

District I
1655 French Tr., 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
JAN 10 2013
NMOC D 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

Operator Name and Address Chevron USA, Inc. 15 Smith Road Midland, TX 79705		OGRID Number 4323
Property Code 39552	Property Name WEST SHUGART 2 19 30 STATE	API Number 30-015-40952
		Well No. 1H

7. Surface Location

UL - Lot P	Section 2	Township 19S	Range 30E	Lot Idn	Feet from 800'	N/S Line S	Feet From 449'	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot M	Section 2	Township 19S	Range 30E	Lot Idn	Feet from 400'	N/S Line S	Feet From 350'	E/W Line W	County Eddy
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9. Pool Information

Pool Name BENSON; BONE SPRING	Pool Code 5200
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Additional Well Information

Work Type N	Well Type O	Cable/Rotary R	Lease Type S	Ground Level Elevation 3536'
Multiple N	Proposed Depth 12,920'	Formation Bone Spring	Contractor TBD	Spud Date
Depth to Ground water 200'-350'		Distance from nearest fresh water well @ 1 Mile		Distance to nearest surface water >1.3 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'	685	0'
Intermediate	12 1/4"	9 5/8"	40#	2050'	450	0'
Inter. (2)	8 3/4"	7"	29#	8887'	400	0'

Casing/Cement Program: Additional Comments

Please see attached for the production liner and other information.

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>J.C. Shepard</i> Title: <i>Geologist</i> Approved Date: <i>1/11/2013</i> Expiration Date: <i>1/11/2015</i>	
Printed name: Bryan Arrant Agent for Chevron USA, Inc. Title: Regulatory Specialist II E-mail Address: bryan.arrant@chk.com Date: 01/08/2013 Phone: (405)935-3782		Conditions of Approval Attached	

West Shugart 2-19-30 State 1H

Type	Hole Size	Casing Size	Casing Weight	Setting Depth	Sacks of Cement	Estimated TOC
Surface		17.5	13.375	48	650	685 0
Intermediate		12.25	9.625	40	2050	450 0
Intermediate		8.75	7	29	8902	400 0
Production Liner		6.125	4.5	13.5	12920 Packers (no cement)	N/A

Surface hole will be drilled with fresh water mud.

Intermediate and production sections will be drilled with brine and cut brine muds.

There are no records indicating high levels of H2S in this area.

Well location is east of KPLA boundary.

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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 30-015-40952	² Pool Code (5200)	³ Pool Name BENSON; BONE SPRING
⁴ Property Code 39552	⁵ Property Name WEST SHUGART 2 19 30 STATE	
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁶ Well Number 1H
		⁹ Elevation 3536'

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
P	2	19S	30E, N.M.P.M.		800'	SOUTH	449'	EAST	EDDY

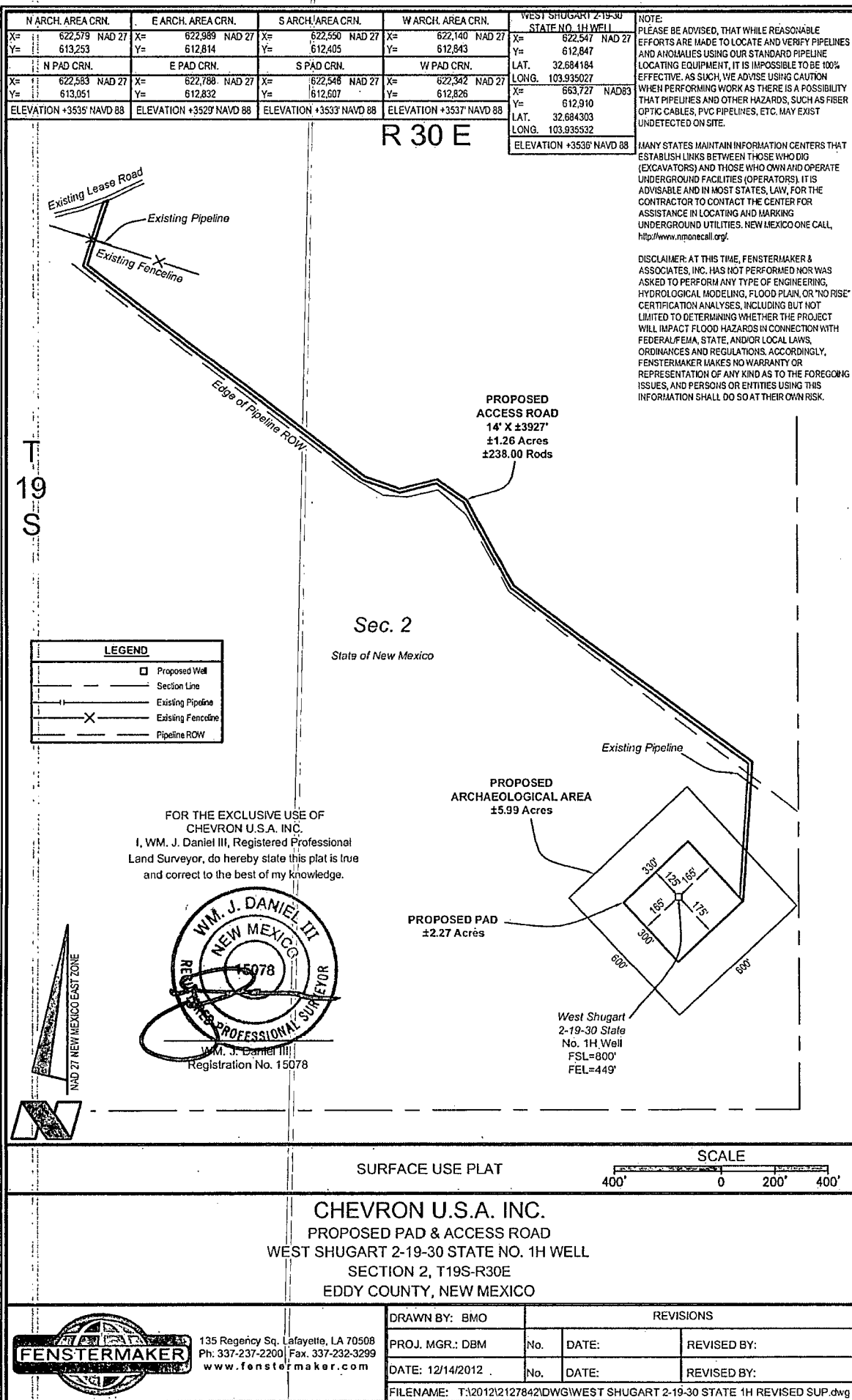
¹¹ Bottom Hole Location If Different From Surface

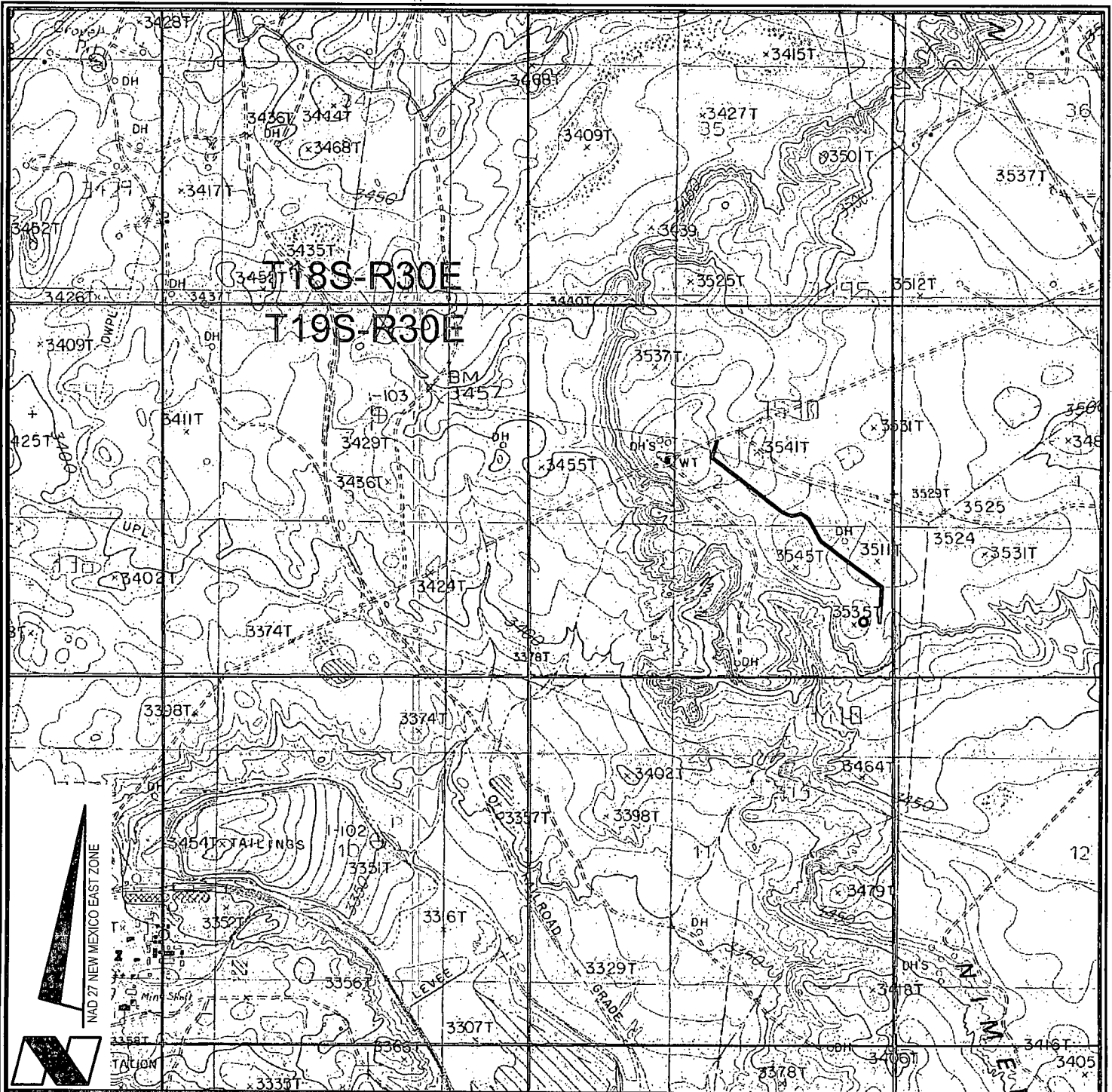
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	19S	30E, N.M.P.M.		400'	SOUTH	350'	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

¹⁶ Project Area Producing Area S 84°46'43"W 4496.90' 350' 400' 800' 449'	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 undivided 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. <i>Bryan Arrant</i> 12/21/2012 Signature Date Bryan Arrant (Agent for Chevron) Printed Name bryan.arrant@chk.com E-mail Address
	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. 12-19-12 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor #15028 Certificate Number WIM. J. DANIEL III NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15078





VICINITY MAP

2000' 0 1000' 2000'
Scale: 1" = 2000'

CHEVRON U.S.A. INC.

WEST SHUGART 2-19-30 STATE NO. 1H WELL
LOCATED 800' FSL AND 449' FEL
SECTION 2, T19S-R30E
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

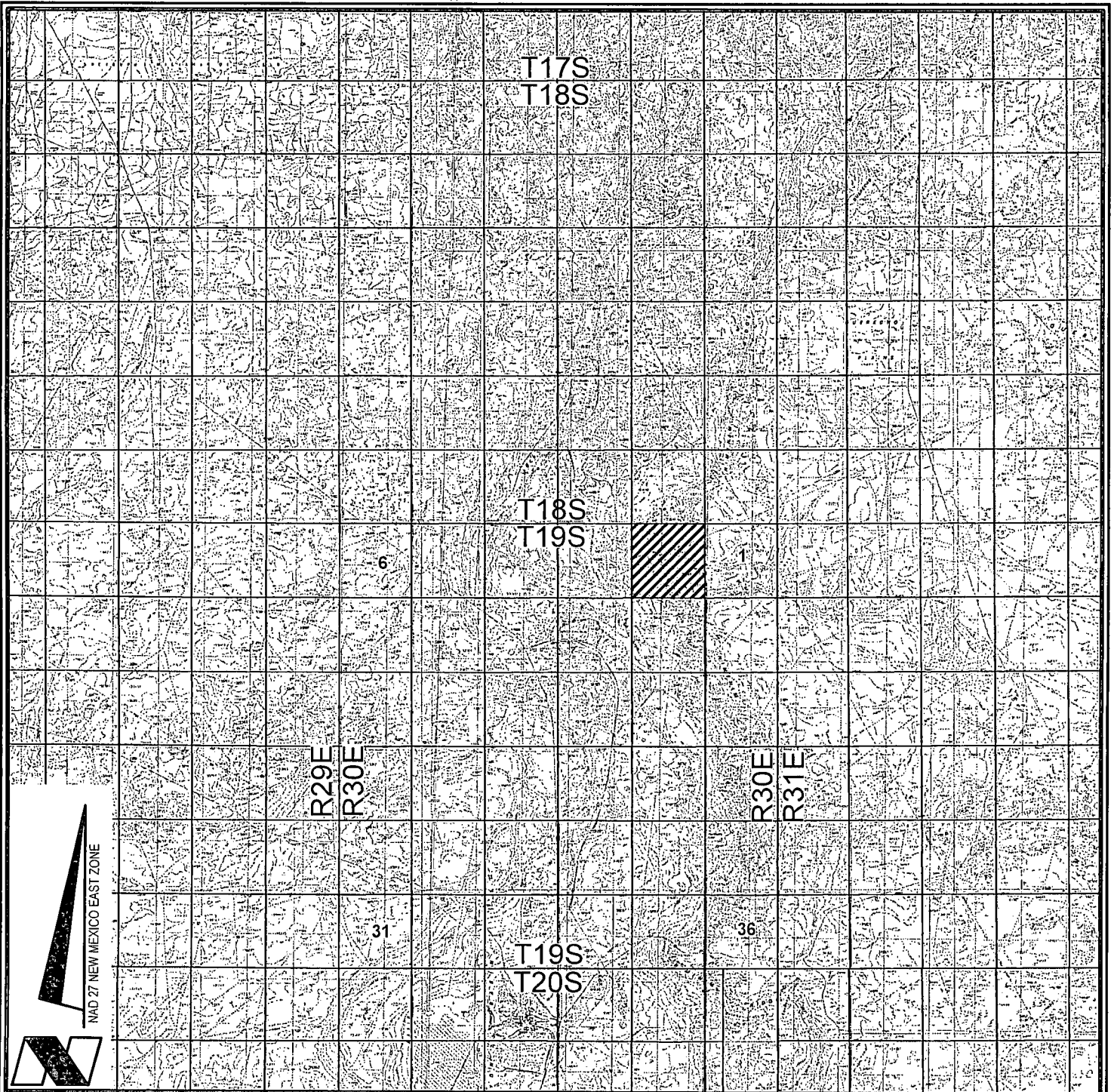
REVISED: 12/14/2012 BMO

DATE: 11/09/2012

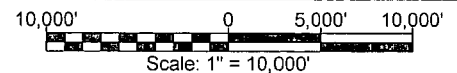
PROJ. MGR.: DBM

SHEET 1 OF 3 SHEETS

FILENAME: T:\2012\1217842\DWG\CUI West Shugart 2-19-30 STATE 1H APD.dwg



VICINITY MAP



CHEVRON U.S.A. INC.

WEST SHUGART 2-19-30 STATE NO. 1H WELL

LOCATED 800' FSL AND 449' FEL

SECTION 2, T19S-R30E

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: 12/14/2012 BMO

DATE: 11/09/2012

PROJ. MGR.: DBM

SHEET 2 OF 3 SHEETS

FILENAME: T:\2012\2127842\DWG\CUI_West Shugart 2-19-30 STATE 1H APD.dwg

Permian District

NM - Bone Spring Sand Project

West Shugart 2-19-30 State 1H

Well #1

Wellbore #1

Plan: Plat 19Dec12

Standard Planning Report

08 January, 2013

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site West Shugart 2-19-30 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3553.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3553.0usft
Site:	West Shugart 2-19-30 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 19Dec12		

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:	West Shugart 2-19-30 State 1H		
Site Position:		Northing:	612,847.00 ft
From:	Map	Easting:	622,547.00 ft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	32° 41' 3.04810348 N
		Longitude:	103° 56' 6.11933896 W
		Grid Convergence:	0.22 °

Well:	Well #1		
Well Position	+N/-S	0.0 usft	Northing: 612,847.00 ft
	+E/-W	0.0 usft	Easting: 622,547.00 ft
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,536.0 usft
		Latitude:	32° 41' 3.04810348 N
		Longitude:	103° 56' 6.11933896 W
		Ground Level:	3,536.0 usft

Wellbore:	Wellbore #1		
Magnetics:	Model Name	Sample Date	Declination
	IGRF2010	6/8/2011	(°)
			7.79
			Dip Angle (°)
			60.55
			Field Strength (nT)
			48,855

Design:	Plat 19Dec12		
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 (°)
			264.78

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	
8,150.9	0.00	0.00	8,150.9	0.0	0.0	0.00	0.00	0.00	0.00	
8,902.5	90.20	264.78	8,628.3	-43.6	-477.1	12.00	12.00	0.00	264.78	
12,920.1	90.20	264.78	8,614.3	-409.0	-4,478.0	0.00	0.00	0.00	0.00	0.00 West Shugart 2-19-

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site West Shugart 2-19-30 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3553.0usft
Project:	NM- Bone Spring Sand Project	MD Reference:	RKB @ 3553.0usft
Site:	West Shugart 2-19-30 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 19Dec12		

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

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Wellbore:	Wellbore #1		
Design:	Plat 19Dec12		

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	
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
8,150.9	0.00	0.00	8,150.9	0.0	0.0	0.0	0.00	0.00	0.00	
8,175.0	2.90	264.78	8,175.0	-0.1	-0.6	0.6	12.00	12.00	0.00	
8,200.0	5.90	264.78	8,199.9	-0.2	-2.5	2.5	12.00	12.00	0.00	
8,225.0	8.90	264.78	8,224.7	-0.5	-5.7	5.7	12.00	12.00	0.00	
8,250.0	11.90	264.78	8,249.3	-0.9	-10.2	10.3	12.00	12.00	0.00	
8,275.0	14.90	264.78	8,273.6	-1.5	-16.0	16.0	12.00	12.00	0.00	
8,300.0	17.90	264.78	8,297.6	-2.1	-23.0	23.1	12.00	12.00	0.00	
8,325.0	20.90	264.78	8,321.2	-2.9	-31.3	31.4	12.00	12.00	0.00	
8,350.0	23.90	264.78	8,344.3	-3.7	-40.8	40.9	12.00	12.00	0.00	
8,375.0	26.90	264.78	8,366.9	-4.7	-51.4	51.6	12.00	12.00	0.00	
8,400.0	29.90	264.78	8,388.8	-5.8	-63.3	63.5	12.00	12.00	0.00	
8,425.0	32.90	264.78	8,410.2	-7.0	-76.2	76.6	12.00	12.00	0.00	
8,450.0	35.90	264.78	8,430.8	-8.2	-90.3	90.7	12.00	12.00	0.00	
8,475.0	38.90	264.78	8,450.7	-9.6	-105.4	105.9	12.00	12.00	0.00	
8,500.0	41.90	264.78	8,469.7	-11.1	-121.6	122.1	12.00	12.00	0.00	
8,525.0	44.90	264.78	8,487.9	-12.7	-138.7	139.2	12.00	12.00	0.00	
8,550.0	47.90	264.78	8,505.1	-14.3	-156.7	157.3	12.00	12.00	0.00	
8,575.0	50.90	264.78	8,521.4	-16.0	-175.6	176.3	12.00	12.00	0.00	
8,600.0	53.90	264.78	8,536.6	-17.8	-195.3	196.1	12.00	12.00	0.00	
8,625.0	56.90	264.78	8,550.8	-19.7	-215.8	216.7	12.00	12.00	0.00	
8,650.0	59.90	264.78	8,563.9	-21.6	-237.0	238.0	12.00	12.00	0.00	
8,675.0	62.90	264.78	8,575.9	-23.6	-258.9	259.9	12.00	12.00	0.00	
8,700.0	65.90	264.78	8,586.7	-25.7	-281.3	282.5	12.00	12.00	0.00	
8,725.0	68.90	264.78	8,596.3	-27.8	-304.3	305.6	12.00	12.00	0.00	
8,750.0	71.90	264.78	8,604.7	-29.9	-327.7	329.1	12.00	12.00	0.00	
8,775.0	74.90	264.78	8,611.8	-32.1	-351.6	353.1	12.00	12.00	0.00	

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site West Shugart 2-19-30 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3553.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3553.0usft
Site:	West Shugart 2-19-30 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat.19Dec12		

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)	
8,800.0	77.90	264.78	8,617.7	-34.3	-375.8	377.4	12.00	12.00	0.00	
8,825.0	80.90	264.78	8,622.3	-36.6	-400.3	401.9	12.00	12.00	0.00	
8,850.0	83.90	264.78	8,625.6	-38.8	-424.9	426.7	12.00	12.00	0.00	
8,875.0	86.90	264.78	8,627.6	-41.1	-449.7	451.6	12.00	12.00	0.00	
8,900.0	89.90	264.78	8,628.3	-43.4	-474.6	476.6	12.00	12.00	0.00	
8,902.5	90.20	264.78	8,628.3	-43.6	-477.1	479.1	12.00	12.00	0.00	
9,000.0	90.20	264.78	8,628.0	-52.4	-574.2	576.6	0.00	0.00	0.00	
9,100.0	90.20	264.78	8,627.6	-61.5	-673.8	676.6	0.00	0.00	0.00	
9,200.0	90.20	264.78	8,627.3	-70.6	-773.4	776.6	0.00	0.00	0.00	
9,300.0	90.20	264.78	8,626.9	-79.7	-873.0	876.6	0.00	0.00	0.00	
9,400.0	90.20	264.78	8,626.6	-88.8	-972.6	976.6	0.00	0.00	0.00	
9,500.0	90.20	264.78	8,626.2	-97.9	-1,072.1	1,076.6	0.00	0.00	0.00	
9,600.0	90.20	264.78	8,625.9	-107.0	-1,171.7	1,176.6	0.00	0.00	0.00	
9,700.0	90.20	264.78	8,625.5	-116.1	-1,271.3	1,276.6	0.00	0.00	0.00	
9,800.0	90.20	264.78	8,625.2	-125.2	-1,370.9	1,376.6	0.00	0.00	0.00	
9,900.0	90.20	264.78	8,624.8	-134.3	-1,470.5	1,476.6	0.00	0.00	0.00	
10,000.0	90.20	264.78	8,624.5	-143.4	-1,570.1	1,576.6	0.00	0.00	0.00	
10,100.0	90.20	264.78	8,624.1	-152.5	-1,669.6	1,676.6	0.00	0.00	0.00	
10,200.0	90.20	264.78	8,623.8	-161.6	-1,769.2	1,776.6	0.00	0.00	0.00	
10,300.0	90.20	264.78	8,623.4	-170.7	-1,868.8	1,876.6	0.00	0.00	0.00	
10,400.0	90.20	264.78	8,623.1	-179.8	-1,968.4	1,976.6	0.00	0.00	0.00	
10,500.0	90.20	264.78	8,622.7	-188.9	-2,068.0	2,076.6	0.00	0.00	0.00	
10,600.0	90.20	264.78	8,622.4	-198.0	-2,167.6	2,176.6	0.00	0.00	0.00	
10,700.0	90.20	264.78	8,622.0	-207.1	-2,267.2	2,276.6	0.00	0.00	0.00	
10,800.0	90.20	264.78	8,621.7	-216.2	-2,366.7	2,376.6	0.00	0.00	0.00	
10,900.0	90.20	264.78	8,621.4	-225.3	-2,466.3	2,476.6	0.00	0.00	0.00	
11,000.0	90.20	264.78	8,621.0	-234.4	-2,565.9	2,576.6	0.00	0.00	0.00	
11,100.0	90.20	264.78	8,620.7	-243.5	-2,665.5	2,676.6	0.00	0.00	0.00	
11,200.0	90.20	264.78	8,620.3	-252.5	-2,765.1	2,776.6	0.00	0.00	0.00	
11,300.0	90.20	264.78	8,620.0	-261.6	-2,864.7	2,876.6	0.00	0.00	0.00	
11,400.0	90.20	264.78	8,619.6	-270.7	-2,964.2	2,976.6	0.00	0.00	0.00	
11,500.0	90.20	264.78	8,619.3	-279.8	-3,063.8	3,076.6	0.00	0.00	0.00	
11,600.0	90.20	264.78	8,618.9	-288.9	-3,163.4	3,176.6	0.00	0.00	0.00	
11,700.0	90.20	264.78	8,618.6	-298.0	-3,263.0	3,276.6	0.00	0.00	0.00	
11,800.0	90.20	264.78	8,618.2	-307.1	-3,362.6	3,376.6	0.00	0.00	0.00	
11,900.0	90.20	264.78	8,617.9	-316.2	-3,462.2	3,476.6	0.00	0.00	0.00	
12,000.0	90.20	264.78	8,617.5	-325.3	-3,561.8	3,576.6	0.00	0.00	0.00	
12,100.0	90.20	264.78	8,617.2	-334.4	-3,661.3	3,676.6	0.00	0.00	0.00	
12,200.0	90.20	264.78	8,616.8	-343.5	-3,760.9	3,776.6	0.00	0.00	0.00	
12,300.0	90.20	264.78	8,616.5	-352.6	-3,860.5	3,876.6	0.00	0.00	0.00	
12,400.0	90.20	264.78	8,616.1	-361.7	-3,960.1	3,976.6	0.00	0.00	0.00	
12,500.0	90.20	264.78	8,615.8	-370.8	-4,059.7	4,076.6	0.00	0.00	0.00	
12,600.0	90.20	264.78	8,615.4	-379.9	-4,159.3	4,176.6	0.00	0.00	0.00	
12,700.0	90.20	264.78	8,615.1	-389.0	-4,258.9	4,276.6	0.00	0.00	0.00	
12,800.0	90.20	264.78	8,614.7	-398.1	-4,358.4	4,376.6	0.00	0.00	0.00	
12,900.0	90.20	264.78	8,614.4	-407.2	-4,458.0	4,476.6	0.00	0.00	0.00	
12,920.1	90.20	264.78	8,614.3	-409.0	-4,478.0	4,496.6	0.00	0.00	0.00	

Chesapeake Operating Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Site West Shugart 2-19-30 State 1H
Company:	Permian District	TVD Reference:	RKB @ 3553.0usft
Project:	NM - Bone Spring Sand Project	MD Reference:	RKB @ 3553.0usft
Site:	West Shugart 2-19-30 State 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plat 19Dec12		

Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(usft)	(usft)	(usft)	(ft)	(ft)	Latitude Longitude
West Shugart 2-19-30		0.00	0.00	0.0	0.0	0.0	612,847.00	622,547.00	° 41' 3.04810348 N ° 56' 6.11933896 W
- plan hits target center									
- Point									
West Shugart 2-19-30		0.00	0.00	8,614.3	-409.0	-4,478.0	612,438.00	618,069.00	40' 59.16418788 N 56' 58.53159171 W
- plan hits target center									
- Point									

Project: NM - Bone Spring Sand Project
 Site: West Shugart 2-19-30 State 1H
 Well: Well #1
 Wellbore: Wellbore #1
 Design: Plat 19Dec12

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

