Form 3160-5
(August 1999)

New Mexico Oil ... 1625 N. French Drive Hobbs, NM 88240

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

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 reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM-40448
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No.
	8. Well Name and No BOLA 7 FEDERAL #03
2. Name of Operator HARVEY E. YATES COMPANY Contact: BOB WILLIAMS ext. 1240	9. API Well No. 30-025-35535
3a. Address PO BOX 1933, ROSWELL, NM 88202-1933 3b. Phone No. (include area code) (505)623-6601	10. Field and Pool, or Exploratory YOUNG BONE SPRING NORTH
4. Location of Well(Footage, Sec., T., R., M., or Survey Description) 1,650' FNL & 330' FEL (SE NE) UNIT H, SEC 7, T18S, R32E	11. County or Parish, and State LEA COUNTY, NM

12. CHECK 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
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

SET WHIPSTOCK IN 5 1/2" CASING @ 8,240'.
CUT WINDOW, BUILD CURVE, AND DRILL 1,760' OF HORIZONTAL HOLE IN BONE SPRING 2ND SAND.
SET AND CEMENT 3 1/2" LINER.
ACIDIZE AND FRAC.
SEE ATTACHED PROCEDURE.

SUBJECT TO LIKE APPROVAL BY NMOCD

JUL 2005 Received

APPROVED
JUL 19 2005
GARY GOURLEY
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct.

Name *(Printed/Typed)* BOB WILLIAMS — Title DRILLING SUPT

Signature Bob Williams — Date 7/15/05

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.

Bola 7 Fed #3 Formation Tops & Target Information

Estimated Tops of Significant Geologic Markers:

Rustler	1,014	Delaware	4,860
Yates	2,553	BSPG LS	6,058
Seven Rivers	2,950	BSPG A Zone	7,723
Bowers	3,420	BSPG 1st Sand	7,786
Queen	3,684	B-Zone	8,062
Penrose	3,930	Kick Off Point	8,240
Grayburg	4,233	BSPG 2nd Sand	8,488
San Andres	4,672	1st Horz. Point	9,157

Surface Location: 1650 FNL & 330 FEL Section 7, T18S-R32E, Lea County, New Mexico
Lat. Long: -103.79837 32.76505
Lease Lines: Loc within Pearsall Unit, Well will communitize all leases in N/2 of section.
Hard Boundaries: East Line & North Line of N/2 Section 7, Centerline between N & S/2 of section
Existing TD: 9727 ft.
Target Zone: 8764 to 8863 ft - 100 ft Thick, Dipping at 3.5° to the south-south east ~170°

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Roswell Resource Area
P.O. Drawer 1857
Roswell, New Mexico 88202-1857

Statement Accepting Responsibilities for Operations

Operator Name: Harvey E. Yates Company
Street or Box: P.O. Box 1933
City, State: Roswell, New Mexico
Zip Code: 88202

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.:30-025-35535

Lease Name: Bola 7 Fed #3

Legal description of land: Sec 7, T18S, R32E, Lea County, New Mexico

Formation(s) (if applicable): Bone Springs 2nd Sand

Bond Coverage: (State if individually bonded or another's bond): Blanket Bond

BLM Bond File No.:

Authorized Signature: Bob Wilson

Title: Drilling Superintendent

DATE: 7/15/05

Bola 7 Fed. #3 – Horizontal Drilling Procedure

Prior to Drilling

1. Prior to moving in pulling unit, test anchors.

2. MIRU pulling unit, racks and catwalk. POOH warehousing rods. POOH laying down tbg.

3. GIH and set CIBP @8240' +/-. PU jt of tbg on location and 4' pup-joint. Spot pup-joint in BOP, in order to test CIBP to 1500 psi. If ok, RD pulling unit and prepare to rig up drilling equipment.

Drilling Procedure

1. MIRU drilling contractor and equipment.
2.
3. RU Suttles Mudloggers and Pason digital geolograph.

4. Install wear bushing and NU the 7-1/16", 5M BOP Equipment and choke manifold as follows:
   - 7-1/16", 5M Annular Preventer
   - 7-1/16", 5M Blind Rams
   - 7-1/16", 5M Pipe Rams
   - 7-1/16", 5M x 7-1/16", 5M mudcross
   - RU 5M Choke Manifold

5. Test BOP Equipment:
   - Test BOP to 3000 psi (annular preventer to 1500 psi): with a low test of 250 psi, bleed off to 0 psi (test w/ independent BOP tester).

6. Rig up scientific drilling and run gyro survey to PBTD of 8240'.

7. Tally in hole w/ dummy mill and tag 8240' PBTD. POOH and lay down mill.

8. Prior to picking up whipstock assembly, ensure that the gyro will seat into the orienting lug. TIH w/ Weatherford's 4-1/2" OD whipstock. Stop 5' above 8240' PBTD and run gyro to determine the direction of the whipstock face. Rotate the pipe as needed to achieve the required direction (azimuth of 291.4 degrees). Lower the pipe to within one foot of PBTD and take another gyro reading. If necessary, rotate pipe to obtain required orientation. Confirm azimuth setting w/ 5 consistent readings.

9. Set whipstock w/ 3-5k. Keep gyro tool in orientation tool while lowering and adjust as necessary. After setting the slips, confirm settings with 5 consecutive readings. If the orientation is correct, shear the starting mills of the whipstock.

10. Pick up swivel and begin cutting window. Continue until the whole assembly has cleared the casing. Drill 5' of rathole, pumping sweeps as necessary. Circulate hole clean and TOH.

11. Inspect the mill on the surface. If mills are 1/8" or less out of gauge, run drilling assembly instead of making an extra mill run.

12. Rig up Inteq, Suttles Mudloggers and Pason Unit. TIH w/ Inteq's bottomhole assembly. RU and run gyro. Orient motor and drill w/ gyro until able to use MWD readings.

13. Build curve to estimated target depths and angles as follows:

True Vertical Depth	8,812'
Measured Depth	9,140'
Final Angle	90 degrees
Target Azimuth	291.4 degrees
Build Rate	10 degrees/100'

14. Drill the curve sliding as necessary to stay on target (Note: After each slide, pull back bit and wash through the slide). When the curve is built, rotate through the curve section and record tight spots and fill. Make at least one short trip prior to tripping out of hole.

15. TIH w/ Inteq's lateral assembly (4-3/4" bit, 3-3/4" motor, float sub/orienter combo, 2 – flexible monel collars and 2-7/8" drill pipe).

16. Drill 1740' +/- lateral. The end point will be 10,898' MD, 8760' TVD and 2330' of vertical section per the attached well plan. Azimuth will be held at 291.4 degrees and inclination at 91.73 degrees.

17. Sweep hole on connections with E-Z Mud as necessary for hole cleaning and lubricity. Use Bara-Lube or EPL-50 for torque reduction if necessary in lateral. Loss circulation material is not to be used.

18. Short trip above KOP for hole cleaning at any time as recommended by directional driller. Sweep and condition hole at TD of lateral and short trip to above KOP to insure that no cuttings remain. Circ lateral from TD until hole is clean.

19. TOH w/ drill string and LD all directional drilling tools, release Inteq equipment.

20. PU reamers and TIH. Ream lateral in preparation for running 3-1/2" liner. TOH.

21. PU and run 3-1/2" liner..

22. Retrieve wear bushing.

23. Rig down and release rig.

Liner & Cementing Schedules

Csg Size: 3-1/2", 9.3 ppf, P-110, ULT-FJ
Depth: 8040' MD / 8040' TVD to 10,898' MD / 8760' TVD

Cement Specifications: 3-1/2" Liner

Stage	Description	Sacks	Weight	Cf/sx	H20/sx	TOC
	Class H Cmt + 1% bwoc FL-62 + 0.4% bwoc CD-32 + 0.2% bwoc Sodium Metasilicate + 45.7% Fresh Water	135	15.6	1.19	5.15	TOL

Drill out cement on top of liner, and clean out liner.

Perforate, acidize, and frac Bone Spring 2nd Sand.

Heyco Energy
Bola 7 Fed #3

slot #1
UNKNOWN
LEA COUNTY, NEW MEXICO

P R O P O S A L L I S T I N G

by
Baker Hughes INTEQ

Your ref : Plan 1 - 3D J
Our ref : prop4616
License :

Date printed : 21-Jun-2005
Date created : 18-Jun-2005
Last revised : 18-Jun-2005

Field is centred on n32 55 0.000,w103 15 0
Structure is centred on n32 45 54.180,w103 47 54.132

Slot location is n32 45 54.180,w103 47 54.132
Slot Grid coordinates are N 642451.622, E 664445.097
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico East (3001), Spheroid: Clarke - 1866

Reference North is Grid North

Heyco Energy
Bola 7 Fed #3,slot #1
UNKNOWN,LEA COUNTY, NEW MEXICO

PROPOSAL LISTING Page 1
Your ref : Plan 1 - 3D
Last revised : 18-Jun-2005

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	RECTANGULAR COORDINATES		Dogleg Deg/100ft	Vert Sect	GRID COORDS Easting	Northing
3240.00	0.00	291.39	8240.00	0.00N	0.00E	0.00	0.00	664445.10	642451.62
8340.00	10.00	291.39	8339.49	3.17N	8.10W	10.00	8.70	664436.99	642454.80
8440.00	20.00	291.39	8435.96	12.60N	32.17W	10.00	34.55	664412.92	642464.22
8540.00	30.00	291.39	8526.48	28.00N	71.47W	10.00	76.76	664373.62	642479.62
8640.00	40.00	291.39	8608.29	48.89N	124.81W	10.00	134.05	664320.28	642500.51
8740.00	50.00	291.39	8678.91	74.65N	190.57W	10.00	204.67	664254.53	642526.27
8840.00	60.00	291.39	8736.20	104.49N	266.75W	10.00	286.48	664178.35	642556.11
8940.00	70.00	291.39	8778.40	137.50N	351.03W	10.00	376.99	664094.07	642589.12
9040.00	80.00	291.39	8804.25	172.68N	440.85W	10.00	473.46	664004.25	642624.31
9140.00	90.00	291.39	8812.96	208.97N	533.49W	10.00	572.96	663911.61	642660.59
9157.34	91.73	291.39	8812.70	215.30N	549.64W	10.00	590.30	663895.46	642666.92
9500.00	91.73	291.39	8802.32	340.21N	868.54W	0.00	932.80	663576.55	642791.83
10000.00	91.73	291.39	8787.19	522.49N	1333.89W	0.00	1432.57	663111.21	642974.11
10500.00	91.73	291.39	8772.06	704.77N	1799.23W	0.00	1932.34	662645.86	643156.39
10898.38	91.73	291.39	8760.00	850.00N	2170.00W	0.00	2330.54	662275.10	643301.62

All data in feet unless otherwise stated. Calculation uses minimum curvature method.
Coordinates from structure and TVD from rotary table.
Bottom hole distance is 2330.54 on azimuth 291.39 degrees from wellhead.
Vertical section is from wellhead on azimuth 291.39 degrees.
Grid is mercator - New Mexico East (3001).
Grid coordinates in FEET and computed using the Clarke - 1866 spheroid
Presented by Baker Hughes INTEQ

Heyco Energy

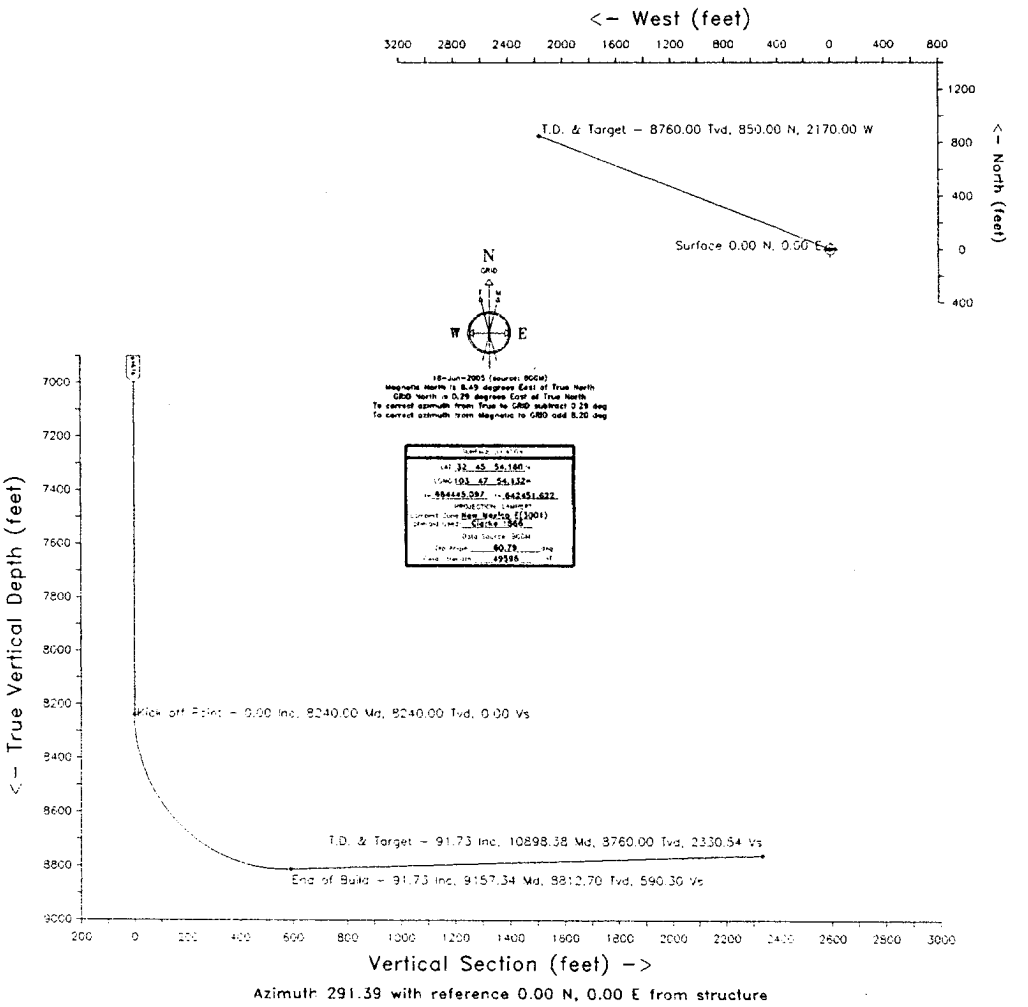
Structure : Bola 7 Fed #3 | Slot : slot #1

Field : UNKNOWN | Location : LEA COUNTY, NEW MEXICO

Created by adryanm
Date plotted : 21-Jun-2005
Plot Reference is Plan 1 - 30 J.
Coordinates are in feet reference structure.
True Vertical Depths are reference structure.
--- Baker Hughes INTEQ ---

---- WELL PROFILE DATA ----

----- Point -----	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
Tie on	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP	8240.00	0.00	291.39	8240.00	0.00	0.00	0.00	0.00
End of Build	9157.34	91.73	291.39	8812.70	215.30	-549.64	590.30	10.00
T.D. & Target TD	10898.38	91.73	291.39	8760.00	850.00	-2170.00	2330.54	0.00



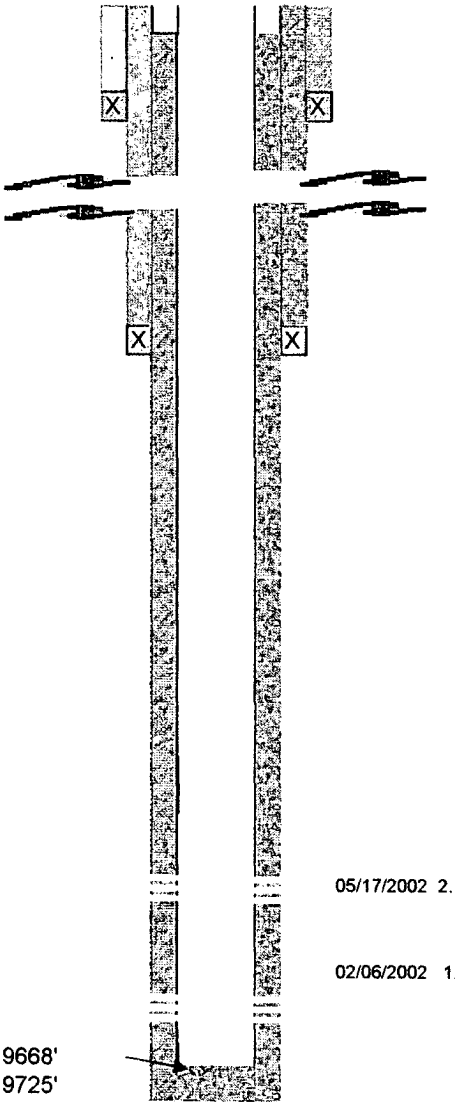
BOLA 7 FEDERAL #3
North Young Bone Spring
API #30-025-35535 NMNM-40448
H-07-18S-32E, Lea County
1650' FNL & 330' FEL
Prop ID#134000-003
3783' GL
Harvey E. Yates Company

prepared by J. Atkinson

DRAWING NOT TO SCALE.

Wellbore Status as of : 06/08/05

Spud: 12/30/2001
TD: 9725' 1/23/2002
PBTD: 9668' 2/6/2002 (original)
Completed: 2/14/2002



Surface Casing:
Bit size - 17 ½"
400' - 13 3/8" 48# H-40
Cmtd w/425 sx, TOC=Circ

Intermediate Casing:
Bit size - 8 5/8"
3134' - 8 5/8" 32# J-55 Csg
cmtd w/1000 sx cmt, TOC=Circ

Production Casing:
Bit size - 7 7/8"
9715' 5 1/2" 17# J-55 csg
cmtd w/1700 sx cmt, TOC=710' by CBL

05/17/2002 2. Perf 8312-8367 w/2 spf (.47" 111 holes)

02/06/2002 1. Perf 8792-8812 w/2 spf (.47" 40 holes)

by CBL, PBTD: 9668'
TD: 9725'