

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

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

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

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

State of New Mexico

Form C-101
Revised November 14, 2012

RECEIVED
FEB 14 2013
NMOCD ARTESIA

Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

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

1. Operator Name and Address Chevron USA, Inc. 15 Smith Road Midland, TX 79705		2. OGRID Number 4323
3. Property Code 39726	4. Property Name HAYHURST 16 25 27 STATE	5. API Number 30-015-41120 Well No. 1H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	16	25 S	27 E		150'	N	2280	W	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	16	25 S	27 E		100'	S	2280'	W	EDDY

9. Pool Information

WILDCAT G-02 S2527 15A ; BONE SPRING	Pool Name	Pool Code 97816
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Additional Well Information

11. Work Type N	12. Well Type O	13. Cable/Rotary R	14. Lease Type S	15. Ground Level Elevation 3213'
16. Multiple N	17. Proposed Depth 12,380'	18. Formation Bone Spring	19. Contractor TBD	20. Spud Date
Depth to Ground water 75'+		Distance from nearest fresh water well >1.5 MILES		Distance to nearest surface water > 6 MILES

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17 1/2"	13 3/8"	48#	650'	600	0'
Intermediate	12 1/4"	9 5/8"	40#	2150'	1000	0'
Production	8 3/4"	5 1/2"	17#	12,380'	900	1650'

Casing/Cement Program: Additional Comments

DETAILED INFORMATION IS ATTACHED.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐ , if applicable. Signature: <i>Bryan Arrant</i>		OIL CONSERVATION DIVISION Approved By: <i>C. Shepard</i> Title: <i>6001615</i> Approved Date: <i>2/15/2013</i> Expiration Date: <i>2/15/2015</i>	
Printed name: Bryan Arrant-Agent for Chevron USA, Inc.			
Title: Regulatory Specialist II			
E-mail Address: bryan.arrant@chk.com			
Date: 02/13/2013	Phone: (405)935-3782	Conditions of Approval Attached <i>Requires NSL, drill only permit</i>	

HAYHURST 16 25 27 STATE 1H

NMOCD's forms C-102, C-144(CLEZ) pit permit, casing program, directional planning report, depth to ground water reports, and other information is enclosed. There are no known high levels of H₂S in this area. However, monitoring of H₂S and well readiness will be utilized in the drilling of this well.

This well will require a NSL. Permit is for "DRILL ONLY". Surface hole will be drilled with fresh water mud, intermediate-brine and production hole with cut-brine.

Hayhurst 16-25-27 State 1H

Type	Hole Size (")	Casing Size (in)	Casing Weight (#'s)	Setting Depth (ft)	Estimated TOC (ft)	Bottom of Cemented Interval (ft)	Sacks of Cement (sx)
Surface	17.5	13.375	48	650	0	650	600
Intermediate	12.25	9.625	40	2,150	0	2,150	1,000
Production	8.75	5.5	17	12,380	1,650	7,813	900
		** Lateral will be an OH Packer Completion (no cement) from 12,380' (TD) to 7,813' (End of Curve). There will be a stage tool at the End of Curve to cement back up to 500' inside Intermediate csg thru.					

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1226 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-41120	² Pool Code 97816	³ Pool Name Wildcat G-02 S2527 15A; Bone Spring
⁴ Property Code 39726	⁵ Property Name HAYHURST 16 25 27 STATE	⁶ Well Number III 1H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3213'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	16	25 SOUTH	27 EAST, N.M.P.M.		150'	NORTH	2280'	WEST	EDDY

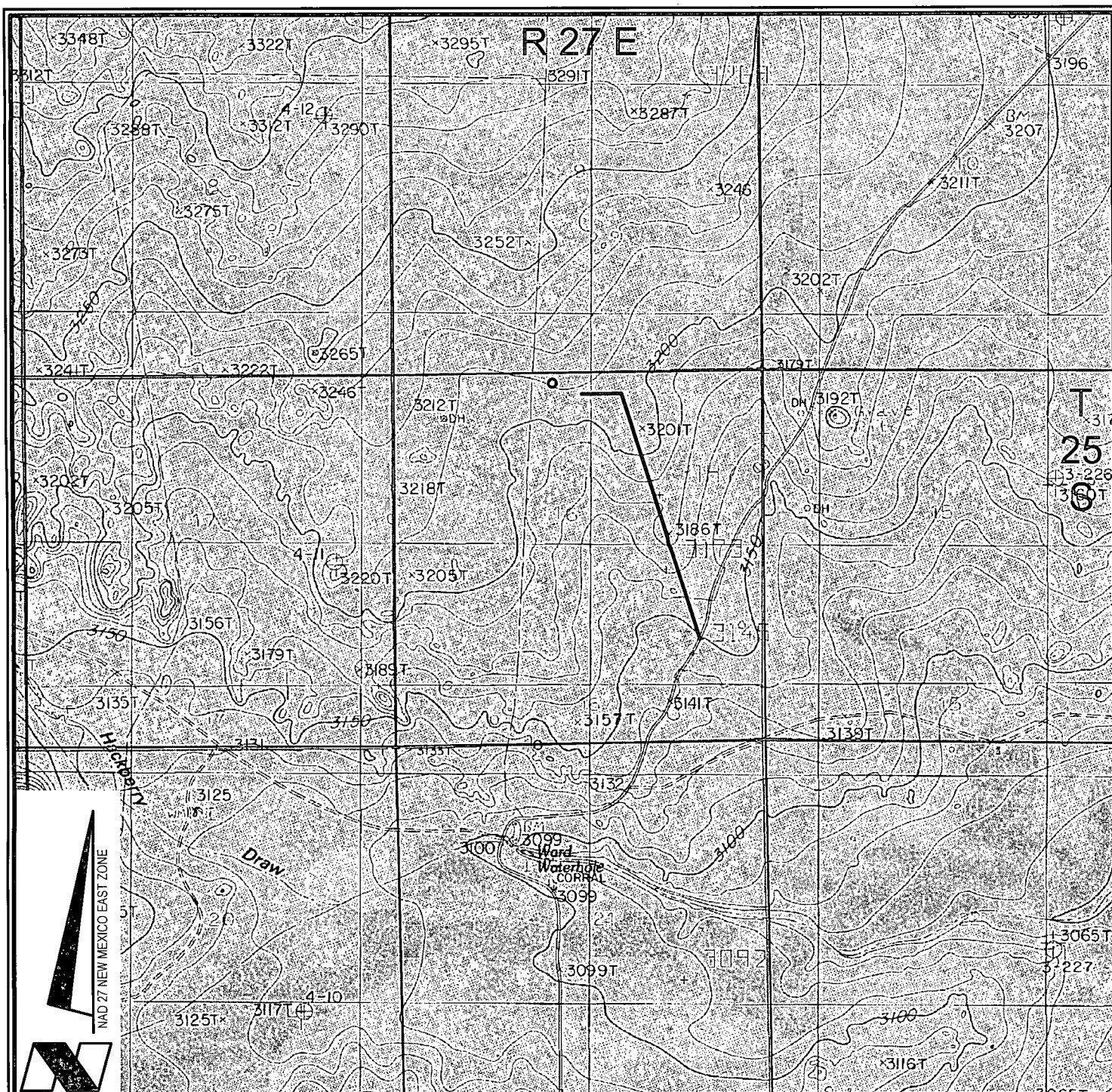
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	16	25 SOUTH	27 EAST, N.M.P.M.		100'	SOUTH	2280'	WEST	EDDY

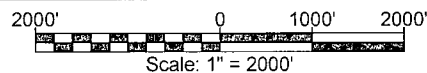
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	HAYHURST 16 25 27 STATE NO.1H WELL X= 542,513 NAD 27 Y= 413,529 LAT. 32.136833 LONG. 104.195988 X= 583,696 NAD83 Y= 413,586 LAT. 32.136954 LONG. 104.196483 ELEVATION +3213' NAVD 83	¹⁷ 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 in 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: <i>Bryan Arrant</i> Date: 02/13/2013 Bryan Arrant (Agent for Chevron) Printed Name: bryan.arrant@chk.com E-mail Address:
	PROPOSED BOTTOM HOLE LOCATION X= 542,531 NAD 27 Y= 408,486 LAT. 32.122970 LONG. 104.195952 X= 583,714 NAD83 Y= 408,543 LAT. 32.123091 LONG. 104.196446	¹⁸ 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 supervision, and that the same is true and correct to the best of my belief. Date of Survey: Jan 30 2013 Signature and Seal of Professional Surveyor: <i>Wm. J. Daniel III</i> NEW MEXICO 15078 REGISTERED PROFESSIONAL SURVEYOR Confirmation Number: #15078



VICINITY MAP



CHEVRON U.S.A. INC.
HAYHURST 16-25-27 STATE NO. 1H WELL
LOCATED 150' FNL AND 2280' FWL
SECTION 16, T25S-R27E
EDDY COUNTY, NEW MEXICO



Lafayette New Orleans Houston
 135 Regency Sq. Lafayette, LA 70508
 Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

DRAWN BY: BMO

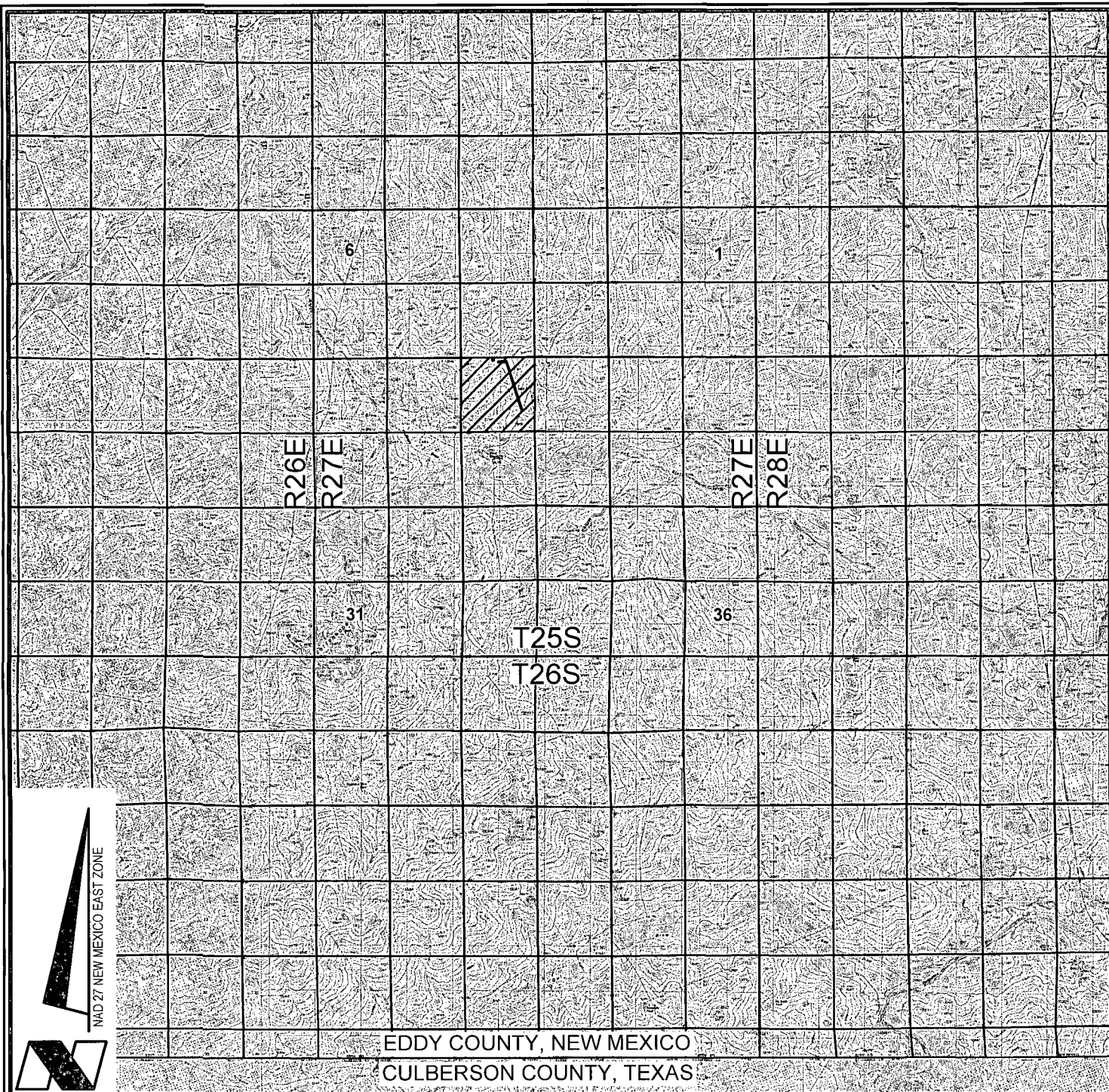
REVISED:

DATE: 01/28/2013

PROJ. MGR.: DBM

SHEET 1 OF 3 SHEETS

FILENAME: T:\2012\2128637\DWG\HAYHURST 16-25-27 STATE 1H APD.dwg



VICINITY MAP

10,000' 0 5,000' 10,000'
Scale: 1" = 10,000'

CHEVRON U.S.A. INC.

HAYHURST 16-25-27 STATE NO. 1H WELL

LOCATED 150' FNL AND 2280' FWL

SECTION 16, T25S-R27E

EDDY COUNTY, NEW MEXICO



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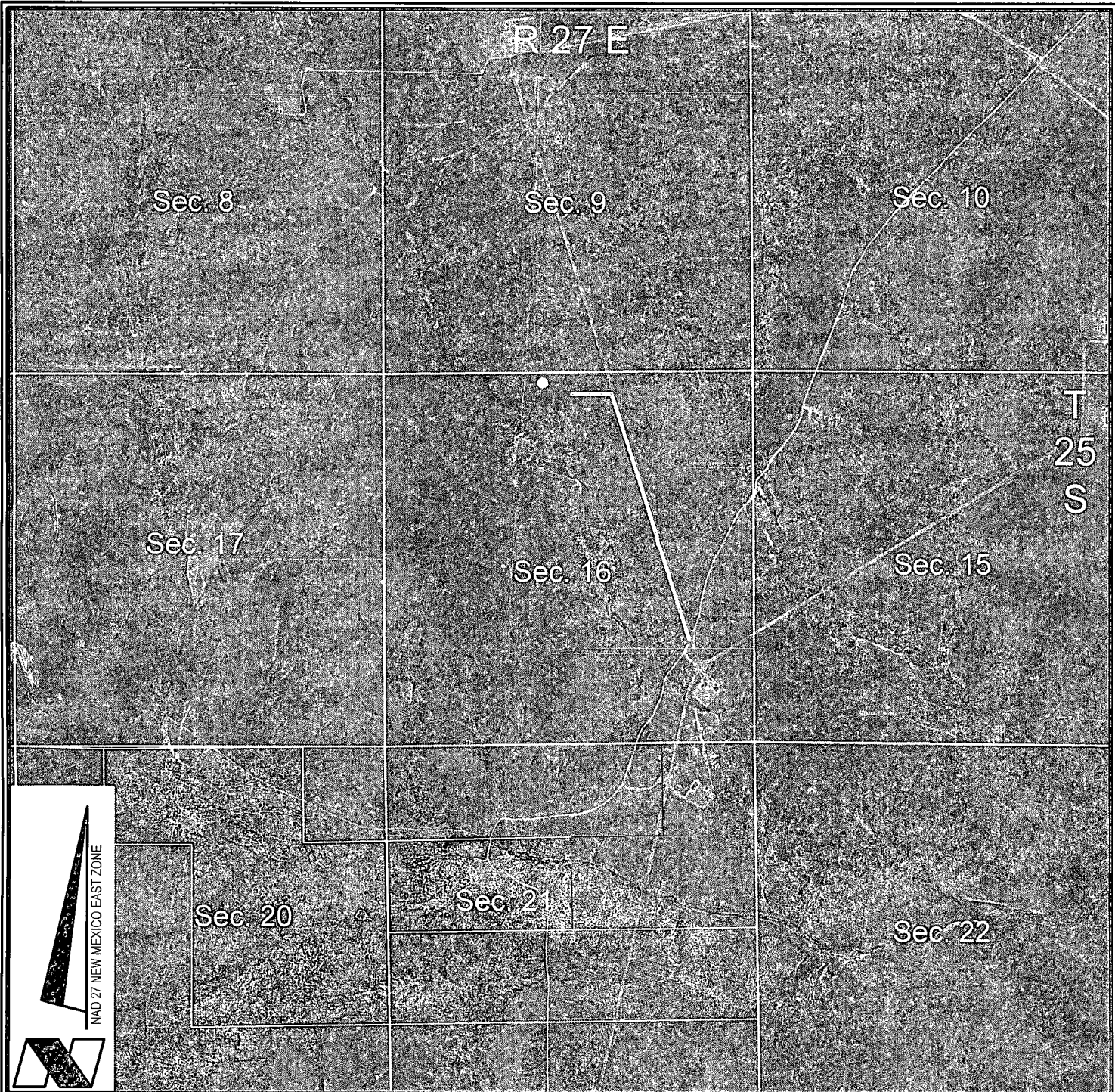
REVISED:

DATE: 01/28/2013

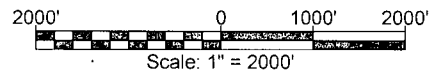
PROJ. MGR.: DBM

SHEET 2 OF 3 SHEETS

FILENAME: T:\2012\2128637\DWG\HAYHURST 16-25-27 STATE 1H APD.dwg



VICINITY MAP



-  = FEDERAL LAND
-  = FEE LAND
-  = STATE LAND

CHEVRON U.S.A. INC.
HAYHURST 16-25-27 STATE NO. 1H WELL
LOCATED 150' FNL AND 2280' FWL
SECTION 16, T25S-R27E
EDDY COUNTY, NEW MEXICO



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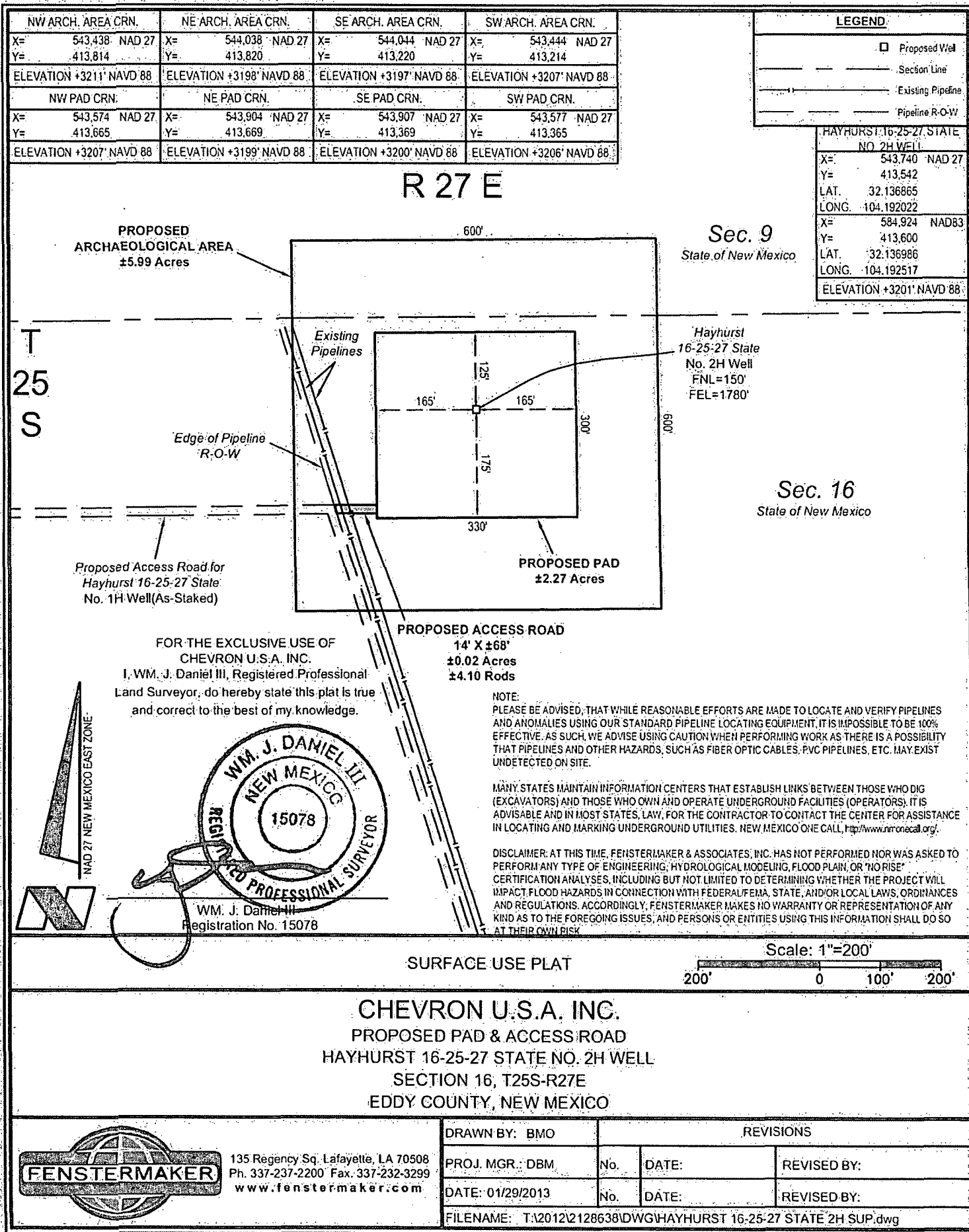
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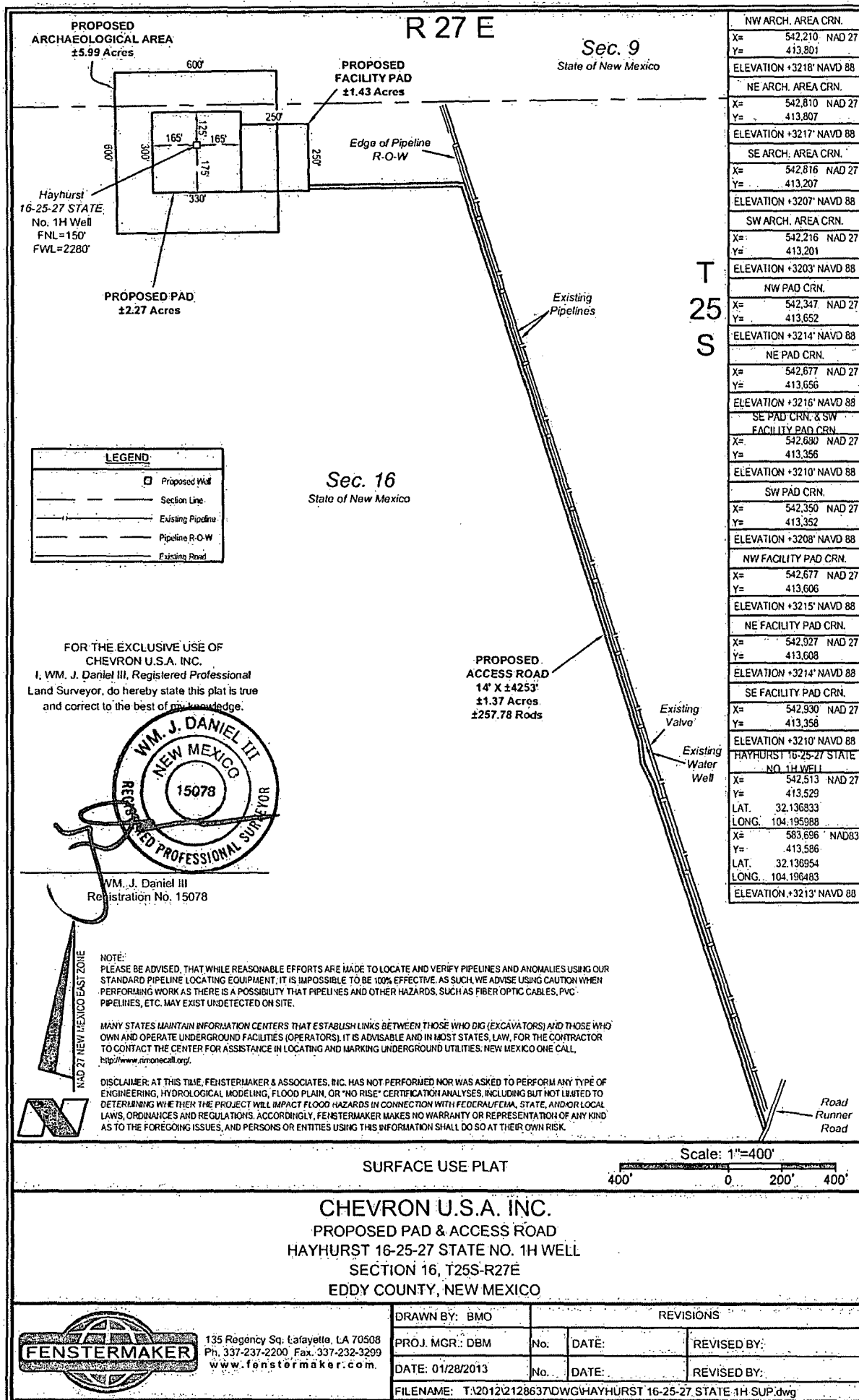
DATE: 01/28/2013

PROJ. MGR.: DBM

SHEET 3 OF 3 SHEETS

FILENAME: T:\2012\2128637\DWG\HAYHURST 16-25-27 STATE 1H APD.dwg





Permian District

NM - Bone Spring Sand Project

Hayhurst 16-25-27 State 1H

Well #1

Wellbore #1

Plan: Plat 30Jan13

Standard Planning Report

11 February, 2013

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site Hayhurst 16-25-27 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3230.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3230.0usft
Site:	Hayhurst 16-25-27 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 30Jan13		

Project	NM - Bone Spring Sand Project		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Hayhurst 16-25-27 State 1H		
Site Position:		Northing:	413,529.00 ft
From:	Map	Easting:	542,513.00 ft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	32° 8' 12.59183813 N
		Longitude:	104° 11' 45.56933439 W
		Grid Convergence:	0.07 °

Well	Well #1		
Well Position	+N/-S	0.0 usft	Northing: 413,529.00 ft
	+E/-W	0.0 usft	Easting: 542,513.00 ft
			Latitude: 32° 8' 12.59183813 N
			Longitude: 104° 11' 45.56933439 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,213.0 usft
		Ground Level:	3,213.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	2/11/2013	(°)
			7.66
			Dip Angle (°)
			59.96
			Field Strength (nT)
			48,330

Design	Plat 30Jan13		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			179.80

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,064.2	0.00	0.00	7,064.2	0.0	0.0	0.00	0.00	0.00	0.00	
7,812.5	89.80	179.80	7,541.7	-475.8	1.7	12.00	12.00	0.00	179.80	
12,379.8	89.80	179.80	7,557.6	-5,043.0	18.0	0.00	0.00	0.00	0.00	Hayhurst 16-25-27

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site Hayhurst-16-25-27 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3230.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3230.0usft
Site:	Hayhurst-16-25-27 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 30Jan13		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site Hayhurst 16-25-27 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3230.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3230.0usft
Site:	Hayhurst 16-25-27 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 30 Jan 13		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,064.2	0.00	0.00	7,064.2	0.0	0.0	0.0	0.00	0.00	0.00
7,075.0	1.30	179.80	7,075.0	-0.1	0.0	0.1	12.00	12.00	0.00
7,100.0	4.30	179.80	7,100.0	-1.3	0.0	1.3	12.00	12.00	0.00
7,125.0	7.30	179.80	7,124.8	-3.9	0.0	3.9	12.00	12.00	0.00
7,150.0	10.30	179.80	7,149.5	-7.7	0.0	7.7	12.00	12.00	0.00
7,175.0	13.30	179.80	7,174.0	-12.8	0.0	12.8	12.00	12.00	0.00
7,200.0	16.30	179.80	7,198.2	-19.2	0.1	19.2	12.00	12.00	0.00
7,225.0	19.30	179.80	7,222.0	-26.8	0.1	26.8	12.00	12.00	0.00
7,250.0	22.30	179.80	7,245.3	-35.7	0.1	35.7	12.00	12.00	0.00
7,275.0	25.30	179.80	7,268.2	-45.8	0.2	45.8	12.00	12.00	0.00
7,300.0	28.30	179.80	7,290.5	-57.1	0.2	57.1	12.00	12.00	0.00
7,325.0	31.30	179.80	7,312.2	-69.5	0.2	69.5	12.00	12.00	0.00
7,350.0	34.30	179.80	7,333.2	-83.0	0.3	83.0	12.00	12.00	0.00
7,375.0	37.30	179.80	7,353.5	-97.6	0.3	97.6	12.00	12.00	0.00
7,400.0	40.30	179.80	7,373.0	-113.3	0.4	113.3	12.00	12.00	0.00
7,425.0	43.30	179.80	7,391.6	-130.0	0.5	130.0	12.00	12.00	0.00
7,450.0	46.30	179.80	7,409.4	-147.6	0.5	147.6	12.00	12.00	0.00
7,475.0	49.30	179.80	7,426.2	-166.1	0.6	166.1	12.00	12.00	0.00
7,500.0	52.30	179.80	7,442.0	-185.5	0.7	185.5	12.00	12.00	0.00
7,525.0	55.30	179.80	7,456.7	-205.6	0.7	205.6	12.00	12.00	0.00
7,550.0	58.30	179.80	7,470.4	-226.5	0.8	226.5	12.00	12.00	0.00
7,575.0	61.30	179.80	7,483.0	-248.1	0.9	248.1	12.00	12.00	0.00
7,600.0	64.30	179.80	7,494.4	-270.4	1.0	270.4	12.00	12.00	0.00
7,625.0	67.30	179.80	7,504.7	-293.2	1.0	293.2	12.00	12.00	0.00
7,650.0	70.30	179.80	7,513.7	-316.5	1.1	316.5	12.00	12.00	0.00
7,675.0	73.30	179.80	7,521.5	-340.2	1.2	340.2	12.00	12.00	0.00
7,700.0	76.30	179.80	7,528.1	-364.4	1.3	364.4	12.00	12.00	0.00
7,725.0	79.30	179.80	7,533.4	-388.8	1.4	388.8	12.00	12.00	0.00
7,750.0	82.30	179.80	7,537.4	-413.5	1.5	413.5	12.00	12.00	0.00
7,775.0	85.30	179.80	7,540.1	-438.3	1.6	438.3	12.00	12.00	0.00
7,800.0	88.30	179.80	7,541.4	-463.3	1.7	463.3	12.00	12.00	0.00
7,812.5	89.80	179.80	7,541.7	-475.8	1.7	475.8	12.00	12.00	0.00
7,900.0	89.80	179.80	7,542.0	-563.3	2.0	563.3	0.00	0.00	0.00
8,000.0	89.80	179.80	7,542.3	-663.3	2.4	663.3	0.00	0.00	0.00
8,100.0	89.80	179.80	7,542.7	-763.3	2.7	763.3	0.00	0.00	0.00
8,200.0	89.80	179.80	7,543.0	-863.3	3.1	863.3	0.00	0.00	0.00
8,300.0	89.80	179.80	7,543.4	-963.3	3.4	963.3	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site Hayhurst 16-25-27 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3230.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3230.0usft
Site:	Hayhurst 16-25-27 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 30Jan13		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.0	89.80	179.80	7,543.7	-1,063.3	3.8	1,063.3	0.00	0.00	0.00
8,500.0	89.80	179.80	7,544.1	-1,163.3	4.2	1,163.3	0.00	0.00	0.00
8,600.0	89.80	179.80	7,544.4	-1,263.3	4.5	1,263.3	0.00	0.00	0.00
8,700.0	89.80	179.80	7,544.8	-1,363.3	4.9	1,363.3	0.00	0.00	0.00
8,800.0	89.80	179.80	7,545.1	-1,463.3	5.2	1,463.3	0.00	0.00	0.00
8,900.0	89.80	179.80	7,545.5	-1,563.3	5.6	1,563.3	0.00	0.00	0.00
9,000.0	89.80	179.80	7,545.8	-1,663.3	5.9	1,663.3	0.00	0.00	0.00
9,100.0	89.80	179.80	7,546.2	-1,763.3	6.3	1,763.3	0.00	0.00	0.00
9,200.0	89.80	179.80	7,546.5	-1,863.2	6.7	1,863.3	0.00	0.00	0.00
9,300.0	89.80	179.80	7,546.8	-1,963.2	7.0	1,963.3	0.00	0.00	0.00
9,400.0	89.80	179.80	7,547.2	-2,063.2	7.4	2,063.3	0.00	0.00	0.00
9,500.0	89.80	179.80	7,547.5	-2,163.2	7.7	2,163.3	0.00	0.00	0.00
9,600.0	89.80	179.80	7,547.9	-2,263.2	8.1	2,263.3	0.00	0.00	0.00
9,700.0	89.80	179.80	7,548.2	-2,363.2	8.4	2,363.3	0.00	0.00	0.00
9,800.0	89.80	179.80	7,548.6	-2,463.2	8.8	2,463.3	0.00	0.00	0.00
9,900.0	89.80	179.80	7,548.9	-2,563.2	9.1	2,563.3	0.00	0.00	0.00
10,000.0	89.80	179.80	7,549.3	-2,663.2	9.5	2,663.3	0.00	0.00	0.00
10,100.0	89.80	179.80	7,549.6	-2,763.2	9.9	2,763.3	0.00	0.00	0.00
10,200.0	89.80	179.80	7,550.0	-2,863.2	10.2	2,863.3	0.00	0.00	0.00
10,300.0	89.80	179.80	7,550.3	-2,963.2	10.6	2,963.3	0.00	0.00	0.00
10,400.0	89.80	179.80	7,550.7	-3,063.2	10.9	3,063.3	0.00	0.00	0.00
10,500.0	89.80	179.80	7,551.0	-3,163.2	11.3	3,163.3	0.00	0.00	0.00
10,600.0	89.80	179.80	7,551.4	-3,263.2	11.6	3,263.3	0.00	0.00	0.00
10,700.0	89.80	179.80	7,551.7	-3,363.2	12.0	3,363.3	0.00	0.00	0.00
10,800.0	89.80	179.80	7,552.1	-3,463.2	12.4	3,463.3	0.00	0.00	0.00
10,900.0	89.80	179.80	7,552.4	-3,563.2	12.7	3,563.3	0.00	0.00	0.00
11,000.0	89.80	179.80	7,552.8	-3,663.2	13.1	3,663.2	0.00	0.00	0.00
11,100.0	89.80	179.80	7,553.1	-3,763.2	13.4	3,763.2	0.00	0.00	0.00
11,200.0	89.80	179.80	7,553.5	-3,863.2	13.8	3,863.2	0.00	0.00	0.00
11,300.0	89.80	179.80	7,553.8	-3,963.2	14.1	3,963.2	0.00	0.00	0.00
11,400.0	89.80	179.80	7,554.2	-4,063.2	14.5	4,063.2	0.00	0.00	0.00
11,500.0	89.80	179.80	7,554.5	-4,163.2	14.9	4,163.2	0.00	0.00	0.00
11,600.0	89.80	179.80	7,554.9	-4,263.2	15.2	4,263.2	0.00	0.00	0.00
11,700.0	89.80	179.80	7,555.2	-4,363.2	15.6	4,363.2	0.00	0.00	0.00
11,800.0	89.80	179.80	7,555.6	-4,463.2	15.9	4,463.2	0.00	0.00	0.00
11,900.0	89.80	179.80	7,555.9	-4,563.2	16.3	4,563.2	0.00	0.00	0.00
12,000.0	89.80	179.80	7,556.3	-4,663.2	16.6	4,663.2	0.00	0.00	0.00
12,100.0	89.80	179.80	7,556.6	-4,763.2	17.0	4,763.2	0.00	0.00	0.00
12,200.0	89.80	179.80	7,557.0	-4,863.2	17.4	4,863.2	0.00	0.00	0.00
12,300.0	89.80	179.80	7,557.3	-4,963.2	17.7	4,963.2	0.00	0.00	0.00
12,379.8	89.80	179.80	7,557.6	-5,043.0	18.0	5,043.0	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site Hayhurst 16-25-27 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3230.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3230.0usft
Site:	Hayhurst 16-25-27 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 30Jan13		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(ft)	(ft)		
- Shape									
Hayhurst 16-25-27 St:	0.00	0.00	0.0	0.0	0.0	413,529.00	542,513.00	° 8' 12.59183813 N	11' 45.56933439 W
- plan hits target center									
- Point									
Hayhurst 16-25-27 St:	0.00	0.00	7,557.6	-5,043.0	18.0	408,486.00	542,531.00	° 7' 22.68364156 N	11' 45.43478135 W
- plan hits target center									
- Point									

Project: NM - Bone Spring Sand Project
 Site: Hayhurst 16-25-27 State 1H
 Well: Well #1
 Wellbore: Wellbore #1
 Design: Plat 30Jan13

PROJECT DETAILS: NM - Bone Spring Sand Project

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

