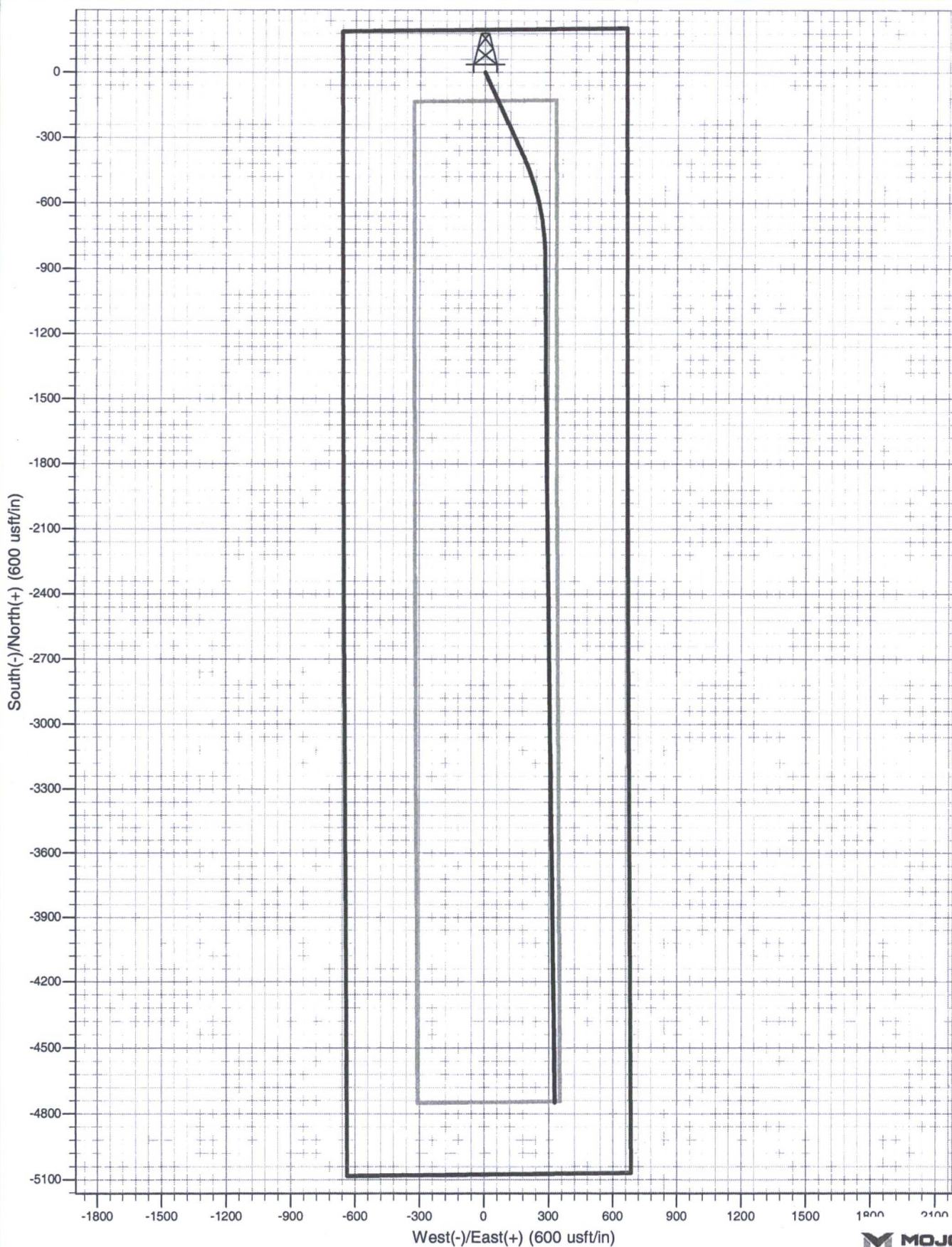


Project: North Lea Prospect T20S-R34E
 Site: Section 10
 Well: North Lea 10 Federal Com #4H
 Wellbore: North Lea 10 Federal Com #4H
 Design: North Lea 10 Fed Com 4H



Azimuths to Grid North
 True North: -0.42°
 Magnetic North: 6.99°
 Magnetic Field
 Strength: 48685.1 nT
 Dip Angle: 60.49°
 Date: 31/12/2012
 Model: IGRF2010

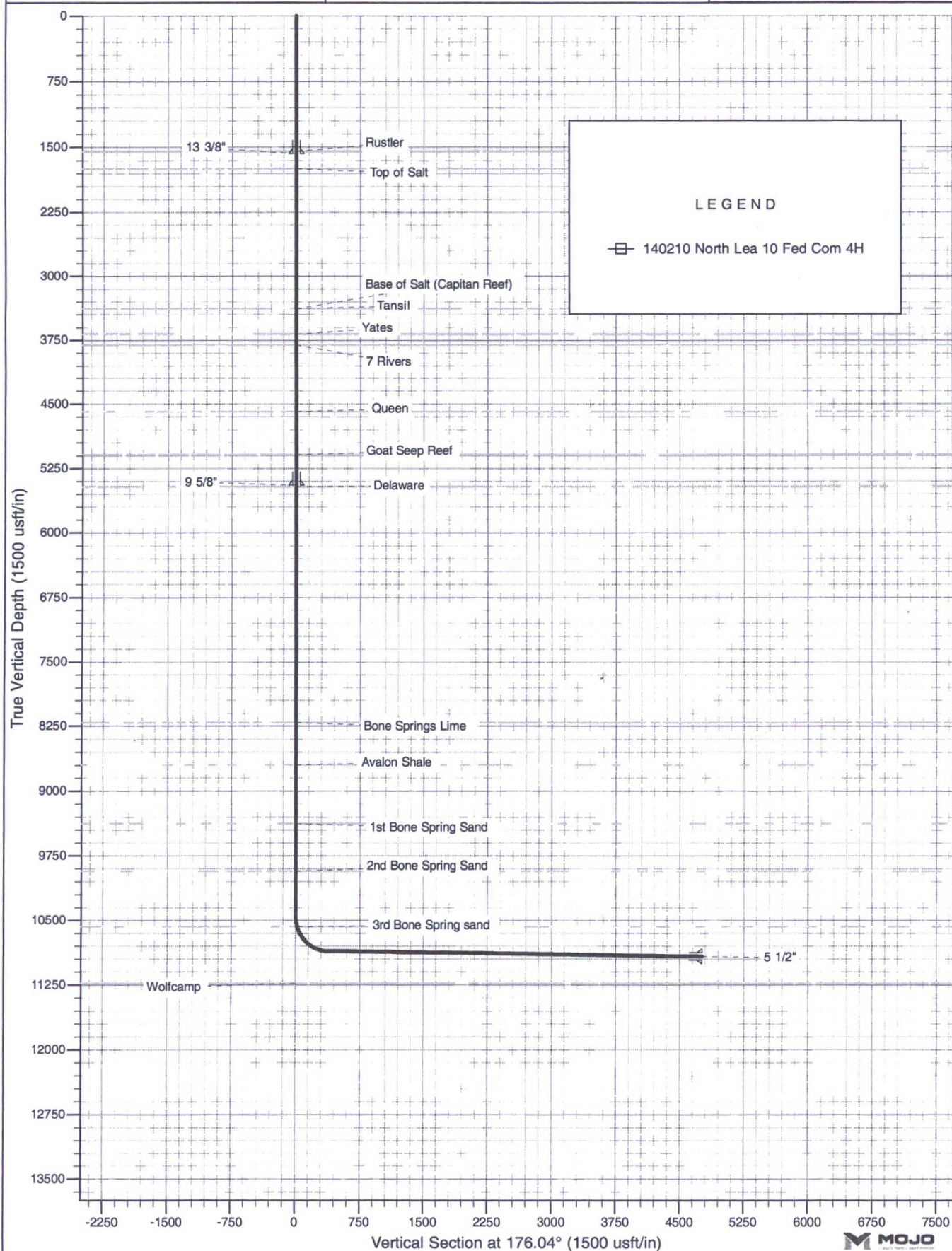


Project: North Lea Prospect T20S-R34E
 Site: Section 10
 Well: North Lea 10 Federal Com #4H
 Wellbore: North Lea 10 Federal Com #4H
 Design: North Lea 10 Fed Com 4H



Azimuths to Grid North
 True North: -0.42°
 Magnetic North: 6.99°

Magnetic Field
 Strength: 48685.1nT
 Dip Angle: 60.49°
 Date: 31/12/2012
 Model: IGRF2010





Read and Stevens Inc.

North Lea Prospect T20S-R34E

Section 10

North Lea 10 Federal Com #4H

Plan: 140210 North Lea 10 Fed Com 4H

MOJO Standard Plan

10 February, 2014

HOBBS OCD

DEC 22 2016

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MOJO

DIRECTIONAL CORPORATION



Company: Read and Stevens Inc.
Project: North Lea Prospect T20S-R34E
Site: Section 10
Well: North Lea 10 Federal Com #4H
Wellbore: North Lea 10 Federal Com #4H
Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well North Lea 10 Federal Com #4H
WELL @ 3655.2usft (Original Well Elev)
WELL @ 3655.2usft (Original Well Elev)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Project North Lea Prospect T20S-R34E

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level
Using geodetic scale factor

Site Section 10

Site Position:		Northing:	578,414.72 usft	Latitude:	32° 35' 15.581 N
From:	Lat/Long	Easting:	783,216.05 usft	Longitude:	103° 32' 52.836 W
Position Uncertainty:	1.0 usft	Slot Radius:	16 "	Grid Convergence:	0.42 °

Well North Lea 10 Federal Com #4H

Well Position	+N/-S	0.0 usft	Northing:	580,824.45 usft	Latitude:	32° 35' 39.570 N
	+E/-W	0.0 usft	Easting:	781,207.58 usft	Longitude:	103° 33' 16.104 W
Position Uncertainty		1.0 usft	Wellhead Elevation:	usft	Ground Level:	3,633.2 usft

Wellbore North Lea 10 Federal Com #4H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	31/12/2012	7.41	60.49	48,685

Design 140210 North Lea 10 Fed Com 4H

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	176.04

Survey Tool Program Date 10/02/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	15,486.3	140210 North Lea 10 Fed Com 4H (North)	MWD	MWD - Standard



Company: Read and Stevens Inc.
Project: North Lea Prospect T20S-R34E
Site: Section 10
Well: North Lea 10 Federal Com #4H
Wellbore: North Lea 10 Federal Com #4H
Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well North Lea 10 Federal Com #4H
WELL @ 3655.2usft (Original Well Elev)
WELL @ 3655.2usft (Original Well Elev)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,655.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
100.0	0.00	0.00	100.0	-3,555.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
200.0	0.00	0.00	200.0	-3,455.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
300.0	0.00	0.00	300.0	-3,355.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
400.0	0.00	0.00	400.0	-3,255.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
500.0	0.00	0.00	500.0	-3,155.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
600.0	0.00	0.00	600.0	-3,055.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
700.0	0.00	0.00	700.0	-2,955.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
800.0	0.00	0.00	800.0	-2,855.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
900.0	0.00	0.00	900.0	-2,755.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,000.0	0.00	0.00	1,000.0	-2,655.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,100.0	0.00	0.00	1,100.0	-2,555.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,200.0	0.00	0.00	1,200.0	-2,455.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,300.0	0.00	0.00	1,300.0	-2,355.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,400.0	0.00	0.00	1,400.0	-2,255.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,500.0	0.00	0.00	1,500.0	-2,155.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,548.2	0.00	0.00	1,548.2	-2,107.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Rustler										
1,573.2	0.00	0.00	1,573.2	-2,082.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
13 3/8"										
1,600.0	0.00	0.00	1,600.0	-2,055.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,700.0	0.00	0.00	1,700.0	-1,955.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,744.2	0.00	0.00	1,744.2	-1,911.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Top of Salt										
1,800.0	0.00	0.00	1,800.0	-1,855.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1,900.0	0.00	0.00	1,900.0	-1,755.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,000.0	0.00	0.00	2,000.0	-1,655.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,100.0	0.00	0.00	2,100.0	-1,555.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58



Company: Read and Stevens Inc.
 Project: North Lea Prospect T20S-R34E
 Site: Section 10
 Well: North Lea 10 Federal Com #4H
 Wellbore: North Lea 10 Federal Com #4H
 Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference: Well North Lea 10 Federal Com #4H
 TVD Reference: WELL @ 3655.2usft (Original Well Elev)
 MD Reference: WELL @ 3655.2usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,200.0	0.00	0.00	2,200.0	-1,455.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,300.0	0.00	0.00	2,300.0	-1,355.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,400.0	0.00	0.00	2,400.0	-1,255.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,500.0	0.00	0.00	2,500.0	-1,155.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,600.0	0.00	0.00	2,600.0	-1,055.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,700.0	0.00	0.00	2,700.0	-955.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,800.0	0.00	0.00	2,800.0	-855.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2,900.0	0.00	0.00	2,900.0	-755.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,000.0	0.00	0.00	3,000.0	-655.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,100.0	0.00	0.00	3,100.0	-555.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,200.0	0.00	0.00	3,200.0	-455.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,300.0	0.00	0.00	3,300.0	-355.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,378.2	0.00	0.00	3,378.2	-277.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Base of Salt (Capitan Reef) - Tansil										
3,400.0	0.00	0.00	3,400.0	-255.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,500.0	0.00	0.00	3,500.0	-155.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,600.0	0.00	0.00	3,600.0	-55.2	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,681.2	0.00	0.00	3,681.2	26.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Yates										
3,700.0	0.00	0.00	3,700.0	44.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,800.0	0.00	0.00	3,800.0	144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
3,803.2	0.00	0.00	3,803.2	148.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
7 Rivers										
3,900.0	0.00	0.00	3,900.0	244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,000.0	0.00	0.00	4,000.0	344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,100.0	0.00	0.00	4,100.0	444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,200.0	0.00	0.00	4,200.0	544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,300.0	0.00	0.00	4,300.0	644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58



Company: Read and Stevens Inc.
 Project: North Lea Prospect T20S-R34E
 Site: Section 10
 Well: North Lea 10 Federal Com #4H
 Wellbore: North Lea 10 Federal Com #4H
 Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well North Lea 10 Federal Com #4H
 WELL @ 3655.2usft (Original Well Elev)
 WELL @ 3655.2usft (Original Well Elev)
 Grid
 Minimum Curvature
 EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
4,400.0	0.00	0.00	4,400.0	744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,500.0	0.00	0.00	4,500.0	844.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,587.2	0.00	0.00	4,587.2	932.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Queen										
4,600.0	0.00	0.00	4,600.0	944.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,700.0	0.00	0.00	4,700.0	1,044.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,800.0	0.00	0.00	4,800.0	1,144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
4,900.0	0.00	0.00	4,900.0	1,244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,000.0	0.00	0.00	5,000.0	1,344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,088.2	0.00	0.00	5,088.2	1,433.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Goat Seep Reef										
5,100.0	0.00	0.00	5,100.0	1,444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,200.0	0.00	0.00	5,200.0	1,544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,300.0	0.00	0.00	5,300.0	1,644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,400.0	0.00	0.00	5,400.0	1,744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,443.2	0.00	0.00	5,443.2	1,788.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9 5/8"										
5,463.2	0.00	0.00	5,463.2	1,808.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
Delaware										
5,500.0	0.00	0.00	5,500.0	1,844.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,600.0	0.00	0.00	5,600.0	1,944.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,700.0	0.00	0.00	5,700.0	2,044.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,800.0	0.00	0.00	5,800.0	2,144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
5,900.0	0.00	0.00	5,900.0	2,244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
6,000.0	0.00	0.00	6,000.0	2,344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
6,100.0	0.00	0.00	6,100.0	2,444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
6,200.0	0.00	0.00	6,200.0	2,544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
6,300.0	0.00	0.00	6,300.0	2,644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58



Company:	Read and Stevens Inc.	Local Co-ordinate Reference:	Well North Lea 10 Federal Com #4H
Project:	North Lea Prospect T20S-R34E	TVD Reference:	WELL @ 3655.2usft (Original Well Elev)
Site:	Section 10	MD Reference:	WELL @ 3655.2usft (Original Well Elev)
Well:	North Lea 10 Federal Com #4H	North Reference:	Grid
Wellbore:	North Lea 10 Federal Com #4H	Survey Calculation Method:	Minimum Curvature
Design:	140210 North Lea 10 Fed Com 4H	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
6,400.0	0.00	0.00	6,400.0	2,744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
6,500.0	0.00	0.00	6,500.0	2,844.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
6,600.0	0.00	0.00	6,600.0	2,944.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
6,700.0	0.00	0.00	6,700.0	3,044.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
6,800.0	0.00	0.00	6,800.0	3,144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
6,900.0	0.00	0.00	6,900.0	3,244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,000.0	0.00	0.00	7,000.0	3,344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,100.0	0.00	0.00	7,100.0	3,444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,200.0	0.00	0.00	7,200.0	3,544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,300.0	0.00	0.00	7,300.0	3,644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,400.0	0.00	0.00	7,400.0	3,744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,500.0	0.00	0.00	7,500.0	3,844.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,600.0	0.00	0.00	7,600.0	3,944.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,700.0	0.00	0.00	7,700.0	4,044.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,800.0	0.00	0.00	7,800.0	4,144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
7,900.0	0.00	0.00	7,900.0	4,244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,000.0	0.00	0.00	8,000.0	4,344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,100.0	0.00	0.00	8,100.0	4,444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,200.0	0.00	0.00	8,200.0	4,544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,208.2	0.00	0.00	8,208.2	4,553.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
Bone Springs Lime											
8,300.0	0.00	0.00	8,300.0	4,644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,400.0	0.00	0.00	8,400.0	4,744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,500.0	0.00	0.00	8,500.0	4,844.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,600.0	0.00	0.00	8,600.0	4,944.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
8,698.2	0.00	0.00	8,698.2	5,043.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58	
Avalon Shale											



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 Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference: Well North Lea 10 Federal Com #4H
 TVD Reference: WELL @ 3655.2usft (Original Well Elev)
 MD Reference: WELL @ 3655.2usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,700.0	0.00	0.00	8,700.0	5,044.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
8,800.0	0.00	0.00	8,800.0	5,144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
8,900.0	0.00	0.00	8,900.0	5,244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,000.0	0.00	0.00	9,000.0	5,344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,100.0	0.00	0.00	9,100.0	5,444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,200.0	0.00	0.00	9,200.0	5,544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,300.0	0.00	0.00	9,300.0	5,644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,378.2	0.00	0.00	9,378.2	5,723.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
1st Bone Spring Sand										
9,400.0	0.00	0.00	9,400.0	5,744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,500.0	0.00	0.00	9,500.0	5,844.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,600.0	0.00	0.00	9,600.0	5,944.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,700.0	0.00	0.00	9,700.0	6,044.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,800.0	0.00	0.00	9,800.0	6,144.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,900.0	0.00	0.00	9,900.0	6,244.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
9,928.2	0.00	0.00	9,928.2	6,273.0	0.0	0.0	0.0	0.00	580,824.45	781,207.58
2nd Bone Spring Sand										
10,000.0	0.00	0.00	10,000.0	6,344.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
10,100.0	0.00	0.00	10,100.0	6,444.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
10,200.0	0.00	0.00	10,200.0	6,544.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
10,300.0	0.00	0.00	10,300.0	6,644.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
10,400.0	0.00	0.00	10,400.0	6,744.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
10,450.0	0.00	0.00	10,450.0	6,794.8	0.0	0.0	0.0	0.00	580,824.45	781,207.58
10,475.0	3.50	155.00	10,475.0	6,819.8	-0.7	0.3	0.7	14.00	580,823.76	781,207.90
10,500.0	7.00	155.00	10,499.9	6,844.7	-2.8	1.3	2.8	14.00	580,821.68	781,208.87
10,525.0	10.50	155.00	10,524.6	6,869.4	-6.2	2.9	6.4	14.00	580,818.24	781,210.47
10,550.0	14.00	155.00	10,549.0	6,893.8	-11.0	5.1	11.3	14.00	580,813.43	781,212.71



Company: Read and Stevens Inc.
 Project: North Lea Prospect T20S-R34E
 Site: Section 10
 Well: North Lea 10 Federal Com #4H
 Wellbore: North Lea 10 Federal Com #4H
 Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well North Lea 10 Federal Com #4H
 WELL @ 3655.2usft (Original Well Elev)
 WELL @ 3655.2usft (Original Well Elev)
 Grid
 Minimum Curvature
 EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
10,573.0	17.23	155.00	10,571.2	6,916.0	-16.6	7.8	17.1	14.00	580,807.81	781,215.33
3rd Bone Spring sand										
10,575.0	17.50	155.00	10,573.1	6,917.9	-17.2	8.0	17.7	14.00	580,807.28	781,215.58
10,600.0	21.00	155.00	10,596.7	6,941.5	-24.6	11.5	25.4	14.00	580,799.81	781,219.06
10,625.0	24.50	155.00	10,619.7	6,964.5	-33.4	15.6	34.4	14.00	580,791.05	781,223.15
10,650.0	28.00	155.00	10,642.1	6,986.9	-43.4	20.2	44.7	14.00	580,781.03	781,227.82
10,675.0	31.50	155.00	10,663.8	7,008.6	-54.7	25.5	56.3	14.00	580,769.79	781,233.06
10,700.0	35.00	155.00	10,684.7	7,029.5	-67.1	31.3	69.1	14.00	580,757.37	781,238.85
10,725.0	38.50	155.00	10,704.8	7,049.6	-80.6	37.6	83.0	14.00	580,743.82	781,245.18
10,750.0	42.00	155.00	10,723.8	7,068.6	-95.3	44.4	98.1	14.00	580,729.18	781,252.00
10,775.0	45.50	155.00	10,741.9	7,086.7	-110.9	51.7	114.2	14.00	580,713.51	781,259.31
10,800.0	49.00	155.00	10,758.9	7,103.7	-127.6	59.5	131.4	14.00	580,696.88	781,267.06
10,825.0	52.50	155.00	10,774.7	7,119.5	-145.1	67.7	149.4	14.00	580,679.34	781,275.24
10,850.0	56.00	155.00	10,789.3	7,134.1	-163.5	76.2	168.4	14.00	580,660.95	781,283.82
10,875.0	59.50	155.00	10,802.6	7,147.4	-182.7	85.2	188.1	14.00	580,641.79	781,292.75
10,900.0	63.00	155.00	10,814.6	7,159.4	-202.5	94.4	208.6	14.00	580,621.93	781,302.01
10,925.0	66.50	155.00	10,825.3	7,170.1	-223.0	104.0	229.7	14.00	580,601.44	781,311.57
10,950.0	70.00	155.00	10,834.6	7,179.4	-244.1	113.8	251.3	14.00	580,580.40	781,321.38
10,975.0	73.50	155.00	10,842.4	7,187.2	-265.6	123.8	273.5	14.00	580,558.89	781,331.41
11,000.0	77.00	155.00	10,848.8	7,193.6	-287.5	134.1	296.0	14.00	580,536.98	781,341.62
11,025.0	80.50	155.00	10,853.6	7,198.4	-309.7	144.4	318.9	14.00	580,514.76	781,351.98
11,050.0	84.00	155.00	10,857.0	7,201.8	-332.1	154.9	342.0	14.00	580,492.32	781,362.45
11,075.0	87.50	155.00	10,858.9	7,203.7	-354.7	165.4	365.3	14.00	580,469.72	781,372.99
11,092.9	90.00	155.00	10,859.3	7,204.1	-370.9	173.0	382.0	14.00	580,453.55	781,380.53
11,100.0	89.99	155.36	10,859.3	7,204.1	-377.4	176.0	388.6	5.00	580,447.06	781,383.53
11,200.0	89.81	160.35	10,859.4	7,204.2	-470.0	213.6	483.6	5.00	580,354.47	781,421.21
11,300.0	89.63	165.35	10,859.9	7,204.7	-565.5	243.1	580.9	5.00	580,258.95	781,450.68



Company: Read and Stevens Inc.
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Well North Lea 10 Federal Com #4H
 WELL @ 3655.2usft (Original Well Elev)
 WELL @ 3655.2usft (Original Well Elev)
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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
11,400.0	89.46	170.35	10,860.7	7,205.5	-663.2	264.2	679.9	5.00	580,161.23	781,471.72
11,500.0	89.29	175.35	10,861.8	7,206.6	-762.4	276.6	779.7	5.00	580,062.05	781,484.17
11,579.0	89.16	179.30	10,862.9	7,207.7	-841.3	280.3	858.7	5.00	579,983.12	781,487.87
11,600.0	89.16	179.30	10,863.2	7,208.0	-862.3	280.6	879.6	0.00	579,962.16	781,488.12
11,700.0	89.16	179.30	10,864.7	7,209.5	-962.3	281.8	979.4	0.00	579,862.18	781,489.35
11,800.0	89.16	179.30	10,866.1	7,210.9	-1,062.3	283.0	1,079.3	0.00	579,762.20	781,490.58
11,900.0	89.16	179.30	10,867.6	7,212.4	-1,162.3	284.2	1,179.1	0.00	579,662.22	781,491.81
12,000.0	89.16	179.30	10,869.1	7,213.9	-1,262.2	285.5	1,278.9	0.00	579,562.24	781,493.04
12,100.0	89.16	179.30	10,870.5	7,215.3	-1,362.2	286.7	1,378.8	0.00	579,462.27	781,494.27
12,200.0	89.16	179.30	10,872.0	7,216.8	-1,462.2	287.9	1,478.6	0.00	579,362.29	781,495.50
12,300.0	89.16	179.30	10,873.5	7,218.3	-1,562.2	289.2	1,578.4	0.00	579,262.31	781,496.73
12,400.0	89.16	179.30	10,874.9	7,219.7	-1,662.2	290.4	1,678.2	0.00	579,162.33	781,497.96
12,500.0	89.16	179.30	10,876.4	7,221.2	-1,762.1	291.6	1,778.1	0.00	579,062.35	781,499.19
12,600.0	89.16	179.30	10,877.9	7,222.7	-1,862.1	292.9	1,877.9	0.00	578,962.37	781,500.42
12,700.0	89.16	179.30	10,879.3	7,224.1	-1,962.1	294.1	1,977.7	0.00	578,862.39	781,501.65
12,800.0	89.16	179.30	10,880.8	7,225.6	-2,062.1	295.3	2,077.5	0.00	578,762.41	781,502.88
12,900.0	89.16	179.30	10,882.3	7,227.1	-2,162.1	296.5	2,177.4	0.00	578,662.43	781,504.11
13,000.0	89.16	179.30	10,883.7	7,228.5	-2,262.1	297.8	2,277.2	0.00	578,562.45	781,505.34
13,100.0	89.16	179.30	10,885.2	7,230.0	-2,362.0	299.0	2,377.0	0.00	578,462.47	781,506.57
13,200.0	89.16	179.30	10,886.7	7,231.5	-2,462.0	300.2	2,476.9	0.00	578,362.49	781,507.80
13,300.0	89.16	179.30	10,888.1	7,232.9	-2,562.0	301.5	2,576.7	0.00	578,262.51	781,509.03
13,400.0	89.16	179.30	10,889.6	7,234.4	-2,662.0	302.7	2,676.5	0.00	578,162.54	781,510.26
13,500.0	89.16	179.30	10,891.1	7,235.9	-2,762.0	303.9	2,776.3	0.00	578,062.56	781,511.49
13,600.0	89.16	179.30	10,892.5	7,237.3	-2,861.9	305.2	2,876.2	0.00	577,962.58	781,512.72
13,700.0	89.16	179.30	10,894.0	7,238.8	-2,961.9	306.4	2,976.0	0.00	577,862.60	781,513.95
13,800.0	89.16	179.30	10,895.5	7,240.3	-3,061.9	307.6	3,075.8	0.00	577,762.62	781,515.18
13,900.0	89.16	179.30	10,896.9	7,241.7	-3,161.9	308.8	3,175.7	0.00	577,662.64	781,516.41



Company: Read and Stevens Inc.
 Project: North Lea Prospect T20S-R34E
 Site: Section 10
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 Wellbore: North Lea 10 Federal Com #4H
 Design: 140210 North Lea 10 Fed Com 4H

Local Co-ordinate Reference:
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Well North Lea 10 Federal Com #4H
 WELL @ 3655.2usft (Original Well Elev)
 WELL @ 3655.2usft (Original Well Elev)
 Grid
 Minimum Curvature
 EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
14,000.0	89.16	179.30	10,898.4	7,243.2	-3,261.9	310.1	3,275.5	0.00	577,562.66	781,517.64
14,100.0	89.16	179.30	10,899.9	7,244.7	-3,361.9	311.3	3,375.3	0.00	577,462.68	781,518.87
14,200.0	89.16	179.30	10,901.3	7,246.1	-3,461.8	312.5	3,475.1	0.00	577,362.70	781,520.10
14,300.0	89.16	179.30	10,902.8	7,247.6	-3,561.8	313.8	3,575.0	0.00	577,262.72	781,521.33
14,400.0	89.16	179.30	10,904.3	7,249.1	-3,661.8	315.0	3,674.8	0.00	577,162.74	781,522.56
14,500.0	89.16	179.30	10,905.7	7,250.5	-3,761.8	316.2	3,774.6	0.00	577,062.76	781,523.79
14,600.0	89.16	179.30	10,907.2	7,252.0	-3,861.8	317.5	3,874.5	0.00	576,962.79	781,525.02
14,700.0	89.16	179.30	10,908.7	7,253.5	-3,961.7	318.7	3,974.3	0.00	576,862.81	781,526.25
14,800.0	89.16	179.30	10,910.1	7,254.9	-4,061.7	319.9	4,074.1	0.00	576,762.83	781,527.48
14,900.0	89.16	179.30	10,911.6	7,256.4	-4,161.7	321.1	4,173.9	0.00	576,662.85	781,528.71
15,000.0	89.16	179.30	10,913.1	7,257.9	-4,261.7	322.4	4,273.8	0.00	576,562.87	781,529.94
15,100.0	89.16	179.30	10,914.5	7,259.3	-4,361.7	323.6	4,373.6	0.00	576,462.89	781,531.17
15,200.0	89.16	179.30	10,916.0	7,260.8	-4,461.6	324.8	4,473.4	0.00	576,362.91	781,532.40
15,300.0	89.16	179.30	10,917.5	7,262.3	-4,561.6	326.1	4,573.3	0.00	576,262.93	781,533.63
15,400.0	89.16	179.30	10,918.9	7,263.7	-4,661.6	327.3	4,673.1	0.00	576,162.95	781,534.86
15,482.1	89.16	179.30	10,920.1	7,264.9	-4,743.7	328.3	4,755.0	0.00	576,080.87	781,535.87
15,486.3	89.16	179.30	10,920.2	7,265.0	-4,747.9	328.4	4,759.2	0.12	576,076.67	781,535.92

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,573.2	1,573.2	13 3/8"	13-3/8	16
15,486.3	10,920.2	5 1/2"	5-1/2	8-1/2
5,443.2	5,443.2	9 5/8"	9-5/8	12-1/4



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Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

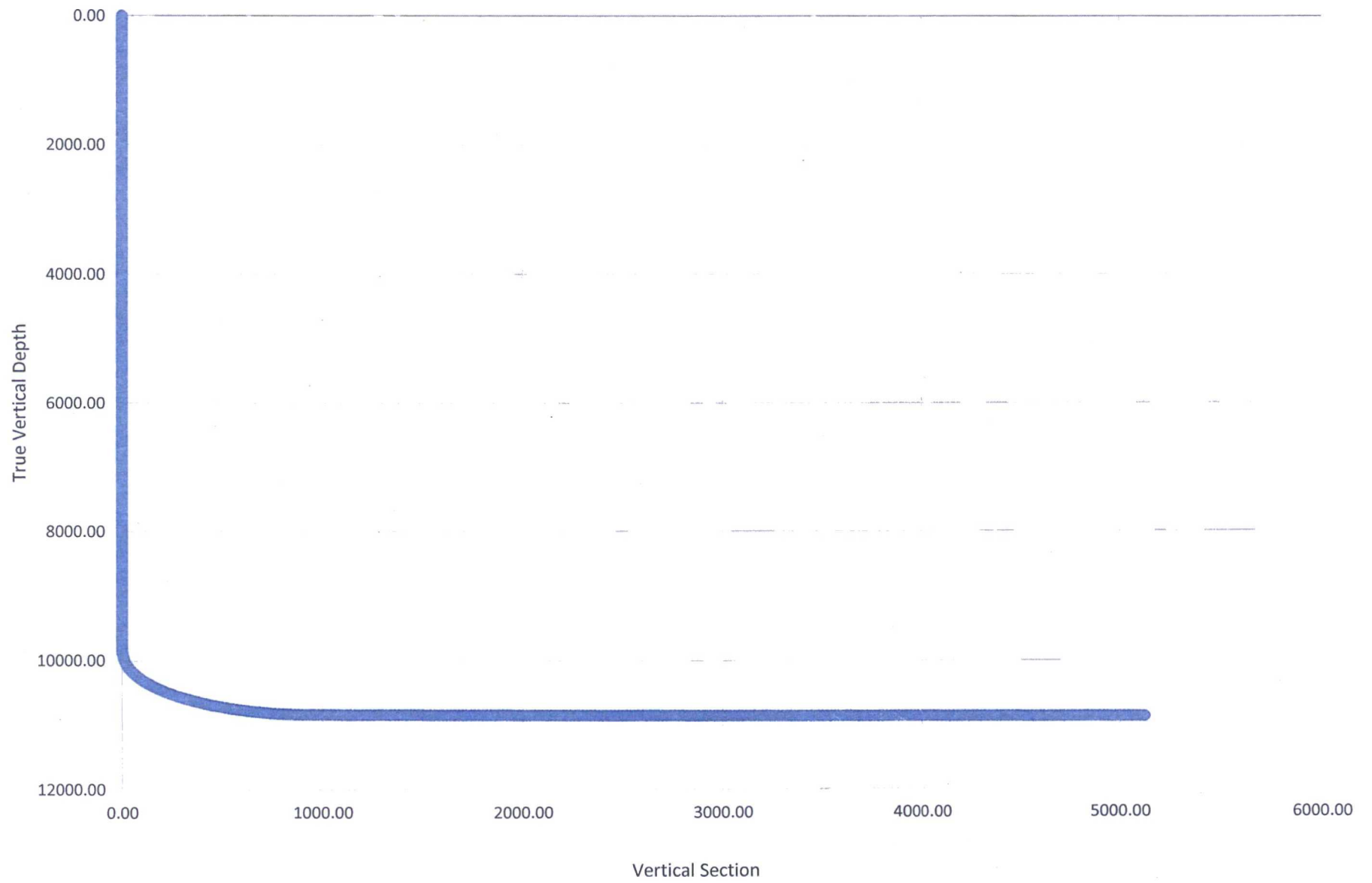
Well North Lea 10 Federal Com #4H
WELL @ 3655.2usft (Original Well Elev)
WELL @ 3655.2usft (Original Well Elev)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Formations

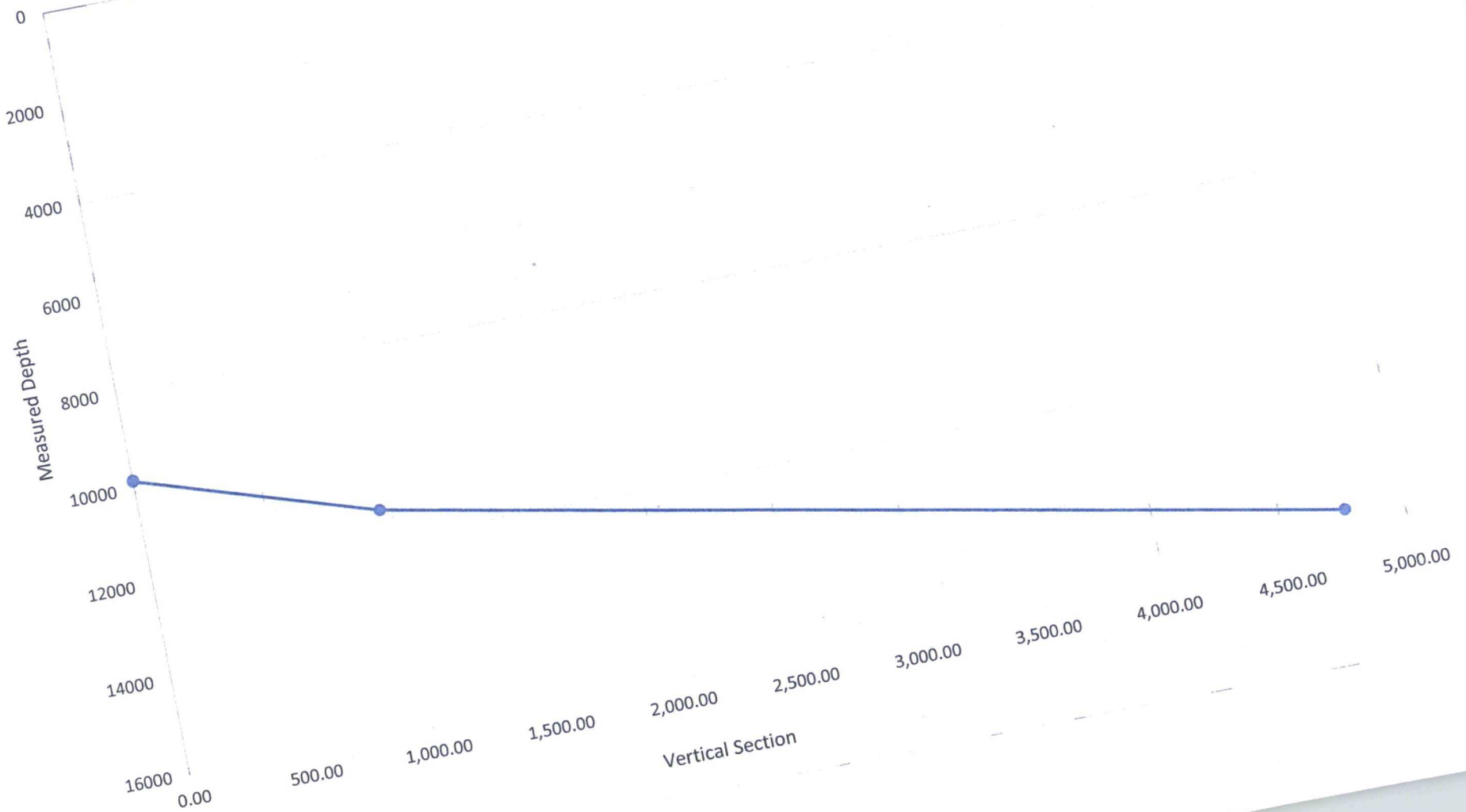
Measured Depth (usft)	Vertical Depth (usft)	Name	Dip (°)
9,378.2	9,378.2	1st Bone Spring Sand	0.00
5,463.2	5,463.2	Delaware	0.00
3,681.2	3,681.2	Yates	0.00
1,548.2	1,548.2	Rustler	0.00
8,208.2	8,208.2	Bone Springs Lime	0.00
3,378.2	3,378.2	Tansil	0.00
3,803.2	3,803.2	7 Rivers	0.00
1,744.2	1,744.2	Top of Salt	0.00
8,698.2	8,698.2	Avalon Shale	0.00
3,378.2	3,378.2	Base of Salt (Capitan Reef)	0.00
4,587.2	4,587.2	Queen	0.00
10,573.0	10,571.2	3rd Bone Spring sand	0.00
9,928.2	9,928.2	2nd Bone Spring Sand	0.00
5,088.2	5,088.2	Goat Seep Reef	0.00

Checked By: _____ Approved By: _____ Date: _____

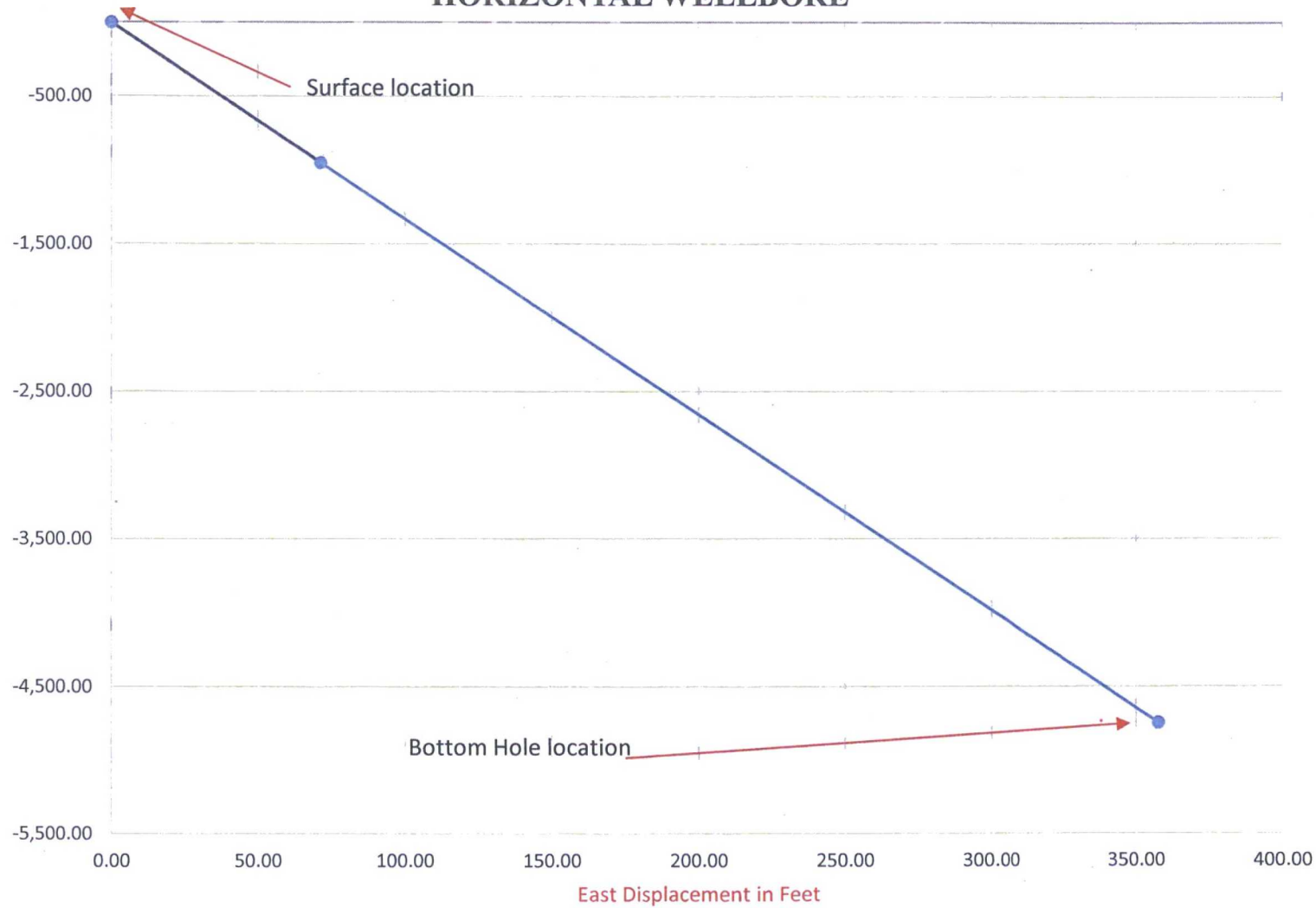
Lea 10 Fed 4H - Horizontal Well



Lea Fed 4H
Vertical Section against Measured Depth
HORIZONTAL WELLBORE EXAMPLE



Lea 10 Fed 4H
Plan View
HORIZONTAL WELLBORE



x (East)	y (North)	x (East)	y (North)
Meters	Meters	Feet	Feet
635655.7	3607237	2084950.8	11831738.0
635764.9	3605791	2085308.8	11826994.2

Bottom Hole

TVD and Vertical Section		
$s = o/h$		
Sine	o	a

2.666667

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

10899.00	61.20	175.70	10715.61	499.92	-498.51	37.48			2084988.3	11831239.4	1.20	1.80	-0.075	-1.306	17.375	17.424	60.6	20.000	20.000	61.200	17.424	9.818	17.424	0.105	100.000	954.930	477.4
10919.00	62.40	175.70	10725.06	517.54	-516.09	38.80			2084989.6	11831221.9	1.20	1.80	-0.075	-1.322	17.576	17.626	61.8	20.000	20.000	62.400	17.626	9.451	17.626	0.105	100.000	954.930	477.4
10939.00	63.60	175.70	10734.14	535.36	-533.86	40.14			2084991.0	11831204.1	1.20	1.80	-0.075	-1.336	17.770	17.820	63	20.000	20.000	63.600	17.820	9.080	17.820	0.105	100.000	954.930	477.4
10959.00	64.80	175.70	10742.85	553.37	-551.81	41.49			2084992.3	11831186.1	1.20	1.80	-0.075	-1.350	17.956	18.006	64.2	20.000	20.000	64.800	18.006	8.705	18.006	0.105	100.000	954.930	477.4
10979.00	66.00	175.70	10751.17	571.56	-569.95	42.85			2084993.7	11831168.0	1.20	1.80	-0.075	-1.363	18.134	18.185	65.4	20.000	20.000	66.000	18.185	8.326	18.185	0.105	100.000	954.930	477.4
10999.00	67.20	175.70	10759.12	589.91	-588.25	44.23			2084995.1	11831149.7	1.20	1.80	-0.075	-1.376	18.303	18.355	66.6	20.000	20.000	67.200	18.355	7.943	18.355	0.105	100.000	954.930	477.4
11019.00	68.40	175.70	10766.67	608.43	-606.72	45.62			2084996.4	11831131.2	1.20	1.80	-0.075	-1.388	18.465	18.517	67.8	20.000	20.000	68.400	18.517	7.557	18.517	0.105	100.000	954.930	477.4
11039.00	69.60	175.70	10773.84	627.10	-625.33	47.02			2084997.8	11831112.6	1.20	1.80	-0.075	-1.400	18.619	18.672	69	20.000	20.000	69.600	18.672	7.167	18.672	0.105	100.000	954.930	477.4
11059.00	70.80	175.70	10780.62	645.92	-644.10	48.43			2084999.3	11831093.9	1.20	1.80	-0.075	-1.411	18.765	18.818	70.2	20.000	20.000	70.800	18.818	6.775	18.818	0.105	100.000	954.930	477.4
11079.00	72.00	175.70	10787.00	664.87	-663.00	49.85			2085000.7	11831074.9	1.20	1.80	-0.075	-1.421	18.902	18.955	71.4	20.000	20.000	72.000	18.955	6.379	18.955	0.105	100.000	954.930	477.4
11099.00	73.20	175.70	10792.98	683.96	-682.03	51.28			2085002.1	11831055.9	1.20	1.80	-0.075	-1.431	19.031	19.085	72.6	20.000	20.000	73.200	19.085	5.981	19.085	0.105	100.000	954.930	477.4
11119.00	74.40	175.70	10798.56	703.16	-701.18	52.72			2085003.5	11831036.8	1.20	1.80	-0.075	-1.440	19.152	19.206	73.8	20.000	20.000	74.400	19.206	5.580	19.206	0.105	100.000	954.930	477.4
11139.00	75.60	175.70	10803.73	722.48	-720.45	54.17			2085005.0	11831017.5	1.20	1.80	-0.075	-1.448	19.264	19.319	75	20.000	20.000	75.600	19.319	5.176	19.319	0.105	100.000	954.930	477.4
11159.00	76.80	175.70	10808.50	741.90	-739.82	55.63			2085006.5	11830998.1	1.20	1.80	-0.075	-1.456	19.368	19.423	76.2	20.000	20.000	76.800	19.423	4.771	19.423	0.105	100.000	954.930	477.4
11179.00	78.00	175.70	10812.87	761.42	-759.28	57.09			2085007.9	11830978.7	1.20	1.80	-0.075	-1.463	19.463	19.518	77.4	20.000	20.000	78.000	19.518	4.363	19.518	0.105	100.000	954.930	477.4
11199.00	79.20	175.70	10816.82	781.03	-778.83	58.56			2085009.4	11830959.1	1.20	1.80	-0.075	-1.470	19.550	19.605	78.6	20.000	20.000	79.200	19.605	3.953	19.605	0.105	100.000	954.930	477.4
11219.00	80.40	175.70	10820.36	800.71	-798.46	60.04			2085010.9	11830939.5	1.20	1.80	-0.075	-1.476	19.629	19.684	79.8	20.000	20.000	80.400	19.684	3.542	19.684	0.105	100.000	954.930	477.4
11239.00	81.60	175.70	10823.49	820.47	-818.16	61.52			2085012.3	11830919.8	1.20	1.80	-0.075	-1.481	19.698	19.754	81	20.000	20.000	81.600	19.754	3.129	19.754	0.105	100.000	954.930	477.4
11259.00	82.80	175.70	10826.20	840.28	-837.92	63.00			2085013.8	11830900.0	1.20	1.80	-0.075	-1.486	19.759	19.815	82.2	20.000	20.000	82.800	19.815	2.714	19.815	0.105	100.000	954.930	477.4
11279.00	84.00	175.70	10828.50	860.15	-857.73	64.49			2085015.3	11830880.2	1.20	1.80	-0.075	-1.490	19.812	19.867	83.4	20.000	20.000	84.000	19.867	2.299	19.867	0.105	100.000	954.930	477.4
11299.00	85.20	175.70	10830.39	880.06	-877.58	65.99			2085016.8	11830860.4	1.20	1.80	-0.075	-1.493	19.855	19.911	84.6	20.000	20.000	85.200	19.911	1.882	19.911	0.105	100.000	954.930	477.4
11319.00	86.40	175.70	10831.85	900.01	-897.47	67.48			2085018.3	11830840.5	1.20	1.80	-0.075	-1.496	19.890	19.946	85.8	20.000	20.000	86.400	19.946	1.465	19.946	0.105	100.000	954.930	477.4
11339.00	87.60	175.70	10832.90	919.98	-917.39	68.98			2085019.8	11830820.6	1.20	1.80	-0.075	-1.498	19.916	19.973	87	20.000	20.000	87.600	19.973	1.047	19.973	0.105	100.000	954.930	477.4
11359.00	89.50	175.70	10833.40	939.97	-937.33	70.48			2085021.3	11830800.6	1.90	2.85	-0.075	-1.499	19.937	19.994	88.55	20.000	20.000	89.500	19.994	0.506	19.994	0.105	100.000	954.930	477.4
11370.00	89.50	175.70	10833.50	950.97	-948.29	71.30			2085022.1	11830789.7	0.00	0.00	-0.075	-0.825	10.969	11.000	89.5	11.000	11.000	89.500	11.000	0.096	11.000	0.105	100.000	954.930	477.4
11379.00	89.50	175.70	10833.58	959.97	-957.27	72.80			2085023.6	11830780.7	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11399.00	89.50	175.70	10833.75	979.97	-977.21	74.30			2085025.1	11830760.7	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11419.00	89.50	175.70	10833.93	999.97	-997.16	75.80			2085026.6	11830740.8	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11439.00	89.50	175.70	10834.10	1019.97	-1017.10	77.30			2085028.1	11830720.9	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11459.00	89.50	175.70	10834.28	1039.97	-1037.04	78.80			2085029.6	11830700.9	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11479.00	89.50	175.70	10834.45	1059.97	-1056.98	80.30			2085031.1	11830681.0	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11499.00	89.50	175.70	10834.62	1079.97	-1076.93	81.80			2085032.6	11830661.0	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11519.00	89.50	175.70	10834.80	1099.97	-1096.87	83.30			2085034.1	11830641.1	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11539.00	89.50	175.70	10834.97	1119.97	-1116.81	84.80			2085035.6	11830621.1	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11559.00	89.50	175.70	10835.15	1139.96	-1136.76	86.30			2085037.1	11830601.2	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11579.00	89.50	175.70	10835.32	1159.96	-1156.70	87.80			2085038.6	11830581.3	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11599.00	89.50	175.70	10835.50	1179.96	-1176.64	89.30			2085040.1	11830561.3	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11619.00	89.50	175.70	10835.67	1199.96	-1196.58	90.80			2085041.6	11830541.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11639.00	89.50	175.70	10835.85	1219.96	-1216.53	92.30			2085043.1	11830521.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11659.00	89.50	175.70	10836.02	1239.96	-1236.47	93.80			2085044.6	11830501.5	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11679.00	89.50	175.70	10836.20	1259.96	-1256.41	95.29			2085046.1	11830481.5	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
11699.00	89.50	175.70	10836.37	1279.96	-1276.36	96.79																					

12119.00	89.50	175.70	10840.04	1699.94	-1695.16	128.28			2085079.1	11830042.8
12139.00	89.50	175.70	10840.21	1719.94	-1715.10	129.78			2085080.6	11830022.8
12159.00	89.50	175.70	10840.38	1739.94	-1735.04	131.28			2085082.1	11830002.9
12179.00	89.50	175.70	10840.56	1759.94	-1754.99	132.78			2085083.6	11829983.0
12199.00	89.50	175.70	10840.73	1779.94	-1774.93	134.28			2085085.1	11829963.0
12219.00	89.50	175.70	10840.91	1799.94	-1794.87	135.78			2085086.6	11829943.1
12239.00	89.50	175.70	10841.08	1819.94	-1814.82	137.28			2085088.1	11829923.1
12259.00	89.50	175.70	10841.26	1839.94	-1834.76	138.78			2085089.6	11829903.2
12279.00	89.50	175.70	10841.43	1859.94	-1854.70	140.28			2085091.1	11829883.2
12299.00	89.50	175.70	10841.61	1879.94	-1874.64	141.78			2085092.6	11829863.3
12319.00	89.50	175.70	10841.78	1899.94	-1894.59	143.28			2085094.1	11829843.4
12339.00	89.50	175.70	10841.95	1919.93	-1914.53	144.78			2085095.6	11829823.4
12359.00	89.50	175.70	10842.13	1939.93	-1934.47	146.28			2085097.1	11829803.5
12379.00	89.50	175.70	10842.30	1959.93	-1954.42	147.78			2085098.6	11829783.5
12399.00	89.50	175.70	10842.48	1979.93	-1974.36	149.28			2085100.1	11829763.6
12419.00	89.50	175.70	10842.65	1999.93	-1994.30	150.78			2085101.6	11829743.6
12439.00	89.50	175.70	10842.83	2019.93	-2014.25	152.28			2085103.1	11829723.7
12459.00	89.50	175.70	10843.00	2039.93	-2034.19	153.78			2085104.6	11829703.8
12479.00	89.50	175.70	10843.18	2059.93	-2054.13	155.28			2085106.1	11829683.8
12499.00	89.50	175.70	10843.35	2079.93	-2074.07	156.78			2085107.6	11829663.9
12519.00	89.50	175.70	10843.53	2099.93	-2094.02	158.27			2085109.1	11829643.9
12539.00	89.50	175.70	10843.70	2119.93	-2113.96	159.77			2085110.6	11829624.0
12559.00	89.50	175.70	10843.87	2139.93	-2133.90	161.27			2085112.1	11829604.0
12579.00	89.50	175.70	10844.05	2159.93	-2153.85	162.77			2085113.6	11829584.1
12599.00	89.50	175.70	10844.22	2179.92	-2173.79	164.27			2085115.1	11829564.2
12619.00	89.50	175.70	10844.40	2199.92	-2193.73	165.77			2085116.6	11829544.2
12639.00	89.50	175.70	10844.57	2219.92	-2213.67	167.27			2085118.1	11829524.3
12659.00	89.50	175.70	10844.75	2239.92	-2233.62	168.77			2085119.6	11829504.3
12679.00	89.50	175.70	10844.92	2259.92	-2253.56	170.27			2085121.1	11829484.4
12699.00	89.50	175.70	10845.10	2279.92	-2273.50	171.77			2085122.6	11829464.4
12719.00	89.50	175.70	10845.27	2299.92	-2293.45	173.27			2085124.1	11829444.5
12739.00	89.50	175.70	10845.45	2319.92	-2313.39	174.77			2085125.6	11829424.6
12759.00	89.50	175.70	10845.62	2339.92	-2333.33	176.27			2085127.1	11829404.6
12779.00	89.50	175.70	10845.79	2359.92	-2353.28	177.77			2085128.6	11829384.7
12799.00	89.50	175.70	10845.97	2379.92	-2373.22	179.27			2085130.1	11829364.7
12819.00	89.50	175.70	10846.14	2399.92	-2393.16	180.77			2085131.6	11829344.8
12839.00	89.50	175.70	10846.32	2419.92	-2413.10	182.27			2085133.1	11829324.8
12859.00	89.50	175.70	10846.49	2439.92	-2433.05	183.77			2085134.6	11829304.9
12879.00	89.50	175.70	10846.67	2459.91	-2452.99	185.27			2085136.1	11829285.0
12899.00	89.50	175.70	10846.84	2479.91	-2472.93	186.77			2085137.6	11829265.0
12919.00	89.50	175.70	10847.02	2499.91	-2492.88	188.27			2085139.1	11829245.1
12939.00	89.50	175.70	10847.19	2519.91	-2512.82	189.76			2085140.6	11829225.1
12959.00	89.50	175.70	10847.37	2539.91	-2532.76	191.26			2085142.1	11829205.2
12979.00	89.50	175.70	10847.54	2559.91	-2552.70	192.76			2085143.6	11829185.2
12999.00	89.50	175.70	10847.71	2579.91	-2572.65	194.26			2085145.1	11829165.3
13019.00	89.50	175.70	10847.89	2599.91	-2592.59	195.76			2085146.6	11829145.4
13039.00	89.50	175.70	10848.06	2619.91	-2612.53	197.26			2085148.1	11829125.4
13059.00	89.50	175.70	10848.24	2639.91	-2632.48	198.76			2085149.6	11829105.5
13079.00	89.50	175.70	10848.41	2659.91	-2652.42	200.26			2085151.1	11829085.5
13099.00	89.50	175.70	10848.59	2679.91	-2672.36	201.76			2085152.6	11829065.6
13119.00	89.50	175.70	10848.76	2699.91	-2692.31	203.26			2085154.1	11829045.6
13139.00	89.50	175.70	10848.94	2719.90	-2712.25	204.76			2085155.6	11829025.7
13159.00	89.50	175.70	10849.11	2739.90	-2732.19	206.26			2085157.1	11829005.8
13179.00	89.50	175.70	10849.29	2759.90	-2752.13	207.76			2085158.6	11828985.8
13199.00	89.50	175.70	10849.46	2779.90	-2772.08	209.26			2085160.1	11828965.9
13219.00	89.50	175.70	10849.63	2799.90	-2792.02	210.76			2085161.6	11828945.9
13239.00	89.50	175.70	10849.81	2819.90	-2811.96	212.26			2085163.1	11828926.0
13259.00	89.50	175.70	10849.98	2839.90	-2831.91	213.76			2085164.6	11828906.0
13279.00	89.50	175.70	10850.16	2859.90	-2851.85	215.26			2085166.1	11828886.1
13299.00	89.50	175.70	10850.33	2879.90	-2871.79	216.76			2085167.6	11828866.2
13319.00	89.50	175.70	10850.51	2899.90	-2891.73	218.26			2085169.1	11828846.2
13339.00	89.50	175.70	10850.68	2919.90	-2911.68	219.75			2085170.6	11828826.3

0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.																

13359.00	89.50	175.70	10850.86	2939.90	-2931.62	221.25			2085172.1	11828806.3	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13379.00	89.50	175.70	10851.03	2959.90	-2951.56	222.75			2085173.6	11828786.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13399.00	89.50	175.70	10851.21	2979.89	-2971.51	224.25			2085175.1	11828766.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13419.00	89.50	175.70	10851.38	2999.89	-2991.45	225.75			2085176.6	11828746.5	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13439.00	89.50	175.70	10851.55	3019.89	-3011.39	227.25			2085178.1	11828726.6	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13459.00	89.50	175.70	10851.73	3039.89	-3031.34	228.75			2085179.6	11828706.6	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13479.00	89.50	175.70	10851.90	3059.89	-3051.28	230.25			2085181.1	11828686.7	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13499.00	89.50	175.70	10852.08	3079.89	-3071.22	231.75			2085182.6	11828666.7	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13519.00	89.50	175.70	10852.25	3099.89	-3091.16	233.25			2085184.1	11828646.8	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13539.00	89.50	175.70	10852.43	3119.89	-3111.11	234.75			2085185.6	11828626.8	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13559.00	89.50	175.70	10852.60	3139.89	-3131.05	236.25			2085187.1	11828606.9	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13579.00	89.50	175.70	10852.78	3159.89	-3150.99	237.75			2085188.6	11828587.0	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13599.00	89.50	175.70	10852.95	3179.89	-3170.94	239.25			2085190.1	11828567.0	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13619.00	89.50	175.70	10853.12	3199.89	-3190.88	240.75			2085191.6	11828547.1	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13639.00	89.50	175.70	10853.30	3219.89	-3210.82	242.25			2085193.1	11828527.1	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13659.00	89.50	175.70	10853.47	3239.88	-3230.76	243.75			2085194.6	11828507.2	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13679.00	89.50	175.70	10853.65	3259.88	-3250.71	245.25			2085196.1	11828487.2	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13699.00	89.50	175.70	10853.82	3279.88	-3270.65	246.75			2085197.6	11828467.3	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13719.00	89.50	175.70	10854.00	3299.88	-3290.59	248.25			2085199.1	11828447.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13739.00	89.50	175.70	10854.17	3319.88	-3310.54	249.75			2085200.6	11828427.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13759.00	89.50	175.70	10854.35	3339.88	-3330.48	251.24			2085202.1	11828407.5	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13779.00	89.50	175.70	10854.52	3359.88	-3350.42	252.74			2085203.6	11828387.5	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13799.00	89.50	175.70	10854.70	3379.88	-3370.37	254.24			2085205.1	11828367.6	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13819.00	89.50	175.70	10854.87	3399.88	-3390.31	255.74			2085206.6	11828347.6	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13839.00	89.50	175.70	10855.04	3419.88	-3410.25	257.24			2085208.1	11828327.7	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13859.00	89.50	175.70	10855.22	3439.88	-3430.19	258.74			2085209.6	11828307.8	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13879.00	89.50	175.70	10855.39	3459.88	-3450.14	260.24			2085211.1	11828287.8	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13899.00	89.50	175.70	10855.57	3479.88	-3470.08	261.74			2085212.6	11828267.9	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13919.00	89.50	175.70	10855.74	3499.87	-3490.02	263.24			2085214.1	11828247.9	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13939.00	89.50	175.70	10855.92	3519.87	-3509.97	264.74			2085215.6	11828228.0	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13959.00	89.50	175.70	10856.09	3539.87	-3529.91	266.24			2085217.1	11828208.0	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13979.00	89.50	175.70	10856.27	3559.87	-3549.85	267.74			2085218.6	11828188.1	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
13999.00	89.50	175.70	10856.44	3579.87	-3569.79	269.24			2085220.1	11828168.2	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14019.00	89.50	175.70	10856.62	3599.87	-3589.74	270.74			2085221.6	11828148.2	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14039.00	89.50	175.70	10856.79	3619.87	-3609.68	272.24			2085223.1	11828128.3	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14059.00	89.50	175.70	10856.96	3639.87	-3629.62	273.74			2085224.6	11828108.3	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14079.00	89.50	175.70	10857.14	3659.87	-3649.57	275.24			2085226.1	11828088.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14099.00	89.50	175.70	10857.31	3679.87	-3669.51	276.74			2085227.6	11828068.4	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14119.00	89.50	175.70	10857.49	3699.87	-3689.45	278.24			2085229.1	11828048.5	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14139.00	89.50	175.70	10857.66	3719.87	-3709.40	279.74			2085230.6	11828028.6	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14159.00	89.50	175.70	10857.84	3739.87	-3729.34	281.24			2085232.1	11828008.6	0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
14179.00	89.50	175.70	108																								

14599.00	89.50	175.70	10861.68	4179.85	-4168.08	314.22			2085265.1	11827569.9
14619.00	89.50	175.70	10861.85	4199.85	-4188.03	315.72			2085266.6	11827549.9
14639.00	89.50	175.70	10862.03	4219.85	-4207.97	317.22			2085268.1	11827530.0
14659.00	89.50	175.70	10862.20	4239.85	-4227.91	318.72			2085269.6	11827510.0
14679.00	89.50	175.70	10862.38	4259.85	-4247.85	320.22			2085271.0	11827490.1
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14719.00	89.50	175.70	10862.72	4299.84	-4287.74	323.22			2085274.0	11827450.2
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14839.00	89.50	175.70	10863.77	4419.84	-4407.40	332.22			2085283.0	11827330.6
14859.00	89.50	175.70	10863.95	4439.84	-4427.34	333.72			2085284.5	11827310.6
14879.00	89.50	175.70	10864.12	4459.84	-4447.28	335.22			2085286.0	11827290.7
14899.00	89.50	175.70	10864.29	4479.84	-4467.23	336.72			2085287.5	11827270.7
14919.00	89.50	175.70	10864.47	4499.84	-4487.17	338.22			2085289.0	11827250.8
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14959.00	89.50	175.70	10864.82	4539.84	-4527.06	341.22			2085292.0	11827210.9
14979.00	89.50	175.70	10864.99	4559.83	-4547.00	342.72			2085293.5	11827191.0
14999.00	89.50	175.70	10865.17	4579.83	-4566.94	344.21			2085295.0	11827171.0
15019.00	89.50	175.70	10865.34	4599.83	-4586.88	345.71			2085296.5	11827151.1
15039.00	89.50	175.70	10865.52	4619.83	-4606.83	347.21			2085298.0	11827131.1
15059.00	89.50	175.70	10865.69	4639.83	-4626.77	348.71			2085299.5	11827111.2
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15159.00	89.50	175.70	10866.56	4739.83	-4726.49	356.21			2085307.0	11827011.5
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15259.00	89.50	175.70	10867.44	4839.82	-4826.20	363.71			2085314.5	11826911.8
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15339.00	89.50	175.70	10868.13	4919.82	-4905.97	369.71			2085320.5	11826832.0
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15419.00	89.50	175.70	10868.83	4999.82	-4985.74	375.70			2085326.5	11826752.2
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15459.00	89.50	175.70	10869.18	5039.82	-5025.63	378.70			2085329.5	11826712.3
15479.00	89.50	175.70	10869.36	5059.82	-5045.57	380.20			2085331.0	11826692.4
15499.00	89.50	175.70	10869.53	5079.81	-5065.52	381.70			2085332.5	11826672.4
15519.00	89.50	175.70	10869.71	5099.81	-5085.46	383.20			2085334.0	11826652.5
15539.00	89.50	175.70	10869.88	5119.81	-5105.40	384.70			2085335.5	11826632.5
15559.00	89.50	175.70	10870.05	5139.81	-5125.34	386.20			2085337.0	11826612.6
15579.00	89.50	175.70	10870.23	5159.81	-5145.29	387.70	10916.20	10916.20	2085338.5	11826592.7
15599.00	89.50	175.70	10870.40	5179.81	#REF!	#REF!			#REF!	#REF!

0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
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0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
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0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
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0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.00	0.00	-0.075	-1.500	19.943	19.999	89.5	20.000	20.000	89.500	19.999	0.175	19.999	0.105	100.000	954.930	477.4
0.																

Lea Fed 10 4H HORIZONTAL WELLBORE SAMPLE								Notes
MD	Inc	Az	TVD	N	E	DLS	V/S	
ft	deg	deg	ft	ft	ft	deg/100'	ft	
0	0	0	0.00	0.00	0.00			
9,819	0	0	9,820.00	0.00	0.00	0.00	0.00	
9,839	1.2	175.7	9,840.00	-0.21	-0.02	6.00	0.21	
11,370	89.5	175.7	10833.57	-948.00	71.30	6.00	951.00	Intersection of Green sand
15,179	89.5	175.7	10,866.70	-4,746.00	357.70	0.00	4,759.80	Wellbore dipping with sand


 2700 ft x 20 ft