



Weatherford[®]

Drilling Services

Proposal

ConocoPhillips

ConocoPhillips
GRIMM 34-4H
ARAPAHOE COUNTY, COLORADO
WELL FILE: PLAN 2
JANUARY 16, 2012

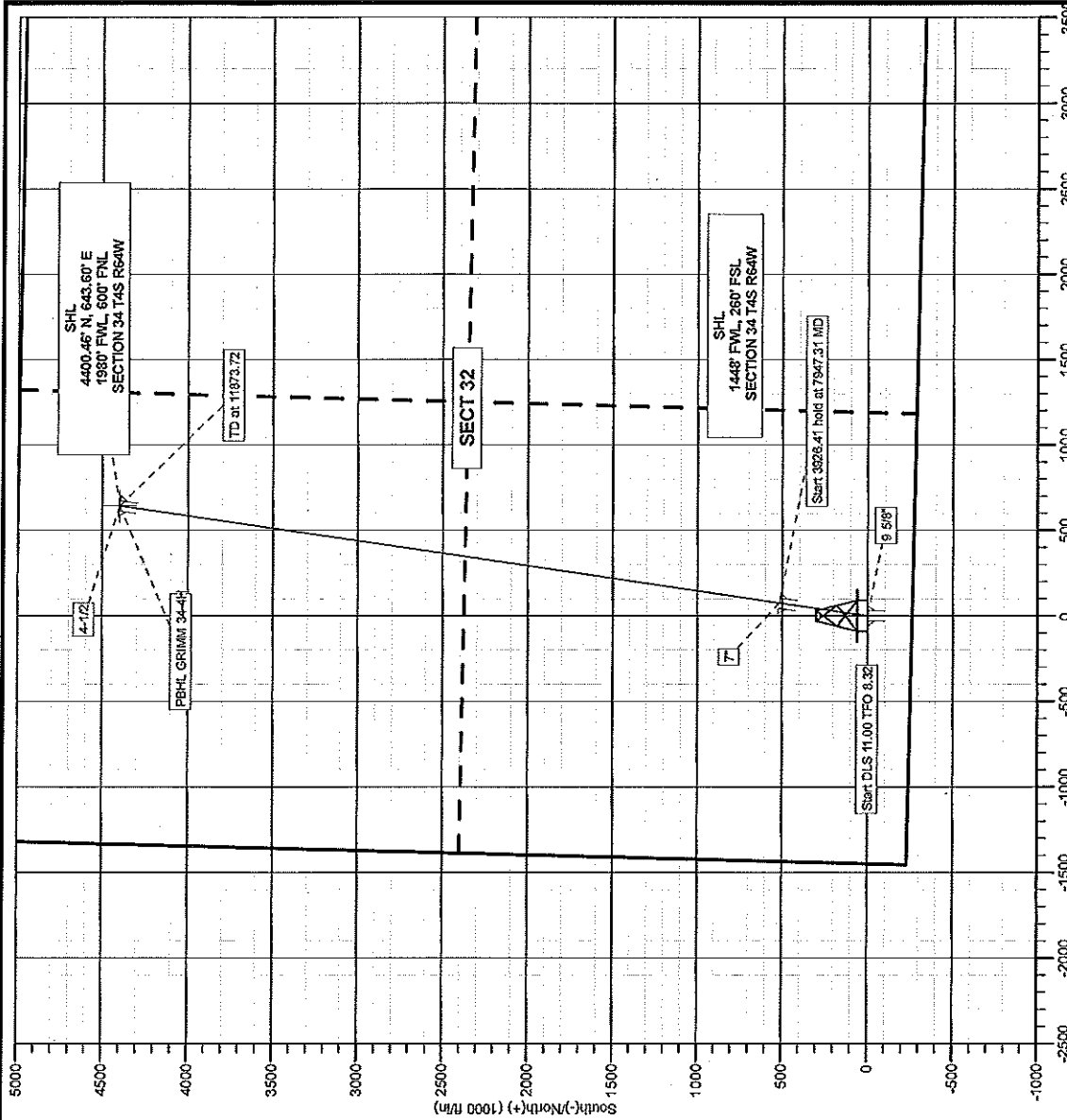
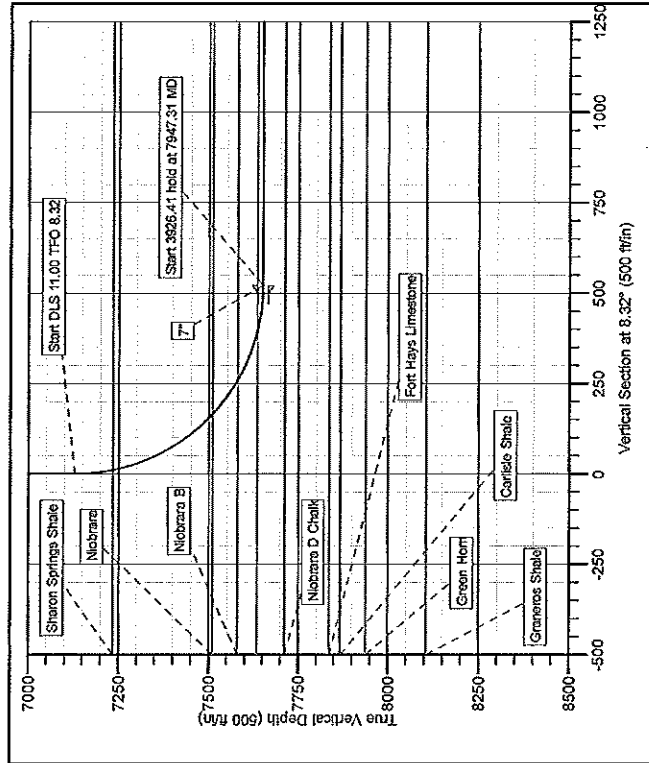
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Weatherford

ConocoPhillips

Project: ARAPAHOE COUNTY CO
Site: GRIMM 34-4H
Well: GRIMM 34-4H
Wellbore: GRIMM 34-4H CURVE/LAT
Design: Design #2
Latitude: 39° 39' 9.250 N
Longitude: 104° 32' 31.520 W
GL: 5777.00
KB: WELL @ 5795.00ft (Original Well Elev)



WELLBORE TARGET DETAILS (LAT/LONG)									
Name	PBHL GRIMM 34-4H		TVD	+N/S	+E/W	Latitude	Longitude	Shape	
			7650.00	4400.46	643.60	39° 39' 52.740 N	104° 32' 23.290 W	Point	
WELL DETAILS: GRIMM 34-4H									
			Ground Level:		5777.00				
			Northing	Easting	Latitude	Longitude		Sic	
			1653995.02	3269716.63	39° 39' 9.250 N	104° 32' 31.520 W			
SECTION DETAILS									
MD	Inc	Act	TVD	+N/S	+E/W	DLeg	Tfaco	VSec	Annotation
7123.13	0.00	0.00	7123.13	0.00	0.00	0.00	0.00	0.00	
7947.31	90.00	8.32	7650.00	515.29	75.33	11.00	8.32	520.87	Start DLS 11.00 TFO 8.32
11873.72	90.00	8.32	7650.00	4400.46	643.60	0.00	0.00	4447.28	Start 3926.41 hold at 7947.31 MD TD at 11873.72

Azimuths to True North	
Magnetic North: 8.32°	
Magnetic Field	
Strength: 5000 Gauss	
Direction: 118.00°	
Date: 11/16/2012	
Model: BSGN2011	

CASING DETAILS	
MD	Name
2120.00	9 5/8" 9-5/8
7650.00	7" 7
11873.72	4-1/2" 4-1/2

FORMATION TOP DETAILS	
TVDPATH	MDPATH
Formation	Carlisle Shale
Fort Hays Limestone	
Graneros Shale	
Green Horn	
Niobrara D Chalk	
Pierre Shale	
Sharon Springs Shale	
Niobrara B	
Niobrara C Chalk	
1688.00	1688.00
1920.00	1920.00
7235.00	7235.74
7510.00	7556.30
7580.00	7574.15
7655.00	7622.00

Plant Design #2 (GRIMM 34-4H/GRIMM 34-4H CURVE/LAT)

Created By: TRACY WILLIAMS Date: 12:55, January 16 2012

The ConocoPhillips logo is displayed in white text on a black rectangular background. The word "Conoco" is in a sans-serif font, and "Phillips" is in a slightly larger, bold sans-serif font.

CONOCO/PHILLIPS CO.

ARAPAHOE COUNTY CO

GRIMM 34-4H

GRIMM 34-4H

GRIMM 34-4H CURVE/LAT

Plan: Design #2

Standard Planning Report

16 January, 2012



Weatherford®

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site GRIMM 34-4H
Company:	CONOCO/PHILLIPS CO.	TVD Reference:	WELL @ 5795.00ft (Original Well Elev)
Project:	ARAPAHOE COUNTY CO	MD Reference:	WELL @ 5795.00ft (Original Well Elev)
Site:	GRIMM 34-4H	North Reference:	True
Well:	GRIMM 34-4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GRIMM 34-4H CURVE/LAT		
Design:	Design #2		

Project	ARAPAHOE COUNTY CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	GRIMM 34-4H				
Site Position:		Northing:	1,663,999.02ft	Latitude:	39° 39' 9.250 N
From:	Lat/Long	Easting:	3,269,716.63ft	Longitude:	104° 32' 31.520 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.60 °

Well	GRIMM 34-4H					
Well Position	+N/-S	0.00 ft	Northing:	1,663,999.02 ft	Latitude:	39° 39' 9.250 N
	+E/-W	0.00 ft	Easting:	3,269,716.63 ft	Longitude:	104° 32' 31.520 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,777.00 ft	

Wellbore	GRIMM 34-4H CURVE/LAT				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2011	1/16/2012	8.59	66.45	52,641

Design	Design #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	7,129.13
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	8.32

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
7,129.13	0.00	0.00	7,129.13	0.00	0.00	0.00	0.00	0.00	0.00	
7,947.31	90.00	8.32	7,650.00	515.39	75.38	11.00	11.00	1.02	8.32	
11,873.72	90.00	8.32	7,650.00	4,400.46	643.60	0.00	0.00	0.00	0.00	PBHL GRIMM 34-4

Database: EDM 2003.21 Single User Db
Company: CONOCO/PHILLIPS CO.
Project: ARAPAHOE COUNTY CO
Site: GRIMM 34-4H
Well: GRIMM 34-4H
Wellbore: GRIMM 34-4H CURVE/LAT
Design: Design #2

Local Co-ordinate Reference: Site GRIMM 34-4H
TVD Reference: WELL @ 5795.00ft (Original Well Elev)
MD Reference: WELL @ 5795.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minlimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	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
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
9 5/8"									
2,120.00	0.00	0.00	2,120.00	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

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site GRIMM 34-4H
Company:	CONOCO/PHILLIPS CO.	TVD Reference:	WELL @ 5795.00ft (Original Well Elev)
Project:	ARAPAHOE COUNTY CO	MD Reference:	WELL @ 5795.00ft (Original Well Elev)
Site:	GRIMM 34-4H	North Reference:	True
Well:	GRIMM 34-4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GRIMM 34-4H CURVE/LAT		
Design:	Design #2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	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
5,900.00	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
Start DLS 11.00 TFO 8.32									
7,129.13	0.00	0.00	7,129.13	0.00	0.00	0.00	0.00	0.00	0.00
7,150.00	2.30	8.32	7,149.99	0.41	0.06	0.42	11.00	11.00	0.00
7,200.00	7.80	8.32	7,199.78	4.76	0.70	4.81	11.00	11.00	0.00
Sharon Springs Shale									
7,235.74	11.73	8.32	7,235.00	10.76	1.57	10.87	11.00	11.00	0.00
7,250.00	13.30	8.32	7,248.92	13.81	2.02	13.96	11.00	11.00	0.00
7,300.00	18.80	8.32	7,296.95	27.48	4.02	27.78	11.00	11.00	0.00
7,350.00	24.30	8.32	7,343.44	45.65	6.68	46.13	11.00	11.00	0.00
7,400.00	29.80	8.32	7,387.96	68.13	9.96	68.86	11.00	11.00	0.00
7,450.00	35.30	8.32	7,430.09	94.74	13.86	95.75	11.00	11.00	0.00
7,500.00	40.80	8.32	7,469.45	125.22	18.31	126.55	11.00	11.00	0.00
7,550.00	46.30	8.32	7,505.68	159.29	23.30	160.98	11.00	11.00	0.00
Niobrara									
7,556.30	46.99	8.32	7,510.00	163.82	23.96	165.56	11.00	11.00	0.00
7,600.00	51.80	8.32	7,538.44	196.64	28.76	198.73	11.00	11.00	0.00
7,650.00	57.30	8.32	7,567.43	236.92	34.65	239.44	11.00	11.00	0.00
Niobrara B									
7,674.15	59.95	8.32	7,580.00	257.32	37.63	260.06	11.00	11.00	0.00
7,700.00	62.80	8.32	7,592.38	279.77	40.92	282.75	11.00	11.00	0.00
7,750.00	68.30	8.32	7,613.07	324.79	47.50	328.24	11.00	11.00	0.00
7,800.00	73.80	8.32	7,629.31	371.56	54.34	375.51	11.00	11.00	0.00
Niobrara C Chalk									
7,822.00	76.22	8.32	7,635.00	392.59	57.42	396.76	11.00	11.00	0.00
7,850.00	79.30	8.32	7,640.94	419.66	61.38	424.12	11.00	11.00	0.00
7,900.00	84.80	8.32	7,647.85	468.64	68.54	473.62	11.00	11.00	0.00
Start 3926.41 hold at 7947.31 MD - 7"									
7,947.31	90.00	8.32	7,650.00	515.39	75.38	520.87	11.00	11.00	0.00
8,000.00	90.00	8.32	7,650.00	567.52	83.00	573.56	0.00	0.00	0.00
8,100.00	90.00	8.32	7,650.00	666.47	97.48	673.56	0.00	0.00	0.00
8,200.00	90.00	8.32	7,650.00	765.42	111.95	773.56	0.00	0.00	0.00
8,300.00	90.00	8.32	7,650.00	864.36	126.42	873.56	0.00	0.00	0.00
8,400.00	90.00	8.32	7,650.00	963.31	140.89	973.56	0.00	0.00	0.00

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Wellbore:	GRIMM 34-4H CURVE/LAT		
Design:	Design #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,500.00	90.00	8.32	7,650.00	1,082.26	155.36	1,073.56	0.00	0.00	0.00
8,600.00	90.00	8.32	7,650.00	1,161.20	169.83	1,173.56	0.00	0.00	0.00
8,700.00	90.00	8.32	7,650.00	1,260.15	184.31	1,273.56	0.00	0.00	0.00
8,800.00	90.00	8.32	7,650.00	1,359.10	198.78	1,373.56	0.00	0.00	0.00
8,900.00	90.00	8.32	7,650.00	1,458.05	213.25	1,473.56	0.00	0.00	0.00
9,000.00	90.00	8.32	7,650.00	1,556.99	227.72	1,573.56	0.00	0.00	0.00
9,100.00	90.00	8.32	7,650.00	1,655.94	242.19	1,673.56	0.00	0.00	0.00
9,200.00	90.00	8.32	7,650.00	1,754.89	256.66	1,773.56	0.00	0.00	0.00
9,300.00	90.00	8.32	7,650.00	1,853.84	271.14	1,873.56	0.00	0.00	0.00
9,400.00	90.00	8.32	7,650.00	1,952.78	285.61	1,973.56	0.00	0.00	0.00
9,500.00	90.00	8.32	7,650.00	2,051.73	300.08	2,073.56	0.00	0.00	0.00
9,600.00	90.00	8.32	7,650.00	2,150.68	314.55	2,173.56	0.00	0.00	0.00
9,700.00	90.00	8.32	7,650.00	2,249.62	329.02	2,273.56	0.00	0.00	0.00
9,800.00	90.00	8.32	7,650.00	2,348.57	343.49	2,373.56	0.00	0.00	0.00
9,900.00	90.00	8.32	7,650.00	2,447.52	357.97	2,473.56	0.00	0.00	0.00
10,000.00	90.00	8.32	7,650.00	2,546.47	372.44	2,573.56	0.00	0.00	0.00
10,100.00	90.00	8.32	7,650.00	2,645.41	386.91	2,673.56	0.00	0.00	0.00
10,200.00	90.00	8.32	7,650.00	2,744.36	401.38	2,773.56	0.00	0.00	0.00
10,300.00	90.00	8.32	7,650.00	2,843.31	415.85	2,873.56	0.00	0.00	0.00
10,400.00	90.00	8.32	7,650.00	2,942.26	430.32	2,973.56	0.00	0.00	0.00
10,500.00	90.00	8.32	7,650.00	3,041.20	444.80	3,073.56	0.00	0.00	0.00
10,600.00	90.00	8.32	7,650.00	3,140.15	459.27	3,173.56	0.00	0.00	0.00
10,700.00	90.00	8.32	7,650.00	3,239.10	473.74	3,273.56	0.00	0.00	0.00
10,800.00	90.00	8.32	7,650.00	3,338.05	488.21	3,373.56	0.00	0.00	0.00
10,900.00	90.00	8.32	7,650.00	3,436.99	502.68	3,473.56	0.00	0.00	0.00
11,000.00	90.00	8.32	7,650.00	3,535.94	517.15	3,573.56	0.00	0.00	0.00
11,100.00	90.00	8.32	7,650.00	3,634.89	531.63	3,673.56	0.00	0.00	0.00
11,200.00	90.00	8.32	7,650.00	3,733.83	546.10	3,773.56	0.00	0.00	0.00
11,300.00	90.00	8.32	7,650.00	3,832.78	560.57	3,873.56	0.00	0.00	0.00
11,400.00	90.00	8.32	7,650.00	3,931.73	575.04	3,973.56	0.00	0.00	0.00
11,500.00	90.00	8.32	7,650.00	4,030.68	589.51	4,073.56	0.00	0.00	0.00
11,600.00	90.00	8.32	7,650.00	4,129.62	603.99	4,173.56	0.00	0.00	0.00
11,700.00	90.00	8.32	7,650.00	4,228.57	618.46	4,273.56	0.00	0.00	0.00
11,800.00	90.00	8.32	7,650.00	4,327.52	632.93	4,373.56	0.00	0.00	0.00
PBHL GRIMM 34-4H									
11,873.72	90.00	8.32	7,650.00	4,400.46	643.60	4,447.28	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL GRIMM 34-4H	0.00	0.00	7,650.00	4,400.46	643.60	1,668,406.02	3,270,313.79	39° 39' 52.740 N	104° 32' 23.280 W
- plan hits target center									
- Point									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site GRIMM 34-4H
Company:	CONOCO/PHILLIPS CO.	TVD Reference:	WELL @ 5795.00ft (Original Well Elev)
Project:	ARAPAHOE COUNTY CO	MD Reference:	WELL @ 5795.00ft (Original Well Elev)
Site:	GRIMM 34-4H	North Reference:	True
Well:	GRIMM 34-4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	GRIMM 34-4H CURVE/LAT		
Design:	Design #2		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,120.00	2,120.00	9 5/8"	9-5/8	12-1/4
7,947.31	7,650.00	7"	7	8-3/4
11,873.72	7,650.00	4-1/2	4-1/2	6

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,688.00	1,688.00	Fox Hills Aquifer		0.00	
1,920.00	1,920.00	Pierre Shale		0.00	
7,235.74	7,235.00	Sharon Springs Shale		0.00	
7,556.30	7,510.00	Niobrara		0.00	
7,674.15	7,580.00	Niobrara B		0.00	
7,822.00	7,635.00	Niobrara C Chalk		0.00	
	7,712.00	Niobrara D Chalk		0.00	
	7,837.00	Fort Hays Limestone		0.00	
	7,868.00	Carlisle Shale		0.00	
	7,938.00	Green Horn		0.00	
	8,106.00	Graneros Shale		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,129.13	7,129.13	0.00	0.00	Start DLS 11.00 TFO 8.32
7,947.31	7,650.00	515.39	75.38	Start 3926.41 hold at 7947.31 MD
11,873.72	7,650.00	4,400.46	643.60	TD at 11873.72