

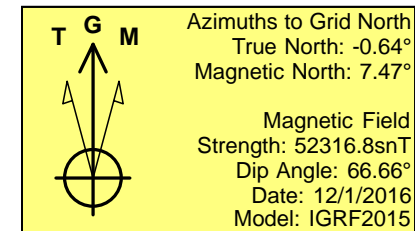
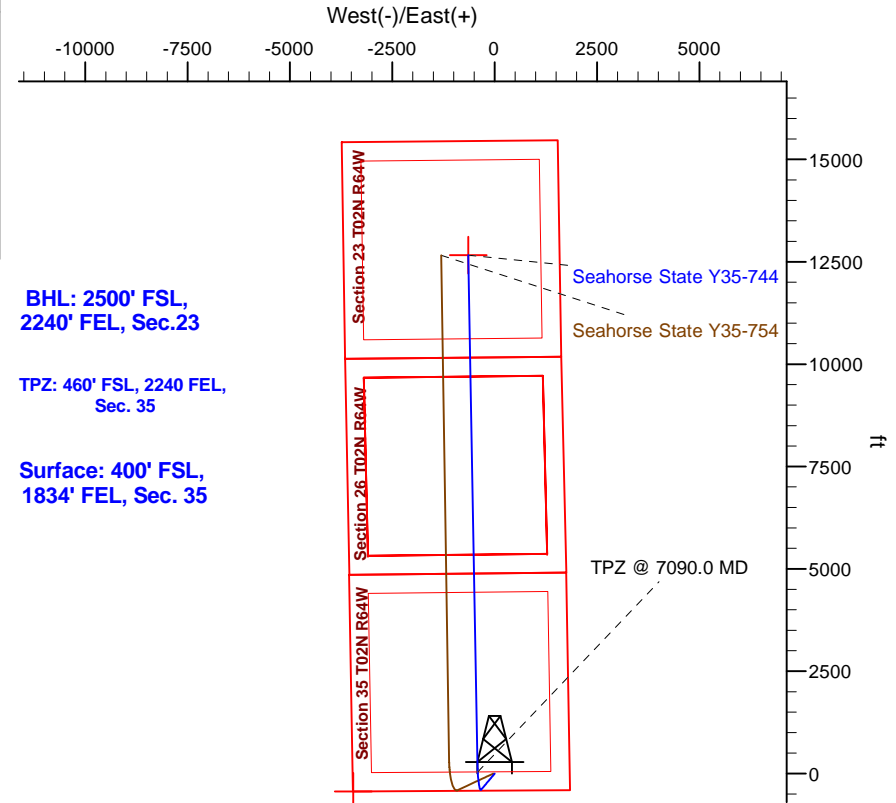
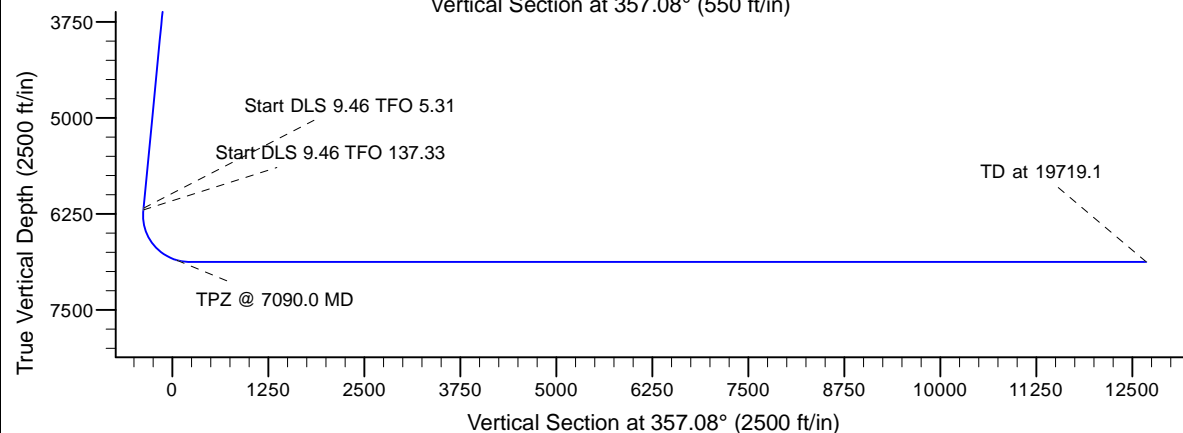
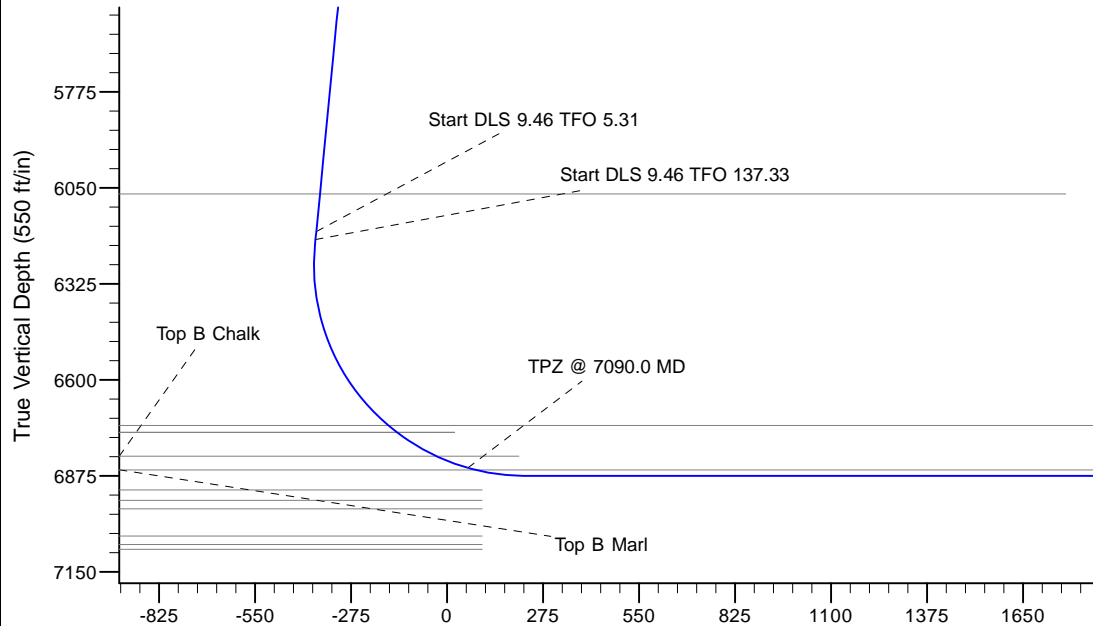
Project: Mustang
 Site: Y Section 35
 Well: Seahorse State Y35-744
 Wellbore: Original Drilling
 Design: ADP - Rev 0

Northern Region - DJ Basin

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone
 System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2100.0	0.00	0.00	2100.0	0.0	0.0	0.00	0.00	0.0	
3	2475.0	7.50	220.00	2473.9	-18.8	-15.8	2.00	220.00	-17.9	
4	6208.0	7.50	220.00	6175.0	-392.0	-329.0	0.00	0.00	-374.7	
5	6231.3	9.69	221.21	6198.0	-394.7	-331.2	9.46	5.31	-377.3	
6	7258.8	90.00	358.95	6875.0	205.0	-420.0	9.46	137.33	226.2	
7	19719.1	90.00	358.96	6875.0	12663.2	-646.8	0.00	90.00	12679.7	Seahorse State Y35-744 BHL 2500'FSL, 2240 FEL



WELL DETAILS: Seahorse State Y35-744

Northing: 0.0 0.0 1276705.8206608
 Easting: 3275488.5841908
 Ground Elevation: 4965.0
 Latitude: 40.0887500
 Longitude: -104.5153500

Plan: ADP - Rev 0 (Seahorse State Y35-744/Original Drilling)

Created By: Amanda Borowski Date: 8:53, May 03 2017

OK to submit with 2A as per Noble Drilling
5/8/2017 9:53

Northern Region - DJ Basin

Mustang

Y Section 35

Seahorse State Y35-744

Original Drilling

ADP - Rev 0

Anticollision Summary Report

25 May, 2017

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Seahorse State Y35-744
Project:	Mustang	TVD Reference:	WELL @ 4995.0ft
Reference Site:	Y Section 35	MD Reference:	WELL @ 4995.0ft
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Seahorse State Y35-744	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	ADP - Rev 0	Offset TVD Reference:	Offset Datum

Reference	ADP - Rev 0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,933.6 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	5/25/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	19,719.1	ADP - Rev 0 (Original Drilling)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Y Section 34						
Barnes 2-34 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Fritzier 12-34 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Shufly State Y34-714 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-724 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-734 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-744 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-754 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-764 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-774 - Original Drilling - APD - Rev 0						Out of range
Shufly State Y34-784 - Original Drilling - APD - Rev 0						Out of range
Shufly Y34-754 (Option 2) - Original Drilling - Prelim - Re						Out of range
Y Section 35						
Seahorse State Y35-714 - Original Drilling - APD - Rev 0	1,900.0	1,881.0	1,049.2	1,036.1	80.168	CC, ES
Seahorse State Y35-714 - Original Drilling - APD - Rev 0	6,700.0	6,469.6	1,924.8	1,878.6	41.687	SF
Seahorse State Y35-724 - Original Drilling - APD - Rev 0	2,100.0	2,082.0	1,012.8	998.3	69.730	CC, ES
Seahorse State Y35-724 - Original Drilling - APD - Rev 0	19,719.1	19,640.5	1,320.5	1,103.0	6.071	SF
Seahorse State Y35-734 - Original Drilling - APD - Rev 0	7,300.0	7,356.3	655.1	605.4	13.195	CC
Seahorse State Y35-734 - Original Drilling - APD - Rev 0	19,719.1	19,775.3	660.9	442.8	3.031	ES, SF
Seahorse State Y35-754 - Original Drilling - APD - Rev 0	1,900.0	1,901.0	36.4	23.2	2.764	CC, ES
Seahorse State Y35-754 - Original Drilling - APD - Rev 0	2,000.0	1,999.8	38.0	24.1	2.742	SF
Seahorse State Y35-764 - Original Drilling - APD - Rev 0	19,719.1	19,755.1	1,320.2	1,102.4	6.062	CC, ES, SF
Seahorse State Y35-774 - Original Drilling - APD - Rev 0						Out of range
Seahorse State Y35-784 - Original Drilling - APD - Rev 0						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	ADP - Rev 0	Offset TVD Reference:	Offset Datum

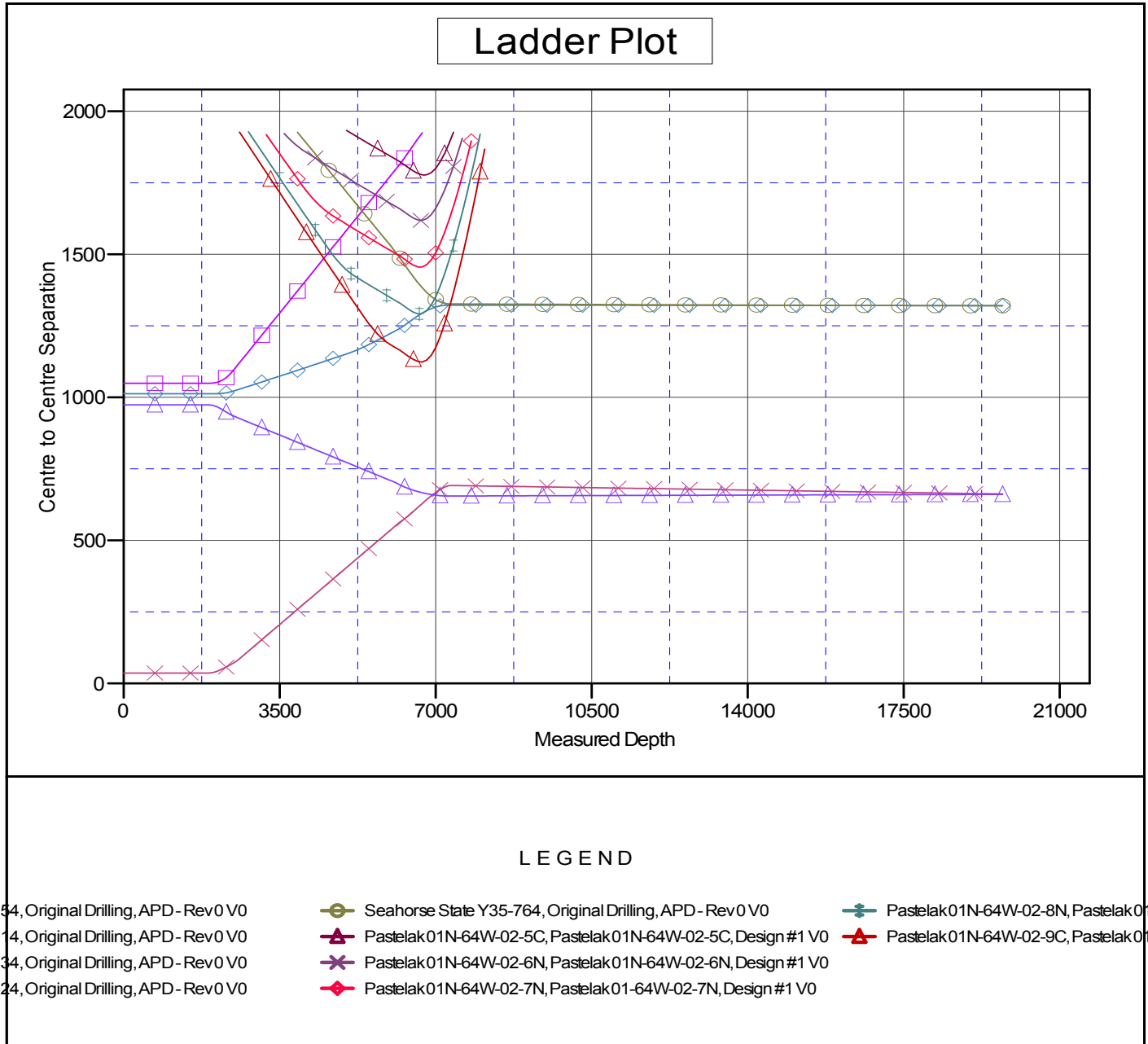
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Z Section 02						
Pastelak 01N-64W-02-1C - Pastelak 01-64W-02-1C - De						Out of range
Pastelak 01N-64W-02-2N - Pastelak 01N-64W-02-2N - D						Out of range
Pastelak 01N-64W-02-3N - Pastelak 01N-64W-02-3N - P						Out of range
Pastelak 01N-64W-02-4N - Pastelak 01N-64W-02-4N - D						Out of range
Pastelak 01N-64W-02-5C - Pastelak 01N-64W-02-5C - D	6,744.9	6,700.0	1,777.0	1,729.7	37.543	CC, ES
Pastelak 01N-64W-02-5C - Pastelak 01N-64W-02-5C - D	6,900.0	6,750.0	1,785.4	1,737.6	37.344	SF
Pastelak 01N-64W-02-6N - Pastelak 01N-64W-02-6N - D	6,669.8	6,612.7	1,618.5	1,571.9	34.696	CC, ES
Pastelak 01N-64W-02-6N - Pastelak 01N-64W-02-6N - D	6,800.0	6,650.0	1,624.8	1,577.8	34.574	SF
Pastelak 01N-64W-02-7N - Pastelak 01-64W-02-7N - De	6,652.6	6,612.7	1,455.2	1,408.7	31.272	CC, ES
Pastelak 01N-64W-02-7N - Pastelak 01-64W-02-7N - De	6,700.0	6,632.5	1,456.1	1,409.4	31.188	SF
Pastelak 01N-64W-02-8N - Pastelak 01N-64W-02-8N - D	6,635.6	6,612.7	1,291.6	1,245.1	27.753	CC, ES
Pastelak 01N-64W-02-8N - Pastelak 01N-64W-02-8N - D	6,700.0	6,640.7	1,293.3	1,246.6	27.671	SF
Pastelak 01N-64W-02-9C - Pastelak 01-64W-02-9C - De	6,678.8	6,694.5	1,123.8	1,076.6	23.818	CC, ES
Pastelak 01N-64W-02-9C - Pastelak 01-64W-02-9C - De	6,800.0	6,750.0	1,130.3	1,082.7	23.751	SF

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Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	ADP - Rev 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4995.0ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Seahorse State Y35-744
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.64°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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