Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

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

5. Lease Serial No.
NM-94614 & NM-82902

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Checker "BIC" Federal Com. #4-H

2. Name of Operator
Yates Petroleum Corporation

9. API Well No.

3a. Address
105 South Fourth Street, Artesia, New Mexico 88210

3b. Phone No. *(include area code)*
575-748-4372

10. Field and Pool or Exploratory Area
Undesignated 2nd Bone Spring

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
660' FNL & 330' FEL, Surface Hole, Section 9-T19S-R31E
990' FNL & 330' FWL, Bottom Hole, Section 9-T19S-R31E

11. County or Parish, State
Eddy County, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Change TD
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Yates Petroleum Corporation wishes to change the depth of this well from 9133' TVD in Pilot hole, 8924 TVD & 13352' TMD to new depth of 8915' TVD & 13419' TMD. Attached is a new Drilling Plan.

KRDade 5/10/2013
Accepted for record
NMOCD

RECEIVED
MAY 08 2013
NMOCD ARTESIA

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Cy Cowan

Title Land Regulatory Agent

Signature

Date 4/9/13

APPROVED
MAY 7 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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

(Instructions on page 2)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Undesignated Bone Spring 2/SD/

Property Code	Property Name	Well Number
	CHECKER BIC FEDERAL COM	4H

OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORP.	3577'

Surface Location

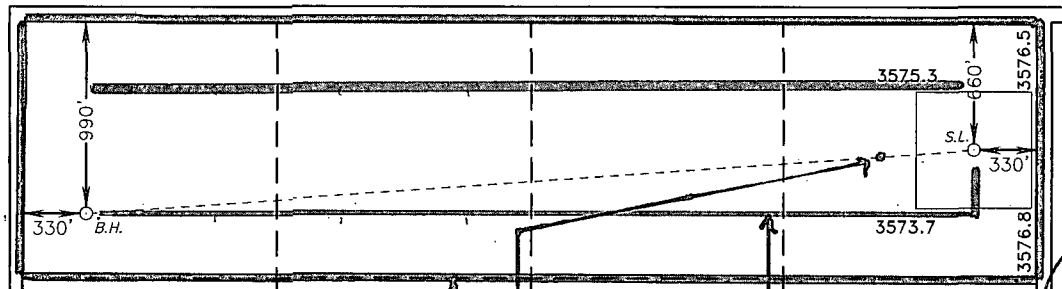
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	9	19 S	31 E		660	NORTH	330	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	9	19 S	31 E		990	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



PROPOSED BOTTOM HOLE LOCATION
Lat - N 32°40'46.11"
Long - W 103°52'54.78"
NMSPCE- N 611219.819
E 680240.635
(NAD-83)

Project Area

Producing Zone

Penetration Point
698' FNL & 815'

SURFACE LOCATION
Lat - N 32°40'49.46"
Long - W 103°52'00.73"
NMSPCE- N 611578.452
E 684858.879
(NAD-83)

OPERATOR CERTIFICATION

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

Signature Date 4/9/13

Cy Cowan
Printed Name

Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

Date Surveyed
Signature & Seal of Professional Surveyor
GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 26592

YATES PETROLEUM CORPORATION
Checker "BIC" Federal Com. #4H
660' FNL & 330' FEL, Surface Hole
990'FNL & 330' FWL, Bottom Hole
Section 9 -T19S-R31-E
Eddy County, New Mexico

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

Rustler	615'	Brushy Canyon	5130'-Oil	
Top of Salt	865'	Bone Springs LM	6640-Oil	
Base of Salt	2185'	Avalon Sand	6935'-Oil	
Tansill	2255'	Middle Avalon	7285'-Oil	
Yates	2455'	Lower Avalon	7550'-Oil	
Seven Rivers	2645'	Bone Spring 1/SD/	8025'-Oil	
Queen	3545'	KOP	8514'	
Capitan Reef	4505'	Bone Spring 2/SD/	8744'-Oil	Measured Depth
Cherry Canyon	4845'-Oil	Target SBSG	9272'-Oil	Measured Depth
		TD	13419-	Measured Depth

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

   Water: Approx 250' - 350'
   Oil or Gas: See above--All Potential Zones

3. Pressure Control Equipment: 3000 PSI BOPE with a 13.625" opening will be installed on the 13.3/8" casing and a 5000 PSI with a 13.625" on the 9 5/8" casing. BOP preventers and equipment will be tested to the pressure approved in the APD. Test will be conducted by an independent tester, utilizing a test plug in the well head. Test will be held for 10 minutes on each segment of the system tested. 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 B.

   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.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

   A. Casing Program: (All New)

HOLE SIZE	CASING SIZE	WT/FT	GRADE	COUPLING	INTERVAL	LENGTH
17 1/2"	13 3/8"	48#	H-40/J-55 Hybrid	ST&C	0'-~~640'~~ 740'	~~640'~~
12 1/4"	9 5/8"	40#	HCK-55	LT&C	0'-80'	80'
12 1/4"	9 5/8"	36#	J-55	LT&C	80'-3200' 4530'	3120'
12 1/4"	9 5/8"	40#	HCK-55	LT&C	3200'-~~4820'~~	1620'
8 3/4"	5 1/2"	17#	P-110	Buttress	0'-9272'	9272'
8 1/2"	5 1/2"	17#	P-110	Buttress	9272'-13419'	4147'

Yates Petroleum Corporation desires to stay with the three-string design.

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

B. CEMENTING PROGRAM:

Surface casing is 13 3/8" from surface to 640': Lead with 380 sacks Class H with 2% CaCl2 (Wt. 14.20 Yld. 1.62). Tail in with 200 sacks Class C with 2% CaCl2 (Wt. 14.80 Yld. 1.34) Cement designed with 100% excess. TOC is to Surface.

Intermediate Casing Stage 1 is 9 5/8" surface to 4820': DV tool at 3550'. Lead with 265 sacks 35:65:6PzC (Wt. 12.50 Yld 2.00); Tail in with 200 sacks Class C with 2% CaCl2 (Wt. 14.80 Yld 1.34). Cement designed with 100% excess. TOC-3550'.

Intermediate Casing Stage 2: Lead with 980 sacks 35:65:6PzC (Wt. 12.50 Yld. 2.00). Tail in with 200 sacks Class C with 2% CaCl2 (Wt. 14.80 Yld. 1.34). Cement designed with 100% excess. TOC is surface.

Production Casing: Cement to be done in two stages with DV tool at approximately 6600'.'

Production Casing Stage 1 is 5 1/2" from 13419' MD to 6600'; cement with 1650 sacks PecosVILt with D112, Fluid Loss 0.4%; D151, Calcium Carbonate, 22.5 lb/sack' D-174, Extender 1.5 lb/sack; D-177, Retarder 0.01 lb/sack; D-800, Retarder 0.5 lb/sack and D46, Antifoam Agent, 0.15 lb/sack (Wt. 13.00 Yld. 1.41). Cement designed with 35% excess. TOC-6600'.

Production Casiing Stage 2 is 5 1/2" casing from 6600' to 2900'; Lead with 490 sacks 35:65:6PzC (Wt. 12.50 Yld. 2.00). Tail In with 200 sacks PecosVILt with D112, Fluid Loss 0.4%; D151, Calcium Carbonate, 22.5 lb/sack' D-174, Extender 1.5 lb/sack; D-177, Retarder 0.01 lb/sack; D-800, Retarder 0.5 lb/sack and D46, Antifoam Agent, 0.15 lb/sack (Wt. 13.00 Yld. 1.41). Cement designed with 35% excess. TOC-2900'.

Hole will be drilled vertically to 8514' and kicked off at approximately 8514'. The well will then be directionally drilled at 12 degrees per 100' with an 8 3/4" hole to 9272' MD (8991' TVD). At this point, reduce the hole size to 8 ½" and drill to 13419' MD (8915' TVD). 5 1/2" casing will then be set and cemented in two stages with a DV tool at approximately 6600'. Penetration point of producing zone will be encountered at 698' FNL & 815' FEL, Section 9-19S-31E. Deepest TVD in the lateral is 8991'.

5. Mud Program and Auxiliary Equipment:

INTERVAL	TYPE	WEIGHT	VISCOSITY	FLUID LOSS
0'-640' 740	Fresh Water	8.60-9.20	28-34	N/C
640'-4820' 4530	Brine Water	10.00-10.20	28-30	N/C
4820'-13419'	Cut Brine	8.80-9.20	30-36	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. The slow pump speed will be recorded on the daily drilling report after mudding up. A mud test will be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH. 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 the derrick hand visually checking the fluid level in the pits periodically using a nut on the end of a rope hanging just above the fluid level in the pit.

6. EVALUATION PROGRAM:

Samples: 10 foot samples 3000' to TD.
Logging: Platform Express/HALS/NGT w/CMR from into the curve to surface casing; Horizontal-MWD-GR.
Coring: None
DST's: None
Mudlogging: On from 3000' to TD

7. Abnormal Conditions, Bottom hole pressure and potential hazards:
Anticipated BHP: Depths are TVD.

From:	0	TO:	640'	Anticipated Max. BHP:	306	PSI
From:	640'	TO:	4820'	Anticipated Max. BHP:	2557	PSI
From:	4820'	TO:	8991'	Anticipated Max. BHP:	4301	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

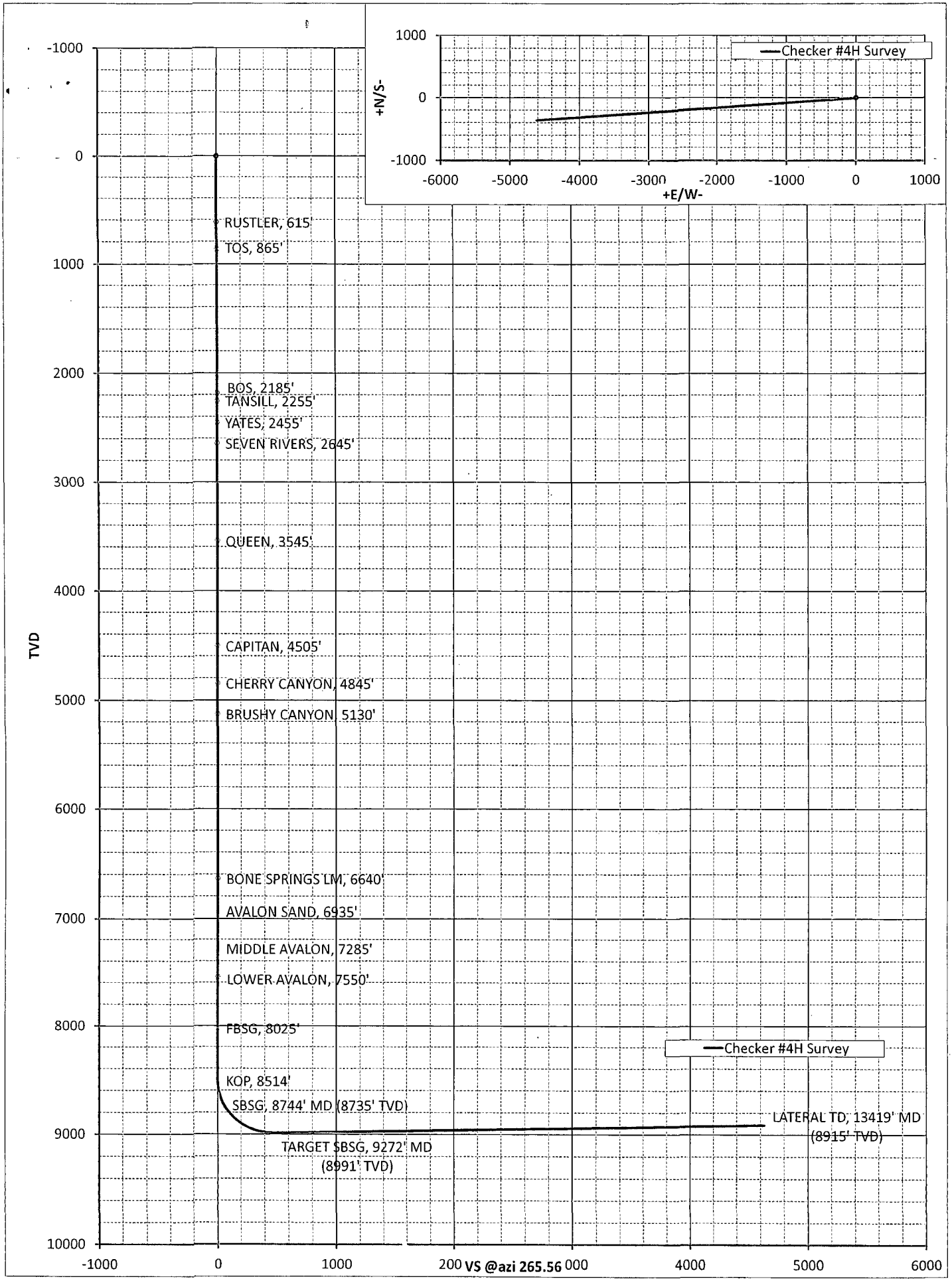
Operator Co.

Your Co.

Survey/Planning Report

Operator	Yates Petroleum Corp.	Northing		Date	28-Mar-13
Dir. Co.	Yates Petroleum Corp.	Easting		System	2 - St. Plane
Well Name	Checker #4H Survey	Elevation		Datum	1983 - NAD83
Location	Sec. 9, 19S-31E	Latitude		Zone	4302 - Utah Central
Rig		Longitude		Scale Fac.	
Job		Units	Feet	Converg.	

MD	INC	AZI	TVD	+N/S-	+E/W-	VS@265.56°	BR	TR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
615.00	0.00	360.00	615.00	0.00	0.00	0.00	0.00	0.00	0.00
615: RUSTLER, 615'									
865.00	0.00	360.00	865.00	0.00	0.00	0.00	0.00	0.00	0.00
865: TOS, 865'									
2185.00	0.00	360.00	2185.00	0.00	0.00	0.00	0.00	0.00	0.00
2185: BOS, 2185'									
2255.00	0.00	360.00	2255.00	0.00	0.00	0.00	0.00	0.00	0.00
2255: TANSILL, 2255'									
2455.00	0.00	360.00	2455.00	0.00	0.00	0.00	0.00	0.00	0.00
2455: YATES, 2455'									
2645.00	0.00	360.00	2645.00	0.00	0.00	0.00	0.00	0.00	0.00
2645: SEVEN RIVERS, 2645'									
3545.00	0.00	360.00	3545.00	0.00	0.00	0.00	0.00	0.00	0.00
3545: QUEEN, 3545'									
4505.00	0.00	360.00	4505.00	0.00	0.00	0.00	0.00	0.00	0.00
4505: CAPITAN, 4505'									
4845.00	0.00	360.00	4845.00	0.00	0.00	0.00	0.00	0.00	0.00
4845: CHERRY CANYON, 4845'									
5130.00	0.00	360.00	5130.00	0.00	0.00	0.00	0.00	0.00	0.00
5130: BRUSHY CANYON, 5130'									
6640.00	0.00	360.00	6640.00	0.01	0.00	0.00	0.00	0.00	0.00
6640: BONE SPRINGS LM, 6640'									
6935.00	0.00	360.00	6935.00	0.01	0.00	0.00	0.00	0.00	0.00
6935: AVALON SAND, 6935'									
7285.00	0.00	360.00	7285.00	0.01	0.00	0.00	0.00	0.00	0.00
7285: MIDDLE AVALON, 7285'									
7550.00	0.00	360.00	7550.00	0.01	0.00	0.00	0.00	0.00	0.00
7550: LOWER AVALON, 7550'									
8025.00	0.00	360.00	8025.00	0.01	0.00	0.00	0.00	0.00	0.00
8025: FBSG, 8025'									
8513.60	0.00	265.56	8513.60	0.01	0.00	0.00	0.00	3.12	0.00
8513.6: KOP, 8514'									
8600.00	10.37	265.56	8599.53	-0.60	-7.77	7.80	12.00	0.00	12.00
8700.00	22.37	265.56	8695.30	-2.77	-35.82	35.92	12.00	0.00	12.00
8743.82	27.63	265.56	8735.00	-4.21	-54.27	54.43	12.00	0.00	12.00
8743.82: SBSG, 8744' MD (8735' TVD)									
8800.00	34.37	265.56	8783.13	-6.45	-83.10	83.35	12.00	0.00	12.00
8900.00	46.37	265.56	8859.18	-11.45	-147.56	148.00	12.00	0.00	12.00
9000.00	58.37	265.56	8920.13	-17.57	-226.37	227.05	12.00	0.00	12.00
9100.00	70.37	265.56	8963.31	-24.54	-316.09	317.04	12.00	0.00	12.00
9200.00	82.37	265.56	8986.84	-32.05	-412.81	414.05	12.00	0.00	12.00
9272.35	91.05	265.56	8990.99	-37.64	-484.76	486.21	12.00	0.00	12.00
9272.35: TARGET SBSG, 9272' MD (8991' TVD)									
13418.98	91.05	265.56	8915.00	-358.62	-4618.24	4632.14	0.00	0.00	0.00
13418.98: LATERAL TD, 13419' MD (8915' TVD)									


Checker #4H Survey
+N/S-
+E/W-
1000
0
-1000
-6000
-5000
-4000
-3000
-2000
-1000
0
1000
RUSTLER, 615'
TOS, 865'
BOS, 2185'
TANSILL, 2255'
YATES, 2455'
SEVEN RIVERS, 2645'
QUEEN, 3545'
CAPITAN, 4505'
CHERRY CANYON, 4845'
BRUSHY CANYON, 5130'
BONE SPRINGS LM, 6640'
AVALON SAND, 6935'
MIDDLE AVALON, 7285'
LOWER AVALON, 7550'
FBSG, 8025'
KOP, 8514'
SBSG, 8744' MD (8735' TVD)
TARGET SBSG, 9272' MD
(8991' TVD)
LATERAL TD, 13419' MD
(8915' TVD)
Checker #4H Survey
TVD
VS @azi 265.56
-1000
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000

CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Yates Petroleum Corp
LEASE NO.:	NM94614
WELL NAME & NO.:	4H Checker BIC Federal Com
SURFACE HOLE FOOTAGE:	660' FNL & 330' FEL
BOTTOM HOLE FOOTAGE	660' FNL & 330' FWL
LOCATION:	Section 9, T.19 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours 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. A Hydrogen Sulfide (H2S) Drilling Plan should be activated **500** feet prior to drilling into the **Yates** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. 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 are located, this does not include the dog house or stairway area.

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

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. 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.).

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

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. 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.

Possible water and brine flows in the Salado and Artesia groups.
Possible lost circulation in the Artesia group and Capitan Reef.

1. The **13-3/8** inch surface casing shall be set at **approximately 740 feet (in a competent bed below the Magenta Dolomite, a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt)** and cemented to the surface. **Freshwater mud to be used to setting depth.**

    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.

Special Capitan Reef requirements:

If any lost circulation occurs below the Base of the Salt, the operator shall do the following:

- **Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.**

Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

Intermediate casing is to be kept liquid filled while running in hole to meet BLM minimum collapse safety factor.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing **which shall be set at approximately 4530' in the base of the Capitan Reef or top of the Delaware Formation,** is:

Operator has proposed DV tool at depth of 3550'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

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

Operator has proposed DV tool at depth of 6600'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement should tie-back at least **1630** feet (minimum of 50 feet above the reef) 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 RP 53 Sec. 17.

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.

a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

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

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

    d. 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.**

    e. 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.

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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

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