

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 3 2015

RECEIVED

DEVON ENERGY

Cass Draw (NAD 27)
Eddy County, NM (Grid North)
Grandi 22 #2H
VH - Job #320115-K-0102

15-42821

Survey: dorp Gyro

Regulatory Report (Grid North)

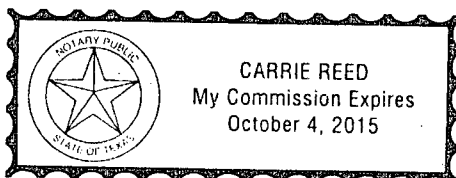
This survey is correct to the best of my knowledge and is supported by actual field data.

Jami Thornton

Notarized this date 11th of February, 2015.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Regulatory Report (Grid North)

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Grandi 22 #2H
Project:	Cass Draw (NAD 27)	TVD Reference:	Mean Sea Level (System)
Site:	Eddy County NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Grandi 22 #2H	North Reference:	Grid
Wellbore:	VH - Job #320115-K-0102	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320115-K-0102	Database:	MID_Regulatory

Project:	Cass Draw (NAD 27)		
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: Eddy County NM (Grid North)					
Site Position:		Northing:	502,612.03 usft	Latitude:	32° 22' 54.150 N
From:	Lat/Long	Easting:	545,720.95 usft	Longitude:	104° 11' 6.818 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.08 °

Well:	Grandi 22 #2H Horizontal					
Well Position	+N/-S	0.0 usft	Northing:	502,612.03 usft	Latitude:	32° 22' 54.150 N
	+E/-W	0.0 usft	Easting:	545,720.95 usft	Longitude:	104° 11' 6.818 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	0.0 usft

Wellbore: VHC Job #320115-K-0102					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	1/29/2015	7.62	60.13	48,251

Design:		VH - Job #320115-K-0102		
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	49.45

Survey Program	Date	2/8/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
95.0	9,041.0	dorp Gyro (VH - Job #320115-K-0102)	Keeper	Keeper Gyro

Survey:								
MD (usft)	Inc (°)	Azi (grid north/azim)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
95.0	0.49	196.76	95.0	-0.4	-0.1	196.76	0.4	
189.0	0.46	188.00	189.0	-1.1	-0.3	193.97	1.2	
282.0	0.30	221.30	282.0	-1.7	-0.5	196.33	1.8	
373.0	1.12	345.04	373.0	-1.0	-0.9	220.95	1.4	
463.0	1.44	354.37	463.0	1.0	-1.2	307.99	1.6	
555.0	1.20	8.43	554.9	3.1	-1.2	338.66	3.3	
646.0	1.25	8.51	645.9	5.0	-0.9	349.67	5.1	
738.0	1.18	341.14	737.9	6.9	-1.1	351.18	7.0	
829.0	1.03	344.18	828.9	8.5	-1.6	349.45	8.7	
920.0	0.95	342.90	919.9	10.1	-2.0	348.55	10.3	
1,014.0	0.79	334.01	1,013.9	11.4	-2.6	347.37	11.7	

Regulatory Report (Grid North)

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well Grandi 22 #2H
Project:	Cass Draw (NAD 27)	TVD Reference:	Mean Sea Level (System)
Site:	Eddy County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Grandi 22 #2H	North Reference:	Grid
Wellbore:	VH Job #320115-K-0102	Survey Calculation Method:	Minimum Curvature
Design:	VH Job #320115-K-0102	Database:	MID Regulatory

Survey								
MD (usft)	Inc (°)	Azi (grid north azimuth)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,104.0	0.32	346.17	1,103.9	12.2	-2.9	346.69	12.5	
1,198.0	0.64	113.87	1,197.9	12.2	-2.5	348.60	12.5	
1,292.0	0.64	106.35	1,291.8	11.9	-1.5	352.89	12.0	
1,386.0	0.77	90.21	1,385.8	11.7	-0.3	358.31	11.7	
1,480.0	1.35	83.90	1,479.8	11.8	1.4	6.69	11.9	
1,574.0	2.01	54.99	1,573.8	12.9	3.8	16.58	13.5	
1,668.0	2.62	52.79	1,667.7	15.1	6.9	24.50	16.6	
1,766.0	2.61	45.60	1,765.6	18.1	10.3	29.65	20.8	
1,857.0	2.07	25.71	1,856.5	21.0	12.5	30.72	24.4	
1,951.0	1.86	36.02	1,950.5	23.7	14.1	30.71	27.6	
2,045.0	1.58	33.80	2,044.4	26.1	15.7	31.10	30.4	
2,139.0	1.63	31.14	2,138.4	28.3	17.1	31.21	33.1	
2,233.0	1.82	29.49	2,232.3	30.7	18.6	31.14	35.9	
2,327.0	1.97	33.26	2,326.3	33.4	20.2	31.16	39.0	
2,422.0	1.93	30.22	2,421.2	36.1	21.9	31.21	42.2	
2,515.0	1.97	27.93	2,514.2	38.9	23.4	31.06	45.4	
2,609.0	1.99	43.12	2,608.1	41.5	25.3	31.36	48.6	
2,703.0	2.02	32.72	2,702.1	44.1	27.3	31.77	51.9	
2,798.0	1.96	32.13	2,797.0	46.9	29.1	31.81	55.2	
2,892.0	1.98	28.23	2,891.0	49.7	30.7	31.72	58.4	
2,982.0	1.98	25.92	2,980.9	52.4	32.1	31.48	61.5	
3,078.0	2.08	18.79	3,076.8	55.6	33.4	31.00	64.8	
3,176.0	2.07	37.29	3,174.8	58.7	35.0	30.85	68.3	
3,270.0	2.08	37.92	3,268.7	61.4	37.1	31.17	71.7	
3,364.0	1.95	19.12	3,362.7	64.2	38.7	31.07	75.0	
3,458.0	1.87	12.99	3,456.6	67.2	39.6	30.47	78.0	
3,551.0	1.86	7.23	3,549.6	70.2	40.1	29.73	80.8	
3,646.0	1.84	22.18	3,644.5	73.1	40.9	29.19	83.8	
3,740.0	1.78	16.96	3,738.5	75.9	41.9	28.86	86.7	
3,834.0	1.67	16.28	3,832.4	78.6	42.7	28.48	89.5	
3,928.0	1.53	16.52	3,926.4	81.2	43.4	28.14	92.0	
4,022.0	1.48	14.16	4,020.4	83.5	44.1	27.81	94.5	
4,116.0	1.35	10.78	4,114.3	85.8	44.6	27.44	96.7	
4,210.0	1.28	7.37	4,208.3	87.9	44.9	27.05	98.7	
4,304.0	1.21	3.64	4,302.3	90.0	45.1	26.62	100.6	
4,399.0	1.17	2.42	4,397.3	91.9	45.2	26.18	102.5	
4,493.0	1.12	356.42	4,491.2	93.8	45.2	25.72	104.1	
4,586.0	1.08	348.70	4,584.2	95.6	45.0	25.19	105.6	
4,681.0	1.04	17.44	4,679.2	97.3	45.0	24.85	107.2	
4,774.0	1.00	347.54	4,772.2	98.9	45.1	24.53	108.7	
4,868.0	1.10	352.32	4,866.2	100.6	44.8	24.02	110.1	
4,963.0	1.25	324.87	4,961.2	102.3	44.1	23.32	111.4	
5,057.0	1.26	316.45	5,055.1	103.9	42.8	22.39	112.4	
5,151.0	1.15	355.56	5,149.1	105.6	42.0	21.70	113.7	

Regulatory Report (Grid North)

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well: Grandi 22 #2H
Project:	Cass Draw (NAD 27)	TVD Reference:	Mean Sea Level (System)
Site:	Eddy County, NM (Grid North)	MD Reference:	Mean Sea Level (System)
Well:	Grandi 22 #2H	North Reference:	Grid
Wellbore:	VH- Job #320115-K-0102	Survey Calculation Method:	Minimum Curvature
Design:	VH- Job #320115-K-0102	Database:	MID_Regulatory

Survey								
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (°)	Closure Distance (usft)	
5,245.0	1.08	343.02	5,243.1	107.4	41.7	21.22	115.2	
5,339.0	1.09	336.65	5,337.1	109.1	41.1	20.64	116.5	
5,433.0	0.78	308.63	5,431.1	110.3	40.2	20.04	117.4	
5,527.0	0.75	17.22	5,525.1	111.3	39.9	19.73	118.2	
5,621.0	0.67	18.46	5,619.1	112.4	40.3	19.71	119.4	
5,716.0	0.73	12.35	5,714.0	113.5	40.6	19.67	120.5	
5,810.0	0.85	9.74	5,808.0	114.8	40.8	19.58	121.8	
5,904.0	1.53	356.13	5,902.0	116.7	40.8	19.29	123.6	
5,998.0	2.34	36.34	5,996.0	119.5	41.9	19.32	126.6	
6,092.0	3.15	67.60	6,089.9	122.0	45.4	20.42	130.2	
6,186.0	3.15	82.80	6,183.7	123.3	50.4	22.21	133.2	
6,280.0	3.19	81.73	6,277.6	124.0	55.5	24.11	135.9	
6,374.0	2.94	86.15	6,371.4	124.6	60.5	25.91	138.5	
6,468.0	2.96	63.13	6,465.3	125.8	65.1	27.35	141.7	
6,562.0	2.71	80.34	6,559.2	127.3	69.4	28.61	145.0	
6,656.0	2.70	142.67	6,653.1	125.9	73.0	30.09	145.5	
6,750.0	2.40	115.05	6,747.0	123.3	76.1	31.68	144.9	
6,844.0	2.44	76.38	6,841.0	123.0	79.8	32.99	146.6	
6,938.0	2.48	86.89	6,934.9	123.5	83.8	34.15	149.3	
7,032.0	2.38	151.97	7,028.8	121.9	86.8	35.43	149.6	
7,126.0	2.15	239.14	7,122.7	119.3	86.2	35.83	147.2	
7,220.0	1.96	184.21	7,216.7	116.8	84.5	35.89	144.2	
7,315.0	2.05	174.53	7,311.6	113.5	84.6	36.69	141.5	
7,409.0	1.74	173.19	7,405.6	110.4	84.9	37.56	139.3	
7,503.0	1.51	184.17	7,499.5	107.7	85.0	38.26	137.2	
7,597.0	1.00	208.13	7,593.5	105.8	84.5	38.62	135.4	
7,691.0	1.33	190.49	7,687.5	104.0	83.9	38.90	133.6	
7,785.0	1.15	193.46	7,781.5	102.0	83.5	39.30	131.8	
7,879.0	0.90	84.60	7,875.5	101.2	84.0	39.71	131.5	
7,973.0	1.38	28.59	7,969.5	102.2	85.3	39.84	133.1	
8,068.0	1.82	80.61	8,064.4	103.5	87.3	40.16	135.4	
8,162.0	1.99	105.98	8,158.4	103.3	90.4	41.19	137.2	
8,256.0	1.88	96.30	8,252.3	102.6	93.5	42.32	138.8	
8,354.0	1.71	167.21	8,350.3	101.0	95.4	43.35	139.0	
8,445.0	1.64	124.31	8,441.2	99.0	96.8	44.35	138.4	
8,536.0	1.84	147.25	8,532.2	97.0	98.6	45.47	138.4	
8,631.0	1.55	151.09	8,627.2	94.6	100.1	46.61	137.7	
8,726.0	1.31	169.07	8,722.1	92.4	100.9	47.51	136.8	
8,821.0	1.13	175.16	8,817.1	90.4	101.2	48.22	135.7	
8,916.0	1.08	191.54	8,912.1	88.6	101.1	48.76	134.4	
9,010.0	0.91	171.07	9,006.1	87.0	101.0	49.27	133.3	
9,041.0	1.01	173.26	9,037.1	86.5	101.1	49.45	133.0	

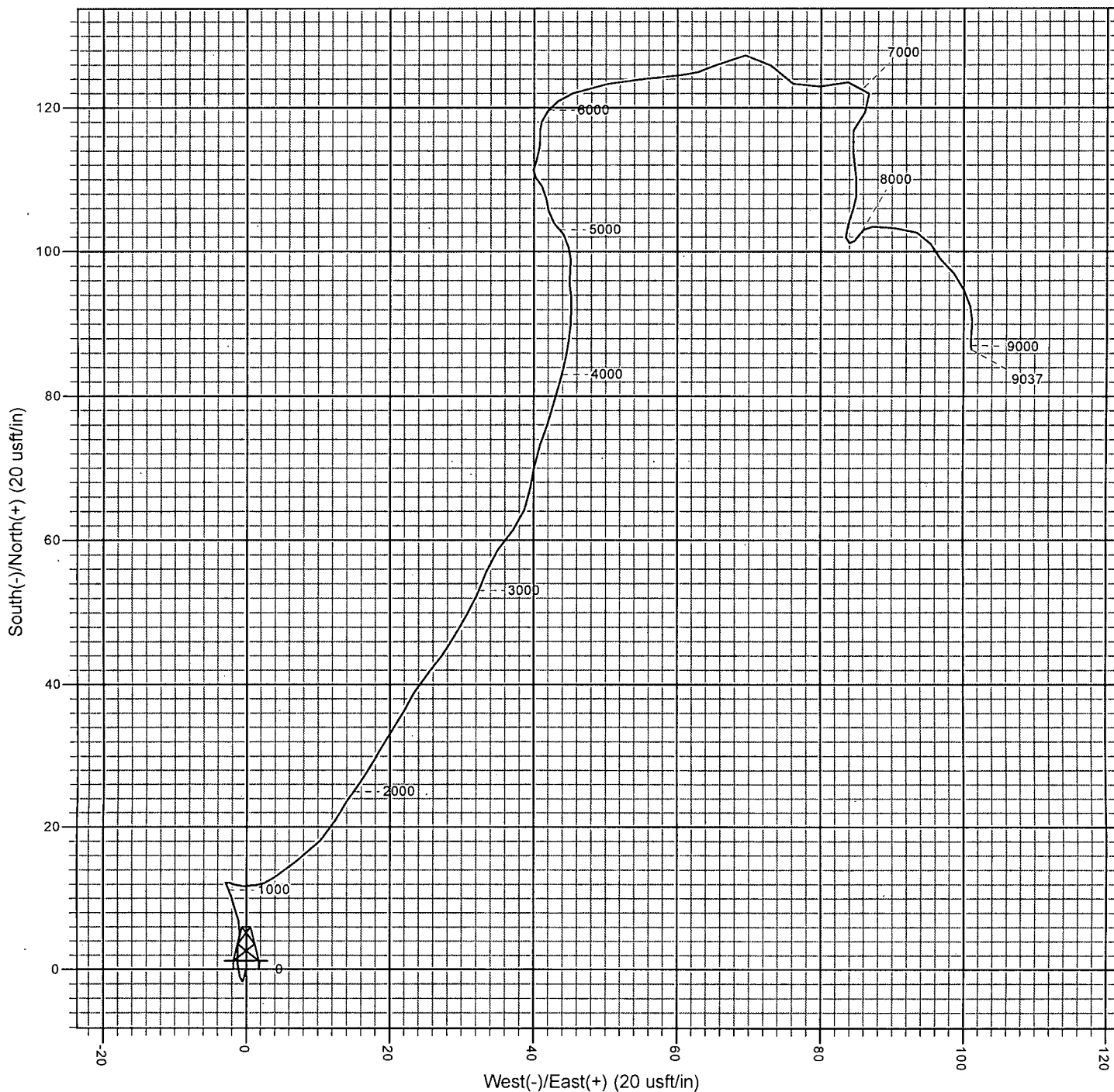


Scientific Drilling

Project: Cass Draw (NAD 27)
Eddy County, NM (Grid North)
Well: Grandi 22 #2H
Wellbore: VH - Job #320115-K-0102
Design: VH - Job #320115-K-0102

WELL DETAILS: Grandi 22 #2H
Mean Sea Level (System)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	502612.03	545720.95	32° 22' 54.150 N	104° 11' 6.818 W	



PROJECT DETAILS: Cass Draw (NAD 27)	SITE DETAILS: Eddy County, NM (Grid North)
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 22' 54.150 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 104° 11' 6.818 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.0
Zone: New Mexico East 3001	Convergence: 0.08
System Datum: Mean Sea Level	Local North: Grid



Weatherford®

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
333 W. Sherridan Ave
Oklahoma City, OK, 73102

Date: February 17, 2015

Attention: Scott Schmidt

Re: Devon Energy
Well: Grandi 22 2H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

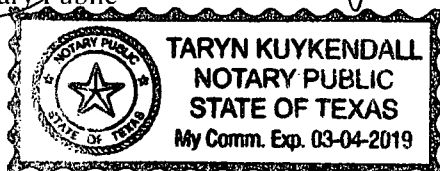
<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Jesus Lopez	2H	6623 MD	2/2/2015	Measurement
MWD Supervisor		11732 MD	2/13/2015	While Drilling

A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesus Aguilar
MWD Coordinator

On this, the 2nd day of March, 2015, before me a notary public, the undersigned officer, personally appeared Jesus Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public

5D Survey Report

Devon Energy**Field Name:** *Eddy Co, NM (Nad 83 NME)***Site Name:** *Grandi 22 2H***Well Name:** *Grandi 22 2H Lat***Survey:** *Wft MWD Svy*

13 February 2015

**Weatherford®**

5D Survey Report

Grandi 22 2H Lat

Field Name
Eddy Co, NM
(Nad 83 NME)

Map Units : US ft

Company Name : Devon Energy

Vertical Reference Datum (VRD) : Mean Sea Level

Projected Coordinate System : NAD83 / New Mexico East (ftUS)

Comment :

Site Name
Grandi 22 2H

Units : US ft

North Reference : Grid

Convergence Angle : 0.08

Position

Northing : 502628.66 US ft

Latitude : 32° 22' 54.15"

Easting : 587057.46 US ft

Longitude : -104° 11' 6.82"

Elevation above Mean Sea Level: 3109.00 US ft

Comment :

Slot Name
Grandi 22 2H

Position (Offsets relative to Site Centre)

+N / -S : 0.00 US ft Northing : 502628.66 US ft

Latitude : 32°22'54.15"

+E / -W : 0.00 US ft Easting : 587057.46 US ft

Longitude : -104°11'6.82"

Elevation above Mean Sea Level : 3109.00 US ft

Comment :

Well Name
Grandi 22 2H
Lat

Type : Sidetrack

UWI :

Parent : Grandi 22 2H Pilot

Tie Point Method : MD

Tie Point : 6562.00 US ft

Rig Height Well TVD Reference : 25.00 US ft

Comment :

Relative to Mean Sea Level: 3134.00 US ft

Closure Distance : 4772.44 US ft

Closure Azimuth : 95.2734°

Vertical Section (Position of Origin Relative to Slot)

+N / -S : 0.00 US ft

+E / -W : 0.00 US ft

Az : 92.19°

Survey Name: Wft MWD Svy

Date : 05/Feb/2015

Survey Tool : MWD

Comment :

Company :

Magnetic Model

Model Name: BGGM

Date: 15/Jan/2015

Field Strength:
48256.2 nT

Declination: 7.62°

Dip: 60.13°

Tie Point

MD: 6562

Inclination: 2.71 Azimuth: 80.34

TVD: 6559.22

North Offset: 127.27

East Offset: 69.4429

Well path created using minimum curvature

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
6623.00	3.18	107.53	6620.14	127.00	72.48	67.57	0.00	502755.66	587129.94	First Wft Svy
6733.00	13.14	125.39	6728.90	118.82	85.61	81.01	9.24	502747.48	587143.07	
6764.00	16.20	125.54	6758.89	114.27	92.01	87.57	9.87	502742.93	587149.47	
6795.00	19.27	128.15	6788.41	108.59	99.55	95.33	10.23	502737.25	587157.01	
6827.00	21.93	131.39	6818.37	101.38	108.19	104.24	9.04	502730.04	587165.65	
6858.00	24.74	134.93	6846.83	92.97	117.13	113.49	10.13	502721.63	587174.59	
6889.00	27.41	139.02	6874.67	82.99	126.40	123.14	10.38	502711.65	587183.86	
6921.00	30.18	141.60	6902.71	71.13	136.23	133.41	9.49	502699.79	587193.69	
6952.00	33.47	143.67	6929.05	58.13	146.14	143.81	11.18	502686.79	587203.60	
6983.00	36.29	143.97	6954.48	43.82	156.60	154.81	9.11	502672.48	587214.06	
7015.00	39.37	144.03	6979.75	27.95	168.13	166.94	9.63	502656.61	587225.59	
7046.00	42.35	144.22	7003.19	11.51	180.02	179.44	9.62	502640.17	587237.48	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
7078.00	44.84	143.27	7026.37	-6.28	193.07	193.17	8.05	502622.38	587250.53	
7109.00	46.54	140.12	7048.02	-23.67	206.82	207.57	9.11	502604.99	587264.28	
7140.00	48.35	136.46	7068.99	-40.71	222.02	223.41	10.47	502587.95	587279.48	
7172.00	50.25	133.42	7089.86	-57.83	239.19	241.23	9.33	502570.83	587296.65	
7203.00	52.38	132.39	7109.24	-74.30	256.92	259.57	7.34	502554.36	587314.38	
7234.00	54.20	131.79	7127.77	-90.96	275.36	278.63	6.07	502537.70	587332.82	
7265.00	56.11	129.77	7145.48	-107.57	294.63	298.52	8.16	502521.09	587352.09	
7297.00	57.95	128.57	7162.89	-124.52	315.44	319.97	6.55	502504.14	587372.90	
7328.00	59.99	125.99	7178.88	-140.61	336.58	341.70	9.70	502488.05	587394.04	
7359.00	61.27	124.23	7194.08	-156.14	358.68	364.38	6.44	502472.52	587416.14	
7391.00	62.63	121.85	7209.13	-171.53	382.35	388.62	7.82	502457.13	587439.81	
7422.00	64.12	119.93	7223.02	-185.76	406.13	412.93	7.33	502442.90	587463.59	
7453.00	65.72	117.82	7236.16	-199.31	430.72	438.02	8.04	502429.35	587488.18	
7485.00	67.07	115.99	7248.98	-212.58	456.86	464.65	6.73	502416.08	587514.32	
7516.00	68.81	113.68	7260.62	-224.64	482.93	491.17	8.90	502404.02	587540.39	
7548.00	70.34	111.04	7271.79	-236.04	510.67	519.31	9.09	502392.62	587568.13	
7579.00	72.54	108.91	7281.66	-246.08	538.28	547.29	9.63	502382.58	587595.74	
7610.00	73.63	106.37	7290.68	-255.06	566.54	575.88	8.59	502373.60	587624.00	
7642.00	75.73	104.52	7299.13	-263.28	596.29	605.92	8.61	502365.38	587653.75	
7673.00	78.52	102.82	7306.04	-270.42	625.65	635.53	10.47	502358.24	587683.11	
7704.00	81.44	101.40	7311.43	-276.82	655.50	665.59	10.44	502351.84	587712.96	
7721.00	83.06	100.91	7313.73	-280.08	672.02	682.23	9.95	502348.58	587729.48	
7752.00	86.01	99.45	7316.68	-285.53	702.39	712.79	10.61	502343.13	587759.85	
7784.00	87.34	98.26	7318.53	-290.45	733.95	744.52	5.57	502338.21	587791.41	
7815.00	87.48	98.21	7319.94	-294.88	764.60	775.31	0.48	502333.78	587822.06	
7847.00	87.41	98.16	7321.36	-299.43	796.25	807.11	0.27	502329.23	587853.71	
7878.00	88.32	97.72	7322.52	-303.71	826.93	837.93	3.26	502324.95	587884.39	
7972.00	91.75	96.06	7322.46	-314.99	920.23	931.60	4.05	502313.67	587977.69	
8066.00	91.40	94.84	7319.88	-323.91	1013.77	1025.41	1.35	502304.75	588071.23	
8160.00	91.26	93.42	7317.69	-330.68	1107.50	1119.32	1.52	502297.98	588164.96	
8255.00	90.00	92.28	7316.65	-335.40	1202.37	1214.31	1.79	502293.26	588259.83	
8349.00	88.39	91.78	7317.97	-338.73	1296.30	1308.30	1.79	502289.93	588353.76	
8443.00	87.97	91.98	7320.96	-341.81	1390.20	1402.25	0.49	502286.85	588447.66	
8537.00	88.11	91.25	7324.17	-344.46	1484.11	1496.19	0.79	502284.20	588541.57	
8631.00	87.69	91.50	7327.61	-346.71	1578.02	1590.11	0.52	502281.95	588635.48	
8725.00	88.18	91.44	7331.00	-349.12	1671.93	1684.05	0.53	502279.54	588729.39	
8819.00	88.53	91.83	7333.70	-351.81	1765.85	1778.00	0.56	502276.85	588823.31	
8913.00	87.97	91.62	7336.57	-354.63	1859.76	1871.95	0.64	502274.03	588917.22	
9007.00	88.46	92.12	7339.50	-357.70	1953.66	1965.91	0.74	502270.96	589011.12	
9101.00	88.81	91.68	7341.74	-360.81	2047.59	2059.88	0.60	502267.85	589105.05	
9196.00	88.04	91.53	7344.35	-363.47	2142.51	2154.84	0.83	502265.19	589199.97	
9290.00	88.39	90.61	7347.28	-365.23	2236.45	2248.77	1.05	502263.43	589293.91	
9384.00	87.48	90.62	7350.66	-366.24	2330.38	2342.67	0.97	502262.42	589387.84	
9478.00	87.97	90.49	7354.40	-367.15	2424.30	2436.56	0.54	502261.51	589481.76	
9572.00	88.11	91.20	7357.61	-368.53	2518.24	2530.48	0.77	502260.13	589575.70	
9666.00	88.60	91.35	7360.31	-370.62	2612.17	2624.43	0.55	502258.04	589669.63	
9760.00	88.81	91.82	7362.43	-373.22	2706.11	2718.40	0.55	502255.44	589763.57	
9854.00	88.39	91.27	7364.73	-375.76	2800.05	2812.37	0.74	502252.90	589857.51	
9948.00	89.23	91.80	7366.68	-378.27	2894.00	2906.34	1.06	502250.39	589951.46	
10042.00	89.37	91.40	7367.83	-380.90	2987.95	3000.33	0.45	502247.76	590045.41	
10136.00	89.30	92.13	7368.92	-383.79	3081.90	3094.32	0.78	502244.87	590139.36	
10230.00	88.53	91.70	7370.70	-386.93	3175.83	3188.30	0.94	502241.73	590233.29	
10324.00	87.97	91.80	7373.57	-389.80	3269.74	3282.25	0.61	502238.86	590327.20	
10418.00	88.81	92.03	7376.21	-392.94	3363.65	3376.21	0.93	502235.72	590421.11	
10512.00	87.97	92.11	7378.85	-396.34	3457.55	3470.17	0.90	502232.32	590515.01	
10607.00	88.04	92.33	7382.16	-400.02	3552.42	3565.12	0.24	502228.64	590609.88	
10701.00	88.60	91.68	7384.92	-403.30	3646.33	3659.07	0.91	502225.36	590703.79	
10795.00	89.44	91.22	7386.53	-405.68	3740.28	3753.05	1.02	502222.98	590797.74	
10889.00	88.60	91.07	7388.13	-407.56	3834.25	3847.02	0.91	502221.10	590891.71	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
10983.00	89.51	91.76	7389.68	-409.88	3928.20	3941.00	1.21	502218.78	590985.66	
11077.00	89.09	91.71	7390.83	-412.73	4022.15	4034.99	0.45	502215.93	591079.61	
11171.00	88.39	91.93	7392.90	-415.71	4116.08	4128.96	0.78	502212.95	591173.54	
11265.00	88.18	91.48	7395.71	-418.51	4210.00	4222.92	0.53	502210.15	591267.46	
11360.00	88.11	91.91	7398.79	-421.31	4304.91	4317.86	0.46	502207.35	591362.37	
11454.00	87.97	92.16	7402.00	-424.65	4398.79	4411.81	0.30	502204.01	591456.25	
11548.00	88.39	91.93	7404.99	-428.00	4492.69	4505.76	0.51	502200.66	591550.15	
11642.00	87.90	92.44	7408.03	-431.58	4586.57	4599.71	0.75	502197.08	591644.03	
11732.00	87.14	92.43	7411.92	-435.40	4676.40	4689.62	0.84	502193.26	591733.86	Last Wft Svy 2H
11808.00	87.14	92.43	7415.72	-438.62	4752.24	4765.53	0.00	502190.04	591809.70	Proj. To Bit



Grandi 22 2H
Eddy Co, NM



Weatherford

Plan Data for Grandi 22 2H Lat

Plan Point Information:									
DogLeg Severity Unit: */100.00ft									
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
7721.00	83.06	100.91	7313.73	-280.03	672.02	502348.63	587729.48	682.23	9.95
7791.00	88.69	97.22	7318.76	-291.02	740.93	502337.64	587798.39	751.51	9.61
8074.64	90.00	91.70	7322.01	-313.07	1023.58	502315.59	588081.04	1034.79	2.00
8239.85	90.00	91.70	7322.01	-317.97	1188.72	502310.69	588246.18	1200.00	0.00
8315.06	88.50	91.73	7322.99	-320.22	1263.88	502308.44	588321.34	1275.19	2.00
11802.09	88.50	91.73	7414.50	-425.73	4748.11	502202.93	591805.57	4760.91	0.00

Plan Data for Grandi 22 2H Lat

Slot: Grandi 22 2H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 502628.66USft Latitude: 32°22'54.1"
+E/-W: 0.00USft Easting: 587057.46USft Longitude: -104°11'6.8"
Elevation Above VRD: 3109.00USft

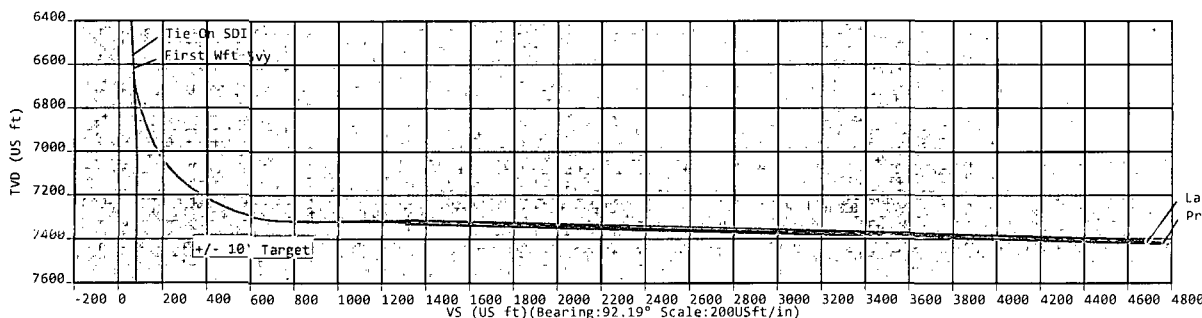
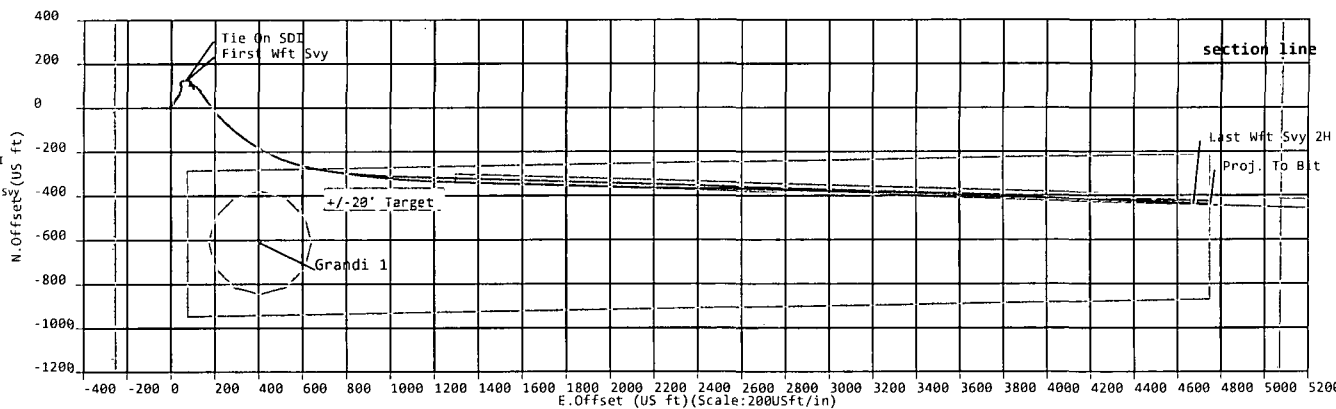
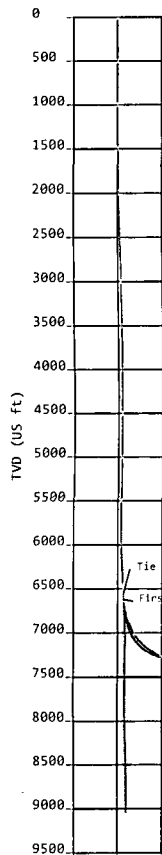
Grandi 22 2H Lat
Grandi 1
Grandi 22 2H Pilot
Grandi 22 2H Lat

Plan Data for Grandi 22 2H Lat

Target Set Information:
Name: Grandi 22 2H
Position offsets from Slot centre
Name TVD +N/-S +E/-W Northing Easting Shape Comment
(USft) (USft) (USft) (USft) (USft)
PBHL 2H 7414.50 -425.73 4748.11 502202.93 591805.57 Cuboid

Plan Data for Grandi 22 2H Lat

Well: Grandi 22 2H Lat
Type: Side-Track
File Number:
Plan Folder: P2 Plan: P2:V2
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 92.19°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGMH 48256(nT) 7.62° 60.13° 2015-01-15



Sign Off: Russell Joyner