

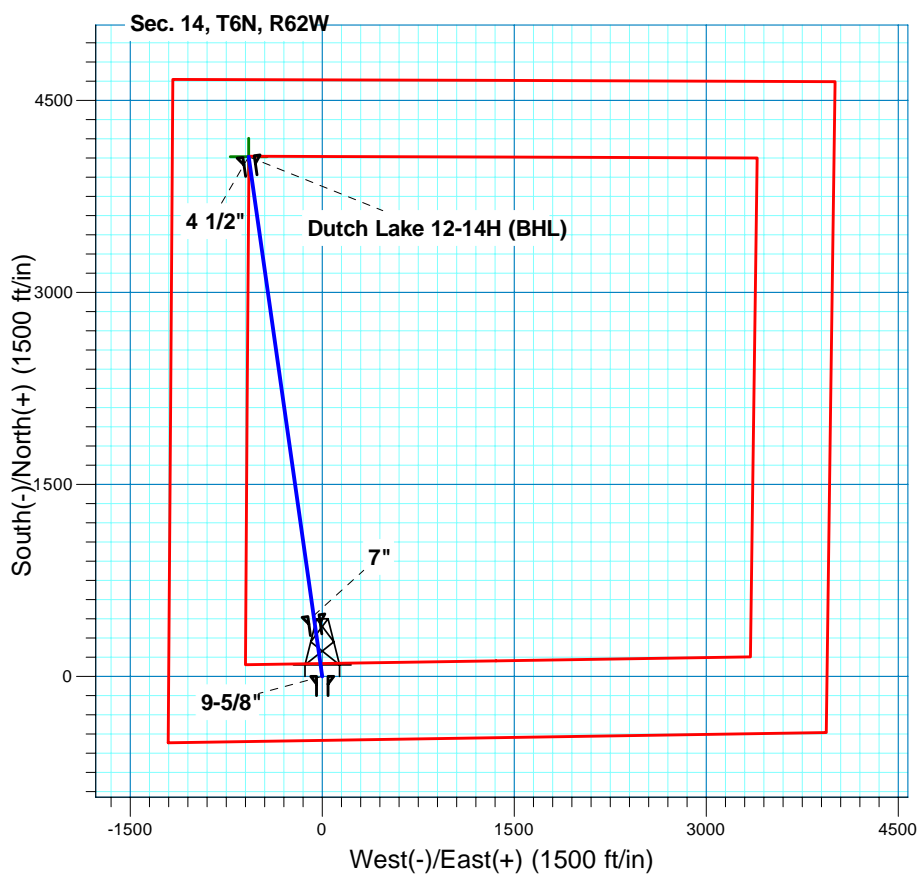
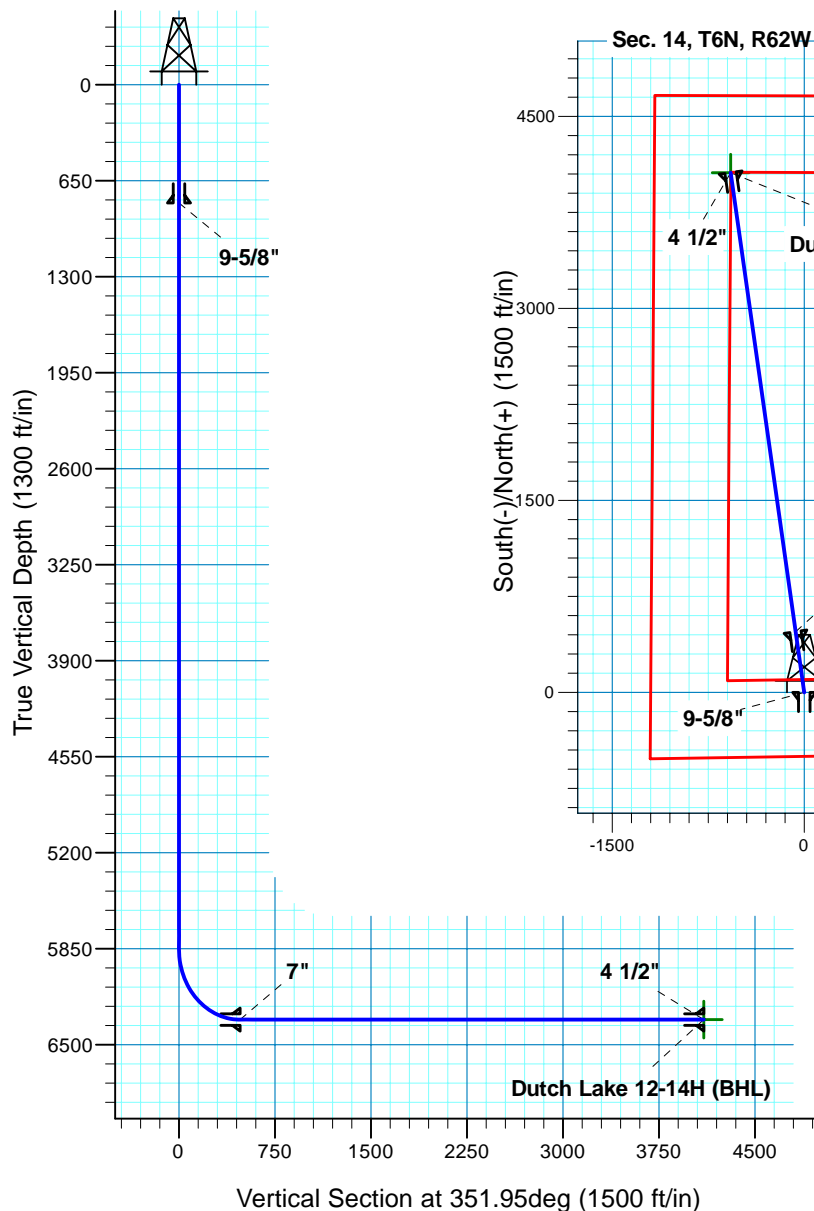
Dutch Lake 12-14H

Section 14 T6N R62W

Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
 Ground Elevation: 4720.00 RIG @ 4742.00ft (TBD)
 Northing Easting Latitude Longitude
 420586.42 2335543.08 40° 28' 54.001 N 104° 17' 37.550 W



T M
 Azimuths to True North
 Magnetic North: 8.60°
 Magnetic Field
 Strength: 53268.2snT
 Dip Angle: 67.21°
 Date: 3/28/2011
 Model: IGRF200510

Project: DJ - Hereford Ranch
 Site: Dutch Lake 12-14H
 Well: Dutch Lake 12-14H
 Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5852.53	0.00	0.00	5852.53	0.00	0.00	0.00	0.00	0.00	
3	6602.54	90.00	351.95	6330.00	472.76	-66.85	12.00	351.95	477.47	
4	10225.21	90.00	351.95	6330.00	4059.75	-574.07	0.00	0.00	4100.14	Dutch Lake 12-14H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Dutch Lake 12-14H (BHL)	6330.00	4059.75	-574.07	424637.98	2334913.84	40° 29' 34.120 N	104° 17' 44.981 W	Point

Denver Division- Colorado

DJ - Hereford Ranch

Dutch Lake 12-14H

Dutch Lake 12-14H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

28 March, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Dutch Lake 12-14H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4742.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4742.00ft (TBD)
Site:	Dutch Lake 12-14H	North Reference:	True
Well:	Dutch Lake 12-14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Project	DJ - Hereford Ranch, Weld County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site	Dutch Lake 12-14H		
Site Position:		Northing:	420,586.42 ft
From:	Lat/Long	Easting:	2,335,543.08 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	40° 28' 54.001 N
		Longitude:	104° 17' 37.550 W
		Grid Convergence:	0.78 deg

Well	Dutch Lake 12-14H		
Well Position	+N/-S	0.00 ft	Northing: 420,586.42 ft
	+E/-W	0.00 ft	Easting: 2,335,543.08 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40° 28' 54.001 N
		Longitude:	104° 17' 37.550 W
		Ground Level:	4,720.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	3/28/2011	8.60	67.21	53,268

Design	APD Directional Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (deg)
	0.00	0.00	0.00	351.95

Plan Sections										
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)	TFO (deg)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,852.53	0.00	0.00	5,852.53	0.00	0.00	0.00	0.00	0.00	0.00	
6,602.54	90.00	351.95	6,330.00	472.76	-66.85	12.00	12.00	0.00	351.95	
10,225.21	90.00	351.95	6,330.00	4,059.75	-574.07	0.00	0.00	0.00	0.00	Dutch Lake 12-14H

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Dutch Lake 12-14H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4742.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4742.00ft (TBD)
Site:	Dutch Lake 12-14H	North Reference:	True
Well:	Dutch Lake 12-14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
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
9-5/8"									
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

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Dutch Lake 12-14H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4742.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4742.00ft (TBD)
Site:	Dutch Lake 12-14H	North Reference:	True
Well:	Dutch Lake 12-14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
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
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
5,852.53	0.00	0.00	5,852.53	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	5.70	351.95	5,899.92	2.33	-0.33	2.36	12.00	12.00	0.00
6,000.00	17.70	351.95	5,997.67	22.37	-3.16	22.59	12.00	12.00	0.00
6,100.00	29.70	351.95	6,089.07	62.09	-8.78	62.71	12.00	12.00	0.00
6,200.00	41.70	351.95	6,170.13	119.76	-16.93	120.95	12.00	12.00	0.00
6,300.00	53.70	351.95	6,237.32	192.85	-27.27	194.77	12.00	12.00	0.00
6,400.00	65.70	351.95	6,287.68	278.18	-39.34	280.95	12.00	12.00	0.00
6,500.00	77.70	351.95	6,319.03	372.02	-52.61	375.72	12.00	12.00	0.00
6,600.00	89.70	351.95	6,329.99	470.25	-66.50	474.93	12.00	12.00	0.00
6,602.54	90.00	351.95	6,330.00	472.77	-66.85	477.47	11.98	11.98	0.00
7"									
6,700.00	90.00	351.95	6,330.00	569.27	-80.50	574.93	0.00	0.00	0.00
6,800.00	90.00	351.95	6,330.00	668.28	-94.50	674.93	0.00	0.00	0.00
6,900.00	90.00	351.95	6,330.00	767.30	-108.50	774.93	0.00	0.00	0.00
7,000.00	90.00	351.95	6,330.00	866.31	-122.50	874.93	0.00	0.00	0.00
7,100.00	90.00	351.95	6,330.00	965.33	-136.50	974.93	0.00	0.00	0.00
7,200.00	90.00	351.95	6,330.00	1,064.34	-150.50	1,074.93	0.00	0.00	0.00
7,300.00	90.00	351.95	6,330.00	1,163.36	-164.51	1,174.93	0.00	0.00	0.00
7,400.00	90.00	351.95	6,330.00	1,262.37	-178.51	1,274.93	0.00	0.00	0.00
7,500.00	90.00	351.95	6,330.00	1,361.39	-192.51	1,374.93	0.00	0.00	0.00
7,600.00	90.00	351.95	6,330.00	1,460.40	-206.51	1,474.93	0.00	0.00	0.00
7,700.00	90.00	351.95	6,330.00	1,559.42	-220.51	1,574.93	0.00	0.00	0.00
7,800.00	90.00	351.95	6,330.00	1,658.43	-234.51	1,674.93	0.00	0.00	0.00
7,900.00	90.00	351.95	6,330.00	1,757.45	-248.51	1,774.93	0.00	0.00	0.00
8,000.00	90.00	351.95	6,330.00	1,856.46	-262.52	1,874.93	0.00	0.00	0.00
8,100.00	90.00	351.95	6,330.00	1,955.48	-276.52	1,974.93	0.00	0.00	0.00
8,200.00	90.00	351.95	6,330.00	2,054.49	-290.52	2,074.93	0.00	0.00	0.00
8,300.00	90.00	351.95	6,330.00	2,153.51	-304.52	2,174.93	0.00	0.00	0.00
8,400.00	90.00	351.95	6,330.00	2,252.52	-318.52	2,274.93	0.00	0.00	0.00
8,500.00	90.00	351.95	6,330.00	2,351.54	-332.52	2,374.93	0.00	0.00	0.00
8,600.00	90.00	351.95	6,330.00	2,450.55	-346.52	2,474.93	0.00	0.00	0.00
8,700.00	90.00	351.95	6,330.00	2,549.57	-360.52	2,574.93	0.00	0.00	0.00
8,800.00	90.00	351.95	6,330.00	2,648.58	-374.53	2,674.93	0.00	0.00	0.00
8,900.00	90.00	351.95	6,330.00	2,747.60	-388.53	2,774.93	0.00	0.00	0.00
9,000.00	90.00	351.95	6,330.00	2,846.61	-402.53	2,874.93	0.00	0.00	0.00
9,100.00	90.00	351.95	6,330.00	2,945.63	-416.53	2,974.93	0.00	0.00	0.00
9,200.00	90.00	351.95	6,330.00	3,044.64	-430.53	3,074.93	0.00	0.00	0.00
9,300.00	90.00	351.95	6,330.00	3,143.66	-444.53	3,174.93	0.00	0.00	0.00
9,400.00	90.00	351.95	6,330.00	3,242.67	-458.53	3,274.93	0.00	0.00	0.00
9,500.00	90.00	351.95	6,330.00	3,341.69	-472.54	3,374.93	0.00	0.00	0.00
9,600.00	90.00	351.95	6,330.00	3,440.70	-486.54	3,474.93	0.00	0.00	0.00
9,700.00	90.00	351.95	6,330.00	3,539.72	-500.54	3,574.93	0.00	0.00	0.00
9,800.00	90.00	351.95	6,330.00	3,638.73	-514.54	3,674.93	0.00	0.00	0.00
9,900.00	90.00	351.95	6,330.00	3,737.75	-528.54	3,774.93	0.00	0.00	0.00
10,000.00	90.00	351.95	6,330.00	3,836.76	-542.54	3,874.93	0.00	0.00	0.00
10,100.00	90.00	351.95	6,330.00	3,935.78	-556.54	3,974.93	0.00	0.00	0.00

EOG Resources Inc

Planning Report

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Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4742.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4742.00ft (TBD)
Site:	Dutch Lake 12-14H	North Reference:	True
Well:	Dutch Lake 12-14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
10,200.00	90.00	351.95	6,330.00	4,034.79	-570.54	4,074.93	0.00	0.00	0.00
10,225.21	90.00	351.95	6,330.00	4,059.75	-574.07	4,100.14	0.00	0.00	0.00
4 1/2" - Dutch Lake 12-14H (BHL)									

Targets									
Target Name	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Dutch Lake 12-14H (E	0.00	0.00	6,330.00	4,059.75	-574.07	424,637.98	2,334,913.84	40° 29' 34.120 N	104° 17' 44.981 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.00	800.00	9-5/8"	9-5/8	13-1/2	
6,602.54	6,330.00	7"	7	8-3/4	
10,225.21	6,330.00	4 1/2"	4-1/2	6	