NM OIL GONSERVATION ARTESIA DISTRICT

(June 2015)

 \mathcal{C}_{i}

ATS-16-590

SEP 1 3 2016

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

UNITED STATES	5			Expires, Jai	iluary 31, 2016	
DEPARTMENT OF THE IN BUREAU OF LAND MANA		RECEIVE	ED	5. Lease Serial No. NM-115416		
APPLICATION FOR PERMIT TO DI				6. If Indian, Allotee	or Tribe Name	
la. Type of work:	EENTER			7. If Unit or CA Agre	eement, Name and No.	
	her ngle Zone	Multiple Zone		8. Lease Name and V Thriller BWL Fe	Well No. ederal #/H	3/6813
2. Name of Operator Yates Petroleum Corporation 2557	5	<u> </u>		9. API Well No.	-015-43909	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	3b. Phone N	o. (include area cod 8-4302	(e)	10. Field and Pool, o Rock Spur; Bo	r Exploratory	2775
4. Location of Well (Report location clearly and in accordance w	ith any State	requirements.*)		11. Sec., T. R. M. or	Blk. and Survey or Area	
At surface Section 30, T25S - R29E, 330 FSL & 66 At proposed prod. zone Section 30, T25S - R29E, 33) FEL		Section 30, T2	5S - R29E	
14. Distance in miles and direction from nearest town or post office Malga NM is approx. 9 miles to the northwest of location			:	12. County or Parish Eddy	13. State NM	
15. Distance from proposed* 330' FSL location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of ac		17. Spacii E2E	ng Unit dedicated to th	is well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx 300' South	19. Proposed	d Depth ' / MD - 12994'		BIA Bond No. in file 3 000434 / NMB 000	920	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2966 ft	22. Approxi	nate date work will start* 23. Estimated duration Approx 30 days				٠
	24. Attac	hments				
The following, completed in accordance with the requirements of (as applicable)	Onshore Oil	and Gas Order No. 1	, and the H	lydraulic Fracturing ru	lle per 43 CFR 3162.3-3	
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office)		Item 20 above). 5. Operator certific	ation.		existing bond on file (see	
S. Signature		(Printed/Typed) ene P Bela			Date 1/21/2016	
Title Land Regulatory Agent						
Approved by (Signature) /s/Cody Layton		(Printed/Typed)			Date SEP 7 - 2016	
Title Land Regulatory AgerFIELD MANAGER	Office			CARLSBARE	END DEFICE	
Application approval does not warrant or certify that the applicant applicant to conduct operations thereon. Conditions of approval, if any, are attached.	t holds legal o	or equitable title to th	iose rights		VAL FOR TWO	YEARS
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, ms of the United States any false, fictitious or fraudulent statements of					ny department or agency	

Garisbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

(Continued on page 2)

*(Instructions on page 2)

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-102

District Office

SEP 1 3 2016 Revised August 12, 2011 Submit one copy to appropriate

State of New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

OIL CONSERVATION DIVISION

RECEIVED

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone (505) 334-8178 Fax: (505) 334-6170

811 S. First St., Artesis, NM 88210 Phone (575) 748-1283 Fax: (575) 748-9720

1625 N. French Dr., Hobbs, NM 88240 Phone (575) 393-6161 Fax: (575) 393-0720

DISTRICT I

DISTRICT II

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone (505) 476-3460 Fax: (505) 476-3462

WELL LOCATION AND ACREAGE DEDICATION PLAT

□ AMENDED REPORT

API Number	Pool Code	Pool Name	e		
30-015-43909	52775	Rock Spur: Bone Spring			
Property Code		Property Name	Well Number		
0GRID No.	THRILLER BWL FEDERAL 1H Operator Name Elevation				
025575		YATES PETROLEUM CORPORATION			

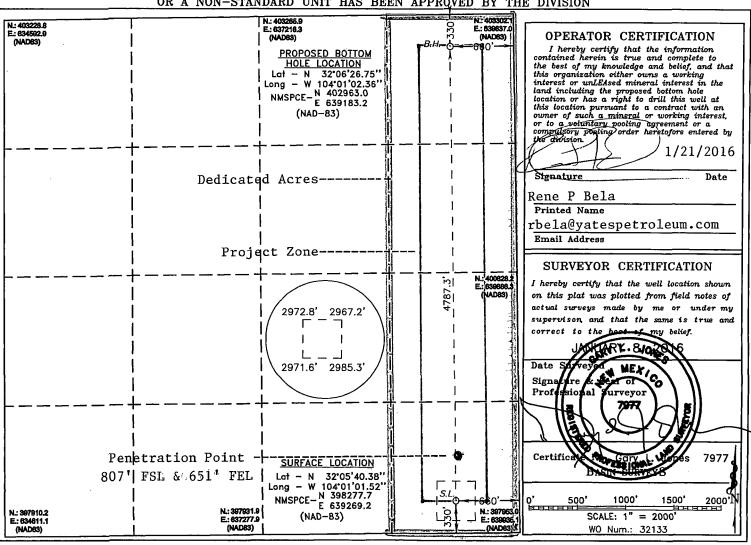
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
Р	30	25 S	29 E		330	SOUTH	660	EAST	EDDY

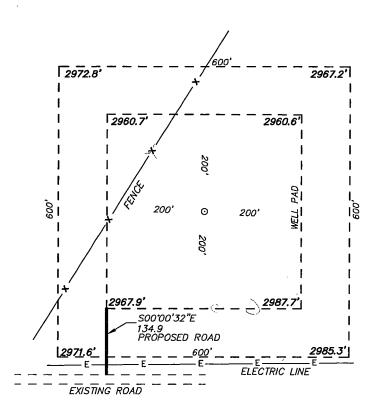
Bottom Hole Location If Different From Surface

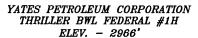
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
Α	30	25 S	29 E		330	NORTH	660	EAST	EDDY
Dedicated Acres Joint or Infill Consolidation Code			Code Or	der No.					
160 Acre	s	ŀ							

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



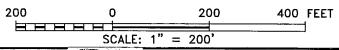
SECTION 30, TOWNSHIP 25 SOUTH, RANGE 29 EAST. N.M.P.M., EDDY COUNTY, NEW MEXICO.





Lat - N 32'05'40.38" Long - W 104'01'01.52" NMSPCE- N 398277.7 639269.2 (NAD-83)

MALAGA, NM IS ±9 MILES TO THE NORTHWEST OF LOCATION.



ATES PETROLEUM CORPORATION

THRILLER BWL FEDERAL #1H/ WELL PAD TOPO

THE THRILLER BWL FEDERAL #1H LOCATED 330' FROM THE SOUTH LINE AND 660' FROM THE EAST LINE OF SECTION 30, TOWNSHIP 25 SOUTH, RANGE 29 EAST.

N.M.P.M., EDDY COUNTY, NEW MEXICO.

focused on excelling the cities of the citie

P.O. Box 1786 (575) 393-7316 - Office 1120 N. West County Rd. (575) 392-2206 - Fax Hobbs, New Mexico 88241 basinsurveys.com

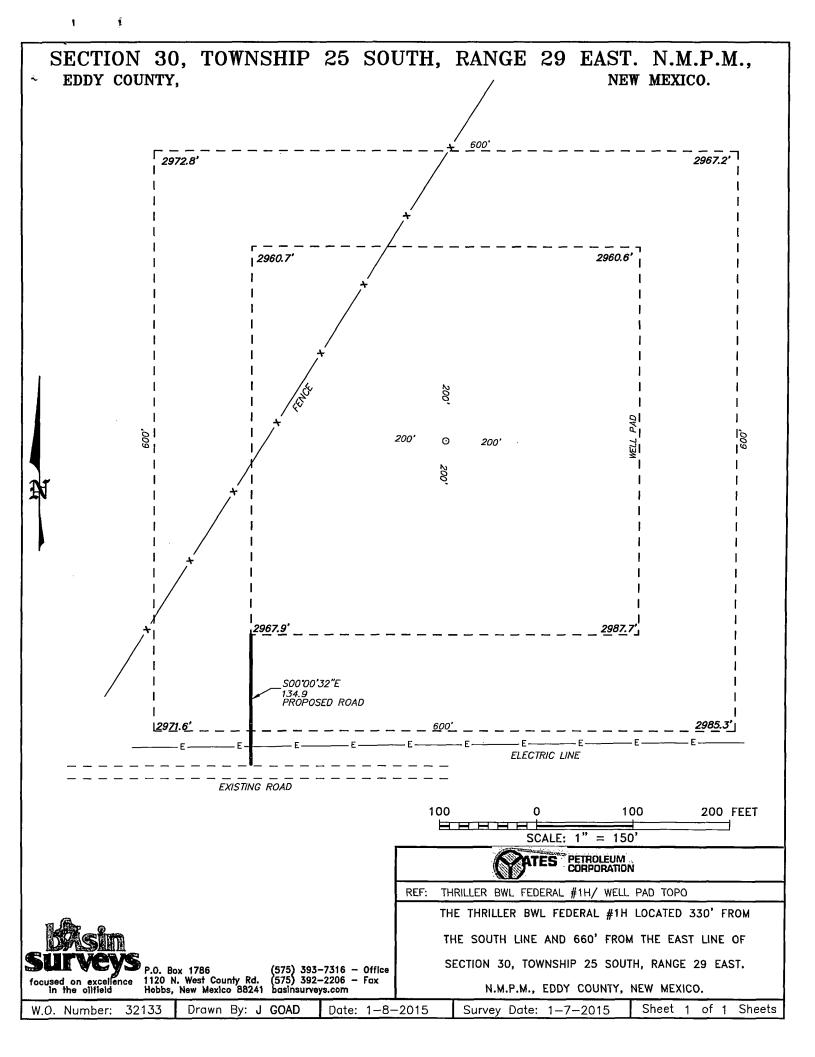
W.O. Number: 32133

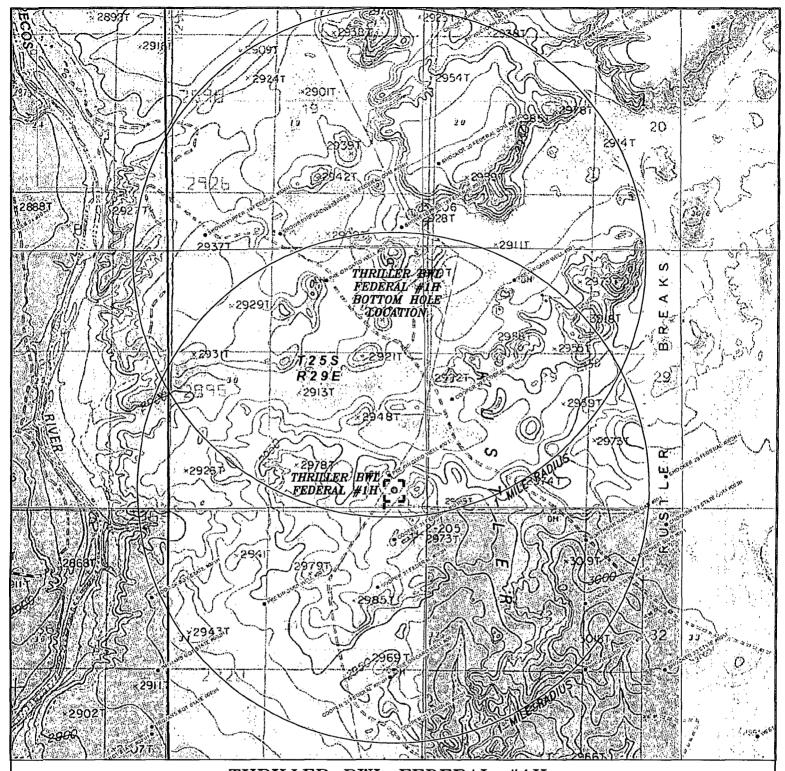
Drawn By: J GOAD

Date: 1-8-2015

Survey Date: 1-7-2015

Sheet 1 of 1 Sheets





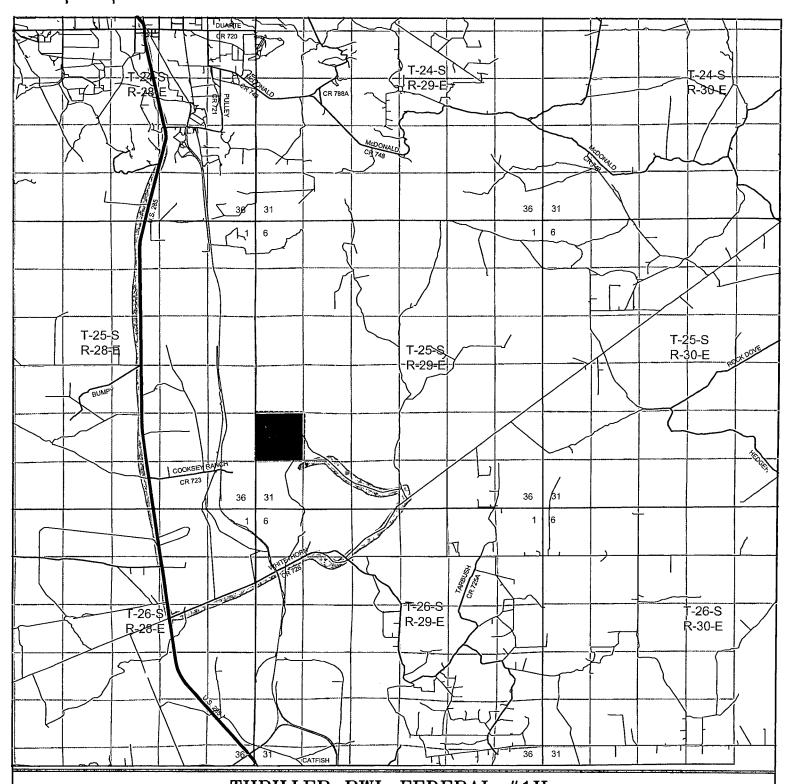
THRILLER BWL FEDERAL #1H
Located 330' FSL and 660' FEL
Section 30 Township 25 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

\neg	0' 1000' 2000' 3000' 150'0'	
	SCALE: 1" = 2000'	1
1	W.O. Number: JG 32133	4
е	Survey Date: 1—7—2015	4
	YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	





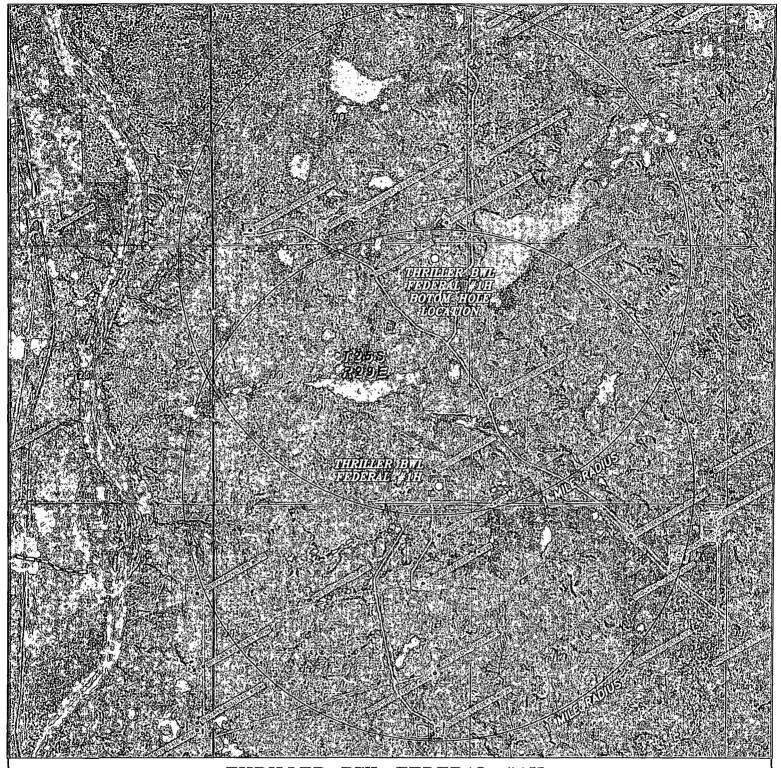
THRILLER BWL FEDERAL #1H
Located 330' FSL and 660' FEL
Section 30 Township 25 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 — Office (575) 392-2206 — Fax basinsurveys.com

\supset	O 1 MI 2 MI 3 MI 4 MI	1
	SCALE: 1" = 2 MILES	1 4
1	W.O. Number: JG 32133	4
е	Survey Date: 1—7—2015	19
	YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	
	THAT STATE COLON TEE DATE	<u> </u>





THRILLER BWL FEDERAL #1H
Located 330' FSL and 660' FEL
Section 30 Township 25 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

	0' 1000' 2000' 3000' 150'0'	
	SCALE: 1" = 2000'	d
1	W.O. Number: JG 32133	1
9	Survey Date: 1—7—2015	d/N
	YELLOW TINT — USA LAND BLUE TINT — STATE LAND NATURAL COLOR — FEE LAND	



YATES PETROLEUM CORPORATION

Thriller BWL Federal #1H 330' FSL & 660' FEL Section 30, T25S – R29E SHL 330' FNL & 660' FEL Section 30, T25S – R29E BHL Eddy County, New Mexico

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

Rustler	992'	Bone Spring LM	6509' Oil
Top of Salt	1224'	Bone Spring 1/SD	7485' Oil
Base of Salt	2619'	Bone Springs 2/SD	8386' Oil
Bell Canyon	2858' Oil	Bone Springs 2/Targ	et 8786' Oil
Cherry Canyon	3693' Oil	TVD	7480'
Cherry Canyon	2936' Oil	TD	14847'
Brushy Canyon	5001'		

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

Water: Approx.: 0' - 1020'

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:

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
Γ	30"	20"	94#	H-40	ST&C	0'-85'	_ / 85'
Γ	17.5"	13.375"	48#	J-55	ST&C	0'-1020' 3	1 020 °
Γ	12.25"	9.625"	36#	J-55	LT&C	0'-2950- 28'	10_ 2950°
	8.75"	5.5"	17#	P-110	Buttress Thread	29 50 '-8786'	5836'
	8.5"	5.5"	17#	P-110	Buttress Thread	8786'-12994'	4208'

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'-1020'): Lead with 575 sacks of Class 36:65:6 PozC plus 2% CaCl2 (Wt. 12.5, Yld. 2.0, H2O gal/sack 11.0); tail in with 200 sacks of Class 50/50 PozC (Wt. 14.2, Yld. 1.34, H2O gal/sack 6.2). This is designed with 100% excess, TOC is surface.

2840 Intermediate Cement (0'-2950'): Lead with 785 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.

2340

Production Cement (2450'-12994'): Lead with 495 sacks of Class Lite Crete (WT. 9.5, YLD 2.85, H2O gal/sack 12.0) with the additives being 0.03 gal/sack retarder, 0.2% Anti foam, 0.1% Dispersant, and 39 lbs/sack Extender; tail in with 1020 sacks of Pecos Valley Lite (WT. 13.0, YLD 1.82, H2O gal/sack 9.3). Additives include 30% CaCO3 Weight, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. TOC is surface, designed with 35% excess.

Per Reme TMAK 8/29/16 To C 2340'
Well will be drilled vertically depth to 8036' well will then be kicked off and directionally drilled at 12 degrees per 100' with an 8.75" hole to 8786' MD (8513' TVD). Hole size will then be reduced to 8.5" and drilled to 12994' MD (8513' TVD) where 5.5" casing will be set and cemented 500' into the previous casing string in a single stage. Penetration point of producing zone will be encountered at 807' FSL & 651' FEL, Section 30, Township 25S - Range 29E. Deepest TVD is 8513' in the lateral.

Mud Program and Auxiliary Equipment:



Interval /	Туре	Weight	Viscosity	Fluid Loss
0'-1020' 3'50	Fresh Water	8.6-9.2	29-32	N/C
1020'-2950'2840	Brine Water	10.0-10.2	28-29	N/C
2950'-12994'	Cut Brine	8.8-9.2	28-32	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout 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.

EVALUATION PROGRAM: 6.

Samples: 30' samples to 3000'. 10' samples 3000' to TD.

Logging: CNL/LDT/NGT-CURVE-INTER CSG

CNL/GR-CURVE-SURFACE CSG DLL-MSFL-CURVE-INTERM CSG HORIZONTAL-MWD-GR-HORIZONTAL

Mudlogging: On at 3,000'

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

Anticipated BHP:

From: 0 TO: 1020' Anticipated Max. BHP: 488 PSI TO: 2950' Anticipated Max. BHP: From: 1020' 1565 PSI 2950' TO: 8513' Anticipated Max. BHP: 4073 PSI From:

No abnormal pressures or temperatures are anticipated.

H2S Zones Not Anticipated

ANTICIPATED STARTING DATE: 8.

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.

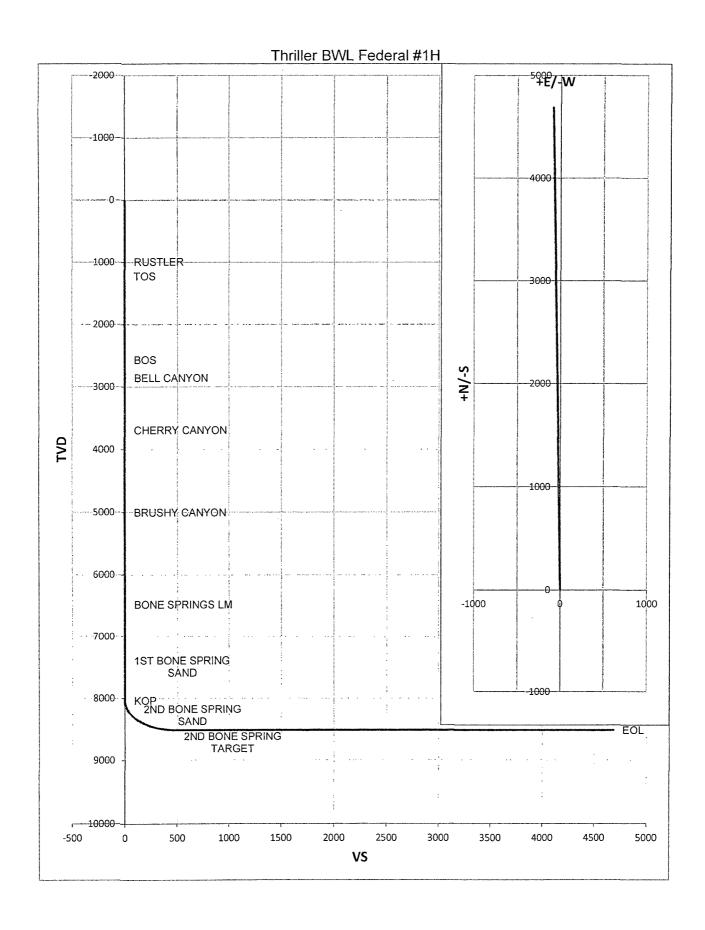
 Well Name:
 Thriller BWL Federal #1H
 Tgt N/-S:
 4685.30

 Tgt E/-W:
 -86.00
 EOC TVD/MD:
 8513.00 / 8785.54

 Surface Location:
 Section 30 , Township 25S Range 29E
 VS:
 4686.09

 Bottom Hole Location:
 Section 30 , Township 25S Range 29E
 VS Az:
 358.95
 EOL TVD/MD:
 8513.00 / 12994.16

MD	inc.	. Azi.		ON/S	W CEAN	W VS	DLS	்த
0	0	0	0,]	. 0	0	. 0	.0`.	
992.00	0.00	0.00	992.00	0.00	0.00	0.00	0.00	RUSTLER
1224.00	0.00	0.00	1224.00	0.00	0.00	0.00	0.00	TOS
2619.00	0.00	0.00	2619.00	0.00	0.00	0.00	0.00	BOS
2858.00	0.00	0.00	.2858.00	0.00	0.00	0.00	0.00	BELL CANYON
3693.00	0.00	0.00	3693.00	0.00	0.00	0.00	0.00	CHERRY CANYON
5001.00;	0.00	0.00	5001.00	0.00	0.00	0.00	0.00	BRUSHY CANYON
6509.00	0.00	0.00	6509.00	0.00	0.00	0.00	0.00	BONE SPRINGS LM
7485.00	0.00	0.00	7485.00	0.00	0.00	0.00	0.00	1ST BONE SPRING SAND
8035.54	0.00	0.00	8035.54	0.00	0.00	0.00	0.00	KOP
8050.00	1.74	358.95	8050.00	0.22	0.00	0.22	12.00	The second secon
8075.00	4.74	358.95	8074.96	1.63	-0.03	1.63	12.00	
8100.00	, 7.74	358.95	8099.80	4.34	-0.08	4.35	12.00	
8125.00	10.74	358.95	8124.48	8.36	-0.15	8.36	12.00	
8150.00	13.74	358.95	8148.91	13.65	-0:25	13.65	12.00	
8175.00	16.74	358.95	8173.03	20.22	-0.37	20.22	12.00	
8200.00	19.74	358.95	8196.77	28.04	-0.51	. 28.05	12.00	
8225.00	22.74	358.95	8220.07	37.09	-0.68	37.10	12.00	
8250.00	25.74	358.95	8242.86	47.35	. : -0.87	47.36	12.00	
8275.00	28.74	358.95	8265.09	58.79	-1.08	58.80	12.00	
8300.00	31:74	358.95	8286.68	71.38	-1.31	71.39	12.00	The state of the s
8325.00	34.74	358.95	8307.59	85.08	-1.56	85.09	12.00	
8350.00	37.74	358.95	8327.75	99.85	-1.83	99.87	12.00	
8375.00	40.74	358.95	8347.12	115.66	-2.12	115.68	12.00	
8400.00	43.74	358.95	8365.62	132.46	-2.43	132:48	12.00	
8425.00	46.74	358.95	8383.23	150.20	-2.76	150.23	12.00	
8450.00	49.74	358.95	8399.88	168.84	-3.10	168.87	12.00	
8385.51	42.00	358.95	8355.00	122.60	-2.25	122.62	12.00	2ND BONE SPRING SAND
8475.00	52.74	358.95	8415.53	188:33	-3:46	188.36	12.00	
8500.00	55.74	358.95	8430.14	208.61	-3.83	208.65	12.00	
8525.00	58.74	358.95	8443.66	229.63	-4.21	229.67	12.00	
8550.00	61.74	358.95	8456.07	251.32	-4.61	251.37	12.00	
8575.00	64.74	358.95	8467.33	273.64	-5:02	273.69	12.00	
8600.00	67.74	358.95	8477.40	296.51	-5.44	296.56	12.00	
8625.00	70.74	358.95	8486.27	319.88	-5.87	319.94	12.00	
8650.00	73.74	358.95	8493.89	343.68	-6.31	343.74	12.00	
8675.00	76.74	358.95	8500.26	367.85	-6:75	367.91	12.00	
8700.00	79.74	358.95	8505.36	392.32	-7.20	392.39	12.00	
8725.00	82.74	358.95	8509.17	417.02	-7.65	417.09	12.00	
8750.00	85.74	358.95	8511.68	441.89	-8.11	441.96	12.00	
8775.00	88.74	358.95	8512.88	466.85	-8.57	466.93	12.00	State of the state
8785.54	90.00	358.95	8513.00	477.38	-8.76	477.46	12.00	2ND BONE SPRING TARGET
12994 16	90.00	358.95	8513.00	4685.30	-86.00	4686.09	0.00	To Nuclear Act of EOL'N Control of





Certificate of Warranty, Schedule B, ECCN, Origin and CE Marking

January 27, 2014

We hereby certify that the material shipped for Nomac Drilling Corporation purchase order 333594 is new and unused and is free of any defects as to their design, material and workmanship.

We also warrant the goods to be consistent with the generally accepted standards of the material of the type ordered. Which is API Spec 7K.

The goods are warranted for a period of 1 year (12 months) from the date of delivery.

We certify that the material of this order is of American origin.

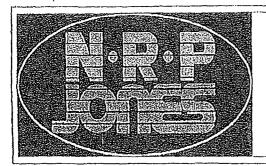
ECCN - EAR99

Schedule B - 4009.22.0500

EIN-731185740

Thank You, Juan Ortiz

HIICH # 23558



255 W 1100 N Nephi, UT 84648 1-800-453-1480

Certificate of Compliance

Date:

2014-01-17

Test#:

Entered by:

bwentz

Asset Dosc: 10,000/15,000

bwentz

Assot#:

NLD-009R

NRP Jones

Tosted by:

Chip ID: Owner:

E004010079CF031D

Initial Location: SileINEPHI

Wilness:

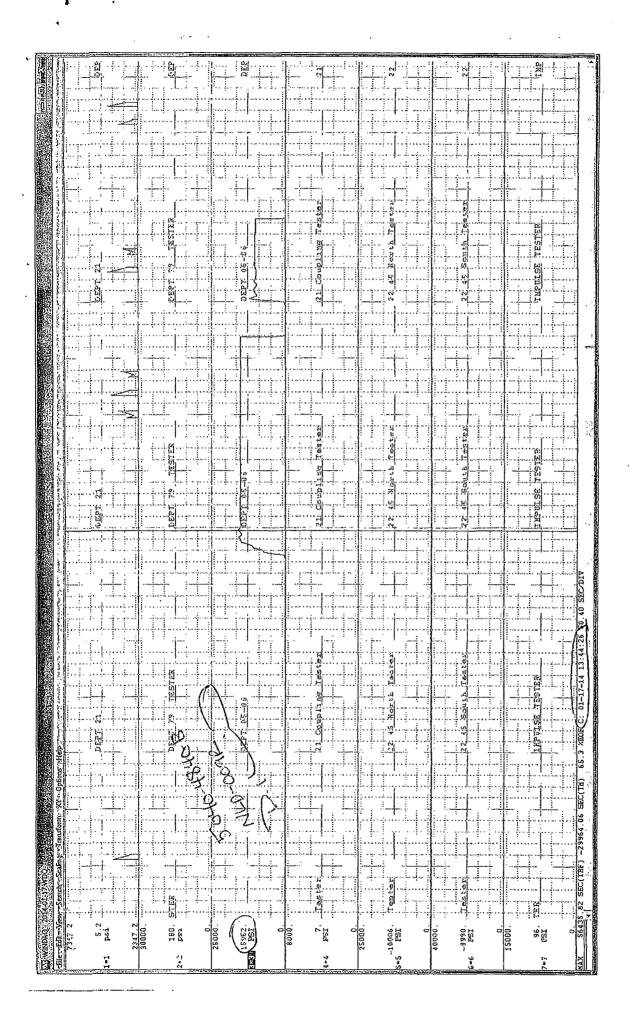
dnelson

City:

Monufacturer	NRP JONES
Extended Desc	N/A
Model	5040-4840-B
Application Group	Choke & Kill
Date of MidAssembly	2014-01-17
Assembled By	Brad Wentz
Orlg Date Sold	2014-01-04
Hose Date of Mfr	2014-01-04
Locn Dosc	N/A
Insido Dia.	З"
Length	10'
Cul Length	N/A
Working Pressure	10000 PSI
Test Pressure	15000 PSI
Coupling A	26-0054
Coupling A Model	N/A
Allach Method A	Bullt-In
Coupling A Add-On	4 1/6" RTJ FLANGE
Coupling B	28-0054
Coupling B Model	N/A
Allach Method B .	Built-In
Coupling B Add-On	4 1/6" RTJ FLANGE
Factory Ref II	M0102747
Distributor Ref #	N/A
EndUser Ref //	N/A
Slanderd	N/A
Notes	N/A

Order#	M0102747
Cust POII	N/A
Sorial Number	NLD-009R
Test Pressure	15,000 PSI
Test Time	15 MIN.
Tost Number	N/A
Inspection Instruction	N/A
Certification Result	PASS
Generate Afert?	
Comments	N/A
TimeStamp	2014-01-17 13:16:56 -07:00

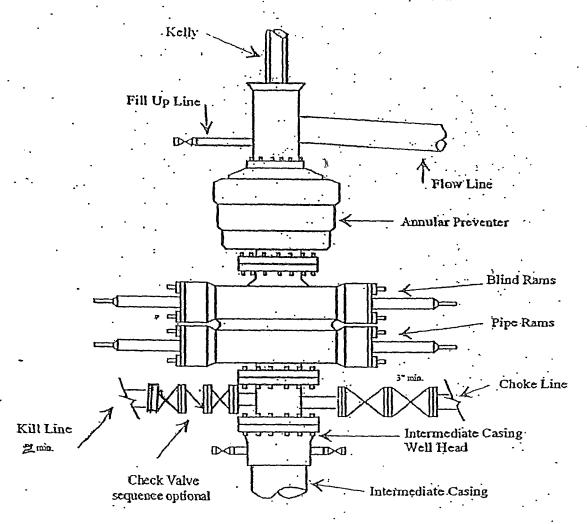




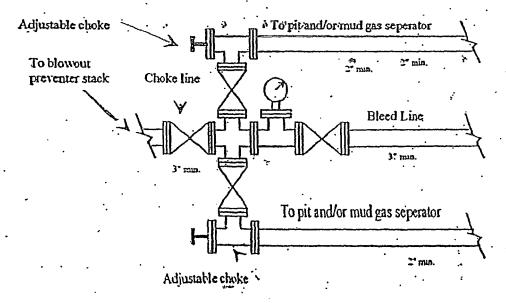


Yates Petroleum Corporation

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



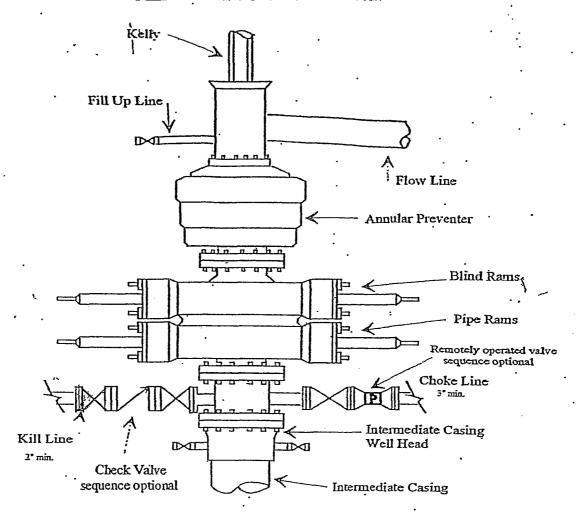
Typical 3,000 psi choke manifold assembly with at least these minimum features



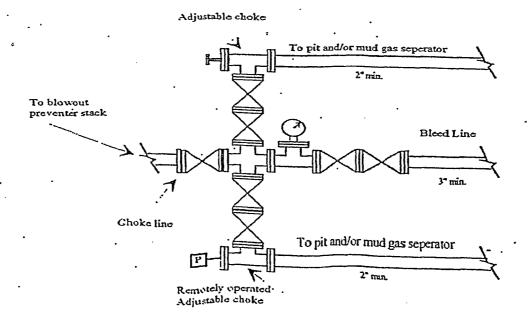


Yates Petroleum Corporation

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



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



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.

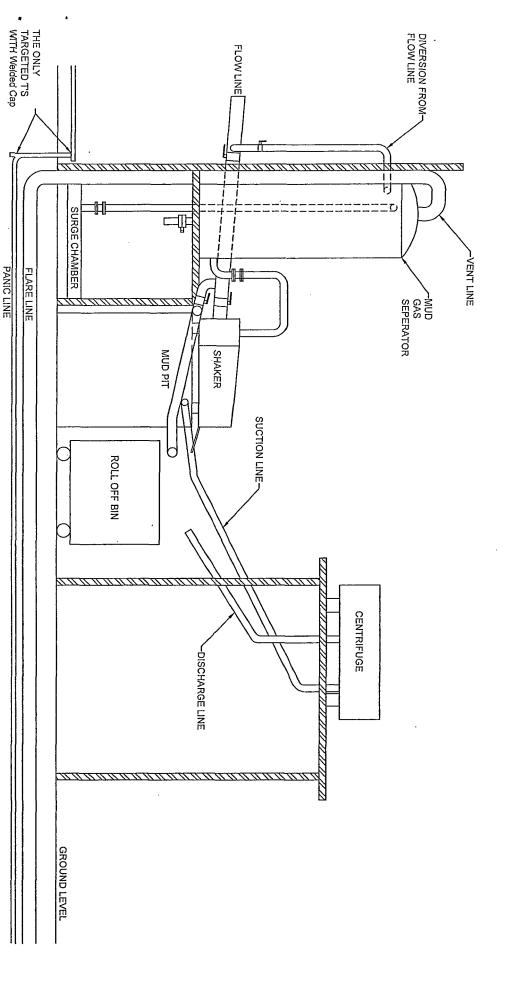
Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

Closure Plan

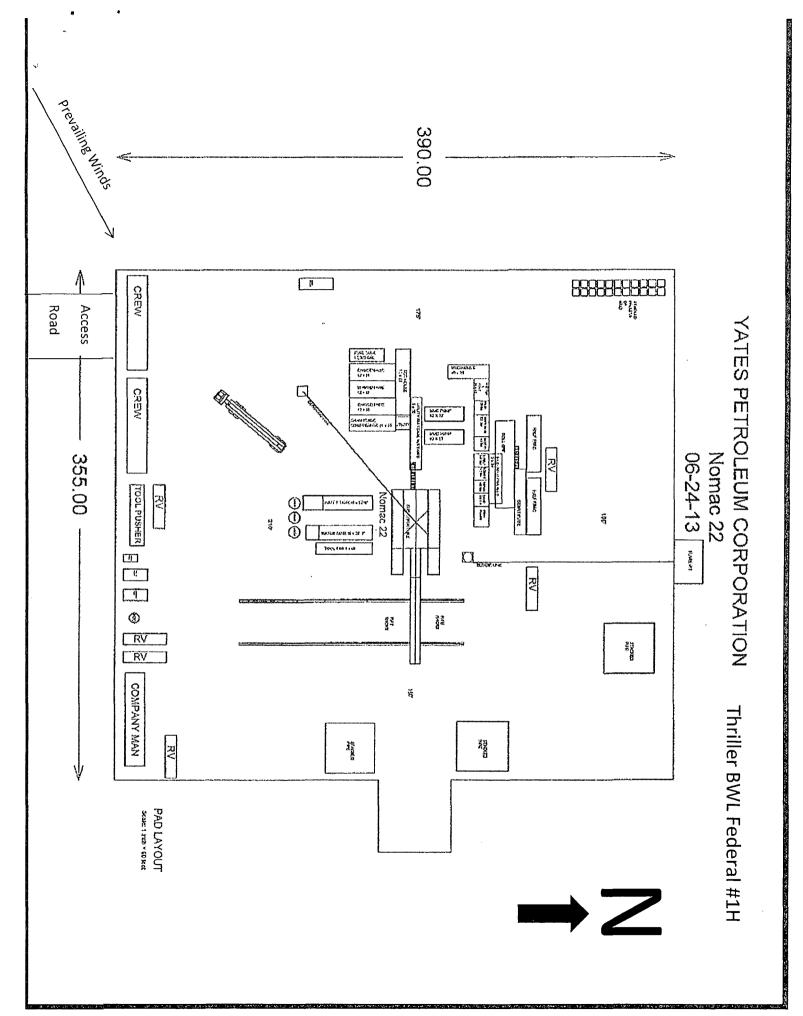
Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm, CRI or Sundance Services Inc.

YATES PETROLEUM CORPORATION

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

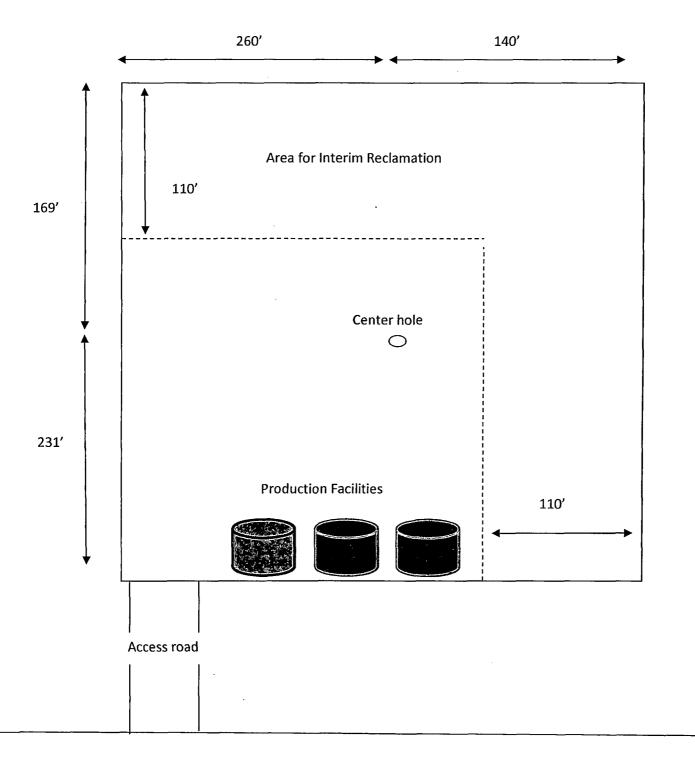


Thriller BWL Federal #1H

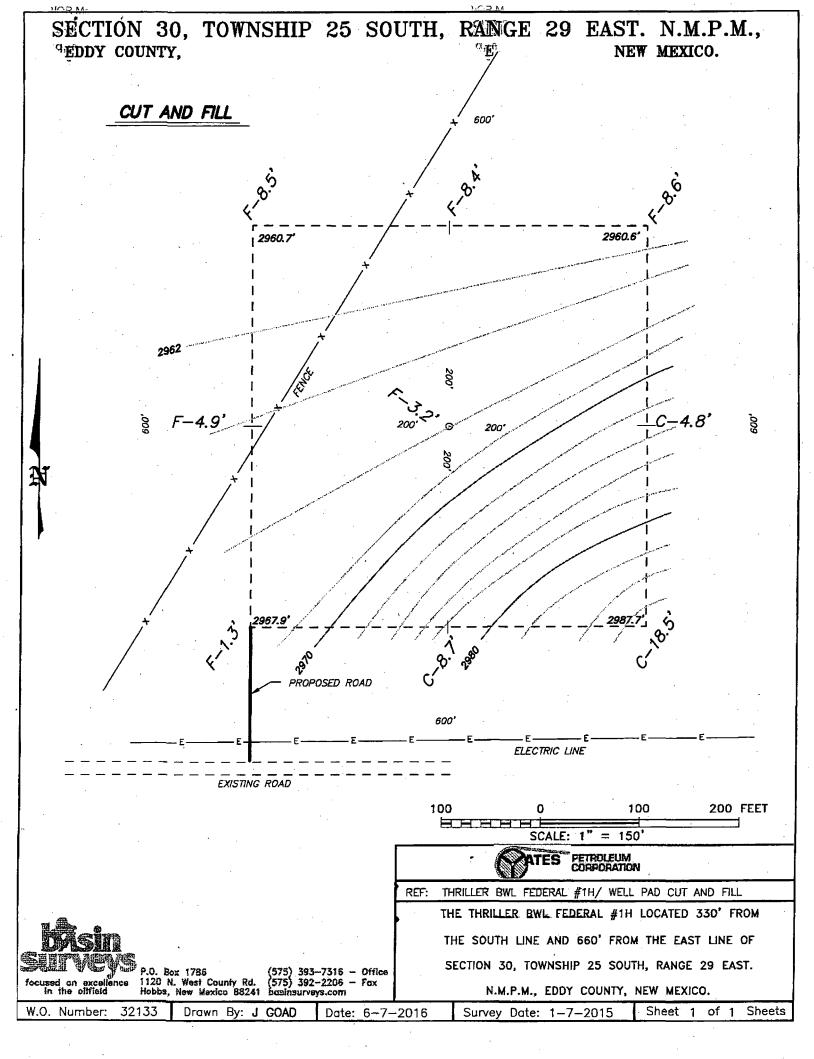
Interim Reclamation Well Pad Layout

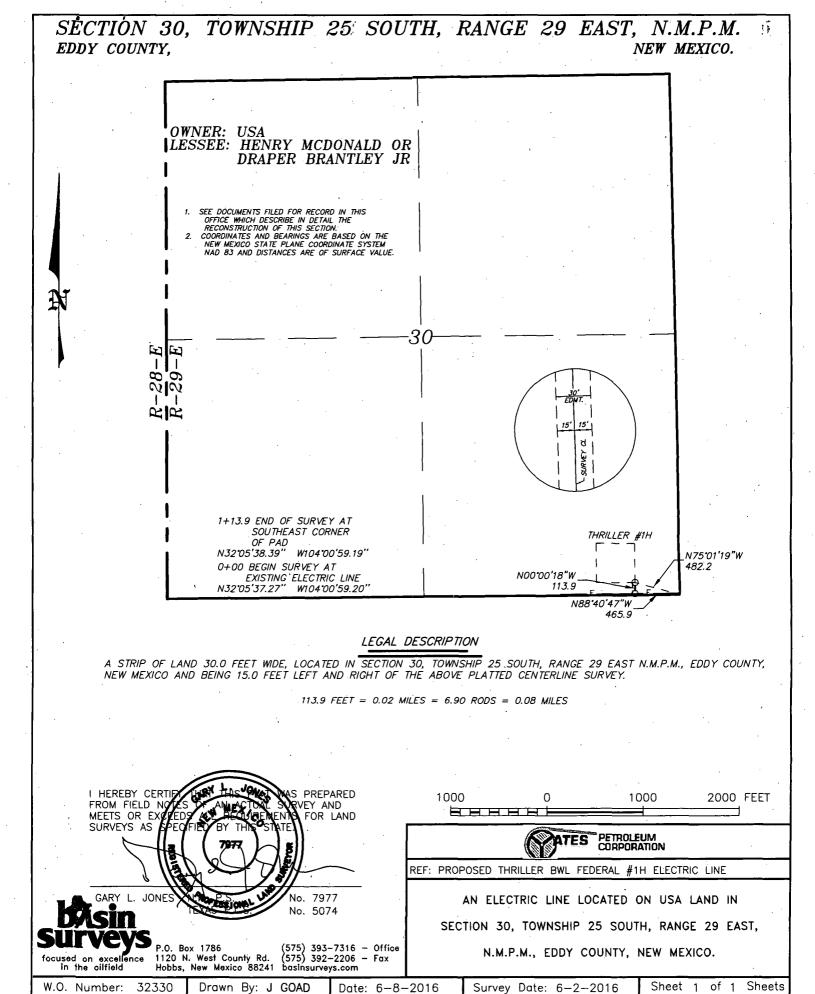
Example**dimensions and locations may vary depending on discussions between Yates Petroleum Corporation and the BLM at the time of Interim reclamation.

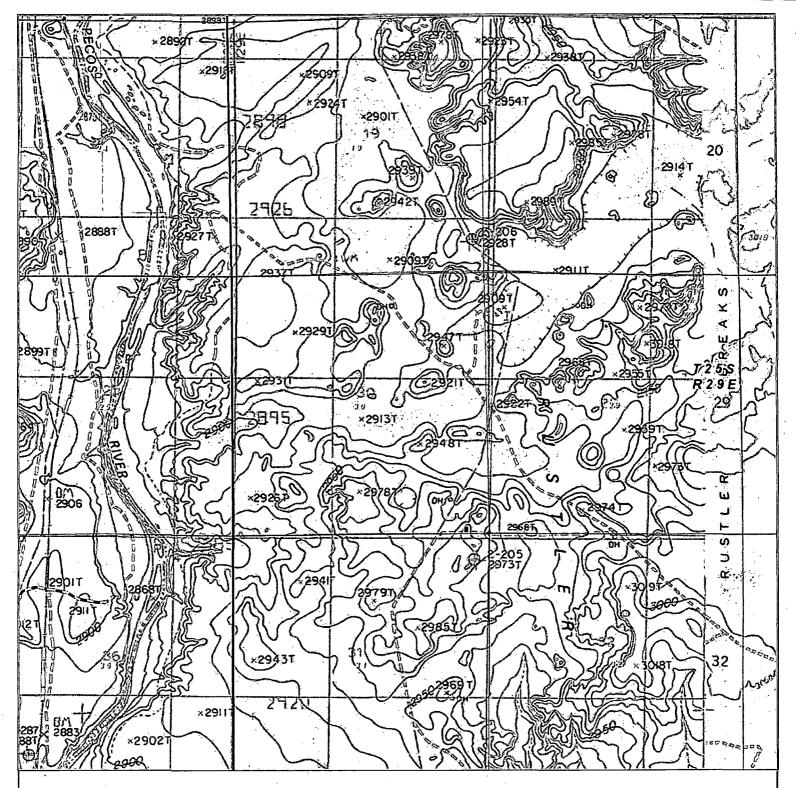
North



Existing Lease Road







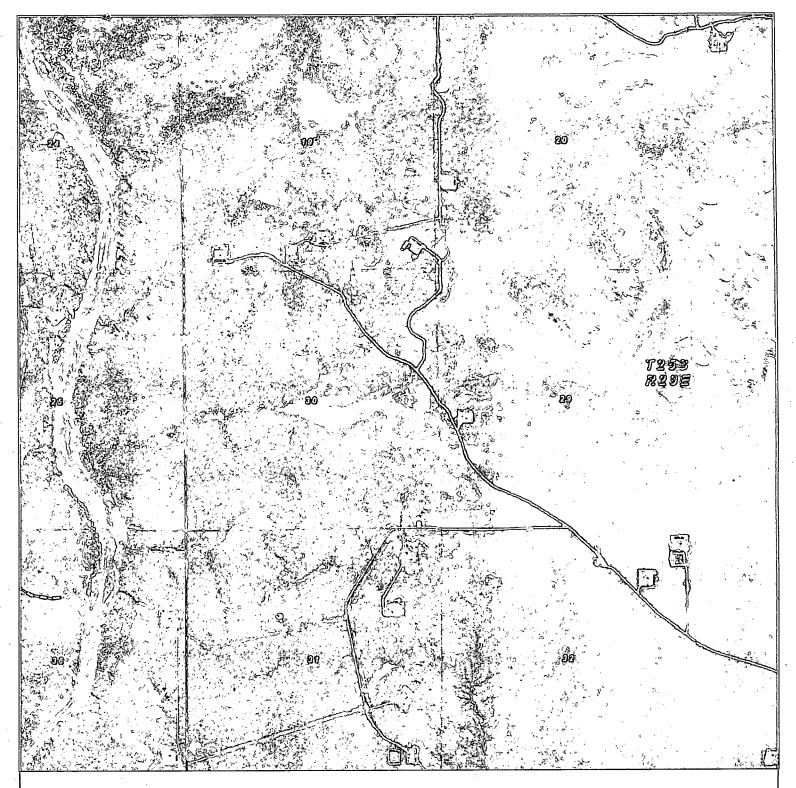
PROPOSED THRILLER BWL FEDERAL #1H
Section 30, Township 25 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

7	0' 1000' 2000' 3000' 4000'	
	SCALE: 1" = 2000'	1
1	W.O. Number: JG 32330	4
•	Survey Date: 6-2-2016	9
	YELLOW TINT - USA LAND BLUE TINT - STATE LAND	
기	NATURAL COLOR - USA LAND	1





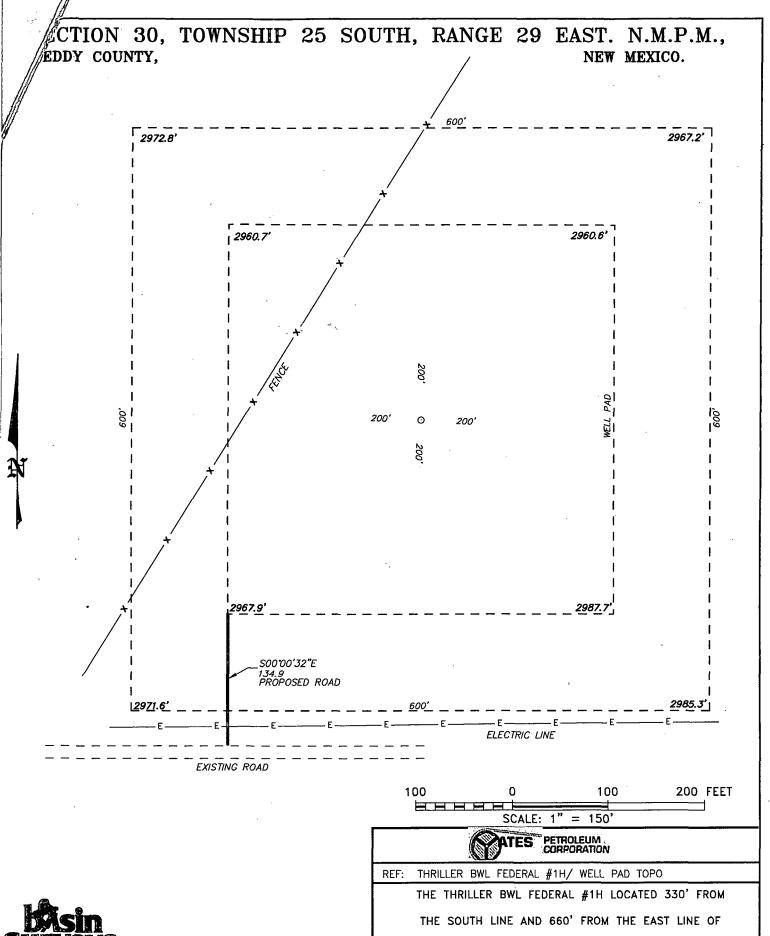
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P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

7	0' 1000'	2000'	3000'	4000'	
	SCA	LE: 1" =	2000'		1
	W.O. Number:	JG 323	330		(
ľ	Survey Date:	6-2-2	2016		9
	YELLOW TINT - BLUE TINT - NATURAL COLO	STATE LA	ND		4





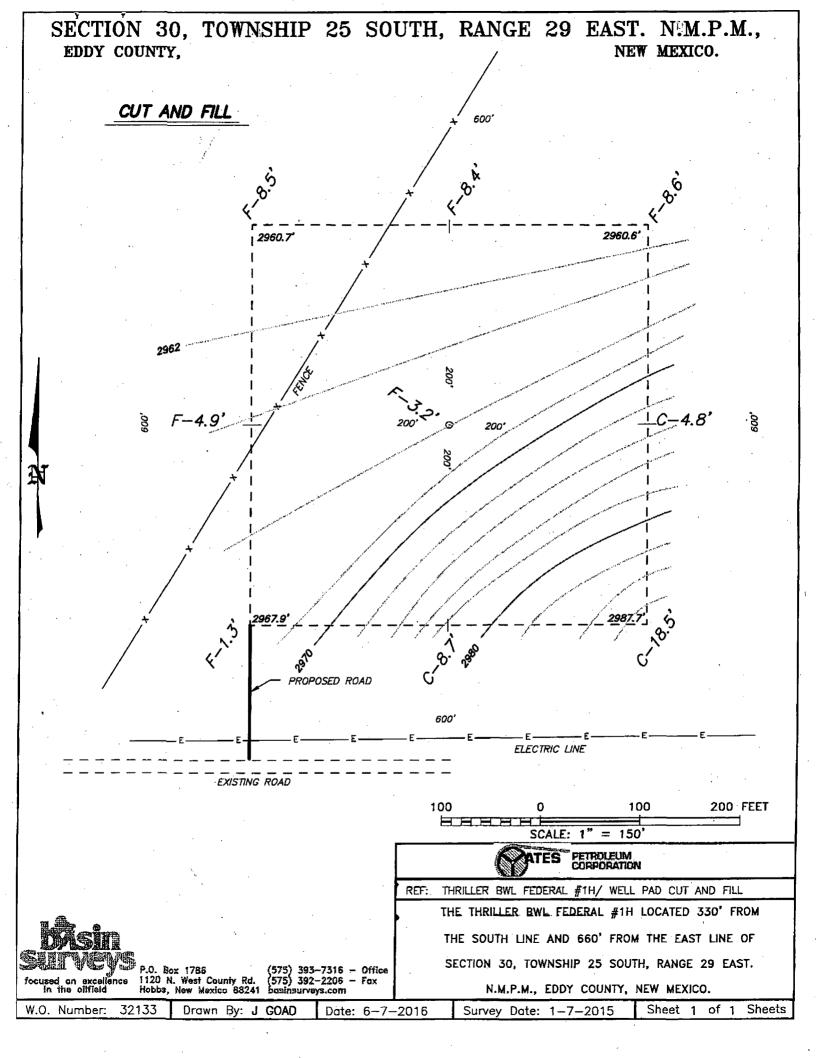
P.O. Box 1786 (575) 393-7316 - Office 1120 N. West County Rd. (575) 392-2206 - Fax Hobbs, New Mexico 88241 basinsurveys.com

SECTION 30, TOWNSHIP 25 SOUTH, RANGE 29 EAST.

N.M.P.M., EDDY COUNTY, NEW MEXICO.

32133 Drawn By: J GOAD Survey Date: 1-7-2015 W.O. Number: Date: 1-8-2015

Sheets Sheet



MULTI-POINT SURFACE USE AND OPERATIONS PLAN YATES PETROLEUM CORPORATION

Thriller BWL Federal #1H 330' FSL & 660' FEL Section 30-T25S-R29E Eddy County, New Mexico

The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Attached exhibit is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 9 miles southeast of Malaga, New Mexico and the access route to the location is indicated in pink on the attached exhibit.

DIRECTIONS: From Malaga go south on U. S. Highway 285 south towards Pecos, TX for 12.5 miles. Turn left (east) on Whitethorn Road and travel 4 miles. Turn left (Northeast) at next intersection after river crossing. Continue onto Pipeline Road Number 1 for 1.8 miles. Make a left turn (due north) at the next lease road, travel .2 miles. Make a left turn (due west) for 1.8 miles on lease road coming up to fork in road. At fork in road left turn (due west) travel .4 miles and location will be on the north side of the road.

2. PLANNED ACCESS ROAD:

- A. The existing roads are county roads and existing lease roads to allow access and the new road constructed will be 134.9' in length.
- B. The road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. The road will be bladed with drainage on both sides.
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL:

- A. There is drilling activity within a one-mile radius of the well site.
- B. Exhibit attached shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. There are production facilities, located on the Shocker 29 Federal #2H at this time.
- B. In the event that the well is productive, the necessary production facilities will be installed on location/the pad. A water line will be tied into an existing disposal line just south of the location/existing lease road. Power will be accessed from an existing Excel power line just south of the location/road. See Attached Power and water exhibit.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a brine water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in the attached exhibit.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will be responsible for finding a source of material for construction of road and pad and will obtain any permits that may be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. A closed loop system will be used to drill this well and reserve pits will not be used.
- B. The closed loop system will be constructed, maintained and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division—the "Pit Rule" 19.15.17 NMAC. Form C-144.
- C. Drilling fluids will be removed after drilling and completions are completed.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- E. No oil will be produced during drilling operations.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: NONE

9. WELLSITE LAYOUT:

- A. Exhibit attached shows the relative location and dimensions of the well pad, the closed loop design plan, the location of the drilling equipment, orientation and access road approach of three of the rigs Yates Petroleum is currently using. It is yet to be determined which drilling rig will drill this well, a 400' x 400' area has been staked, all drilling rigs being used by Yates Petroleum Corporation at this time will fit within these dimensions. At the time the determination is made a Sundry notice will be submitted with the appropriate information. (Approximately 3.5 acres).
- B. The closed loop system will be constructed, maintained and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division—the "Pit Rule" 19.15.17 NMAC.
- C. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. Well location will be contoured to resemble the original topography as closely as possible. Surface reclamation measures will be taken to avoid new erosion on the well location and the area surrounding the well location. These measures will be overseen by Yates' personnel following a structured plan for the reclamation of each individual site.
- C. Major drainage systems will be avoided as determined at the onsite with the BLM. Minor drainages may be rerouted around the well site within the 600' x 600' cleared area to avoid moving the well location.
- D. Segregation of topsoil or like soils will be placed in low lift rows on one or two sides of the cliché pad where the top soil is more spread out to preserve the seed bed better rather than in a stockpile just off the caliche well pad. Placement of these lift rows will be determined at the BLM onsite or at the time of construction by Yates Personnel.

- E. Yates will use prudent oil field practices when constructing well locations and related facilities. Yates personnel will determine the size of the well location needed for safe working conditions for personnel during all aspects on the drilling and production process.
- F. Back fill requirements for above ground reserve pits will be met by using cut, fill, and contouring of available top soil and like soils from the pit area. Should additional material be needed it will be brought in from a BLM approved source.
- G. All topsoil will be spread over the area reclaimed during interim reclamation using a front end loader. For final reclamation enough topsoil will be evenly distributed between the interim reclaimed area and the final reclaimed area. This method of soil stabilization should help maintain the productivity and viability of the topsoil.
- H. Soil treatments will be determined at the time of final reclamation by Yates' Environmental Specialist or other designated personnel to meet BLM final reclamation goals.
- I. Reseeding of disturbed areas will be accordance with the seed mixtures attached to the approved APD as Conditions of Approval. Planting and soil preparation will be done during the rainy season between June 1st and September 1st.
- J. Yates' personnel will control weeds during the productive period through final abandonment of the well. Yates may also use the option to hire a third party to be in charge of weed control or participate in the Eddy Soil and Water District program to pool monies for weed control.
- K. Well pads, roads and related facilities with caliche or other surfacing material will be picked up at the time of final abandonment. These materials may be used on other projects in the area if possible or placed back in the caliche pit or other designated site. Buried pipelines will be left in place after being bled down and purged. Above surface support equipment will be removed or cut down below plow depth and removed. Pipeline right-of-ways will be reseeded according to BLM Best Management Practices.
- L. If the proposed well is plugged and abandoned, all rehabilitation and/or vegetation requirements of the State of New Mexico will be complied with and will be accomplished as expeditiously as possible.
- 11. SURFACE OWNERSHIP: Federal Land

12. OTHER INFORMATION:

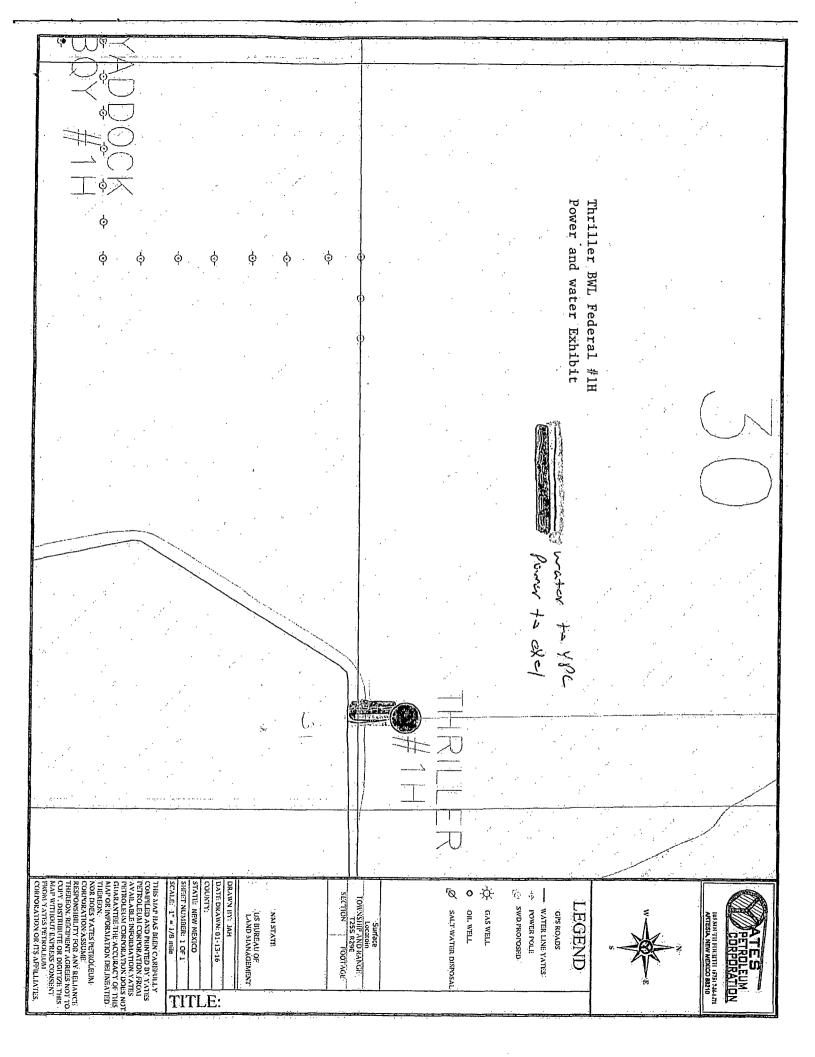
A. The primary use of the surface is for grazing.

Minerals: USA-Federal-NM-115416

Administered by: Bureau of Land Management

Carlsbad Field Office 620 E. Greene Street Carlsbad, NM 88220-6292

B. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.



CERTIFICATION YATES PETROLEUM CORPORATION Thriller BWL Federal #1H

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; and an someone under employment of Yates Petroleum Corporation has full knowledge of state and federal laws applicable to the 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.

Executed this 21	day of <u>January 2016</u>
Signature	
Name	Rene P Bela
Position Title	Land Regulatory Agent
Address	105 South Fourth Street, Artesia, New Mexico 88210
Telephone	(575) 748-4120
Field Representative	(if not above signatory)Tim Bussell, Drilling Supervisor
Address (if different	from above) Same as above
Telephone (if differe	nt from above) (575) 748-4221

SEP 1 3 2016

PECOS DISTRICT CONDITIONS OF APPROVAL

RECEIVED

OPERATOR'S NAME:	Yates Petroleum Corporation	
LEASE NO.:	NMNM	
WELL NAME & NO.:	1H-Thriller BWL Federal	
SURFACE HOLE FOOTAGE:	330'/S & 660'/E	
BOTTOM HOLE FOOTAGE	330'/N & 660'/E	
LOCATION:	Section 1, T.24 S., R.28 E., NMPM	
COUNTY:	Eddy 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.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Lease Suspension
Avian Protection
Cave/Karst
Fence
Construction
Notification Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
□ Drilling
Cement Requirements
Medium Cave/Karst
Logging Requirements
Waste Material and Fluids
□ Production (Post Drilling)
Well Structures & Facilities
Pipelines
Electric Lines
Interim Reclamation
Final Abandonment & Reclamation

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)

Lease Suspension

Well to be spudded within 120 days of the approval of the APD. If the drilling operations have not commenced by this time the lease suspension of Lease NMNM 115416 will be removed and 2 months will be remaining in its primary term.

Avian Protection

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

Cave Karst

Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.

- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cavebearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Fence

Fence will be rerouted around the location and will be maintained in the present condition or better. After interim reclamation is complete, the fence will be returned to the original line. If interim reclamation does not include the original fence line route, the fence will be moved back to the original line upon final abandonment of the well.

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

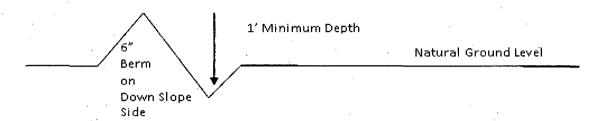
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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

Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards 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 cattleguards 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 topsoil4. Revegetate slopes

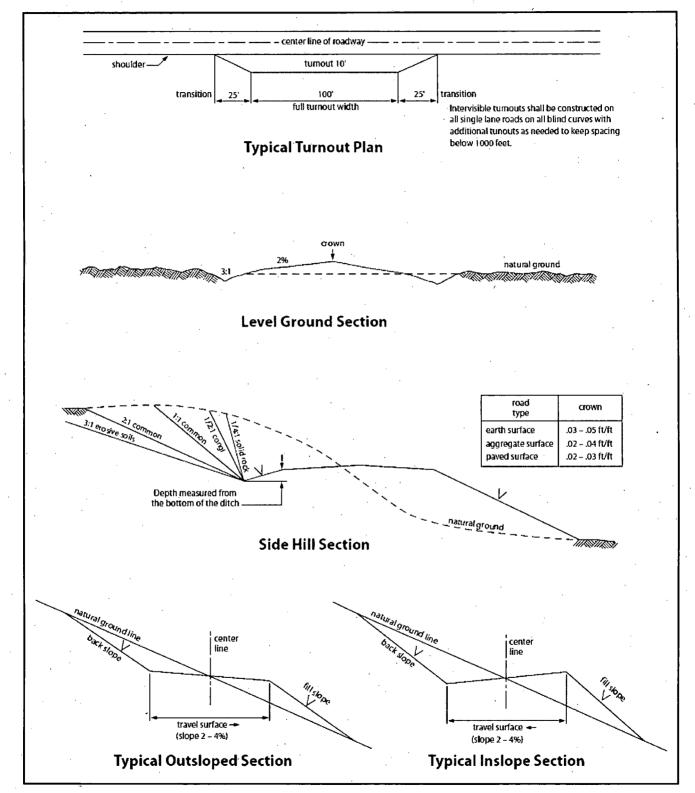


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. 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 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 <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

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

Medium Cave/Karst

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

- 1. The 13-3/8 inch surface casing shall be set at approximately 350 feet and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
 - a. 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.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
 - c. 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.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 9-5/8 inch intermediate casing shall be set at approximately 2840 feet. 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. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

If cement does not circulate to surface on the intermediate casing, the cement on the production casing must come to surface.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

 ☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 4. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.
- 3. 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 5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure
- 4. The appropriate BLM office shall be notified a minimum of 4 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**.
 - 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 areà.

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

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VIII. 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 1½ 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).

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 et seq. (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (see 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193).

Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

- 3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.
- 4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
 - a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
 - b. Activities of other parties including, but not limited to:
 - (1) Land clearing
 - (2) Earth-disturbing and earth-moving work
 - (3) Blasting
 - (4) Vandalism and sabotage;
 - c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems

necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

- 6. All construction and maintenance activity shall be confined to the authorized right-of-way width of <u>20</u> feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.
- 7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.
- 8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.
- 9. The pipeline shall be buried with a minimum of <u>24</u> inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the

right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
- 15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder 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 will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.
- 16. 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, powerline 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.
- 17. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.)

Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

- 3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- 4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
- 5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

- 6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road

crossing and at the facilities served.

- 8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.
- 9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.
- 10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder 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 will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

IX. 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).

X. 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 3, for Shallow 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 <u>no</u> 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	<u>lb/acre</u>
Plains Bristlegrass (Setaria macrostachya)	1.0
Green Sprangletop (Leptochloa dubia)	2.0
Sideoats Grama (Bouteloua curtipendula)	5.0

*Pounds of pure live seed:

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

NMOCD CONDITION OF APPROVAL

The *New!* Gas Capture Plan (GCP) notice is posted on the NMOCD website under Announcements. The Plan became effective May 1, 2016. A copy of the GCP form is included with the NOTICE and is also in our FORMS section under Unnumbered Forms. Please review filing dates for all applicable activities currently approved or pending and submit accordingly. Failure to file a GCP may jeopardize the operator's ability to obtain C-129 approval to flare gas after the initial 60-day completion period.