

OCD Hobbs

HOBBSOCD

NOV 23 2015

RECEIVED

COPY

ATS-15-594

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work ☒ DRILL ☐ REENTER		5. Lease Serial No. NM 14492
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name ---
2. Name of Operator BTA Oil Producers, LLC (260297)		7. If Unit or CA Agreement, Name and No. ---
3a. Address 104 S. Pecos Midland, TX 79701		8. Lease Name and Well No. (305301) Mesa 8105 JV-P #24H
3b. Phone No. (include area code) (432) 682-3753		9. API Well No. 30-025 - 42951
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 330' FNL & 2390' FEL NW/NE Sec. 12 UL -B- At proposed prod. zone 230' FSL & 2390' FEL NW/NE Sec. 12 UL -O- UNORTHODOX LOCATION		10. Field and Pool, or Exploratory WC-025 G-08 525323HG; LWR BS (977903)
14. Distance in miles and direction from nearest town or post office* 25 miles west from Jal, NM		11. Sec., T., R., M. or Bk. and Survey or Area Sec. 12, T26S-R32E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 230'	16. No. of acres in lease 1960	17. Spacing Unit dedicated to this well 160 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 170' BHL to BHL (8105 JV-P Mesa #12H)	19. Proposed Depth 16211, MD 11,635' TVD	20. BLM/BIA Bond No. on file NM1195 NMB000849
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3335' GL	22. Approximate date work will start* 08/01/2015	23. Estimated duration 45 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature Kayla McConnell	Name (Printed Typed) Kayla McConnell	Date 04/15/2015
Title Regulatory Analyst		Email: kmcconnell@btaoil.com

Approved by (Signature) /S/ STEPHEN J. CAFFEY	Name (Printed Typed)	Date NOV 18 2015
Title FOR FIELD MANAGER		Office BLM-CARLSBAD FIELD OFFICE

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

APPROVAL FOR TWO YEARS

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

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Kz

11/24/15

Witness Surface & Intermediate Casing

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

NOV 30 2015

E-PERMITTING -- New Well
Comp P&A TA
CSNG Loc Chng
ReComp Add New Well
Cancel Well Create Pool



1. Geologic Formations

TVD of target	11635	Pilot hole depth	N/A
MD at TD:	16211	Deepest expected fresh water:	175

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	787	Water	
Top of Salt	1392	Salt	
Base of Salt	4527	Salt	
Delaware	4792	Oil/Gas	
Cherry Canyon	6047	Oil/Gas	
Brushy Canyon	7472	Oil/Gas	
Bone Spring	9012	Oil/Gas	
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

HOBBS OCD
NOV 23 2015

RECEIVED

*H₂S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

See COA

Hole Size	Casing Interval		Csg.Size	Weig ht (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	817 880	13.375"	54.5	J55	STC	1.43	1.26	2.59
12.25"	0	4762	9.625"	40	J55	LTC	1.19	1.89	2.1
8.75"	0	11907	5.5"	17	P110	LTC	1.56	1.6	2.63
7.875"	11907	16211	5.5"	17	P110	LTC	1.56	1.6	1.91
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
Does casing meet API specifications? 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 intermediate 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?	N/A
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	Y
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	Y
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N/A
Is 2 nd string set 100' to 600' below the base of salt?	N/A
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N/A
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N/A
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N/A

3. Cementing Program

Casing	#Sks	Wt. lb/ Gal	Yld ft3/ sack	H ₂ O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	570	13.5	1.75	8	10	Lead: Class C
	200	14.8	1.34	8	8	Tail: Class C, circ to surf, 100% excess
Inter.	950	12.7	1.94	8	15	1 st stage Lead: Class C Blend
	250	14.8	1.33	8	10	1 st stage Tail: Class C, circ to surf, 65% excess
Prod.	1000	11.3	2.92	8	14	1 st Lead: 50:50 Blend Class H
	950	14.4	1.22	8	10	1 st Tail: 50:50 Blend Class H

COPY

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	65%
Production	4262'	20%

Include Pilot Hole Cementing specs:

Pilot hole depth N/A

KOP 11158

Plug top	Plug Bottom	% Excess	No. Sacks	Wt. lb/gal	Yld ft3/sack	Water gal/sk	Slurry Description and Cement Type

4. Pressure Control Equipment

NO	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
-----------	--

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M 5M	Annular	x	50% of working pressure 3M 5M
			Blind Ram	x	
			Pipe Ram	x	
			Double Ram		
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
NO	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y / N	Are anchors required by manufacturer?
NO	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.	
	N/A	
	See attached schematic.	

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	817 880	FW Spud	8.5-8.8	35-45	N/C
817	4762	Saturated Brine	10.0-10.2	28-34	N/C
4762	TD	Cut Brine	8.6-9.2	28-34	N/C

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
X	Drill stem test? If yes, explain – will be run based on geological sample shows
	Coring? If yes, explain

Additional logs planned	Interval
	Resistivity
	Density
	CBL
X	Mud log
	PEX
	Intermediate shoe to TD

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5400 psi
Abnormal Temperature	Yes/No

Mitigation measure for abnormal conditions. Describe. No abnormal pressures or temperatures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
	H ₂ S is present
X	H ₂ S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe.

Will be pre-setting casing? If yes, describe.

Attachments

 X Directional Plan

 Other, describe

COPY

Attachment to APD
BTA Oil Producers, LLC
Mesa 8105 JV-P #24H
Sec 12, T26S, R32E
Lea County, NM

BTA Oil Producers, LLC

Lea County, NM
Mesa Sec 1 & 12, T26S, R32E
Mesa #24H

Wellbore #1

Plan: Design #1

Standard Planning Report

16 March, 2015

BTA Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers, LLC
 Project: Lea County, NM
 Site: Mesa Sec 1 & 12, T26S, R32E
 Well: Mesa #24H
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well Mesa #24H
 TVD Reference: GL @ 3335.0usft
 MD Reference: GL @ 3335.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Lea County, NM, Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site	Mesa Sec 1 & 12, T26S, R32E				
Site Position:		Northing:	388,357.80 usft	Latitude:	32° 3' 56.723 N
From:	Map	Easting:	718,031.00 usft	Longitude:	103° 37' 46.202 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	Mesa #24H					
Well Position	+N/-S	-632.2 usft	Northing:	387,725.60 usft	Latitude:	32° 3' 50.418 N
	+E/-W	762.5 usft	Easting:	718,793.50 usft	Longitude:	103° 37' 37.389 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,335.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/8/2014	7.19	59.98	48,233

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	179.63

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	
11,157.5	0.00	0.00	11,157.5	0.0	0.0	0.00	0.00	0.00	0.00	
11,907.5	90.00	179.63	11,635.0	-477.5	3.1	12.00	12.00	0.00	179.63	
16,211.0	90.00	179.63	11,635.0	-4,780.9	30.7	0.00	0.00	0.00	0.00	Mesa #24HB BHL Tar

BTA
Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers, LLC
 Project: Lea County, NM
 Site: Mesa Sec 1 & 12, T26S, R32E
 Well: Mesa #24H
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well Mesa #24H
 TVD Reference: GL @ 3335.0usft
 MD Reference: GL @ 3335.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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
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
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

BTA
Planning Report

COPY

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Mesa Sec 1 & 12, T26S, R32E
Well: Mesa #24H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Mesa #24H
TVD Reference: GL @ 3335.0usft
MD Reference: GL @ 3335.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
5,400.0	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
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	0.00	0.00	0.00

BTA
Planning Report

COPY

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Mesa Sec 1 & 12, T26S, R32E
Well: Mesa #24H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Mesa #24H
TVD Reference: GL @ 3335.0usft
MD Reference: GL @ 3335.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
10,800.0	0.00	0.00	10,800.0	0.0	0.0	0.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,900.0	0.0	0.0	0.0	0.00	0.00	0.00
11,000.0	0.00	0.00	11,000.0	0.0	0.0	0.0	0.00	0.00	0.00
11,100.0	0.00	0.00	11,100.0	0.0	0.0	0.0	0.00	0.00	0.00
11,157.5	0.00	0.00	11,157.5	0.0	0.0	0.0	0.00	0.00	0.00
11,200.0	5.10	179.63	11,199.9	-1.9	0.0	1.9	12.00	12.00	0.00
11,300.0	17.10	179.63	11,297.9	-21.1	0.1	21.1	12.00	12.00	0.00
11,400.0	29.10	179.63	11,389.7	-60.3	0.4	60.3	12.00	12.00	0.00
11,500.0	41.10	179.63	11,471.4	-117.6	0.8	117.6	12.00	12.00	0.00
11,600.0	53.10	179.63	11,539.3	-190.8	1.2	190.8	12.00	12.00	0.00
11,700.0	65.10	179.63	11,590.6	-276.4	1.8	276.4	12.00	12.00	0.00
11,800.0	77.10	179.63	11,622.9	-370.8	2.4	370.8	12.00	12.00	0.00
11,900.0	89.10	179.63	11,634.9	-469.9	3.0	469.9	12.00	12.00	0.00
11,907.5	90.00	179.63	11,635.0	-477.5	3.1	477.5	12.00	12.00	0.00
12,000.0	90.00	179.63	11,635.0	-569.9	3.7	569.9	0.00	0.00	0.00
12,100.0	90.00	179.63	11,635.0	-669.9	4.3	669.9	0.00	0.00	0.00
12,200.0	90.00	179.63	11,635.0	-769.9	4.9	769.9	0.00	0.00	0.00
12,300.0	90.00	179.63	11,635.0	-869.9	5.6	869.9	0.00	0.00	0.00
12,400.0	90.00	179.63	11,635.0	-969.9	6.2	969.9	0.00	0.00	0.00
12,500.0	90.00	179.63	11,635.0	-1,069.9	6.9	1,069.9	0.00	0.00	0.00
12,600.0	90.00	179.63	11,635.0	-1,169.9	7.5	1,169.9	0.00	0.00	0.00
12,700.0	90.00	179.63	11,635.0	-1,269.9	8.2	1,269.9	0.00	0.00	0.00
12,800.0	90.00	179.63	11,635.0	-1,369.9	8.8	1,369.9	0.00	0.00	0.00
12,900.0	90.00	179.63	11,635.0	-1,469.9	9.4	1,469.9	0.00	0.00	0.00
13,000.0	90.00	179.63	11,635.0	-1,569.9	10.1	1,569.9	0.00	0.00	0.00
13,100.0	90.00	179.63	11,635.0	-1,669.9	10.7	1,669.9	0.00	0.00	0.00
13,200.0	90.00	179.63	11,635.0	-1,769.9	11.4	1,769.9	0.00	0.00	0.00
13,300.0	90.00	179.63	11,635.0	-1,869.9	12.0	1,869.9	0.00	0.00	0.00
13,400.0	90.00	179.63	11,635.0	-1,969.9	12.6	1,969.9	0.00	0.00	0.00
13,500.0	90.00	179.63	11,635.0	-2,069.9	13.3	2,069.9	0.00	0.00	0.00
13,600.0	90.00	179.63	11,635.0	-2,169.9	13.9	2,169.9	0.00	0.00	0.00
13,700.0	90.00	179.63	11,635.0	-2,269.9	14.6	2,269.9	0.00	0.00	0.00
13,800.0	90.00	179.63	11,635.0	-2,369.9	15.2	2,369.9	0.00	0.00	0.00
13,900.0	90.00	179.63	11,635.0	-2,469.9	15.9	2,469.9	0.00	0.00	0.00
14,000.0	90.00	179.63	11,635.0	-2,569.9	16.5	2,569.9	0.00	0.00	0.00
14,100.0	90.00	179.63	11,635.0	-2,669.9	17.1	2,669.9	0.00	0.00	0.00
14,200.0	90.00	179.63	11,635.0	-2,769.9	17.8	2,769.9	0.00	0.00	0.00
14,300.0	90.00	179.63	11,635.0	-2,869.9	18.4	2,869.9	0.00	0.00	0.00
14,400.0	90.00	179.63	11,635.0	-2,969.9	19.1	2,969.9	0.00	0.00	0.00
14,500.0	90.00	179.63	11,635.0	-3,069.9	19.7	3,069.9	0.00	0.00	0.00
14,600.0	90.00	179.63	11,635.0	-3,169.9	20.4	3,169.9	0.00	0.00	0.00
14,700.0	90.00	179.63	11,635.0	-3,269.9	21.0	3,269.9	0.00	0.00	0.00
14,800.0	90.00	179.63	11,635.0	-3,369.9	21.6	3,369.9	0.00	0.00	0.00
14,900.0	90.00	179.63	11,635.0	-3,469.9	22.3	3,469.9	0.00	0.00	0.00
15,000.0	90.00	179.63	11,635.0	-3,569.9	22.9	3,569.9	0.00	0.00	0.00
15,100.0	90.00	179.63	11,635.0	-3,669.9	23.6	3,669.9	0.00	0.00	0.00
15,200.0	90.00	179.63	11,635.0	-3,769.9	24.2	3,769.9	0.00	0.00	0.00
15,300.0	90.00	179.63	11,635.0	-3,869.8	24.9	3,869.9	0.00	0.00	0.00
15,400.0	90.00	179.63	11,635.0	-3,969.8	25.5	3,969.9	0.00	0.00	0.00
15,500.0	90.00	179.63	11,635.0	-4,069.8	26.1	4,069.9	0.00	0.00	0.00
15,600.0	90.00	179.63	11,635.0	-4,169.8	26.8	4,169.9	0.00	0.00	0.00
15,700.0	90.00	179.63	11,635.0	-4,269.8	27.4	4,269.9	0.00	0.00	0.00
15,800.0	90.00	179.63	11,635.0	-4,369.8	28.1	4,369.9	0.00	0.00	0.00
15,900.0	90.00	179.63	11,635.0	-4,469.8	28.7	4,469.9	0.00	0.00	0.00

BTA
Planning Report

COPY

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Mesa Sec 1 & 12, T26S, R32E
Well: Mesa #24H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Mesa #24H
TVD Reference: GL @ 3335.0usft
MD Reference: GL @ 3335.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
16,000.0	90.00	179.63	11,635.0	-4,569.8	29.3	4,569.9	0.00	0.00	0.00
16,100.0	90.00	179.63	11,635.0	-4,669.8	30.0	4,669.9	0.00	0.00	0.00
16,200.0	90.00	179.63	11,635.0	-4,769.8	30.6	4,769.9	0.00	0.00	0.00
16,211.0	90.00	179.63	11,635.0	-4,780.9	30.7	4,781.0	0.00	0.00	0.00
Mesa #24HB BHL Target									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Mesa #24HB BHL Targe	0.00	0.00	11,635.0	-4,780.9	30.7	382,944.90	718,824.20	32° 3' 3.107 N	103° 37' 37.396 W
- plan hits target center									
- Point									

Azimuths to Grid North
 True North: -0.37°
 Magnetic North: 6.82°

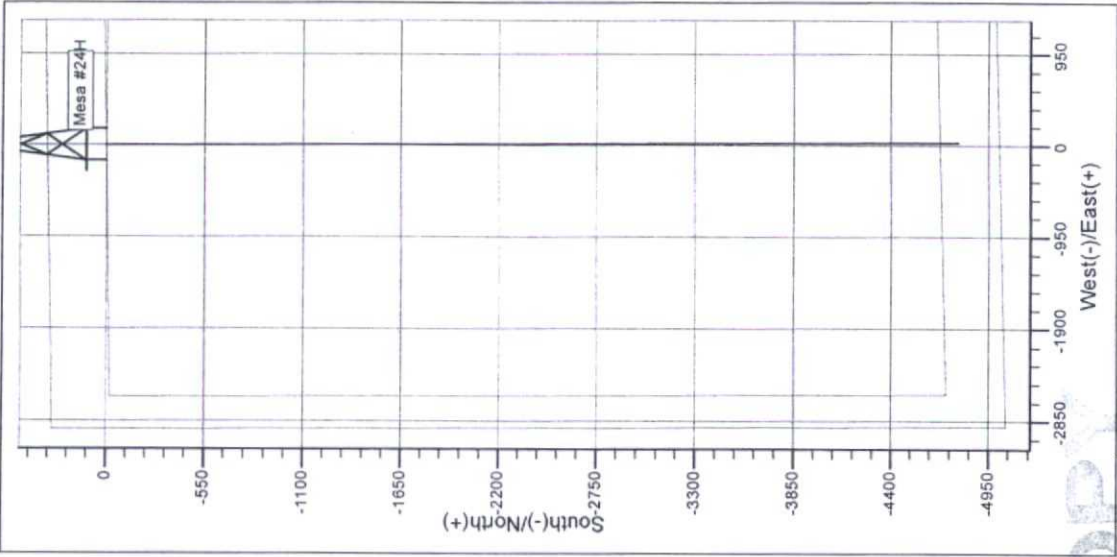
Magnetic Field
 Strength: 48233.4snT
 Dip Angle: 59.98°
 Date: 10/8/2014
 Model: IGRF200510

WELL DETAILS: Mesa #24H			
+N/-S	+E/-W	Ground Level:	
0.0	0.0	Easting	3335.0
		Northing	387725.60
		Latitude	32° 3' 50.418 N
		Longitude	103° 37' 37.389 W

SITE DETAILS: Mesa Sec 1 & 12, T26S, R32E
Site Centre Northing: 388357.80 Easting: 718031.00
Positional Uncertainty: 0.0 Convergence: 0.37 Local North: Grid

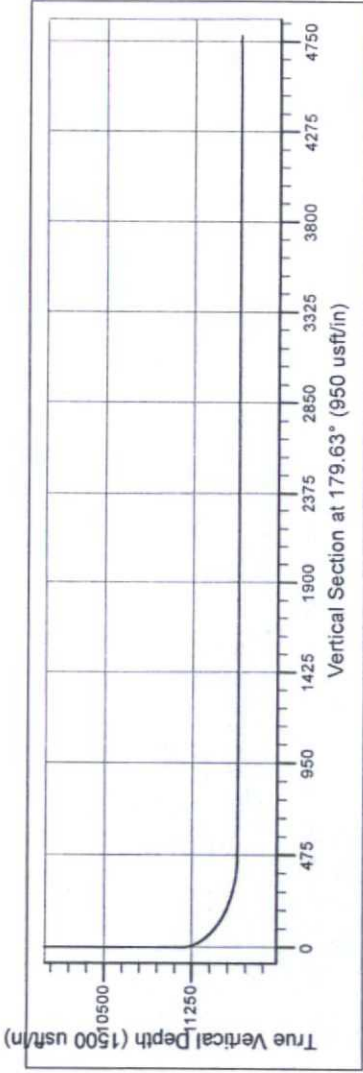
CASING DETAILS
No casing data is available

PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1927 (Exact solution) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: New Mexico East 3001
System Datum: Ground Level



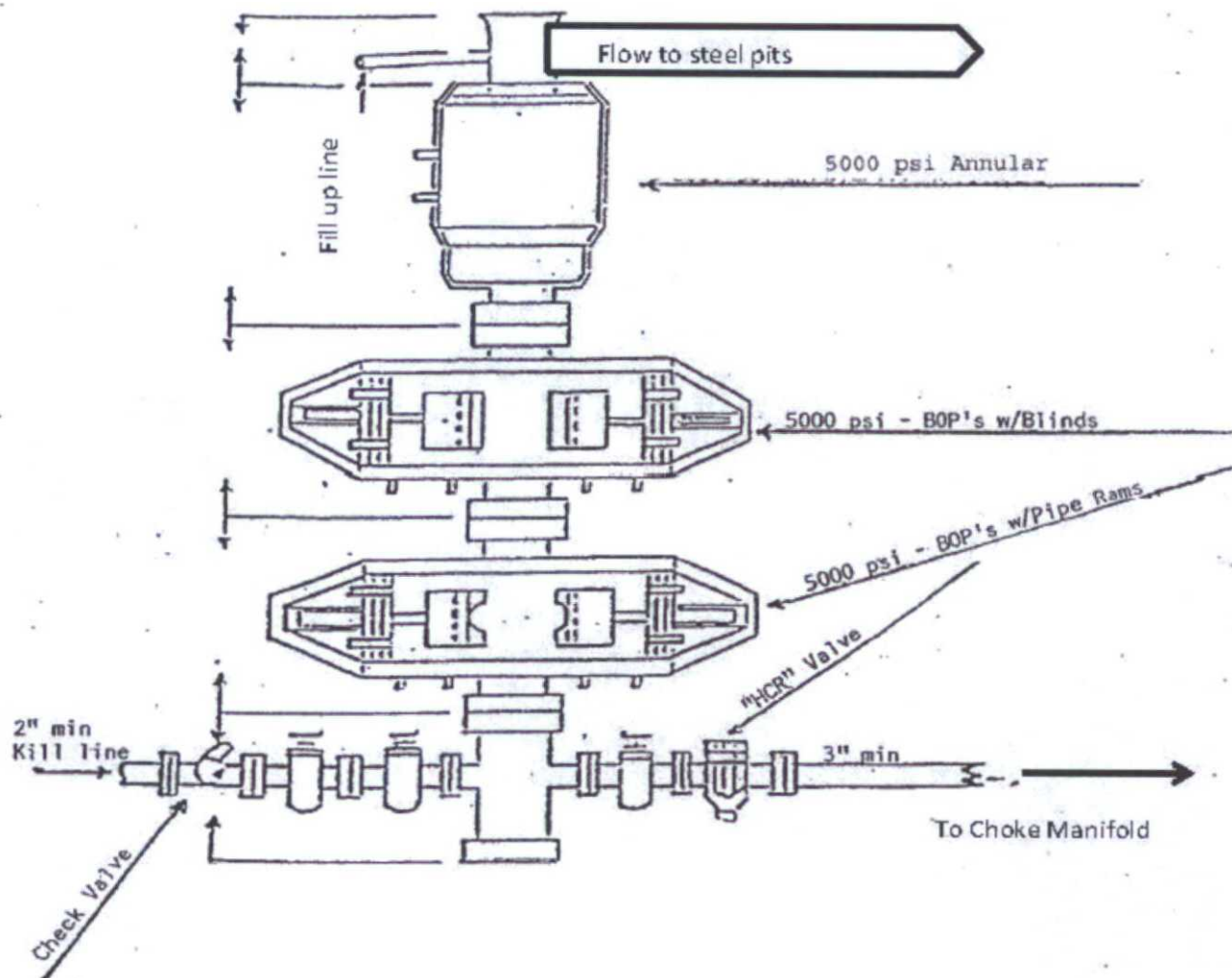
BTA Oil Producers, LLC

SECTION DETAILS						
MD	Inc	Azi	TVD	+N/-S	+E/-W	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.0
11157.5	0.00	0.00	11157.5	0.0	0.0	0.0
11907.5	90.00	179.63	11635.0	-477.5	3.1	12.00 179.63 477.5
16211.0	90.00	179.63	11635.0	-4780.9	30.7	0.00 0.00 4781.0
						Mesa #24HB BHL Target

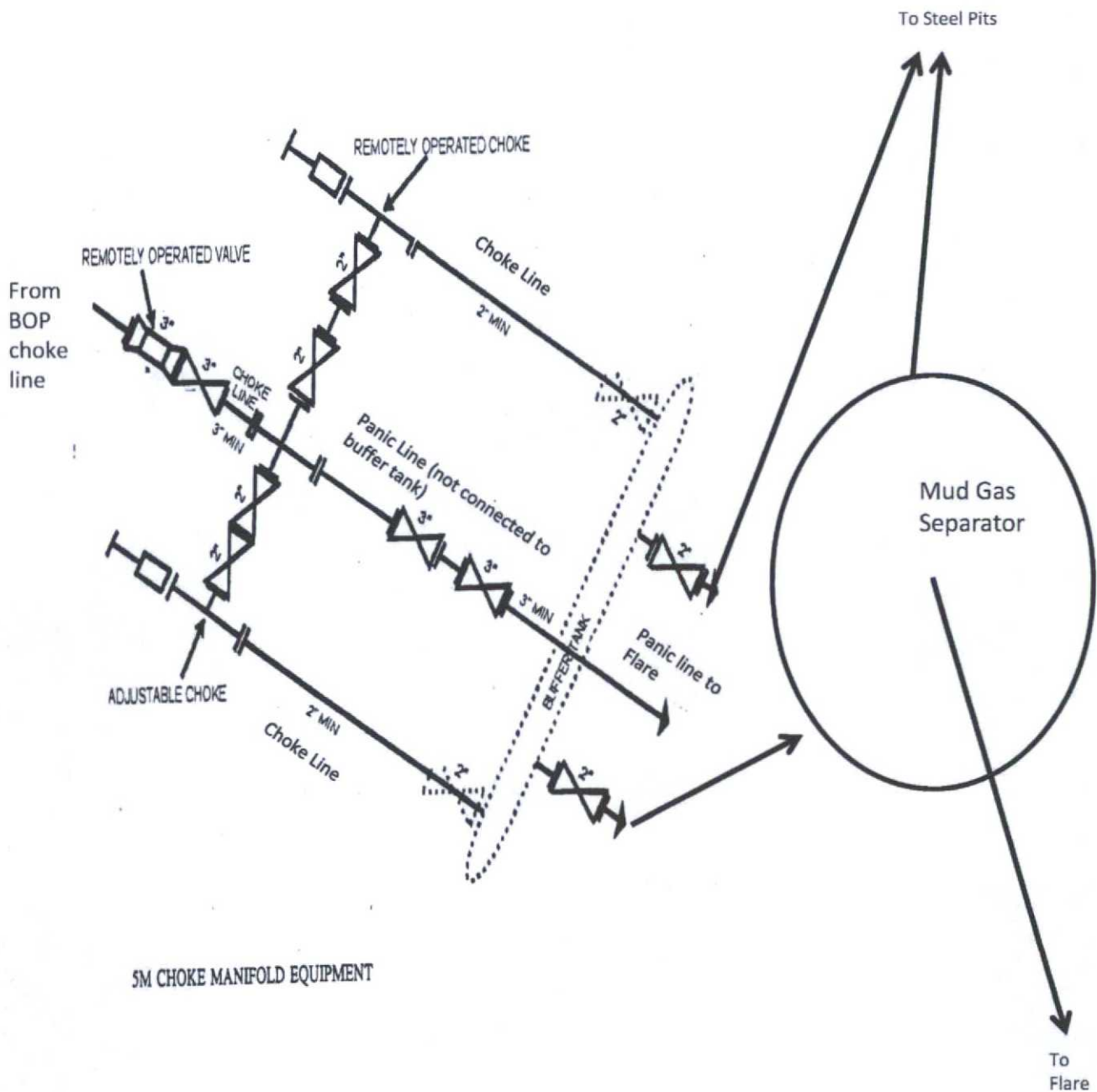


COPY

13-5/8" 5,000 PSI BOP



BTA OIL PRODUCERS, LLC
8105 JV-P Mesa #22H
Attachment to APD



BTA OIL PRODUCERS, LLC
 8105 JV-P Mesa #22H
 Attachment to APD