 4-30-15
TEST DATE 4-30-15
SERIAL # 22560
NAME
END 2 1/4"
10,000 P.S.I.
GATES ENGINEERING & SERVICES NA
QA/QC
APPROVED
CHART POOL USA INC.
PORTAGE, INDIANA
2000
4000
6000
8000
10000
12000
14000
16000
18000

Mewbourne Oil Company, Pavo Macho 31 B2LI Fed #1H
Sec 31, T18S, R29E
SL: 1980' FSL & 185' FWL
BHL: 1800' FSL & 330' FEL

Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0'	415'	13.375"	48	H40	STC	3.43	8.02	16.16
12.25"	0'	1125'	9.625"	36	J55	LTC	3.45	6.02	11.19
8.75"	0'	7098'	7"	26	P110	LTC	2.11	2.70	3.40
8.75"	7098'	7837'	7"	26	P110	BTC	1.98	2.53	43.20
6.125"	7098'	11910'	4.5"	13.5	P110	LTC	2.68	3.11	5.19
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Hydrogen Sulfide Drilling Operations Plan
Mewbourne Oil Company

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

1. Well Control Equipment
   - A. Choke manifold with minimum of one adjustable choke/remote choke.
   - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
   - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel
   Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

3. Hydrogen Sulfide Protection and Monitoring Equipment
Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems
A. Wind direction indicators as indicated on the wellsite diagram.
B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. Emergency Phone Numbers

Eddy County Sheriff's Office	**911 or 575-887-7551**
Ambulance Service	**911 or 575-885-2111**
Carlsbad Fire Dept	**911 or 575-885-2111**
Loco Hills Volunteer Fire Dept.	**911 or 575-677-3266**
Closest Medical Facility - Columbia Medical Center of Carlsbad	**575-492-5000**

Mewbourne Oil Company	**Hobbs District Office**	**575-393-5905**
	Fax	**575-397-6252**
	2nd Fax	**575-393-7259**
District Manager	**Robin Terrell**	**575-390-4816**
Drilling Superintendent	**Frosty Lathan**	**575-390-4103**
	Bradley Bishop	**575-390-6838**
Drilling Foreman	**Wesley Noseff**	**575-441-0729**

Mewbourne Oil Company

Eddy County, New Mexico
Pavo Macho 31 B2LI Fed #1H
Sec 31, T18S, R29E
SL: 1980' FSL & 185' FWL
BHL: 1800' FSL & 330' FEL

Plan: Design #1

Standard Planning Report

12 February, 2016

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Pavo Macho 31 B2LI Fed #1H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	**MD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Site:	Pavo Macho 31 B2LI Fed #1H	**North Reference:**	Grid
Well:	Sec 31, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1800' FSL & 330' FEL		
Design:	Design #1		

Project	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Pavo Macho 31 B2LI Fed #1H				
Site Position:		**Northing:**	619,432.00 usft	**Latitude:**	32° 42' 9.851 N
From:	Map	**Easting:**	565,383.00 usft	**Longitude:**	104° 7' 14.808 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.11 °

Well	Sec 31, T18S, R29E					
Well Position	**+N/-S**	0.0 usft	**Northing:**	619,432.00 usft	**Latitude:**	32° 42' 9.851 N
	+E/-W	0.0 usft	**Easting:**	565,383.00 usft	**Longitude:**	104° 7' 14.808 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,424.0 usft	**Ground Level:**	3,397.0 usft

Wellbore BHL: 1800' FSL & 330' FEL

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.04	60.59	49,020

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	93.13	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,098.5	0.00	0.00	7,098.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,836.9	88.58	93.13	7,576.0	-25.5	465.1	12.00	12.00	0.00	93.13	
11,910.2	88.58	93.13	7,677.0	-248.0	4,531.0	0.00	0.00	0.00	0.00	BHL: 1800' FSL & 33(

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Pavo Macho 31 B2LI Fed #1H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	**MD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Site:	Pavo Macho 31 B2LI Fed #1H	**North Reference:**	Grid
Well:	Sec 31, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1800' FSL & 330' FEL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 1980' FSL & 185' FWL									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Pavo Macho 31 B2LI Fed #1H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	**MD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Site:	Pavo Macho 31 B2LI Fed #1H	**North Reference:**	Grid
Well:	Sec 31, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1800' FSL & 330' FEL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,098.5	0.00	0.00	7,098.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 7099'									
7,100.0	0.18	93.13	7,100.0	0.0	0.0	0.0	12.00	12.00	0.00
7,200.0	12.17	93.13	7,199.2	-0.6	10.7	10.7	12.00	12.00	0.00
7,300.0	24.17	93.13	7,294.1	-2.3	41.8	41.9	12.00	12.00	0.00
7,400.0	36.16	93.13	7,380.4	-5.0	91.9	92.0	12.00	12.00	0.00
7,481.2	45.90	93.13	7,441.5	-7.9	145.0	145.2	12.00	12.00	0.00
First Take Point: 1972' FSL & 330' FWL									
7,500.0	48.16	93.13	7,454.4	-8.7	158.8	159.0	12.00	12.00	0.00
7,600.0	60.16	93.13	7,512.8	-13.1	239.6	239.9	12.00	12.00	0.00
7,700.0	72.15	93.13	7,553.2	-18.1	330.7	331.2	12.00	12.00	0.00
7,800.0	84.15	93.13	7,573.7	-23.4	428.3	428.9	12.00	12.00	0.00
7,837.0	88.58	93.13	7,576.0	-25.5	465.1	465.8	11.99	11.99	0.00
LP: 1955' FSL & 650' FWL									
7,900.0	88.58	93.13	7,577.6	-28.9	528.0	528.8	0.00	0.00	0.00
8,000.0	88.58	93.13	7,580.0	-34.4	627.9	628.8	0.00	0.00	0.00
8,100.0	88.58	93.13	7,582.5	-39.8	727.7	728.8	0.00	0.00	0.00
8,200.0	88.58	93.13	7,585.0	-45.3	827.5	828.7	0.00	0.00	0.00
8,300.0	88.58	93.13	7,587.5	-50.8	927.3	928.7	0.00	0.00	0.00
8,400.0	88.58	93.13	7,590.0	-56.2	1,027.1	1,028.7	0.00	0.00	0.00
8,500.0	88.58	93.13	7,592.4	-61.7	1,127.0	1,128.6	0.00	0.00	0.00
8,600.0	88.58	93.13	7,594.9	-67.1	1,226.8	1,228.6	0.00	0.00	0.00
8,700.0	88.58	93.13	7,597.4	-72.6	1,326.6	1,328.6	0.00	0.00	0.00
8,800.0	88.58	93.13	7,599.9	-78.1	1,426.4	1,428.5	0.00	0.00	0.00
8,900.0	88.58	93.13	7,602.4	-83.5	1,526.2	1,528.5	0.00	0.00	0.00
9,000.0	88.58	93.13	7,604.8	-89.0	1,626.1	1,628.5	0.00	0.00	0.00
9,100.0	88.58	93.13	7,607.3	-94.5	1,725.9	1,728.5	0.00	0.00	0.00
9,200.0	88.58	93.13	7,609.8	-99.9	1,825.7	1,828.4	0.00	0.00	0.00
9,300.0	88.58	93.13	7,612.3	-105.4	1,925.5	1,928.4	0.00	0.00	0.00
9,400.0	88.58	93.13	7,614.8	-110.9	2,025.3	2,028.4	0.00	0.00	0.00
9,500.0	88.58	93.13	7,617.2	-116.3	2,125.2	2,128.3	0.00	0.00	0.00
9,600.0	88.58	93.13	7,619.7	-121.8	2,225.0	2,228.3	0.00	0.00	0.00
9,700.0	88.58	93.13	7,622.2	-127.2	2,324.8	2,328.3	0.00	0.00	0.00
9,800.0	88.58	93.13	7,624.7	-132.7	2,424.6	2,428.2	0.00	0.00	0.00
9,900.0	88.58	93.13	7,627.2	-138.2	2,524.4	2,528.2	0.00	0.00	0.00

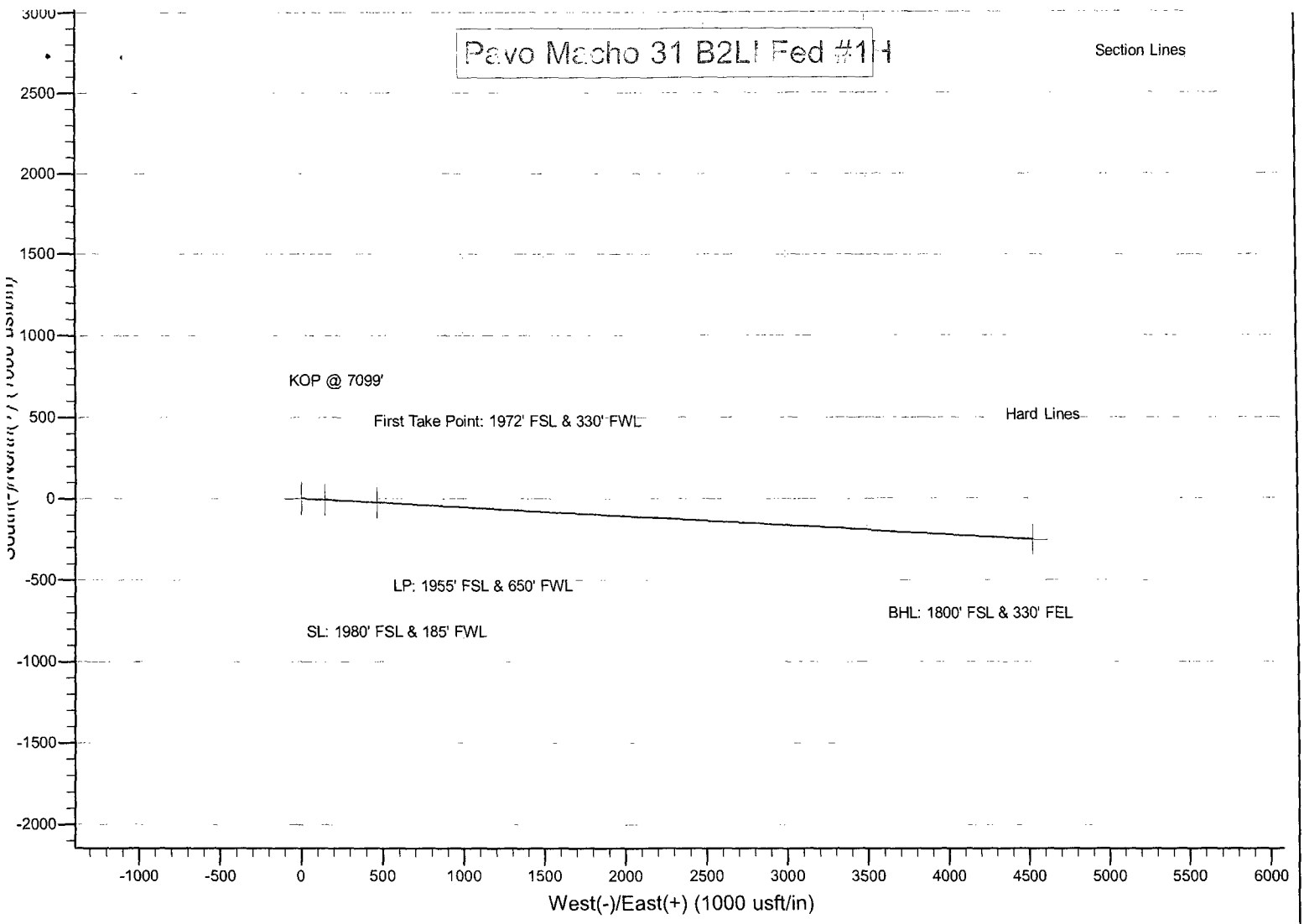
Database:	Hobbs	**Local Co-ordinate Reference:**	Site Pavo Macho 31 B2LI Fed #1H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Project:	Eddy County, New Mexico	**MD Reference:**	WELL @ 3424.0usft (Original Well Elev)
Site:	Pavo Macho 31 B2LI Fed #1H	**North Reference:**	Grid
Well:	Sec 31, T18S, R29E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 1800' FSL & 330' FEL		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.0	88.58	93.13	7,629.6	-143.6	2,624.3	2,628.2	0.00	0.00	0.00
10,100.0	88.58	93.13	7,632.1	-149.1	2,724.1	2,728.1	0.00	0.00	0.00
10,200.0	88.58	93.13	7,634.6	-154.6	2,823.9	2,828.1	0.00	0.00	0.00
10,300.0	88.58	93.13	7,637.1	-160.0	2,923.7	2,928.1	0.00	0.00	0.00
10,400.0	88.58	93.13	7,639.6	-165.5	3,023.5	3,028.1	0.00	0.00	0.00
10,500.0	88.58	93.13	7,642.0	-171.0	3,123.4	3,128.0	0.00	0.00	0.00
10,600.0	88.58	93.13	7,644.5	-176.4	3,223.2	3,228.0	0.00	0.00	0.00
10,700.0	88.58	93.13	7,647.0	-181.9	3,323.0	3,328.0	0.00	0.00	0.00
10,800.0	88.58	93.13	7,649.5	-187.3	3,422.8	3,427.9	0.00	0.00	0.00
10,900.0	88.58	93.13	7,652.0	-192.8	3,522.6	3,527.9	0.00	0.00	0.00
11,000.0	88.58	93.13	7,654.4	-198.3	3,622.5	3,627.9	0.00	0.00	0.00
11,100.0	88.58	93.13	7,656.9	-203.7	3,722.3	3,727.8	0.00	0.00	0.00
11,200.0	88.58	93.13	7,659.4	-209.2	3,822.1	3,827.8	0.00	0.00	0.00
11,300.0	88.58	93.13	7,661.9	-214.7	3,921.9	3,927.8	0.00	0.00	0.00
11,400.0	88.58	93.13	7,664.3	-220.1	4,021.7	4,027.7	0.00	0.00	0.00
11,500.0	88.58	93.13	7,666.8	-225.6	4,121.5	4,127.7	0.00	0.00	0.00
11,600.0	88.58	93.13	7,669.3	-231.1	4,221.4	4,227.7	0.00	0.00	0.00
11,700.0	88.58	93.13	7,671.8	-236.5	4,321.2	4,327.7	0.00	0.00	0.00
11,800.0	88.58	93.13	7,674.3	-242.0	4,421.0	4,427.6	0.00	0.00	0.00
11,900.0	88.58	93.13	7,676.7	-247.4	4,520.8	4,527.6	0.00	0.00	0.00
11,910.2	88.58	93.13	7,677.0	-248.0	4,531.0	4,537.8	0.00	0.00	0.00
BHL: 1800' FSL & 330' FEL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 1980' FSL & 185' FW - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	619,432.00	565,383.00	32° 42' 9.851 N	104° 7' 14.808 W
KOP @ 7099' - plan hits target center - Point	0.00	0.00	7,098.5	0.0	0.0	619,432.00	565,383.00	32° 42' 9.851 N	104° 7' 14.808 W
First Take Point: 1972' F - plan hits target center - Point	0.00	0.00	7,441.5	-7.9	145.0	619,424.07	565,528.00	32° 42' 9.769 N	104° 7' 13.111 W
LP: 1955' FSL & 650' FW - plan hits target center - Point	0.00	0.00	7,576.0	-25.5	465.1	619,406.50	565,848.10	32° 42' 9.589 N	104° 7' 9.365 W
BHL: 1800' FSL & 330' F - plan hits target center - Point	0.00	0.00	7,677.0	-248.0	4,531.0	619,184.00	569,914.00	32° 42' 7.304 N	104° 6' 21.787 W


Pavo Macho 31 B2LI Fed #1H
Section Lines
KOP @ 7099'
First Take Point: 1972' FSL & 330' FWL
Hard Lines
LP: 1955' FSL & 650' FWL
BHL: 1800' FSL & 330' FEL
SL: 1980' FSL & 185' FWL
West(-)/East(+) (1000 usft/in)

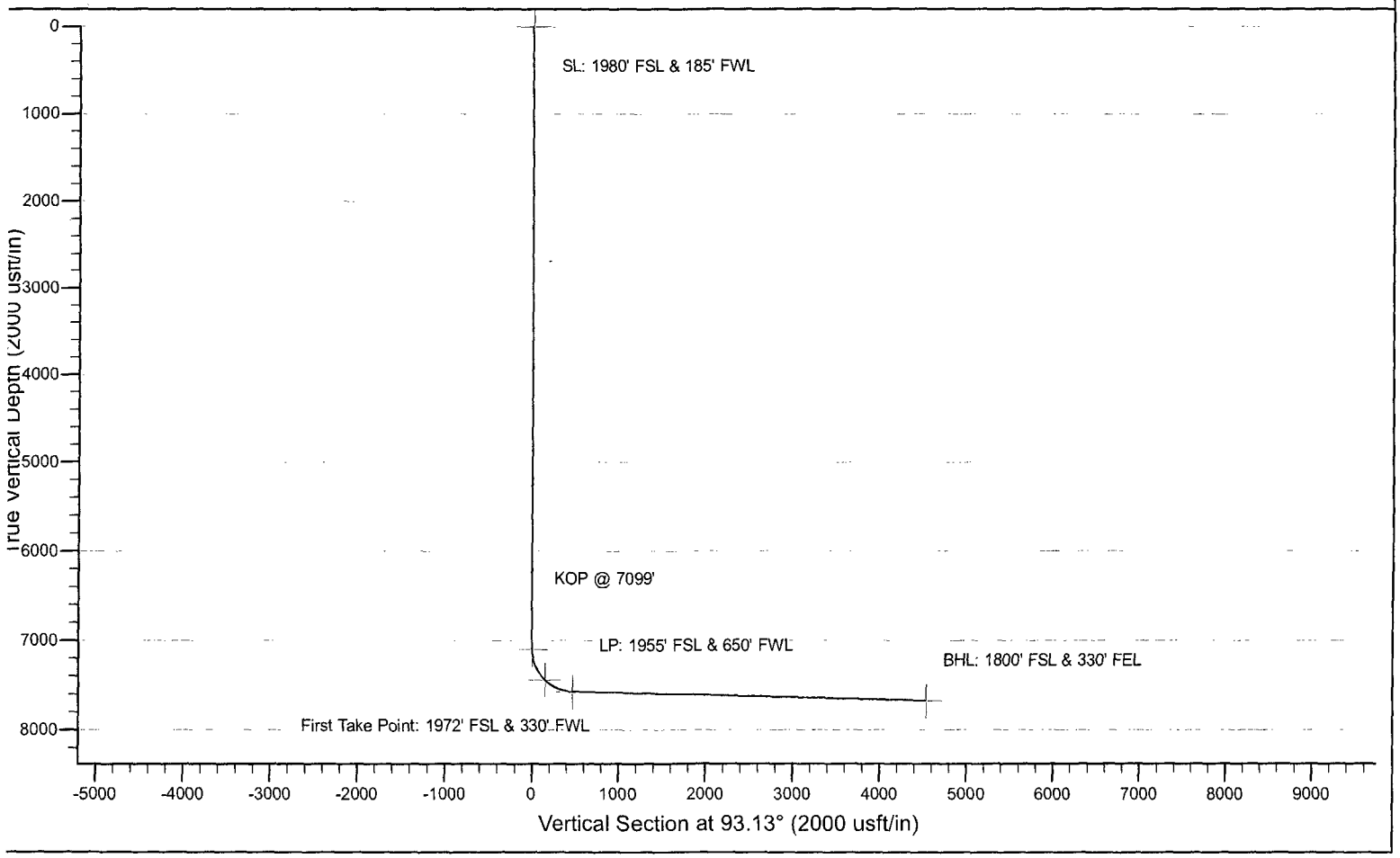

SL: 1980' FSL & 185' FWL
KOP @ 7099'
LP: 1955' FSL & 650' FWL
BHL: 1800' FSL & 330' FEL
First Take Point: 1972' FSL & 330' FWL
True Vertical Depth (2000 usft/in)
Vertical Section at 93.13° (2000 usft/in)

Exhibit "4" - SL - Pavo Macho 31 B2LI Fed #1H

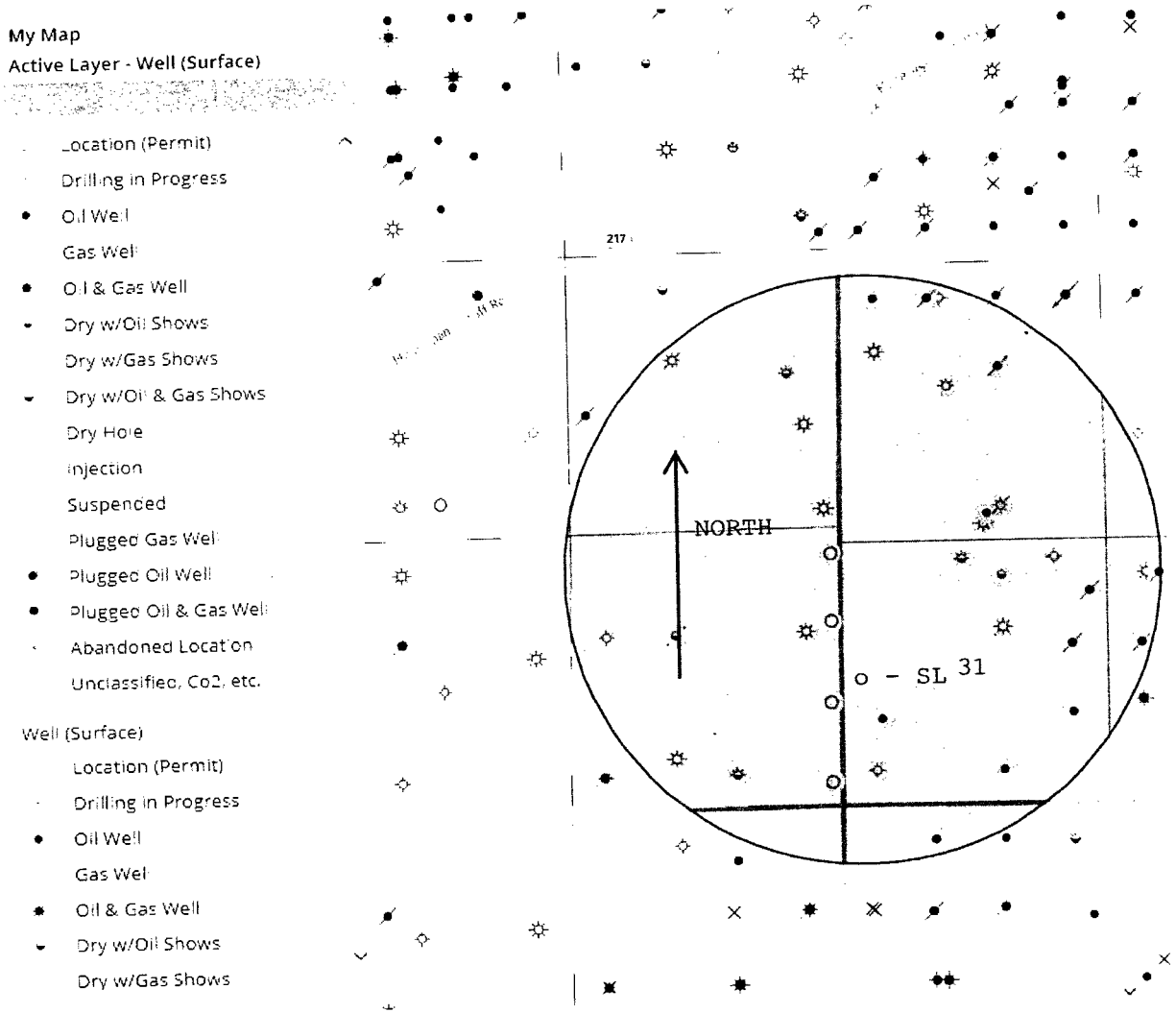
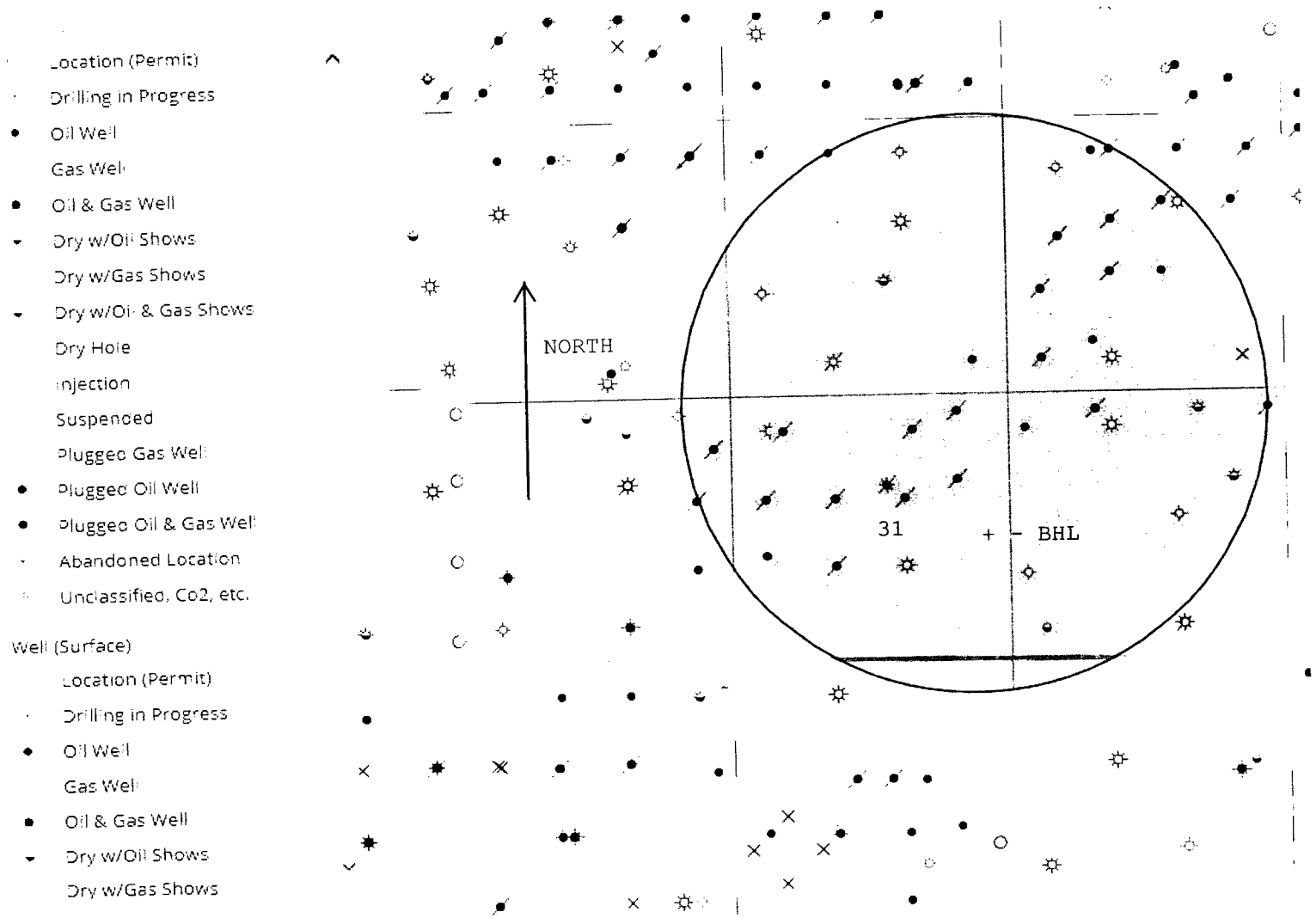
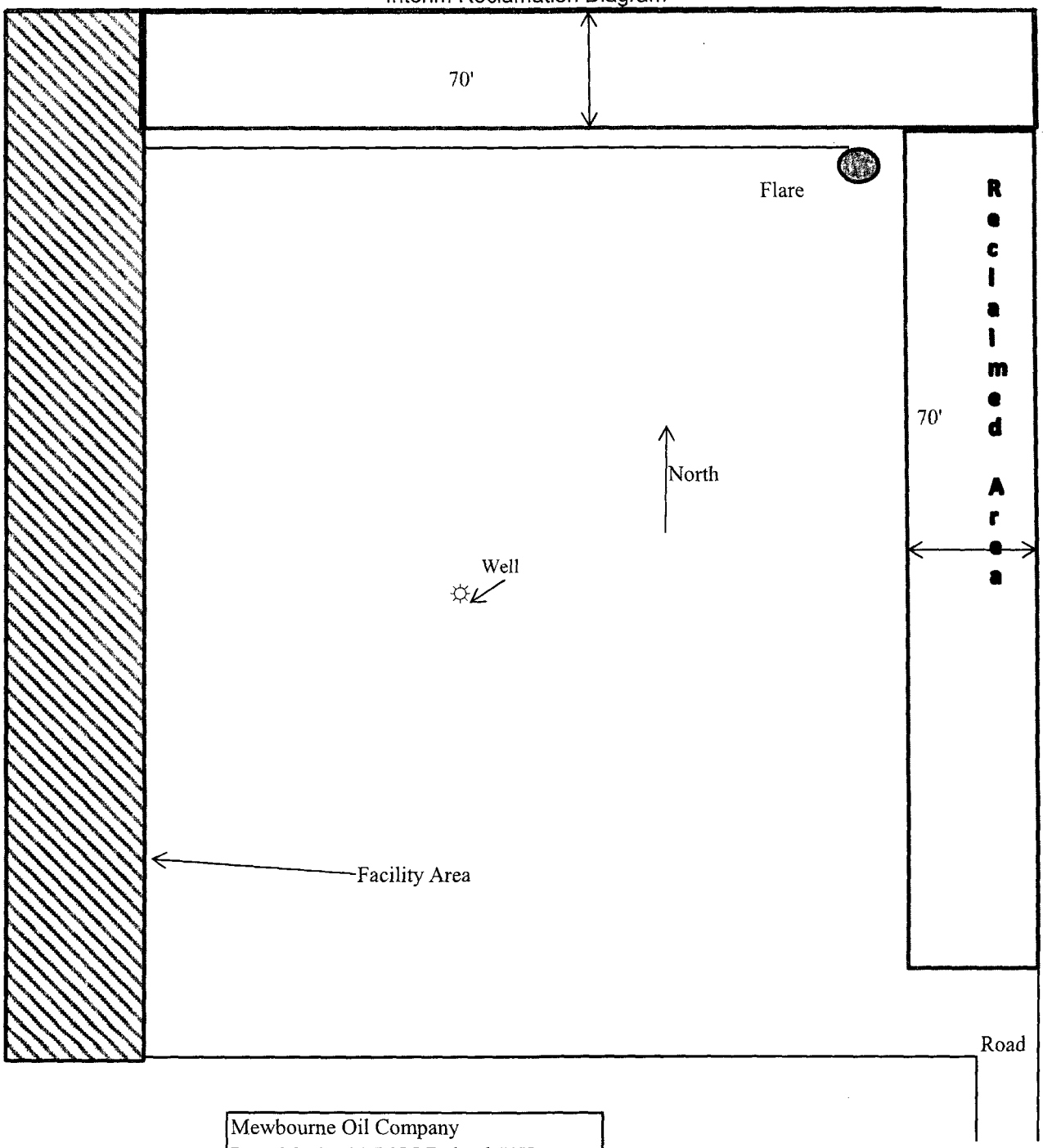


Exhibit "4A" - BHL - Pavo Macho 31 B2LI Fed #1H



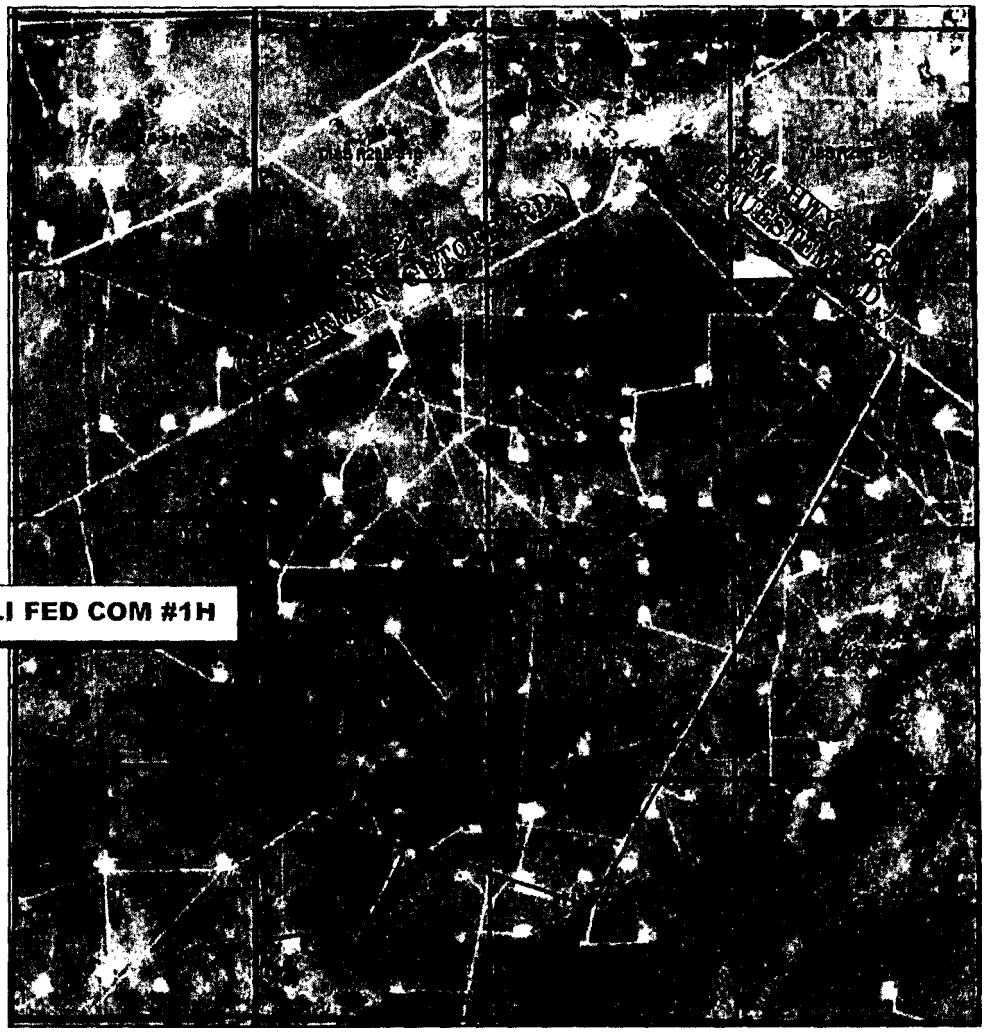
Interim Reclamation Diagram



Mewbourne Oil Company
Pavo Macho 31 B2LI Federal #1H
1980' FSL & 185' FWL
Sec. 31 T18S R29E
Eddy County, NM

VICINITY MAP

NOT TO SCALE



PAVO MACHO 31 B2LI FED COM #1H

SECTION 31, TWP. 18 SOUTH, RGE. 29 EAST, N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Pavo Macho 31 B2LI Fed Com
WELL NO.: 1H

LOCATION: 1980' FSL & 185' FWL
ELEVATION: 3397'

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE

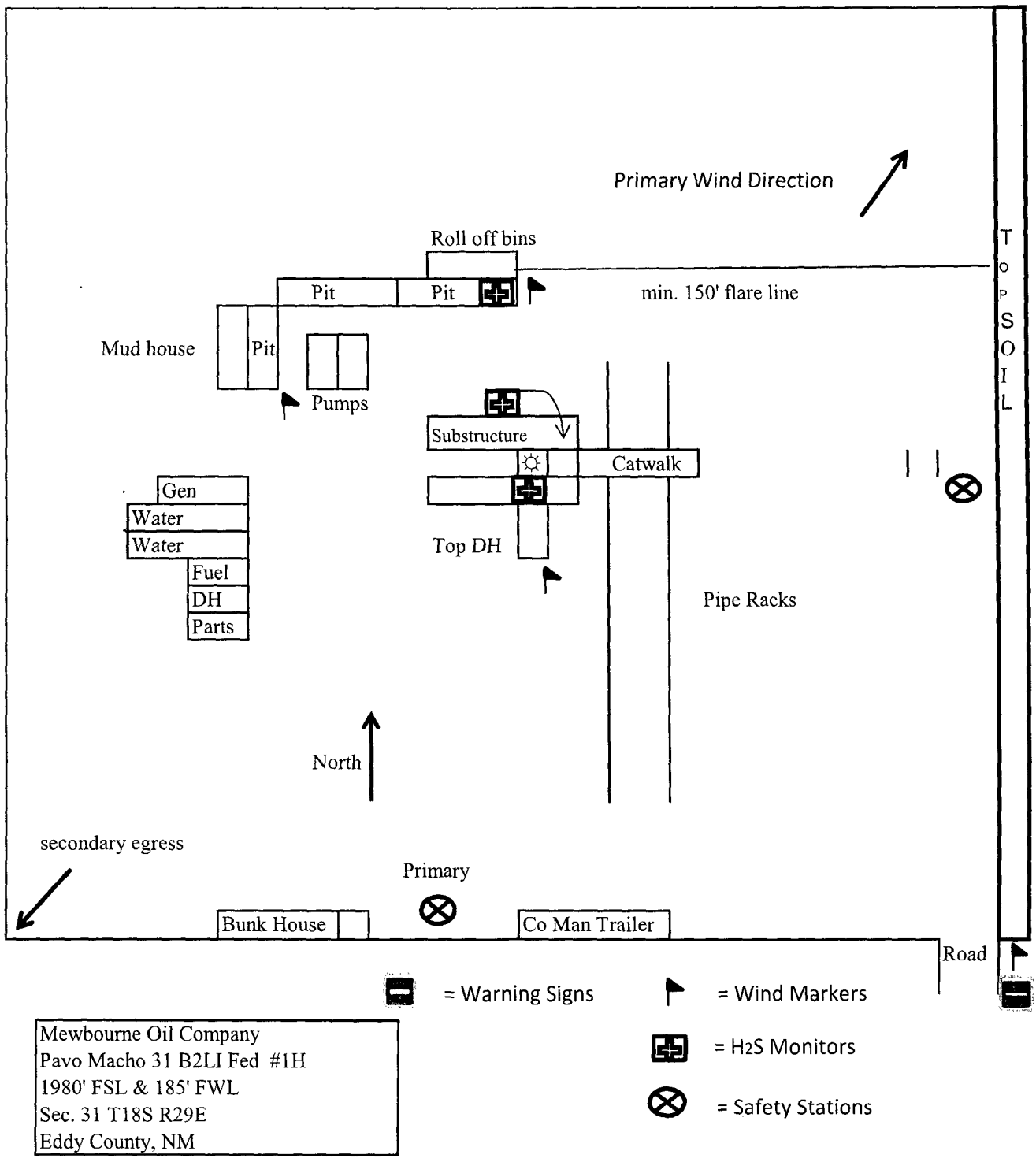
JOB NO.: LS1507345
DWG. NO.: 1507345VM

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: NTS
DATE: 7-17-2015
SURVEYED BY: BK/ER
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1

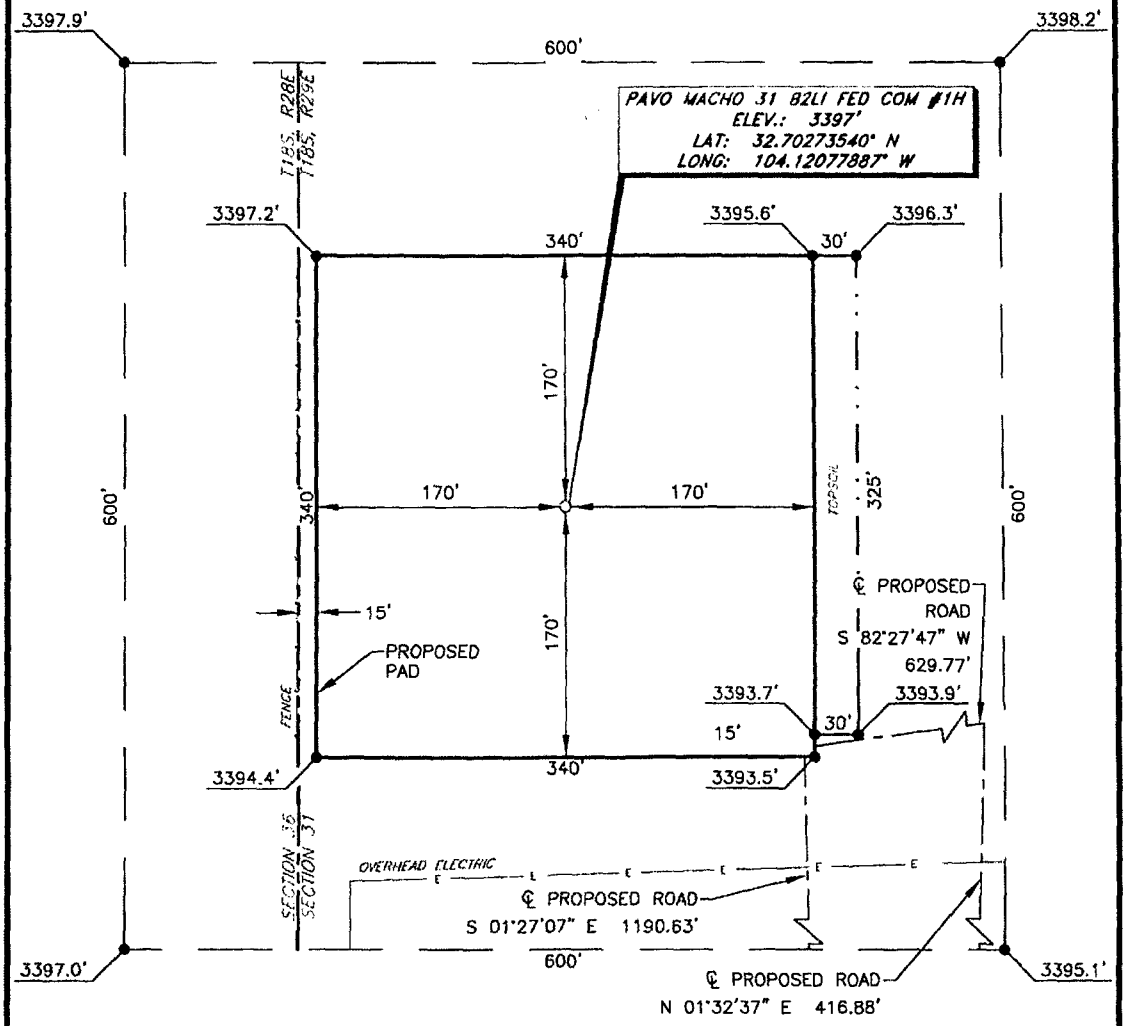
- H_2S Diagram



Mewbourne Oil Company
Pavo Macho 31 B2LI Fed #1H
1980' FSL & 185' FWL
Sec. 31 T18S R29E
Eddy County, NM

MEWBOURNE OIL COMPANY

PAVO MACHO 31 B2LI FED COM #1H
(1980' FSL & 185' FWL)
SECTION 31, T18S, R29E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of CR-217 (Hagerman Cutoff Rd.) and NM Hwy. 360 (Bluestem Rd.)

Go Southeast on NM Hwy. 360 approx. 1.4 miles to a lease road on the right;

Turn right and go Southwest approx. 2.6 miles to a "Y";

Keep right and go Northwest approx. 0.8 miles to a lease road on the left;

Turn left and go Southwest approx. 0.5 miles to a lease road on the right;

Turn right and go Northwest approx. 0.2 miles to a proposed road on the right;

Turn right and go North approx. 0.1 miles to a proposed road on the left;

Turn left and go West approx. 0.2 miles.

Location is on the right.

SCALE: 1" = 100'
50 100

D BEARINGS ARE NAD 27 GRID - NM EAST
DISTANCES ARE GROUND

Firm No.: TX 10193838 NM 4655451

Copyright 2014 - All Rights Reserved

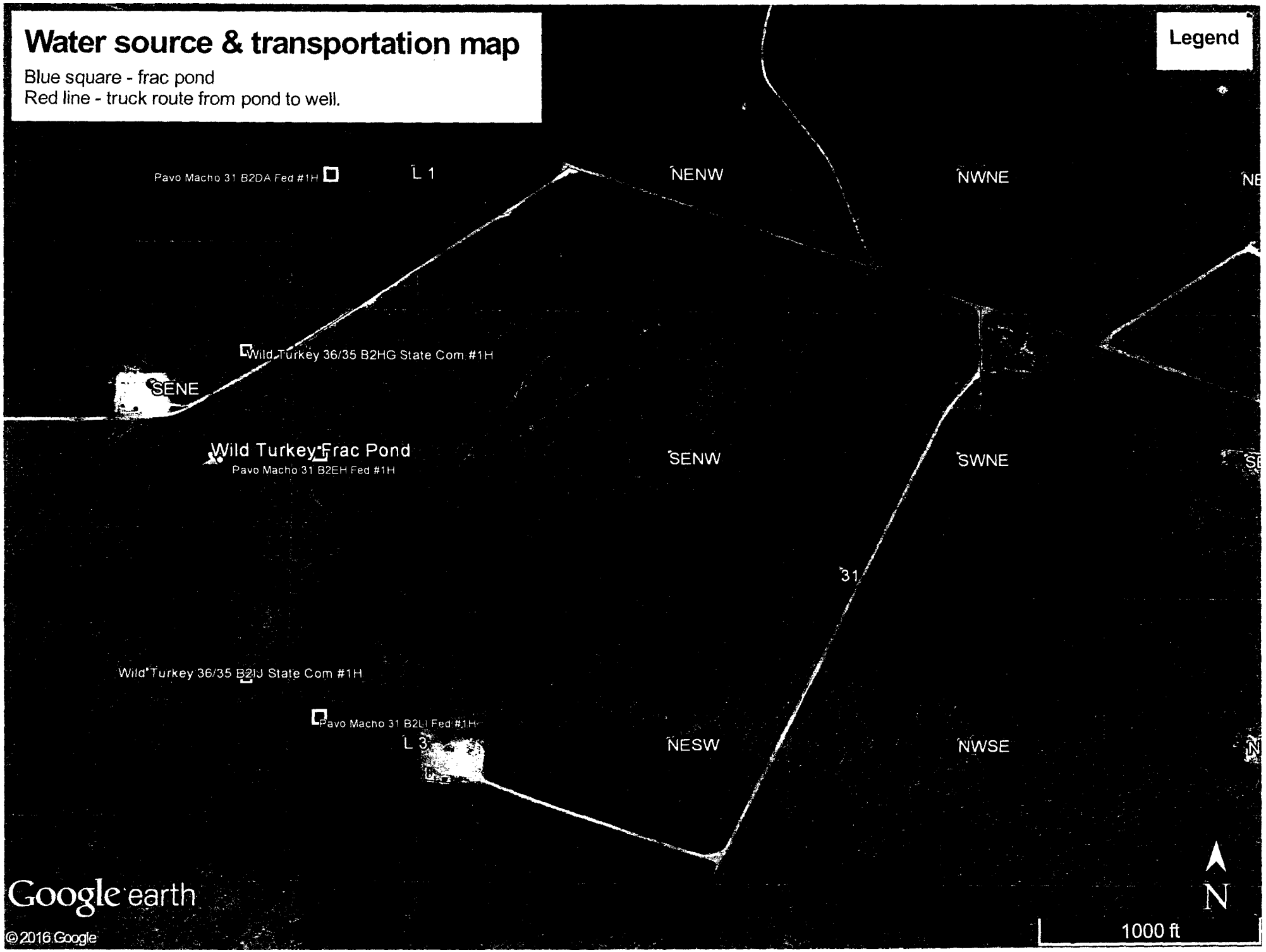
NO.	REVISION	DATE

JOB NO.: LS1507345
DWG. NO.: 1507345PAD

RRC

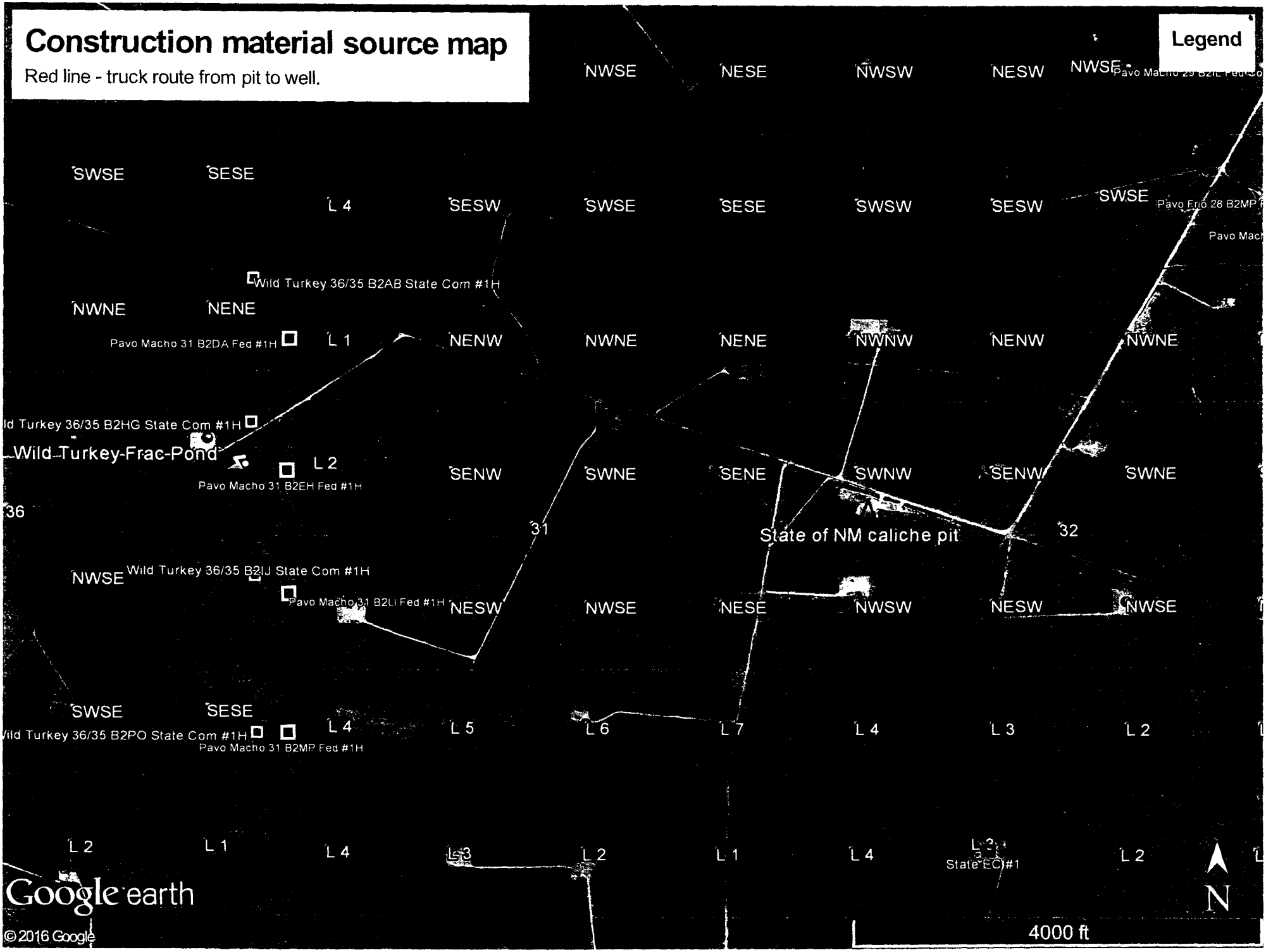
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 7-17-2015
SURVEYED BY: BK/ER
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1


Water source & transportation map
Blue square - frac pond
Red line - truck route from pond to well.
Legend
Pavo Macho 31 B2DA Fed #1H
L 1
NENW
NWNE
Wild Turkey 36/35 B2HG State Com #1H
SENE
Wild Turkey Frac Pond
Pavo Macho 31 B2EH Fed #1H
SENW
SWNE
31
Wild Turkey 36/35 B2IJ State Com #1H
Pavo Macho 31 B2LI Fed #1H
L 3
NESW
NWSE
Google earth
© 2016 Google
N
1000 ft

Construction material source map

Red line - truck route from pit to well.



PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMNM54626
WELL NAME & NO.:	1H-Pavo Macho 31 B2LI Federal
SURFACE HOLE FOOTAGE:	1980'/S & 1855'/W
BOTTOM HOLE FOOTAGE	1800'/S & 330'/E
LOCATION:	Section 18, T.29 S., R.31 E., NMPM
COUNTY:	Lea County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☐ **Eddy County**

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

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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

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

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.

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

Possibility of water flows in the Salado, Artesia Group, and Queen.
Possibility of lost circulation in the Artesia Group, Rustler, Grayburg, San Andres, and Delaware.

A. The **13-3/8** inch surface casing shall be set at approximately **260** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

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

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 compressive strength, whichever is greater.

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

B. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

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

☐ Cement should tie-back at least **200** feet into previous casing string. Operator shall provide method of verification.

Centralizers required through the curve and a minimum of one every other joint.

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

☐ Cement should tie-back to the top of the liner. Operator shall provide method of verification.

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

C. **PRESSURE CONTROL**

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

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi. **In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).**

4. 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 psi.

5. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.
    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

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

    e. 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.**

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. **DRILL STEM TEST**

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

E. **WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and

disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

TMAK 012202016

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Company
LEASE NO.:	NMNM54626
WELL NAME & NO.:	1H-Pavo Macho 31 B2LI Federal
SURFACE HOLE FOOTAGE:	1980'/S & 1855'/W
BOTTOM HOLE FOOTAGE	1800'/S & 330'/E
LOCATION:	Section 18, T.29 S., R.31 E., NMPM
COUNTY:	Lea County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Range

The operator must notify the BLM office (575-234-5972) and the grazing allotment holder if any damage occurs to structures that provide water to livestock, or to any fence or other range improvement.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

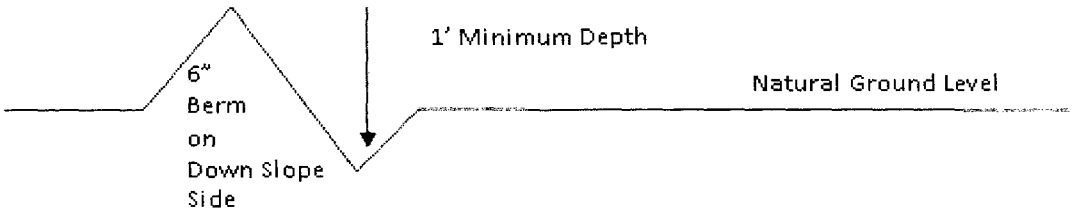
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

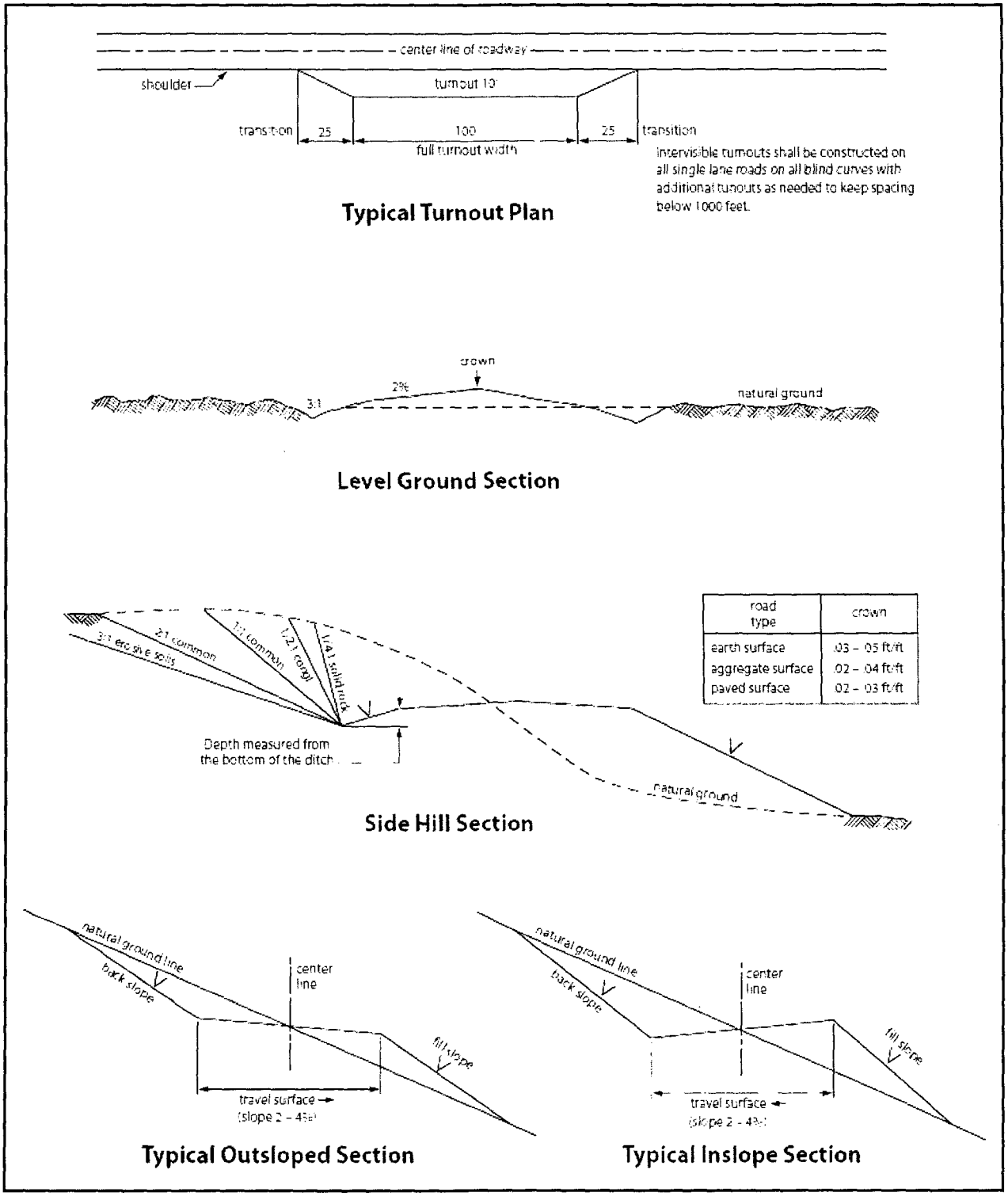


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

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** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed