ATS-16-543

Form 3160-3
(June 2015)

HOBBS OCD

OCD Hobbs

SEP 28 2016

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NM-128370, VB-2076, NM115425
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other	6. If Indian, Allotee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone	7. If Unit or CA Agreement, Name and No.
2. Name of Operator: Yates Petroleum Corporation	8. Lease Name and Well No. (316241) Verminator BWV State Com #1H
3a. Address: 105 S. Fourth St., Artesia, NM	3b. Phone No. (include area code): 575-748-4120
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface: 75' FSL & 1980' FWL Section 7 At proposed prod. zone: 2310' FSL & 1980' FWL Section 6	9. API Well No. 30-025-43436
	10. Field and Pool, or Exploratory (2205) ANTELOPE RIDGE; BS, NORTH
	11. Sec., T. R. M. or Blk. and Survey or Area: Section 6 and 7, T23S - R35E
14. Distance in miles and direction from nearest town or post office*: 19 miles Southwest of Eunice, NM	12. County or Parish: Lea County; 13. State: NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 75'	16. No of acres in lease: 2076-318.24, 115245-200, 12
	17. Spacing Unit dedicated to this well: E2W2 Section 7, E2SW4 Section 6, 240 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: None	19. Proposed Depth: 11300' TVD, 18733' TD
	20. BLM/BIA Bond No. in file: NMB-000434, NMB-000920
21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3341' NAD-83	22. Approximate date work will start*
	23. Estimated duration: 45 days, 30 for completions

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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 requested by the BLM.

25. Signature: Travis Hahn	Name (Printed/Typed): Travis Hahn	Date: 1/5/2016
Title: Land Regulatory Agent		
Approved by (Signature): /s/Cody Layton	Name (Printed/Typed):	Date: SEP 20 2016
Title: Land Regulatory Agent FIELD MANAGER	Office: 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.

KZ 09/28/16

Capitan Controlled Water Basin

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

(Continued on page 2)

*(Instructions on page 2)

YATES PETROLEUM CORPORATION
Verminator BWV State Com #1H
75' FSL & 1980' FWL, Section 7 –T23S-R35E, Surface Hole
2310' FSL & 1980' FWL, Section 6 – T23S-R35E, Bottom Hole
Lea County, New Mexico

1. The estimated tops of geologic markers are as follows:

Rustler	1710'	Bone Spring Lime	8710'
Salado	2130'	Avalon Sand	8760' Oil
Base of Salt	3650'	1st Bone Spring Sand	9780' Oil
Tansill	4010'	2nd Bone Spring Sand	10290' Oil
Capitan Reef	4515'	3rd Bone Spring Carbonate	10700' Oil
Delaware	5480' Oil	3rd Bone Spring Sand	11226' Oil
Cherry Canyon	6100'	Target 3rd BS/SD	11702' Oil
Brushy Canyon	7720' Oil	TD	18733'

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

Water: Approximately: 0' - 1735'
Oil or Gas: See above--All Potential Zones

3. Pressure Control Equipment: A 3000 PSI BOP with a 13 5/8" opening will be installed on the 13 3/8" casing and a 5000 PSI BOP will be installed on the 9 5/8" casing. Test will be conducted by an independent tester, utilizing a test plug in the well head. 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 on each segment of the system tested if test is done with a test plug and 30 minutes without a test plug. Blind rams and pipe rams will be tested to the rated pressure of the BOP. Any leaks will be repaired at the time of the test. Annular preventers will be tested to 50% of rated pressure. Accumulator system will be inspected for correct pre charge pressures, and proper functionality, prior to connection to the BOP system. Tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit.

4. Auxiliary Equipment:

A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

5. THE PROPOSED CASING AND CEMENTING PROGRAM:

See COA

A. Casing Program: (All New) 13 3/8" will be H-40/J-55 Hybird

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
30"	20"	94#	H-40	ST&C	0'-85'	85'
17.5"	13.375"	54.5#	J-55	ST&C	0'-80'	80'
17.5"	13.375"	48#	J-55	ST&C	80'-1300'	1220'
17.5"	13.375"	54.5#	J-55	ST&C	1300'-~~1735'~~ 1730	435'
12.25"	9.625"	40#	J-55	LT&C	0'-80'	80'
12.25"	9.625"	36#	J-55	LT&C	80'-3200'	3120'
12.25"	9.625"	40#	J-55	LT&C	3200'-4200'	1000'
12.25"	9.625"	40#	HCK-55	LT&C	4200'-~~5550'~~ 5400	1350'
8.75"	5.5"	17#	P-110	Buttress Thread	~~5550'~~ 5400'-11702'	6152'
8.5"	5.5"	17#	P-110	Buttress Thread	11702'-18733'	7031'

Minimum Casing Design Factors: Burst 1.0, Tensile 1.8, Collapse 1.125

B. CEMENTING PROGRAM:

Conductor Cement (0'-85'): Lead with Ready Mix cement.

Surface Cement (0'-~~1735'~~ 1930'): Lead with 1060 sacks of Class PozC 35:65:6 (WT 12.5, YLD 2.0, H2O gal/sack 11.0). Tail with 220 sacks of Class PozC 50/50 (WT 14.2, YLD 1.34, H2O gal/sack 6.2) designed with 100% excess, TOC is surface.

Intermediate 1 Cement (0'-~~5550'~~ 5400'): Lead with 1600 sacks of Class PozC 35:65:6 (WT 12.5, YLD 2.0, H2O gal/sack 11.0); tail in with 210 sacks of Class PozC 50/50 (WT 14.2, YLD 1.34, H2O gal/sack 6.2). Designed with 100% excess, TOC is surface.

See COA

Production Cement (~~5050~~ 0'-18733'): Lead with 535 sacks of Lite Crete (WT. 9.5, YLD 2.85, H2O gal/sack 12) with the additives being 0.03 gal/sack retarder, 0.2% Anti foam, 0.1% Dispersant, and 39 lbs/sack Extender; tail in with 1600 sacks of Pecos Valley Lite (WT. 13, YLD 1.83, H2O gal/sack 9.3). 30% CaCO3 Weight, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. TOC is surface, designed with 35% excess.

Well will be drilled vertically depth to 10944' well will then be kicked off and directionally drilled at 12 degrees per 100' with an 8.75" hole to 11702' MD (11422' TVD). Hole size will then be reduced to 8.5" and drilled to 18733' MD (11300' TVD) where 5.5" casing will be set and cemented to surface in a single stage. Penetration point of producing zone will be encountered at 561' FNL & 1980' FEL, Section 7-T23S-R35E. Deepest TVD is 11422' in the lateral.

Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
0'-~~1735'~~ 1930'	Fresh Water	8.6-9.2	32-34	N/C
~~1735'-5550'~~ 1930'-5400'	Brine Water	10.0-10.2	28-29	N/C
~~5550'~~ 5400'-18733'	Cut Brine	8.8-9.2	28-32	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. After surface casing is set an electronic PVT system will be installed as our primary mud level monitoring system. A secondary system will also be implemented as to insure the PVT system is functioning properly. The secondary system will be comprised of a derrick hand checking the fluid level in the pits hourly using a nut on the end of a rope hanging just above the fluid level in the pit.

6. EVALUATION PROGRAM:

Samples: 30' samples to 5550'. 10' samples 5550' to TD.
Logging: Horizontal – MWD – GR – Curve & Lateral
Coring: None.
DST's: None.
Mudlogging: On after surface casing

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From:	0	TO:	1735'	Anticipated Max. BHP:	830 PSI
From:	1735'	TO:	5550'	Anticipated Max. BHP:	2944 PSI
From:	5550'	TO:	11422'	Anticipated Max. BHP:	5464 PSI

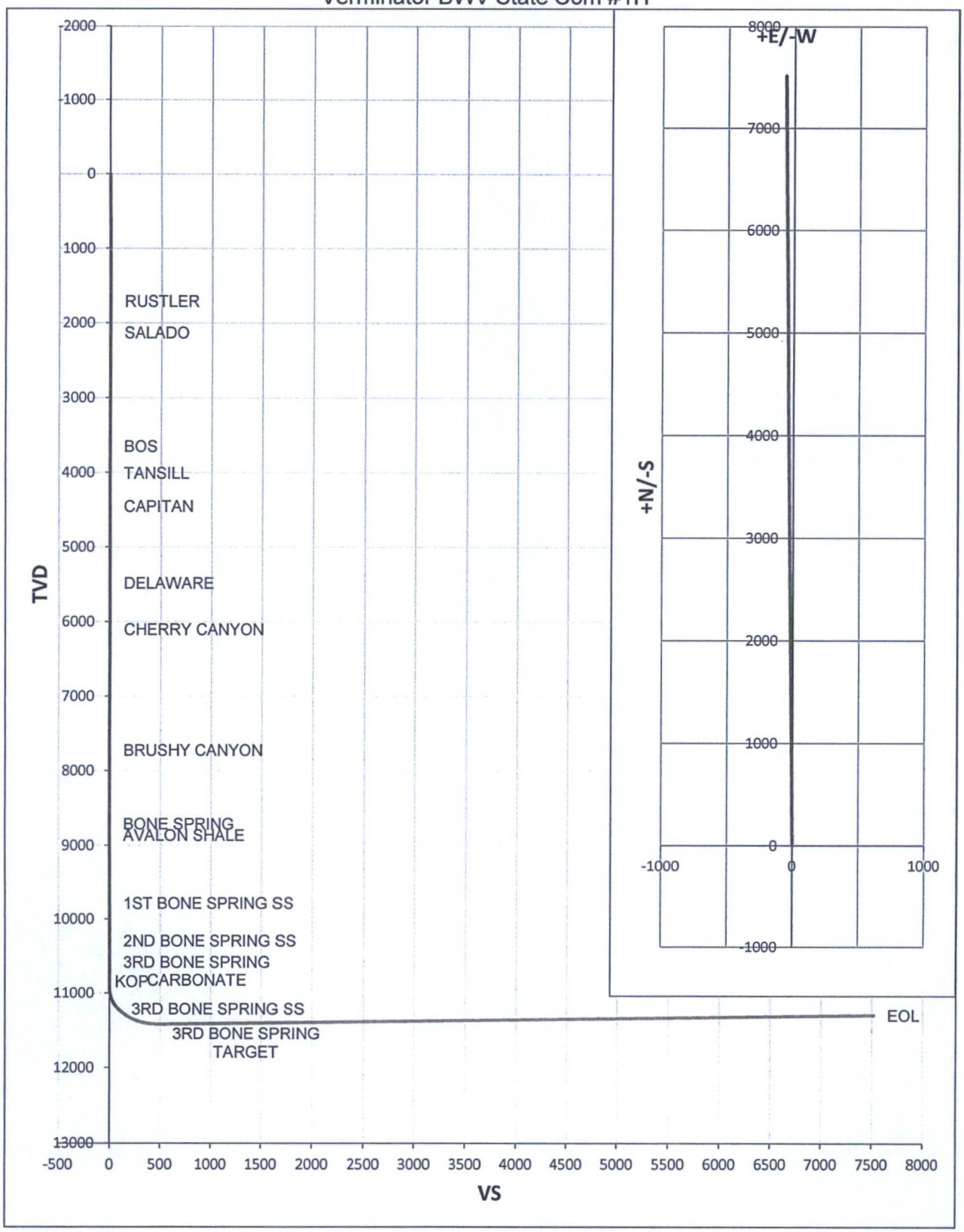
No abnormal pressures or temperatures are anticipated.
H2S Zones Not Anticipated

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 65 days to drill the well with completion taking another 30 days.

Well Name: Verminator BWV State Com #1H		**Tgt N/-S:**	7516.30		
		Tgt E/-W:	-65.40	**EOC TVD/MD:**	11421.60 / 11702.46
Surface Location: Section 7 , Township 23S Range 35E		**VS:**	7516.58		
Bottom Hole Location: Section 6 , Township 23S Range 35E		**VS Az:**	359.50	**EOL TVD/MD:**	11300.00 / 18733.33

MD	Inc.	Azi.	TVD	+N/-S	+E/-W	VS	DLS	Comments
0	0	0	0	0	0	0	0	
1710.00	0.00	0.00	1710.00	0.00	0.00	0.00	0.00	RUSTLER
2130.00	0.00	0.00	2130.00	0.00	0.00	0.00	0.00	SALADO
3650.00	0.00	0.00	3650.00	0.00	0.00	0.00	0.00	BOS
4010.00	0.00	0.00	4010.00	0.00	0.00	0.00	0.00	TANSILL
4515.00	0.00	0.00	4515.00	0.00	0.00	0.00	0.00	CAPITAN
5480.00	0.00	0.00	5480.00	0.00	0.00	0.00	0.00	DELAWARE
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	CHERRY CANYON
7720.00	0.00	0.00	7720.00	0.00	0.00	0.00	0.00	BRUSHY CANYON
8710.00	0.00	0.00	8710.00	0.00	0.00	0.00	0.00	BONE SPRING
8760.00	0.00	0.00	8760.00	0.00	0.00	0.00	0.00	AVALON SHALE
9780.00	0.00	0.00	9780.00	0.00	0.00	0.00	0.00	1ST BONE SPRING SS
10290.00	0.00	0.00	10290.00	0.00	0.00	0.00	0.00	2ND BONE SPRING SS
10700.00	0.00	0.00	10700.00	0.00	0.00	0.00	0.00	3RD BONE SPRING CARBONATE
10944.21	0.00	0.00	10944.21	0.00	0.00	0.00	0.00	KOP
10950.00	0.70	359.50	10950.00	0.04	0.00	0.04	12.00	
10975.00	3.70	359.50	10974.98	0.99	-0.01	0.99	12.00	
11000.00	6.70	359.50	10999.87	3.26	-0.03	3.26	12.00	
11025.00	9.70	359.50	11024.61	6.82	-0.06	6.82	12.00	
11050.00	12.70	359.50	11049.14	11.67	-0.10	11.67	12.00	
11075.00	15.70	359.50	11073.37	17.80	-0.15	17.80	12.00	
11100.00	18.70	359.50	11097.25	25.19	-0.22	25.19	12.00	
11125.00	21.70	359.50	11120.71	33.82	-0.29	33.82	12.00	
11150.00	24.70	359.50	11143.69	43.67	-0.38	43.67	12.00	
11175.00	27.70	359.50	11166.12	54.70	-0.48	54.70	12.00	
11200.00	30.70	359.50	11187.94	66.89	-0.58	66.90	12.00	
11225.00	33.70	359.50	11209.09	80.21	-0.70	80.21	12.00	
11225.68	33.41	359.50	11210.00	79.76	-0.69	79.77	12.00	3RD BONE SPRING SS
11250.00	36.70	359.50	11229.52	94.62	-0.82	94.62	12.00	
11275.00	39.70	359.50	11249.16	110.07	-0.96	110.08	12.00	
11300.00	42.70	359.50	11267.97	126.54	-1.10	126.54	12.00	
11325.00	45.70	359.50	11285.90	143.96	-1.25	143.97	12.00	
11350.00	48.70	359.50	11302.88	162.30	-1.41	162.31	12.00	
11375.00	51.70	359.50	11318.88	181.50	-1.58	181.51	12.00	
11400.00	54.70	359.50	11333.86	201.52	-1.75	201.53	12.00	
11425.00	57.70	359.50	11347.77	222.29	-1.93	222.30	12.00	
11450.00	60.70	359.50	11360.57	243.76	-2.12	243.77	12.00	
11475.00	63.70	359.50	11372.23	265.87	-2.31	265.88	12.00	
11500.00	66.70	359.50	11382.72	288.56	-2.51	288.57	12.00	
11525.00	69.70	359.50	11392.00	311.77	-2.71	311.78	12.00	
11550.00	72.70	359.50	11400.06	335.43	-2.92	335.44	12.00	
11575.00	75.70	359.50	11406.87	359.48	-3.13	359.49	12.00	
11600.00	78.70	359.50	11412.41	383.85	-3.34	383.87	12.00	
11625.00	81.70	359.50	11416.66	408.49	-3.55	408.50	12.00	
11650.00	84.70	359.50	11419.63	433.31	-3.77	433.32	12.00	
11675.00	87.70	359.50	11421.28	458.25	-3.99	458.26	12.00	
11700.00	90.70	359.50	11421.64	483.24	-4.20	483.26	12.00	
11702.46	90.99	359.50	11421.60	485.70	-4.23	485.72	12.00	3RD BONE SPRING TARGET
18733.33	90.99	359.50	11300.00	7516.30	-65.40	7516.58	0.00	EOL


Verminator BWV State Com #1H
TVD
VS
+N/-S
+E/-W
RUSTLER
SALADO
BOS
TANSILL
CAPITAN
DELAWARE
CHERRY CANYON
BRUSHY CANYON
BONE SPRING
AVALON SHALE
1ST BONE SPRING SS
2ND BONE SPRING SS
3RD BONE SPRING
KOPCARBONATE
3RD BONE SPRING SS
3RD BONE SPRING
TARGET
EOL
-2000
-1000
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2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
-500
0
500
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1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
8000
-1000
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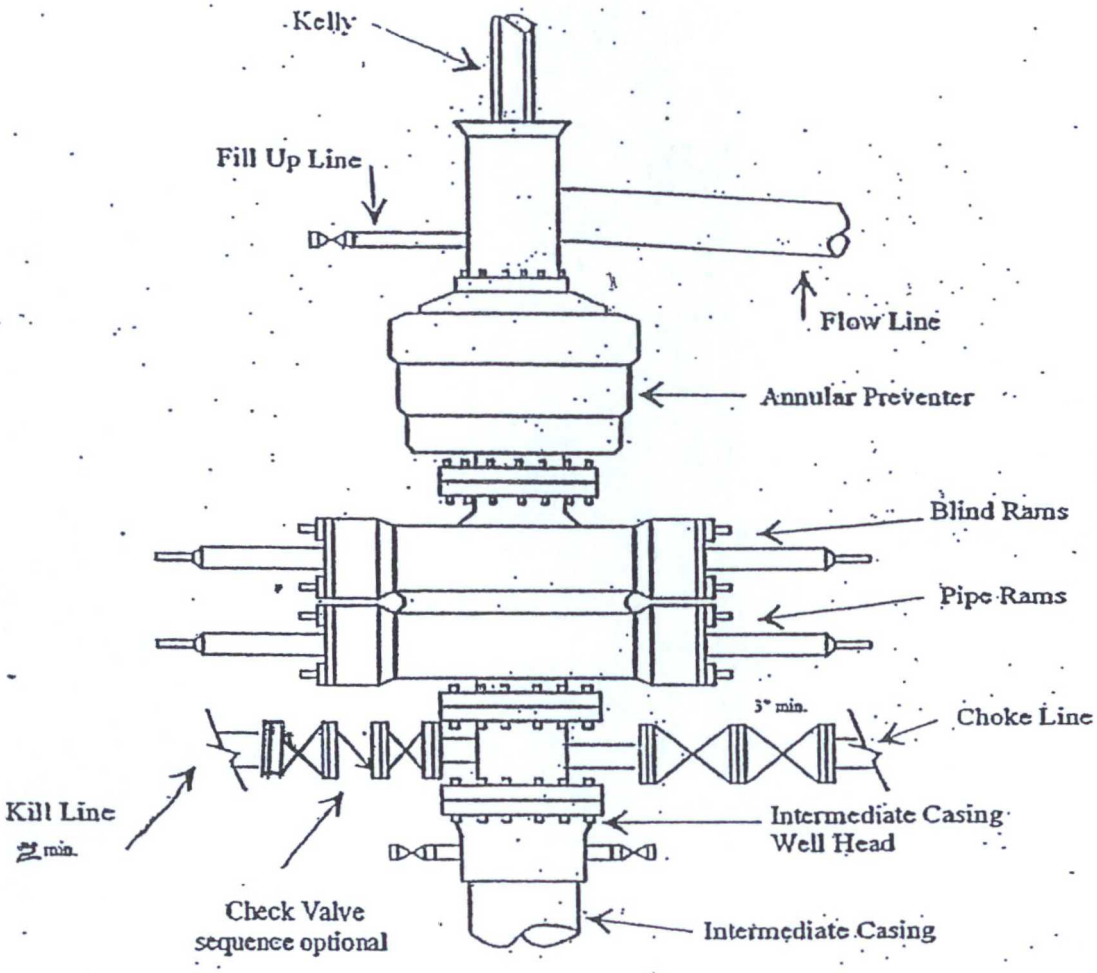
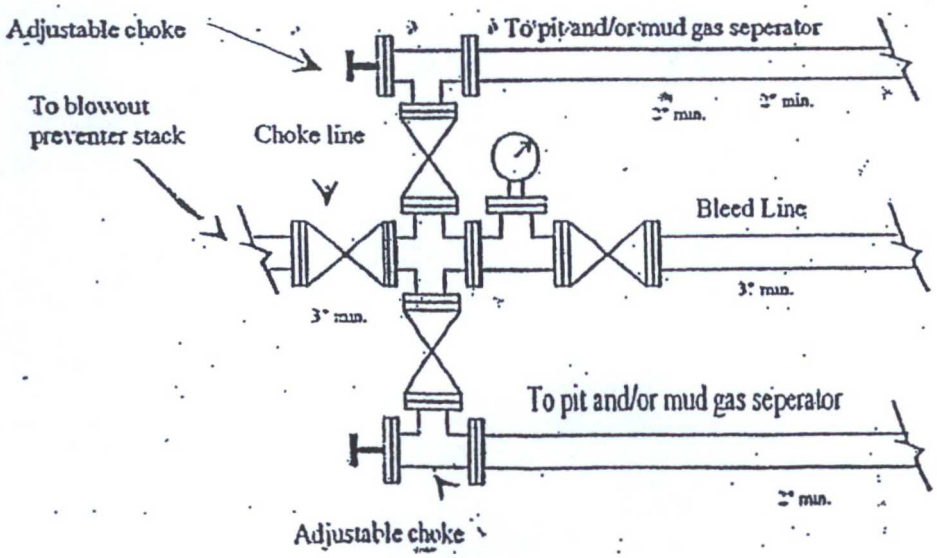
1000

Yates Petroleum Corporation

Typical 3,000 psi Pressure System Schematic
Annular with Double Ram Preventer Stack

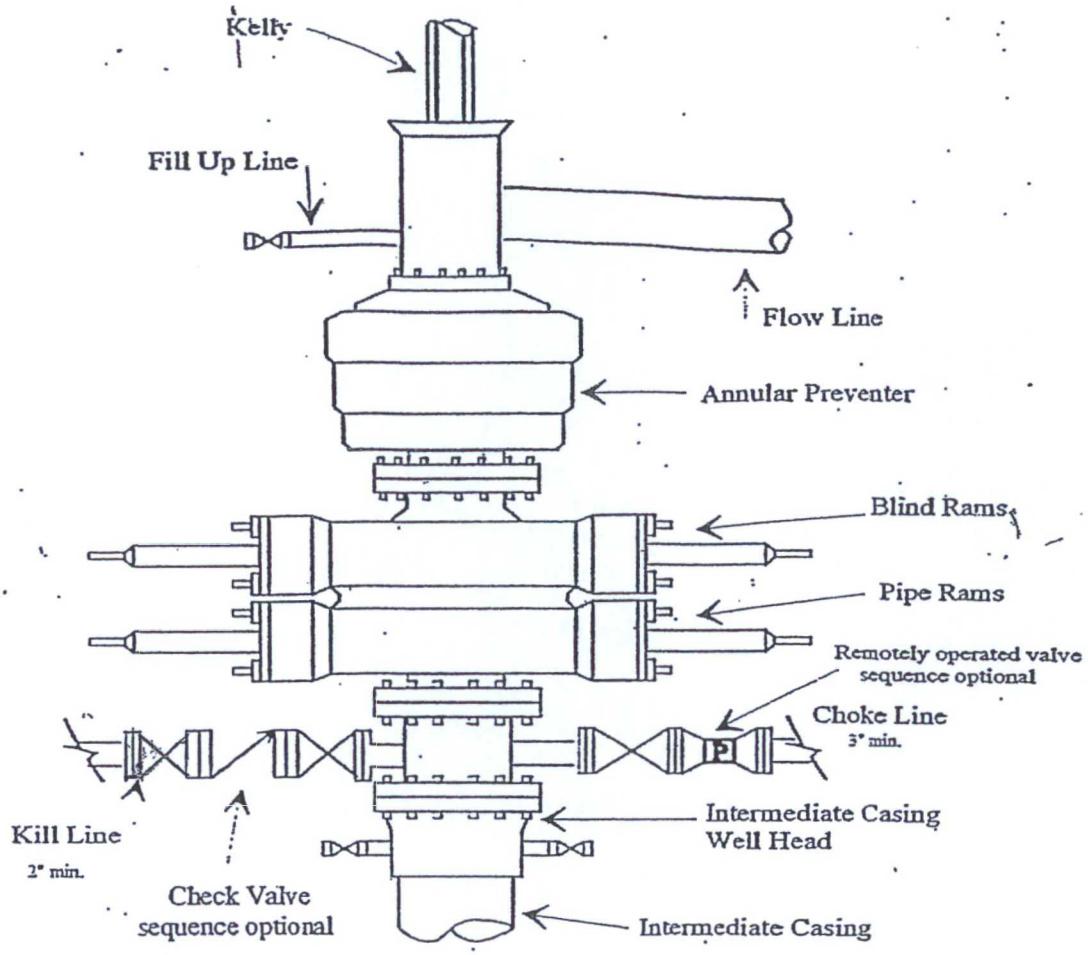


Typical 3,000 psi choke manifold assembly with at least these minimun features

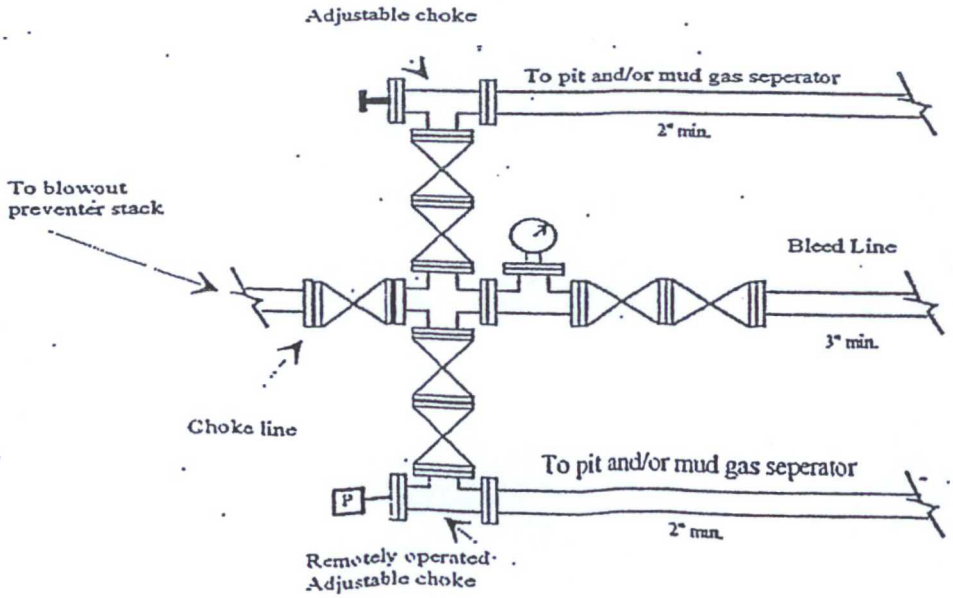


Yates Petroleum Corporation

Typical 5,000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack

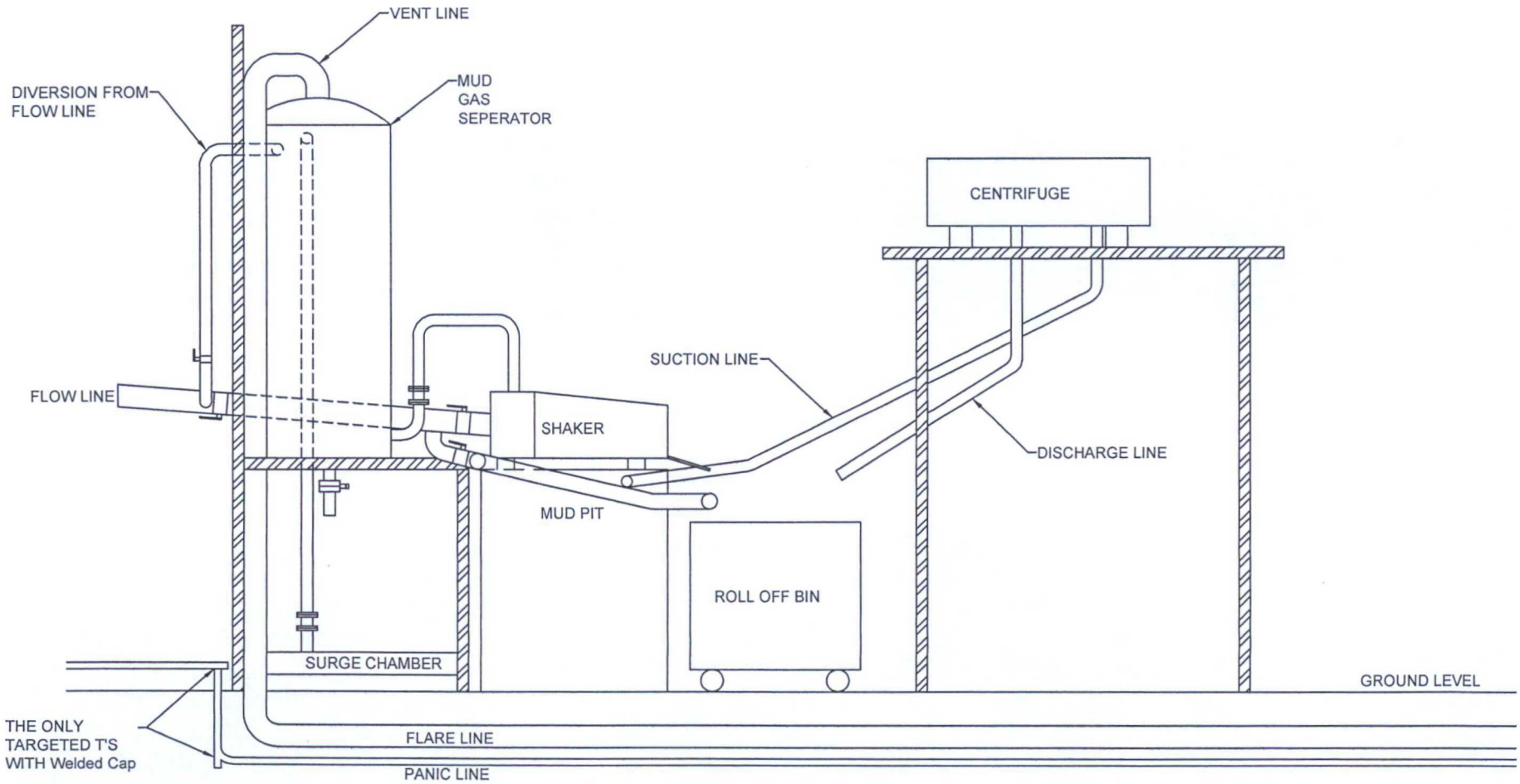


Typical 5,000 psi choke manifold assembly with at least these minimun features



YATES PETROLEUM CORPORATION

Piping from Choke Manifold
to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.

Yates Petroleum Corporation
Closed Loop System

Equipment Design Plan

Closed Loop System will consist of:
1 – double panel shale shaker
1 – (minimum) Centrifuge, certain wells and flow rates may require 2 centrifuges
On certain wells, the Centrifuge will be replaced by a Clackco Settling Tank System
1 – minimum centrifugal pump to transfer fluids
2- 500 bbl. FW Tanks
1 – 500 bbl. BW Tank
1 – half round frac tank – 250 bbl. capacity as necessary to catch cement / excess mud returns generated during a cement job.
1 Set of rail cars / catch bins
Certain wells will use an ASC Auger Tank

Operation Plan

All equipment will be inspected at least hourly by rig personnel and daily by contractors' personnel.
Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

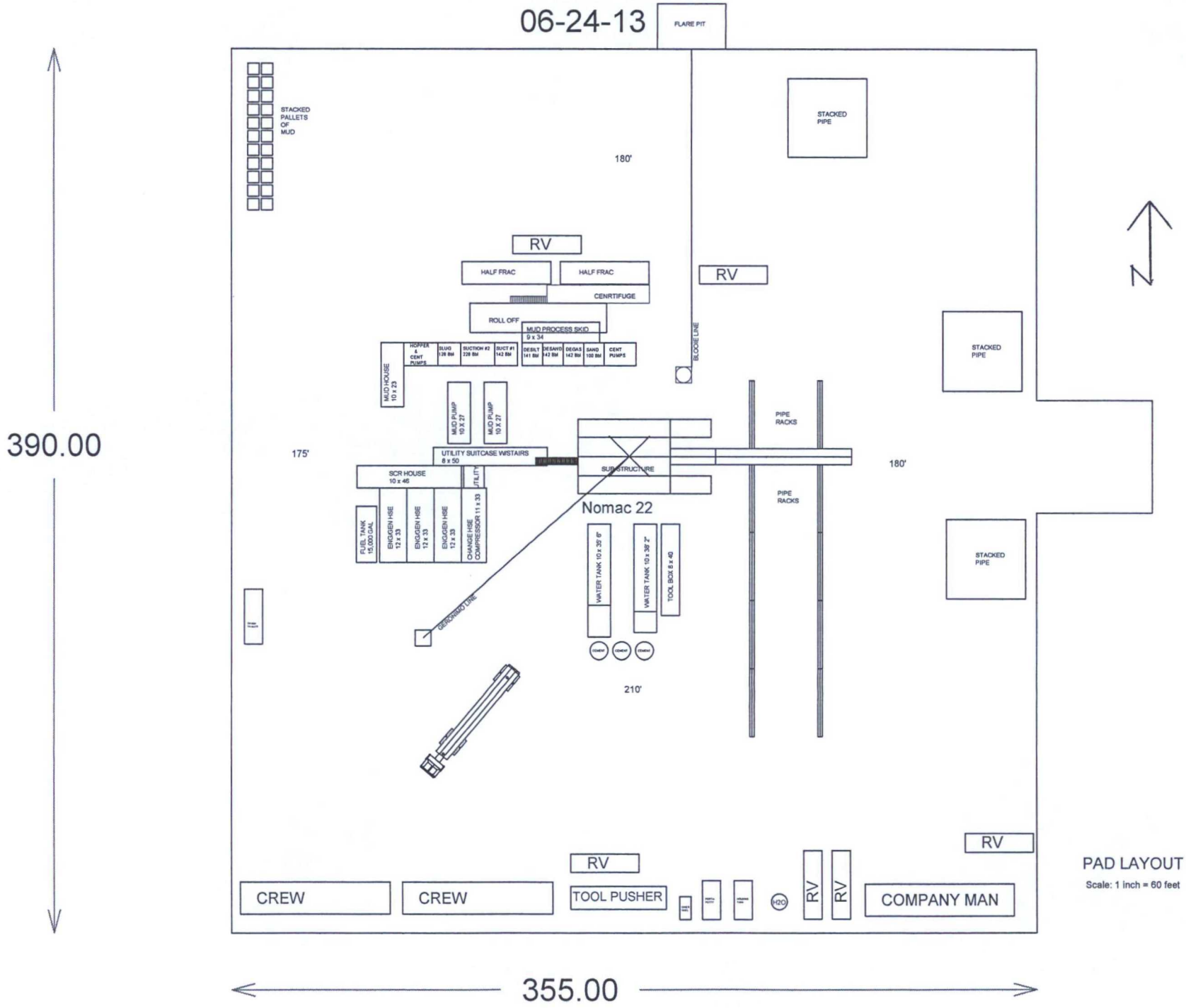
Closure Plan

Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm, CRI or Sundance Services Inc.

YATES PETROLEUM CORPORATION

Nomac 22

06-24-13



390.00

355.00

PAD LAYOUT

Scale: 1 inch = 60 feet

Audacious BTL Federal Com. #2H

Interim Reclamation Well Pad Layout Example*

*Not intended to be actual representation. Final interim reclamation will be finalized at of reclamation with BLM and Yates Petroleum Corporation.