

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

Form C-101
Revised July 18, 2013

HOBBS OCD
DEC 11 2017
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Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED OCD
2017 DEC -1 P 2:19

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address 3Bear Field Services, LLC 500 DON GASPAR AVE SANTA FE, NM 87505		2. OGRID Number 372603
4. Property Code 320495	5. Property Name Libby Berry Fee SWD	6. Well No. #1
3. API Number 30-02544288		

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
H	26	20S	34E		2510	FNL	710	FEL	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
H	26	20S	34E		2510	FNL	710	FEL	Lea

9. Pool Information

Pool Name SWD; Miss-Devonian	Pool Code 96319
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Additional Well Information

11. Work Type N	12. Well Type S	13. Cable/Rotary R	14. Lease Type P/P	15. Ground Level Elevation 3620
16. Multiple Yes	17. Proposed Depth 14,600	18. Formation Miss-Devonian	19. Contractor Silver Oak Drilling	20. Spud Date December 15, 2017+
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program


Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Please see attached Addendum to Drilling Permit						

Casing/Cement Program: Additional Comments

Please see attached Addendum to Drilling Permit

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Please see attached Addendum to Drilling Permit			

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature: 

Printed name: Rory McMinn

Title: Advisor

E-mail Address: rory@rmcminn.com

Date: November 30, 2017 Phone: 575/626-7100

OIL CONSERVATION DIVISION

Approved By:



Petroleum Engineer

Title:

Approved Date: 12/15/17

12/15/17
Petroleum Engineer

Conditions of Approval Attached 

* MUST OBTAIN AN ADMINISTRATIVE ORDER FOR SWD FROM SANTA FE NMOC

ADDENDUM
to
APPLICATION TO DRILL
Libby Berry Fee SWD #1
3Bear Field Services, LLC
Unit Letter H, 2510' FNL & 710' FEL, Section 26
T20S, R34E, N.M.P.M Survey
Lea County, NM

This attachment is a continuation of responses to the questions asked within the NM OCD Form C-101 Application to Drill.

1. Location: SHL 2507 FNL & 709 FEL
BHL 2507 FNL & 709 FEL
2. Elevation above Sea Level at Ground Reference: 3707'
3. Geologic name of surface formation: Quaternary Alluvium Deposits
4. Drilling tools and associated equipment: Conventional rotary drilling rig utilizing a managed fluid as the circulating medium for well control and for solids removal.
5. Proposed drilling depth: MD 14600' TVD 14600'
6. Estimated tops of geological markers:

0' to 140'	Surface Red Bed, Red Sandstone, Conglomerates & FW Sands
140'-399'	Rustler-Anhydrite
399'-1897'	Salado-Salt, Anhydrite, Dolomite stringers @ base Sand stringers & Limestone
1897'-1941'	Lamar-Limestone
1941'-5458'	Delaware section-Bell (Sand & Limestone stringers), Cherry & Brushy (Sand)
5458'-8611'	Bone Spring section-BS (Limestone), 1 st through 3 rd (Limestone & Sand stringers)
8611'-10977'	Wolfcamp-Limestone and Sand stringers
10977'-11185'	Strawn-Limestone, Sand & possible shale
11185'-12481'	Atoka/Morrow-Limestone, Shale & Sand
12481'-13299'	Mississippian-Limestone, Shale Stringers
13299'-14600'	Devonian-Cherty Limestone
7. Potential mineral bearing formations:
Yates, Seven Rivers, Queen, Glorieta, Yeso, Penn, Morrow – Oil

8. Proposed Mud Circulating System:

Depth	Type Mud	Mud Weight	Mud Viscosity	pH	Cl-ppm	% Solids
0-300	SPUD	8.4-9.7	32-38	10.0	1-6K	3%-8%
300-1950	BRINE	10.0	28.0	10.0	186K	.75%-1.0%
1,950-8,000	CB	9.3-9.4	28.0	10.0	120-160K	.5%-.75%
8,000-8,400	CB	9.3-9.6	28.0	10.0	120-160K	.75%-1.0%
8,400-10,850	BR/POLY	10.0-10.5	38-45	10.0	186K	3.0%-6.0%
10,850-13,350	BR/POLY	10.5-12.0	40-50	10.0	186K	5.0%-7.0%
13,350-14,600	CB	8.9-9.0	28.0	10.0	3-6K	.5%-.75%

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or pressure. Mud viscosity and water loss may be adjusted from the above referenced table in order to run open-hole logs and casing.

9. Casing and Cementing Program:

DRILLING:							
Description	Process	Bottom of Pipe	Size of Drill Hole	Size of Pipe	Weight per Foot	API Grade	Thread Type
Conductor	Spud well	300	26	20	94	H-40	Buttress
Surface	Intermediate	1950	17-1/2	13-3/8	54.5	J-55	8rd ST&C
Production	Production	8400	12.25	9.625	43.5	HCL-80	8rd LT&C
Production	Production	13350	8.75	7	29	HCP-110	8rd LT&C
	Liner						
COMPLETION:							
Disposal	Tubing	13300		4 1/2	12.75	P-110	CS Hydrill/PH6 W/Teflon Ring

10. Cementing:

CEMENT PROGRAM:						
Description	Bottom of Pipe	Size of Drill Hole	Size of Pipe	Cement Type & Additives	Cement Volume	Top of Cement
Conductor	300	26	20	Class C w/2% KCL	675 Sacks	Surface
Surface	1950	17-1/2	13-3/8	LEAD: Class C w/2% KCL + Celloflake+Bentonite Extender TAIL: Class C w/1% PF1 Calcium	900 Sacks 200 Sacks	Surface Surface
Production	8400	12.25	9 5/8	LEAD: 50/50 P/H _ 5% BWOW & Salt + 10% Bentonite Gel + Celloflake TAIL: Class 50/50 P/H + 2% PF20 Gel + 3% Fluid Loss	1400 Sacks 300 Sacks	Surface Surface
Production	13350	8.75	7	Class H 50/50 +2% Bentonite Gel + 5% Fluid Loss	940 Sacks	Top of Liner

According to Rancher, Danny Berry-former owner of site, very low volume potable groundwater can be found at 100' to 200' from surface. The closest producing water well is ¾ mile to 1 mile to the southeast of well site. This well produces from 1200' from surface.

11. Pressure Control Equipment;

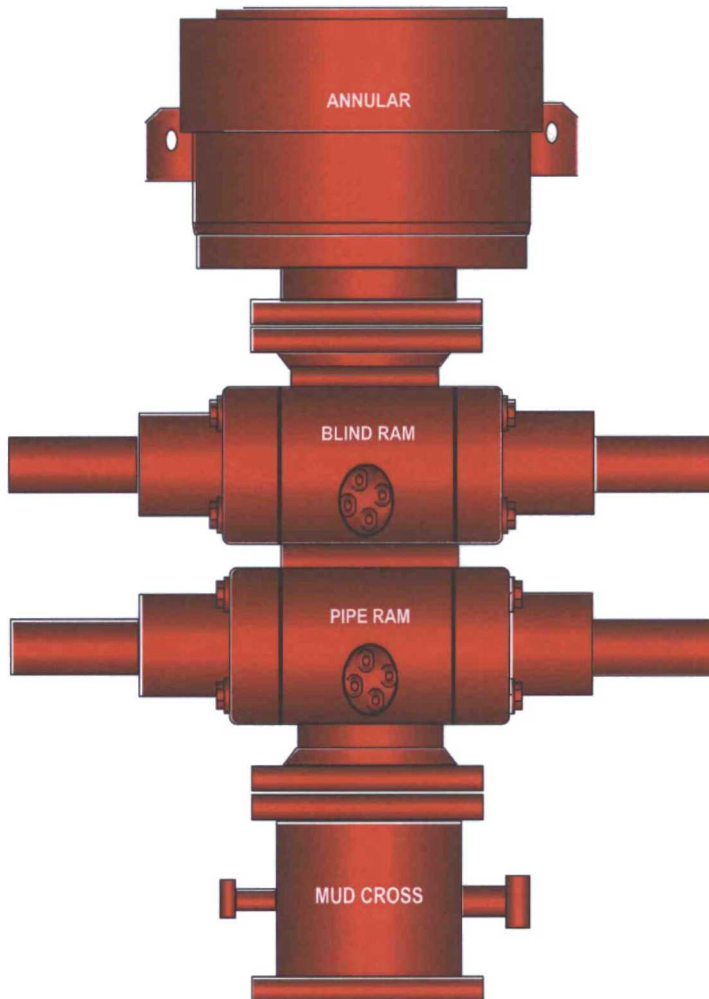
Exhibit E. A 13-3/8" 5000 PSI working pressure BOP system tested to 3000 PSI consisting of one set of blind rams and one set of pipe rams and a 5000 PSI annular preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Mud gas separator will be available if drilling into H2S areas.

BOP unit will be hydraulically operated. BOP will be nipped up and operated at least once per day while drilling and the blind rams will be operated when out of the hole during trips. No abnormal pressure or temperature is anticipated. From the base of the 13-3/8" casing through the running of the production liner, the well will be equipped with a 5000 PSI BOP system tested to 3000 PSI.

BOPS will be tested by an independent service company to 250 PSI low and 3000 PSI high. Schaffer will be tested to 250 PSI low and 1500 PSI high.

5M BOPE SCHEMATIC

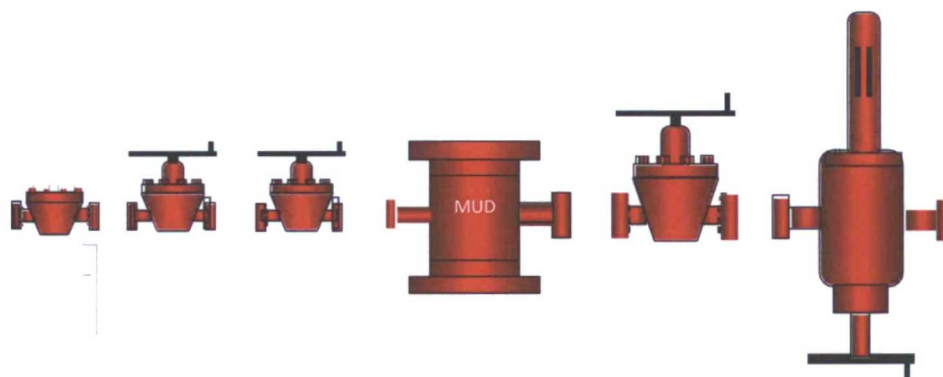
RIG #1



ANNULAR
 STYLE: SHAFFER
 BORE: 13 5/8" PRESSURE: 5,000
 HEIGHT: 45 1/2" WEIGHT: 13,650

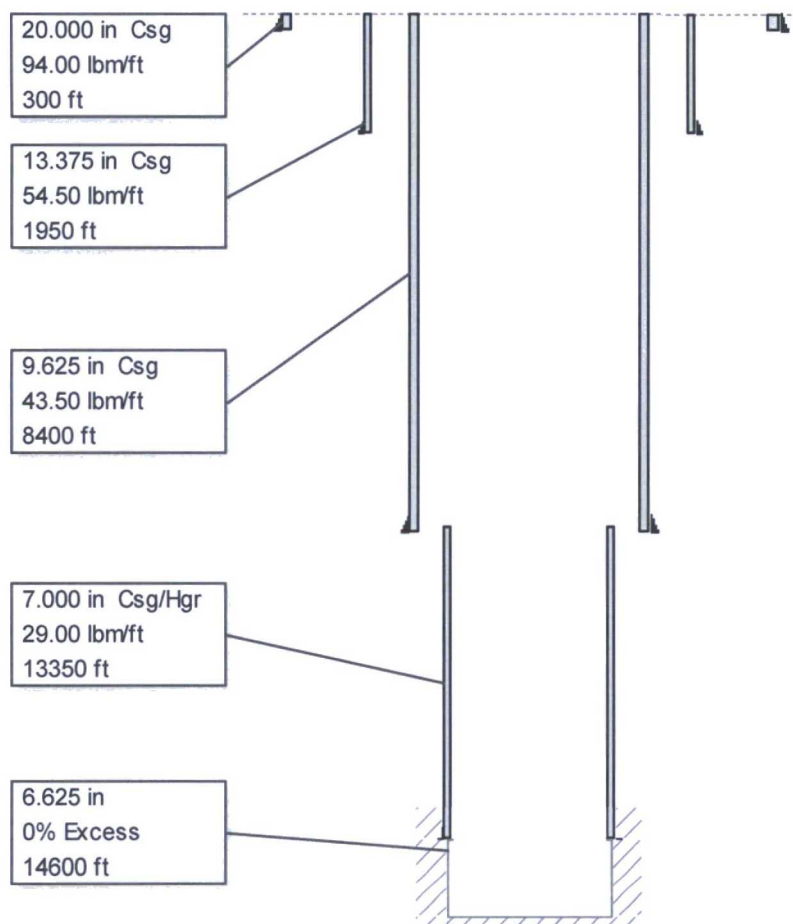
DOUBLE RAM
 STYLE: SHAFFER LWS
 BORE: 13 5/8" PRESSURE: 5,000
 RAMS: TOP: BLIND BTM: 4 1/2" PIPE
 HEIGHT: 50 1/2" WEIGHT: 13,800

MUD CROSS
 LENGTH: 24"
 OUTLETS: 2" x 5M 4" x 5M
 FLANGES: 13 5/8" 5M X 13 5/8" 5M

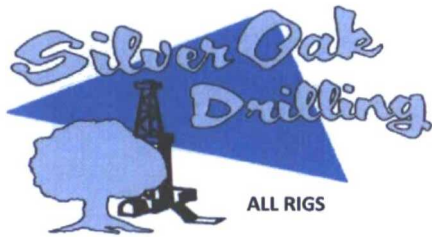


2" CHECK 2"

Libby Berry Fee SWD #1 Op
3Bear Field Services, LLC
Berry Plant Site
SWD
Created on 11/14/2017 12:53:36 PM



i-Handbook* - *a mark of Schlumberger



5M CHOKE MANIFOLD ARRANGEMENT

