



Devon Energy
Gaucho Unit 20Y
Plan #1
Lea County, NM



DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL (GU 20Y)	10313.00	7389.49	-184.45	501634.61	799741.47

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9835.54	0.00	0.00	9835.54	0.00	0.00	0.00	0.00	0.00
10585.54	90.00	358.57	10313.00	477.32	-11.91	12.00	358.57	477.46
17499.86	90.00	358.57	10313.00	7389.49	-184.45	0.00	0.00	7391.79

PROJECT DETAILS: Lea County, NM		Plan: Plan #1 (20Y/OH)	
Geodetic System:	US State Plane 1983	Gaucho Unit	
Datum:	North American Datum 1983	Created By: Brady Deaver	
Ellipsoid:	GRS 1980	Date: 15:36, September 08 2015	
Zone:	New Mexico Eastern Zone		
System Datum:	Mean Sea Level		

Target Line:

TL#1: 90° INC

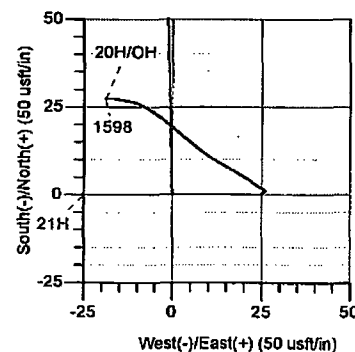
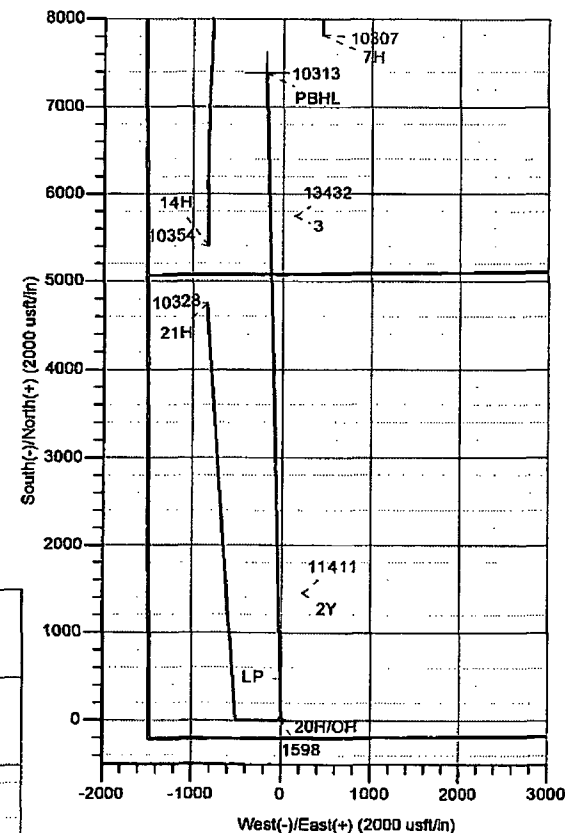
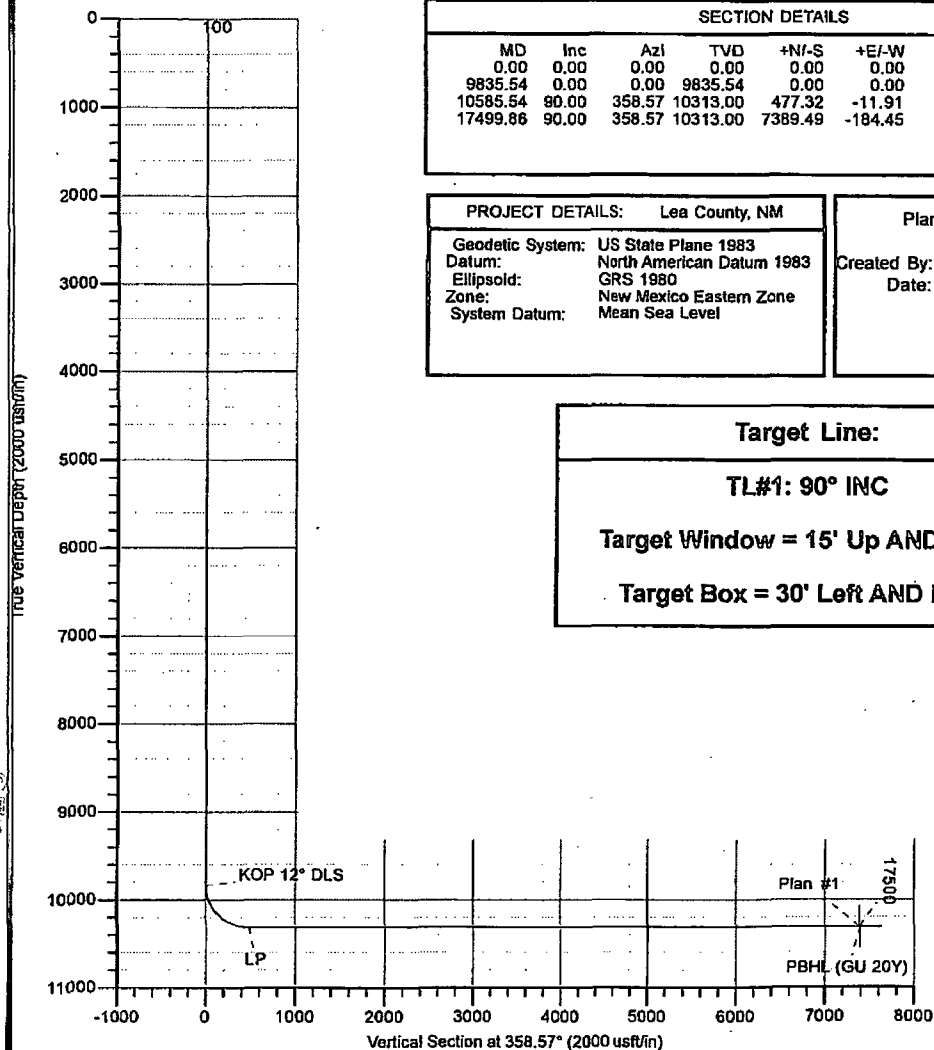
Target Window = 15' Up AND Down

Target Box = 30' Left AND Right



Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.75°

Magnetic Field
Strength: 48284.7snT
Dip Angle: 60.28°
Date: 9/6/2015
Model: BGGM2015



SEP 09 2015

DEVON ENERGY

Lea County, NM (NAD-83)

Gaucho Unit

20Y

OH

Plan: Plan #1

Standard Planning Report

08 September, 2015

LEA Drilling Systems LLC
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 20Y
Company:	DEVON ENERGY	TVD Reference:	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucha Unit	North Reference:	Grid
Well:	20Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Gaucha Unit				
Site Position:		Northing:	504,450.40 usft	Latitude:	32° 23' 2.539 N
From:	Map	Easting:	799,049.77 usft	Longitude:	103° 29' 54.548 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	20Y					
Well Position	+N/-S	-10,205.28 usft	Northing:	494,245.12 usft	Latitude:	32° 21' 21.492 N
	+E/-W	876.15 usft	Easting:	799,925.92 usft	Longitude:	103° 29' 45.263 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	3,452.70 usft	Ground Level:	3,427.70 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	9/6/2015	7.20	60.28	48,285

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	358.57

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Buidl Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,835.54	0.00	0.00	9,835.54	0.00	0.00	0.00	0.00	0.00	0.00	
10,585.54	90.00	358.57	10,313.00	477.32	-11.91	12.00	12.00	-0.19	358.57	
17,499.86	90.00	358.57	10,313.00	7,389.49	-184.45	0.00	0.00	0.00	0.00	PBHL (GU 20Y)

LEAM Drilling Systems LLC
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Site:	Gaucha Unit	North Reference:	Grid
Well:	20Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

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5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,835.54	0.00	0.00	9,835.54	0.00	0.00	0.00	0.00	0.00	0.00
KOP 12" DLS									
9,850.00	1.74	358.57	9,850.00	0.22	-0.01	0.22	12.00	12.00	0.00
9,875.00	4.74	358.57	9,874.96	1.63	-0.04	1.63	12.00	12.00	0.00
9,900.00	7.74	358.57	9,899.80	4.34	-0.11	4.35	12.00	12.00	0.00
9,925.00	10.74	358.57	9,924.48	8.35	-0.21	8.36	12.00	12.00	0.00
9,950.00	13.74	358.57	9,948.91	13.65	-0.34	13.65	12.00	12.00	0.00
9,975.00	16.74	358.57	9,973.03	20.22	-0.50	20.22	12.00	12.00	0.00

LEAM Drilling Systems LLC

Planning Report

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Well:	20Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
10,000.00	19.74	358.57	9,998.77	28.04	-0.70	28.05	12.00	12.00	0.00
10,025.00	22.74	358.57	10,020.07	37.09	-0.93	37.10	12.00	12.00	0.00
10,050.00	25.74	358.57	10,042.86	47.35	-1.18	47.36	12.00	12.00	0.00
10,075.00	28.74	358.57	10,085.09	58.78	-1.47	58.80	12.00	12.00	0.00
10,100.00	31.74	358.57	10,088.68	71.37	-1.78	71.39	12.00	12.00	0.00
10,125.00	34.74	358.57	10,107.59	85.06	-2.12	85.09	12.00	12.00	0.00
10,150.00	37.74	358.57	10,127.75	99.83	-2.49	99.88	12.00	12.00	0.00
10,175.00	40.74	358.57	10,147.12	115.64	-2.89	115.68	12.00	12.00	0.00
10,200.00	43.74	358.57	10,165.62	132.44	-3.31	132.48	12.00	12.00	0.00
10,225.00	46.74	358.57	10,183.23	150.18	-3.75	150.23	12.00	12.00	0.00
10,250.00	49.74	358.57	10,199.88	168.82	-4.21	168.87	12.00	12.00	0.00
10,275.00	52.74	358.57	10,215.53	188.30	-4.70	188.36	12.00	12.00	0.00
10,300.00	55.74	358.57	10,230.14	208.58	-5.21	208.65	12.00	12.00	0.00
10,325.00	58.74	358.57	10,243.66	229.59	-5.73	229.67	12.00	12.00	0.00
10,350.00	61.74	358.57	10,256.07	251.29	-6.27	251.37	12.00	12.00	0.00
10,375.00	64.74	358.57	10,267.33	273.60	-6.83	273.68	12.00	12.00	0.00
10,400.00	67.74	358.57	10,277.40	296.47	-7.40	296.56	12.00	12.00	0.00
10,425.00	70.74	358.57	10,286.27	319.84	-7.98	319.94	12.00	12.00	0.00
10,450.00	73.74	358.57	10,293.89	343.63	-8.58	343.74	12.00	12.00	0.00
10,475.00	76.74	358.57	10,300.26	367.80	-9.18	367.91	12.00	12.00	0.00
10,500.00	79.74	358.57	10,305.36	392.26	-9.79	392.38	12.00	12.00	0.00
10,525.00	82.74	358.57	10,309.17	416.96	-10.41	417.09	12.00	12.00	0.00
10,550.00	85.74	358.57	10,311.68	441.82	-11.03	441.96	12.00	12.00	0.00
10,575.00	88.74	358.57	10,312.89	466.78	-11.65	466.93	12.00	12.00	0.00
10,585.54	90.00	358.57	10,313.00	477.32	-11.91	477.46	12.00	12.00	0.00
LP									
10,600.00	90.00	358.57	10,313.00	491.77	-12.28	491.93	0.00	0.00	0.00
10,700.00	90.00	358.57	10,313.00	591.74	-14.77	591.93	0.00	0.00	0.00
10,800.00	90.00	358.57	10,313.00	691.71	-17.27	691.93	0.00	0.00	0.00
10,900.00	90.00	358.57	10,313.00	791.68	-19.76	791.93	0.00	0.00	0.00
11,000.00	90.00	358.57	10,313.00	891.65	-22.26	891.93	0.00	0.00	0.00
11,100.00	90.00	358.57	10,313.00	991.62	-24.75	991.93	0.00	0.00	0.00
11,200.00	90.00	358.57	10,313.00	1,091.59	-27.25	1,091.93	0.00	0.00	0.00
11,300.00	90.00	358.57	10,313.00	1,191.56	-29.74	1,191.93	0.00	0.00	0.00
11,400.00	90.00	358.57	10,313.00	1,291.53	-32.24	1,291.93	0.00	0.00	0.00
11,500.00	90.00	358.57	10,313.00	1,391.49	-34.73	1,391.93	0.00	0.00	0.00
11,600.00	90.00	358.57	10,313.00	1,491.46	-37.23	1,491.93	0.00	0.00	0.00
11,700.00	90.00	358.57	10,313.00	1,591.43	-39.72	1,591.93	0.00	0.00	0.00
11,800.00	90.00	358.57	10,313.00	1,691.40	-42.22	1,691.93	0.00	0.00	0.00
11,900.00	90.00	358.57	10,313.00	1,791.37	-44.71	1,791.93	0.00	0.00	0.00
12,000.00	90.00	358.57	10,313.00	1,891.34	-47.21	1,891.93	0.00	0.00	0.00
12,100.00	90.00	358.57	10,313.00	1,991.31	-49.71	1,991.93	0.00	0.00	0.00
12,200.00	90.00	358.57	10,313.00	2,091.28	-52.20	2,091.93	0.00	0.00	0.00
12,300.00	90.00	358.57	10,313.00	2,191.25	-54.70	2,191.93	0.00	0.00	0.00
12,400.00	90.00	358.57	10,313.00	2,291.21	-57.19	2,291.93	0.00	0.00	0.00
12,500.00	90.00	358.57	10,313.00	2,391.18	-59.69	2,391.93	0.00	0.00	0.00
12,600.00	90.00	358.57	10,313.00	2,491.15	-62.18	2,491.93	0.00	0.00	0.00
12,700.00	90.00	358.57	10,313.00	2,591.12	-64.68	2,591.93	0.00	0.00	0.00
12,800.00	90.00	358.57	10,313.00	2,691.09	-67.17	2,691.93	0.00	0.00	0.00
12,900.00	90.00	358.57	10,313.00	2,791.06	-69.67	2,791.93	0.00	0.00	0.00
13,000.00	90.00	358.57	10,313.00	2,891.03	-72.16	2,891.93	0.00	0.00	0.00
13,100.00	90.00	358.57	10,313.00	2,991.00	-74.66	2,991.93	0.00	0.00	0.00
13,200.00	90.00	358.57	10,313.00	3,090.97	-77.15	3,091.93	0.00	0.00	0.00
13,300.00	90.00	358.57	10,313.00	3,190.93	-79.65	3,191.93	0.00	0.00	0.00

LEAM Drilling Systems LLC
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 20Y
Company:	DEVON ENERGY	TVD Reference:	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucha Unit	North Reference:	Grid
Well:	20Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
13,400.00	90.00	358.57	10,313.00	3,290.90	-82.14	3,291.93	0.00	0.00	0.00
13,500.00	90.00	358.57	10,313.00	3,390.87	-84.64	3,391.93	0.00	0.00	0.00
13,600.00	90.00	358.57	10,313.00	3,490.84	-87.14	3,491.93	0.00	0.00	0.00
13,700.00	90.00	358.57	10,313.00	3,590.81	-89.63	3,591.93	0.00	0.00	0.00
13,800.00	90.00	358.57	10,313.00	3,690.78	-92.13	3,691.93	0.00	0.00	0.00
13,900.00	90.00	358.57	10,313.00	3,790.75	-94.62	3,791.93	0.00	0.00	0.00
14,000.00	90.00	358.57	10,313.00	3,890.72	-97.12	3,891.93	0.00	0.00	0.00
14,100.00	90.00	358.57	10,313.00	3,990.69	-99.61	3,991.93	0.00	0.00	0.00
14,200.00	90.00	358.57	10,313.00	4,090.65	-102.11	4,091.93	0.00	0.00	0.00
14,300.00	90.00	358.57	10,313.00	4,190.62	-104.60	4,191.93	0.00	0.00	0.00
14,400.00	90.00	358.57	10,313.00	4,290.58	-107.10	4,291.93	0.00	0.00	0.00
14,500.00	90.00	358.57	10,313.00	4,390.55	-109.59	4,391.93	0.00	0.00	0.00
14,600.00	90.00	358.57	10,313.00	4,490.53	-112.09	4,491.93	0.00	0.00	0.00
14,700.00	90.00	358.57	10,313.00	4,590.50	-114.58	4,591.93	0.00	0.00	0.00
14,800.00	90.00	358.57	10,313.00	4,690.47	-117.08	4,691.93	0.00	0.00	0.00
14,900.00	90.00	358.57	10,313.00	4,790.44	-119.57	4,791.93	0.00	0.00	0.00
15,000.00	90.00	358.57	10,313.00	4,890.40	-122.07	4,891.93	0.00	0.00	0.00
15,100.00	90.00	358.57	10,313.00	4,990.37	-124.57	4,991.93	0.00	0.00	0.00
15,200.00	90.00	358.57	10,313.00	5,090.34	-127.06	5,091.93	0.00	0.00	0.00
15,300.00	90.00	358.57	10,313.00	5,190.31	-129.56	5,191.93	0.00	0.00	0.00
15,400.00	90.00	358.57	10,313.00	5,290.28	-132.05	5,291.93	0.00	0.00	0.00
15,500.00	90.00	358.57	10,313.00	5,390.25	-134.55	5,391.93	0.00	0.00	0.00
15,600.00	90.00	358.57	10,313.00	5,490.22	-137.04	5,491.93	0.00	0.00	0.00
15,700.00	90.00	358.57	10,313.00	5,590.19	-139.54	5,591.93	0.00	0.00	0.00
15,800.00	90.00	358.57	10,313.00	5,690.16	-142.03	5,691.93	0.00	0.00	0.00
15,900.00	90.00	358.57	10,313.00	5,790.12	-144.53	5,791.93	0.00	0.00	0.00
16,000.00	90.00	358.57	10,313.00	5,890.09	-147.02	5,891.93	0.00	0.00	0.00
16,100.00	90.00	358.57	10,313.00	5,990.06	-149.52	5,991.93	0.00	0.00	0.00
16,200.00	90.00	358.57	10,313.00	6,090.03	-152.01	6,091.93	0.00	0.00	0.00
16,300.00	90.00	358.57	10,313.00	6,190.00	-154.51	6,191.93	0.00	0.00	0.00
16,400.00	90.00	358.57	10,313.00	6,289.97	-157.00	6,291.93	0.00	0.00	0.00
16,500.00	90.00	358.57	10,313.00	6,389.94	-159.50	6,391.93	0.00	0.00	0.00
16,600.00	90.00	358.57	10,313.00	6,489.91	-162.00	6,491.93	0.00	0.00	0.00
16,700.00	90.00	358.57	10,313.00	6,589.88	-164.49	6,591.93	0.00	0.00	0.00
16,800.00	90.00	358.57	10,313.00	6,689.84	-166.99	6,691.93	0.00	0.00	0.00
16,900.00	90.00	358.57	10,313.00	6,789.81	-169.48	6,791.93	0.00	0.00	0.00
17,000.00	90.00	358.57	10,313.00	6,889.78	-171.98	6,891.93	0.00	0.00	0.00
17,100.00	90.00	358.57	10,313.00	6,989.75	-174.47	6,991.93	0.00	0.00	0.00
17,200.00	90.00	358.57	10,313.00	7,089.72	-176.97	7,091.93	0.00	0.00	0.00
17,300.00	90.00	358.57	10,313.00	7,189.69	-179.46	7,191.93	0.00	0.00	0.00
17,400.00	90.00	358.57	10,313.00	7,289.66	-181.96	7,291.93	0.00	0.00	0.00
17,499.88	90.00	358.57	10,313.00	7,389.49	-184.45	7,391.79	0.00	0.00	0.00
TD - PBHL (GU 20Y)									

LEAM Drilling Systems LLC
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 20Y
Company:	DEVON ENERGY	TVD Reference:	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucha Unit	North Reference:	Grid
Well:	20Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PBHL (GU 20Y)	0.00	0.00	10,313.00	7,389.49	-184.45	501,634.61	799,741.47	32° 22' 34.624 N	103° 29' 46.739 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
9,835.54	9,835.54	0.00	0.00	KOP 12° DLS
10,585.54	10,313.00	477.32	-11.91	LP
17,499.86	10,313.00	7,389.49	-184.45	TD



Survey Report

Operator: Devon Energy
 Well Name Gaucho Unit 20Y
 Location: Lea County, NM
 Direction: 358.57

MD	INC	AZI	Course Length	TVD	Subsea Depth	N/-S	E/-W	X
0.00		0.00	0.00	0.00	3452.70	0.00	0.00	799925.92
100.00		0.00	0.00	100.00	3352.70	0.00	0.00	799925.92
200.00		0.00	0.00	100.00	3252.70	0.00	0.00	799925.92
300.00		0.00	0.00	100.00	3152.70	0.00	0.00	799925.92
400.00		0.00	0.00	100.00	3052.70	0.00	0.00	799925.92
500.00		0.00	0.00	100.00	2952.70	0.00	0.00	799925.92
600.00		0.00	0.00	100.00	2852.70	0.00	0.00	799925.92
700.00		0.00	0.00	100.00	2752.70	0.00	0.00	799925.92
800.00		0.00	0.00	100.00	2652.70	0.00	0.00	799925.92
900.00		0.00	0.00	100.00	2552.70	0.00	0.00	799925.92
1000.00		0.00	0.00	100.00	2452.70	0.00	0.00	799925.92
1100.00		0.00	0.00	100.00	2352.70	0.00	0.00	799925.92
1200.00		0.00	0.00	100.00	2252.70	0.00	0.00	799925.92
1300.00		0.00	0.00	100.00	2152.70	0.00	0.00	799925.92
1400.00		0.00	0.00	100.00	2052.70	0.00	0.00	799925.92
1500.00		0.00	0.00	100.00	1952.70	0.00	0.00	799925.92
1600.00		0.00	0.00	100.00	1852.70	0.00	0.00	799925.92
1700.00		0.00	0.00	100.00	1752.70	0.00	0.00	799925.92
1800.00		0.00	0.00	100.00	1652.70	0.00	0.00	799925.92
1900.00		0.00	0.00	100.00	1552.70	0.00	0.00	799925.92
2000.00		0.00	0.00	100.00	1452.70	0.00	0.00	799925.92
2100.00		0.00	0.00	100.00	1352.70	0.00	0.00	799925.92
2200.00		0.00	0.00	100.00	1252.70	0.00	0.00	799925.92
2300.00		0.00	0.00	100.00	1152.70	0.00	0.00	799925.92
2400.00		0.00	0.00	100.00	1052.70	0.00	0.00	799925.92
2500.00		0.00	0.00	100.00	952.70	0.00	0.00	799925.92
2600.00		0.00	0.00	100.00	852.70	0.00	0.00	799925.92
2700.00		0.00	0.00	100.00	752.70	0.00	0.00	799925.92
2800.00		0.00	0.00	100.00	652.70	0.00	0.00	799925.92
2900.00		0.00	0.00	100.00	552.70	0.00	0.00	799925.92
3000.00		0.00	0.00	100.00	452.70	0.00	0.00	799925.92
3100.00		0.00	0.00	100.00	352.70	0.00	0.00	799925.92

3200.00	0.00	0.00	100.00	3200.00	252.70	0.00	0.00	799925.92
3300.00	0.00	0.00	100.00	3300.00	152.70	0.00	0.00	799925.92
3400.00	0.00	0.00	100.00	3400.00	52.70	0.00	0.00	799925.92
3500.00	0.00	0.00	100.00	3500.00	-47.30	0.00	0.00	799925.92
3600.00	0.00	0.00	100.00	3600.00	-147.30	0.00	0.00	799925.92
3700.00	0.00	0.00	100.00	3700.00	-247.30	0.00	0.00	799925.92
3800.00	0.00	0.00	100.00	3800.00	-347.30	0.00	0.00	799925.92
3900.00	0.00	0.00	100.00	3900.00	-447.30	0.00	0.00	799925.92
4000.00	0.00	0.00	100.00	4000.00	-547.30	0.00	0.00	799925.92
4100.00	0.00	0.00	100.00	4100.00	-647.30	0.00	0.00	799925.92
4200.00	0.00	0.00	100.00	4200.00	-747.30	0.00	0.00	799925.92
4300.00	0.00	0.00	100.00	4300.00	-847.30	0.00	0.00	799925.92
4400.00	0.00	0.00	100.00	4400.00	-947.30	0.00	0.00	799925.92
4500.00	0.00	0.00	100.00	4500.00	-1047.30	0.00	0.00	799925.92
4600.00	0.00	0.00	100.00	4600.00	-1147.30	0.00	0.00	799925.92
4700.00	0.00	0.00	100.00	4700.00	-1247.30	0.00	0.00	799925.92
4800.00	0.00	0.00	100.00	4800.00	-1347.30	0.00	0.00	799925.92
4900.00	0.00	0.00	100.00	4900.00	-1447.30	0.00	0.00	799925.92
5000.00	0.00	0.00	100.00	5000.00	-1547.30	0.00	0.00	799925.92
5100.00	0.00	0.00	100.00	5100.00	-1647.30	0.00	0.00	799925.92
5200.00	0.00	0.00	100.00	5200.00	-1747.30	0.00	0.00	799925.92
5300.00	0.00	0.00	100.00	5300.00	-1847.30	0.00	0.00	799925.92
5400.00	0.00	0.00	100.00	5400.00	-1947.30	0.00	0.00	799925.92
5500.00	0.00	0.00	100.00	5500.00	-2047.30	0.00	0.00	799925.92
5600.00	0.00	0.00	100.00	5600.00	-2147.30	0.00	0.00	799925.92
5700.00	0.00	0.00	100.00	5700.00	-2247.30	0.00	0.00	799925.92
5800.00	0.00	0.00	100.00	5800.00	-2347.30	0.00	0.00	799925.92
5900.00	0.00	0.00	100.00	5900.00	-2447.30	0.00	0.00	799925.92
6000.00	0.00	0.00	100.00	6000.00	-2547.30	0.00	0.00	799925.92
6100.00	0.00	0.00	100.00	6100.00	-2647.30	0.00	0.00	799925.92
6200.00	0.00	0.00	100.00	6200.00	-2747.30	0.00	0.00	799925.92
6300.00	0.00	0.00	100.00	6300.00	-2847.30	0.00	0.00	799925.92
6400.00	0.00	0.00	100.00	6400.00	-2947.30	0.00	0.00	799925.92
6500.00	0.00	0.00	100.00	6500.00	-3047.30	0.00	0.00	799925.92
6600.00	0.00	0.00	100.00	6600.00	-3147.30	0.00	0.00	799925.92
6700.00	0.00	0.00	100.00	6700.00	-3247.30	0.00	0.00	799925.92
6800.00	0.00	0.00	100.00	6800.00	-3347.30	0.00	0.00	799925.92
6900.00	0.00	0.00	100.00	6900.00	-3447.30	0.00	0.00	799925.92
7000.00	0.00	0.00	100.00	7000.00	-3547.30	0.00	0.00	799925.92
7100.00	0.00	0.00	100.00	7100.00	-3647.30	0.00	0.00	799925.92
7200.00	0.00	0.00	100.00	7200.00	-3747.30	0.00	0.00	799925.92
7300.00	0.00	0.00	100.00	7300.00	-3847.30	0.00	0.00	799925.92
7400.00	0.00	0.00	100.00	7400.00	-3947.30	0.00	0.00	799925.92
7500.00	0.00	0.00	100.00	7500.00	-4047.30	0.00	0.00	799925.92
7600.00	0.00	0.00	100.00	7600.00	-4147.30	0.00	0.00	799925.92
7700.00	0.00	0.00	100.00	7700.00	-4247.30	0.00	0.00	799925.92
7800.00	0.00	0.00	100.00	7800.00	-4347.30	0.00	0.00	799925.92

7900.00	0.00	0.00	100.00	7900.00	-4447.30	0.00	0.00	799925.92
8000.00	0.00	0.00	100.00	8000.00	-4547.30	0.00	0.00	799925.92
8100.00	0.00	0.00	100.00	8100.00	-4647.30	0.00	0.00	799925.92
8200.00	0.00	0.00	100.00	8200.00	-4747.30	0.00	0.00	799925.92
8300.00	0.00	0.00	100.00	8300.00	-4847.30	0.00	0.00	799925.92
8400.00	0.00	0.00	100.00	8400.00	-4947.30	0.00	0.00	799925.92
8500.00	0.00	0.00	100.00	8500.00	-5047.30	0.00	0.00	799925.92
8600.00	0.00	0.00	100.00	8600.00	-5147.30	0.00	0.00	799925.92
8700.00	0.00	0.00	100.00	8700.00	-5247.30	0.00	0.00	799925.92
8800.00	0.00	0.00	100.00	8800.00	-5347.30	0.00	0.00	799925.92
8900.00	0.00	0.00	100.00	8900.00	-5447.30	0.00	0.00	799925.92
9000.00	0.00	0.00	100.00	9000.00	-5547.30	0.00	0.00	799925.92
9100.00	0.00	0.00	100.00	9100.00	-5647.30	0.00	0.00	799925.92
9200.00	0.00	0.00	100.00	9200.00	-5747.30	0.00	0.00	799925.92
9300.00	0.00	0.00	100.00	9300.00	-5847.30	0.00	0.00	799925.92
9400.00	0.00	0.00	100.00	9400.00	-5947.30	0.00	0.00	799925.92
9500.00	0.00	0.00	100.00	9500.00	-6047.30	0.00	0.00	799925.92
9600.00	0.00	0.00	100.00	9600.00	-6147.30	0.00	0.00	799925.92
9700.00	0.00	0.00	100.00	9700.00	-6247.30	0.00	0.00	799925.92
9800.00	0.00	0.00	100.00	9800.00	-6347.30	0.00	0.00	799925.92
9835.54	0.00	0.00	35.54	9835.54	-6382.84	0.00	0.00	799925.92
9850.00	1.74	358.57	14.46	9850.00	-6397.30	0.22	-0.01	799925.91
9875.00	4.74	358.57	25.00	9874.96	-6422.26	1.63	-0.04	799925.88
9900.00	7.74	358.57	25.00	9899.80	-6447.10	4.34	-0.11	799925.81
9925.00	10.74	358.57	25.00	9924.48	-6471.78	8.35	-0.21	799925.71
9950.00	13.74	358.57	25.00	9948.91	-6496.21	13.65	-0.34	799925.58
9975.00	16.74	358.57	25.00	9973.03	-6520.33	20.22	-0.50	799925.42
10000.00	19.74	358.57	25.00	9996.77	-6544.07	28.04	-0.70	799925.22
10025.00	22.74	358.57	25.00	10020.07	-6567.37	37.09	-0.93	799924.99
10050.00	25.74	358.57	25.00	10042.86	-6590.16	47.35	-1.18	799924.74
10075.00	28.74	358.57	25.00	10065.09	-6612.39	58.78	-1.47	799924.45
10100.00	31.74	358.57	25.00	10086.68	-6633.98	71.37	-1.78	799924.14
10125.00	34.74	358.57	25.00	10107.59	-6654.89	85.06	-2.12	799923.80
10150.00	37.74	358.57	25.00	10127.75	-6675.05	99.83	-2.49	799923.43
10175.00	40.74	358.57	25.00	10147.12	-6694.42	115.64	-2.89	799923.03
10200.00	43.74	358.57	25.00	10165.62	-6712.92	132.44	-3.31	799922.61
10225.00	46.74	358.57	25.00	10183.23	-6730.53	150.18	-3.75	799922.17
10250.00	49.74	358.57	25.00	10199.88	-6747.18	168.82	-4.21	799921.71
10275.00	52.74	358.57	25.00	10215.53	-6762.83	188.30	-4.70	799921.22
10300.00	55.74	358.57	25.00	10230.14	-6777.44	208.58	-5.21	799920.71
10325.00	58.74	358.57	25.00	10243.66	-6790.96	229.59	-5.73	799920.19
10350.00	61.74	358.57	25.00	10256.07	-6803.37	251.29	-6.27	799919.65
10375.00	64.74	358.57	25.00	10267.33	-6814.63	273.60	-6.83	799919.09
10400.00	67.74	358.57	25.00	10277.40	-6824.70	296.47	-7.40	799918.52
10425.00	70.74	358.57	25.00	10286.27	-6833.57	319.84	-7.98	799917.94
10450.00	73.74	358.57	25.00	10293.89	-6841.19	343.63	-8.58	799917.34
10475.00	76.74	358.57	25.00	10300.26	-6847.56	367.80	-9.18	799916.74

10500.00	79.74	358.57	25.00	10305.36	-6852.66	392.26	-9.79	799916.13
10525.00	82.74	358.57	25.00	10309.17	-6856.47	416.96	-10.41	799915.51
10550.00	85.74	358.57	25.00	10311.68	-6858.98	441.82	-11.03	799914.89
10575.00	88.74	358.57	25.00	10312.89	-6860.19	466.78	-11.65	799914.27
10585.54	90.00	358.57	10.54	10313.00	-6860.30	477.32	-11.91	799914.01
10600.00	90.00	358.57	14.46	10313.00	-6860.30	491.78	-12.28	799913.64
10700.00	90.00	358.57	100.00	10313.00	-6860.30	591.74	-14.77	799911.15
10800.00	90.00	358.57	100.00	10313.00	-6860.30	691.71	-17.27	799908.65
10900.00	90.00	358.57	100.00	10313.00	-6860.30	791.68	-19.76	799906.16
11000.00	90.00	358.57	100.00	10313.00	-6860.30	891.65	-22.26	799903.66
11100.00	90.00	358.57	100.00	10313.00	-6860.30	991.62	-24.75	799901.17
11200.00	90.00	358.57	100.00	10313.00	-6860.30	1091.59	-27.25	799898.67
11300.00	90.00	358.57	100.00	10313.00	-6860.30	1191.56	-29.74	799896.18
11400.00	90.00	358.57	100.00	10313.00	-6860.30	1291.53	-32.24	799893.68
11500.00	90.00	358.57	100.00	10313.00	-6860.30	1391.49	-34.73	799891.19
11600.00	90.00	358.57	100.00	10313.00	-6860.30	1491.46	-37.23	799888.69
11700.00	90.00	358.57	100.00	10313.00	-6860.30	1591.43	-39.72	799886.20
11800.00	90.00	358.57	100.00	10313.00	-6860.30	1691.40	-42.22	799883.70
11900.00	90.00	358.57	100.00	10313.00	-6860.30	1791.37	-44.71	799881.21
12000.00	90.00	358.57	100.00	10313.00	-6860.30	1891.34	-47.21	799878.71
12100.00	90.00	358.57	100.00	10313.00	-6860.30	1991.31	-49.71	799876.21
12200.00	90.00	358.57	100.00	10313.00	-6860.30	2091.28	-52.20	799873.72
12300.00	90.00	358.57	100.00	10313.00	-6860.30	2191.25	-54.70	799871.22
12400.00	90.00	358.57	100.00	10313.00	-6860.30	2291.21	-57.19	799868.73
12500.00	90.00	358.57	100.00	10313.00	-6860.30	2391.18	-59.69	799866.23
12600.00	90.00	358.57	100.00	10313.00	-6860.30	2491.15	-62.18	799863.74
12700.00	90.00	358.57	100.00	10313.00	-6860.30	2591.12	-64.68	799861.24
12800.00	90.00	358.57	100.00	10313.00	-6860.30	2691.09	-67.17	799858.75
12900.00	90.00	358.57	100.00	10313.00	-6860.30	2791.06	-69.67	799856.25
13000.00	90.00	358.57	100.00	10313.00	-6860.30	2891.03	-72.16	799853.76
13100.00	90.00	358.57	100.00	10313.00	-6860.30	2991.00	-74.66	799851.26
13200.00	90.00	358.57	100.00	10313.00	-6860.30	3090.97	-77.15	799848.77
13300.00	90.00	358.57	100.00	10313.00	-6860.30	3190.93	-79.65	799846.27
13400.00	90.00	358.57	100.00	10313.00	-6860.30	3290.90	-82.14	799843.78
13500.00	90.00	358.57	100.00	10313.00	-6860.30	3390.87	-84.64	799841.28
13600.00	90.00	358.57	100.00	10313.00	-6860.30	3490.84	-87.14	799838.78
13700.00	90.00	358.57	100.00	10313.00	-6860.30	3590.81	-89.63	799836.29
13800.00	90.00	358.57	100.00	10313.00	-6860.30	3690.78	-92.13	799833.79
13900.00	90.00	358.57	100.00	10313.00	-6860.30	3790.75	-94.62	799831.30
14000.00	90.00	358.57	100.00	10313.00	-6860.30	3890.72	-97.12	799828.80
14100.00	90.00	358.57	100.00	10313.00	-6860.30	3990.69	-99.61	799826.31
14200.00	90.00	358.57	100.00	10313.00	-6860.30	4090.65	-102.11	799823.81
14300.00	90.00	358.57	100.00	10313.00	-6860.30	4190.62	-104.60	799821.32
14400.00	90.00	358.57	100.00	10313.00	-6860.30	4290.59	-107.10	799818.82
14500.00	90.00	358.57	100.00	10313.00	-6860.30	4390.56	-109.59	799816.33
14600.00	90.00	358.57	100.00	10313.00	-6860.30	4490.53	-112.09	799813.83
14700.00	90.00	358.57	100.00	10313.00	-6860.30	4590.50	-114.58	799811.34

14800.00	90.00	358.57	100.00	10313.00	-6860.30	4690.47	-117.08	799808.84
14900.00	90.00	358.57	100.00	10313.00	-6860.30	4790.44	-119.57	799806.35
15000.00	90.00	358.57	100.00	10313.00	-6860.30	4890.40	-122.07	799803.85
15100.00	90.00	358.57	100.00	10313.00	-6860.30	4990.37	-124.57	799801.35
15200.00	90.00	358.57	100.00	10313.00	-6860.30	5090.34	-127.06	799798.86
15300.00	90.00	358.57	100.00	10313.00	-6860.30	5190.31	-129.56	799796.36
15400.00	90.00	358.57	100.00	10313.00	-6860.30	5290.28	-132.05	799793.87
15500.00	90.00	358.57	100.00	10313.00	-6860.30	5390.25	-134.55	799791.37
15600.00	90.00	358.57	100.00	10313.00	-6860.30	5490.22	-137.04	799788.88
15700.00	90.00	358.57	100.00	10313.00	-6860.30	5590.19	-139.54	799786.38
15800.00	90.00	358.57	100.00	10313.00	-6860.30	5690.16	-142.03	799783.89
15900.00	90.00	358.57	100.00	10313.00	-6860.30	5790.12	-144.53	799781.39
16000.00	90.00	358.57	100.00	10313.00	-6860.30	5890.09	-147.02	799778.90
16100.00	90.00	358.57	100.00	10313.00	-6860.30	5990.06	-149.52	799776.40
16200.00	90.00	358.57	100.00	10313.00	-6860.30	6090.03	-152.01	799773.91
16300.00	90.00	358.57	100.00	10313.00	-6860.30	6190.00	-154.51	799771.41
16400.00	90.00	358.57	100.00	10313.00	-6860.30	6289.97	-157.00	799768.92
16500.00	90.00	358.57	100.00	10313.00	-6860.30	6389.94	-159.50	799766.42
16600.00	90.00	358.57	100.00	10313.00	-6860.30	6489.91	-162.00	799763.92
16700.00	90.00	358.57	100.00	10313.00	-6860.30	6589.88	-164.49	799761.43
16800.00	90.00	358.57	100.00	10313.00	-6860.30	6689.84	-166.99	799758.93
16900.00	90.00	358.57	100.00	10313.00	-6860.30	6789.81	-169.48	799756.44
17000.00	90.00	358.57	100.00	10313.00	-6860.30	6889.78	-171.98	799753.94
17100.00	90.00	358.57	100.00	10313.00	-6860.30	6989.75	-174.47	799751.45
17200.00	90.00	358.57	100.00	10313.00	-6860.30	7089.72	-176.97	799748.95
17300.00	90.00	358.57	100.00	10313.00	-6860.30	7189.69	-179.46	799746.46
17400.00	90.00	358.57	100.00	10313.00	-6860.30	7289.66	-181.96	799743.96
17499.86	90.00	358.57	99.86	10313.00	-6860.30	7389.49	-184.45	799741.47

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494245.12 32° 21' 21.4 103° 29' 45	0.00	0.00
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494245.12 32° 21' 21.4 103° 29' 45	0.00	0.00
494245.12 32° 21' 21.4 103° 29' 45	0.00	0.00
494245.12 32° 21' 21.4 103° 29' 45	0.00	0.00
494245.12 32° 21' 21.4 103° 29' 45	0.00	0.00
494245.34 32° 21' 21.4 103° 29' 45	12.00	0.22
494246.75 32° 21' 21.4 103° 29' 45	12.00	1.63
494249.46 32° 21' 21.4 103° 29' 45	12.00	4.35
494253.47 32° 21' 21.4 103° 29' 45	12.00	8.36
494258.77 32° 21' 21.4 103° 29' 45	12.00	13.65
494265.34 32° 21' 21.4 103° 29' 45	12.00	20.22
494273.16 32° 21' 21.4 103° 29' 45	12.00	28.05
494282.21 32° 21' 21.4 103° 29' 45	12.00	37.10
494292.47 32° 21' 21.4 103° 29' 45	12.00	47.36
494303.90 32° 21' 22.0 103° 29' 45	12.00	58.80
494316.49 32° 21' 22.0 103° 29' 45	12.00	71.39
494330.18 32° 21' 22.0 103° 29' 45	12.00	85.09
494344.95 32° 21' 22.0 103° 29' 45	12.00	99.86
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494377.56 32° 21' 22.0 103° 29' 45	12.00	132.48
494395.30 32° 21' 22.0 103° 29' 45	12.00	150.23
494413.94 32° 21' 23.0 103° 29' 45	12.00	168.87
494433.42 32° 21' 23.0 103° 29' 45	12.00	188.36
494453.70 32° 21' 23.0 103° 29' 45	12.00	208.65
494474.71 32° 21' 23.0 103° 29' 45	12.00	229.67
494496.41 32° 21' 23.0 103° 29' 45	12.00	251.37
494518.72 32° 21' 24.0 103° 29' 45	12.00	273.68
494541.59 32° 21' 24.0 103° 29' 45	12.00	296.56
494564.96 32° 21' 24.0 103° 29' 45	12.00	319.94
494588.75 32° 21' 24.0 103° 29' 45	12.00	343.74
494612.92 32° 21' 25.0 103° 29' 45	12.00	367.91

494637.38	32° 21' 25.1	103° 29' 45	12.00	392.38
494662.08	32° 21' 25.1	103° 29' 45	12.00	417.09
494686.94	32° 21' 25.1	103° 29' 45	12.00	441.96
494711.90	32° 21' 26.1	103° 29' 45	12.00	466.93
494722.44	32° 21' 26.1	103° 29' 45	12.00	477.46
494736.90	32° 21' 26.1	103° 29' 45	0.00	491.93
494836.86	32° 21' 27.1	103° 29' 45	0.00	591.93
494936.83	32° 21' 28.1	103° 29' 45	0.00	691.93
495036.80	32° 21' 29.1	103° 29' 45	0.00	791.93
495136.77	32° 21' 30.1	103° 29' 45	0.00	891.93
495236.74	32° 21' 31.1	103° 29' 45	0.00	991.93
495336.71	32° 21' 32.1	103° 29' 45	0.00	1091.93
495436.68	32° 21' 33.1	103° 29' 45	0.00	1191.93
495536.65	32° 21' 34.1	103° 29' 45	0.00	1291.93
495636.61	32° 21' 35.1	103° 29' 45	0.00	1391.93
495736.58	32° 21' 36.1	103° 29' 45	0.00	1491.93
495836.55	32° 21' 37.1	103° 29' 45	0.00	1591.93
495936.52	32° 21' 38.1	103° 29' 45	0.00	1691.93
496036.49	32° 21' 39.1	103° 29' 45	0.00	1791.93
496136.46	32° 21' 40.1	103° 29' 45	0.00	1891.93
496236.43	32° 21' 41.1	103° 29' 45	0.00	1991.93
496336.40	32° 21' 42.1	103° 29' 45	0.00	2091.93
496436.37	32° 21' 43.1	103° 29' 45	0.00	2191.93
496536.33	32° 21' 44.1	103° 29' 45	0.00	2291.93
496636.30	32° 21' 45.1	103° 29' 45	0.00	2391.93
496736.27	32° 21' 46.1	103° 29' 45	0.00	2491.93
496836.24	32° 21' 47.1	103° 29' 45	0.00	2591.93
496936.21	32° 21' 48.1	103° 29' 45	0.00	2691.93
497036.18	32° 21' 49.1	103° 29' 45	0.00	2791.93
497136.15	32° 21' 50.1	103° 29' 45	0.00	2891.93
497236.12	32° 21' 51.1	103° 29' 45	0.00	2991.93
497336.09	32° 21' 52.1	103° 29' 45	0.00	3091.93
497436.05	32° 21' 53.1	103° 29' 45	0.00	3191.93
497536.02	32° 21' 54.1	103° 29' 45	0.00	3291.93
497635.99	32° 21' 55.1	103° 29' 45	0.00	3391.93
497735.96	32° 21' 56.1	103° 29' 45	0.00	3491.93
497835.93	32° 21' 57.1	103° 29' 45	0.00	3591.93
497935.90	32° 21' 58.1	103° 29' 46	0.00	3691.93
498035.87	32° 21' 59.1	103° 29' 46	0.00	3791.93
498135.84	32° 21' 59.1	103° 29' 46	0.00	3891.93
498235.81	32° 22' 0.9	103° 29' 46	0.00	3991.93
498335.77	32° 22' 1.9	103° 29' 46	0.00	4091.93
498435.74	32° 22' 2.9	103° 29' 46	0.00	4191.93
498535.71	32° 22' 3.9	103° 29' 46	0.00	4291.93
498635.68	32° 22' 4.9	103° 29' 46	0.00	4391.93
498735.65	32° 22' 5.9	103° 29' 46	0.00	4491.93
498835.62	32° 22' 6.9	103° 29' 46	0.00	4591.93

498935.59 32° 22' 7.9" 103° 29' 46"	0.00	4691.93
499035.56 32° 22' 8.9" 103° 29' 46"	0.00	4791.93
499135.52 32° 22' 9.8" 103° 29' 46"	0.00	4891.93
499235.49 32° 22' 10.7" 103° 29' 46"	0.00	4991.93
499335.46 32° 22' 11.6" 103° 29' 46"	0.00	5091.93
499435.43 32° 22' 12.5" 103° 29' 46"	0.00	5191.93
499535.40 32° 22' 13.4" 103° 29' 46"	0.00	5291.93
499635.37 32° 22' 14.3" 103° 29' 46"	0.00	5391.93
499735.34 32° 22' 15.2" 103° 29' 46"	0.00	5491.93
499835.31 32° 22' 16.1" 103° 29' 46"	0.00	5591.93
499935.28 32° 22' 17.0" 103° 29' 46"	0.00	5691.93
500035.24 32° 22' 17.9" 103° 29' 46"	0.00	5791.93
500135.21 32° 22' 18.8" 103° 29' 46"	0.00	5891.93
500235.18 32° 22' 19.7" 103° 29' 46"	0.00	5991.93
500335.15 32° 22' 20.6" 103° 29' 46"	0.00	6091.93
500435.12 32° 22' 21.5" 103° 29' 46"	0.00	6191.93
500535.09 32° 22' 22.4" 103° 29' 46"	0.00	6291.93
500635.06 32° 22' 23.3" 103° 29' 46"	0.00	6391.93
500735.03 32° 22' 24.2" 103° 29' 46"	0.00	6491.93
500835.00 32° 22' 25.1" 103° 29' 46"	0.00	6591.93
500934.96 32° 22' 26.0" 103° 29' 46"	0.00	6691.93
501034.93 32° 22' 26.9" 103° 29' 46"	0.00	6791.93
501134.90 32° 22' 27.8" 103° 29' 46"	0.00	6891.93
501234.87 32° 22' 28.7" 103° 29' 46"	0.00	6991.93
501334.84 32° 22' 29.6" 103° 29' 46"	0.00	7091.93
501434.81 32° 22' 30.5" 103° 29' 46"	0.00	7191.93
501534.78 32° 22' 31.4" 103° 29' 46"	0.00	7291.93
501634.61 32° 22' 34.0" 103° 29' 46"	0.00	7391.79