

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CARTER 10 PAD

Carter 10-32

Carter 10-32

Plan: Carter 10-32 (wp01)

Standard Planning Report

28 January, 2011



Weatherford®

Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_CARTER 10 PAD
 Well: Carter 10-32
 Wellbore: Carter 10-32
 Section:
 SHL:
 Design: Carter 10-32 (wp01)
 Latitude: 40.093728
 Longitude: -104.797378
 GL: 4912
 KB: WELL @ 4912.00ft (Original Well Elev)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3980.00	4032.32	PK Depth
4482.00	4534.32	SX Depth
7127.00	7179.32	NIO Depth
7452.00	7504.32	CD Depth
7542.00	7594.32	GH Depth

Weatherford®



Azimuths to True North
 Magnetic North: 8.93°

Magnetic Field
 Strength: 53022.0snT
 Dip Angle: 66.81°
 Date: 12/3/2010
 Model: IGRF2010

WELL DETAILS: Carter 10-32

+N/-S	+E/-W	Northing	Ground Level: Easting	0.00 Latitude	Longitude	Slot
0.00	0.00	1277768.41	3196569.49	40.093728	-104.797378	

CASING DETAILS

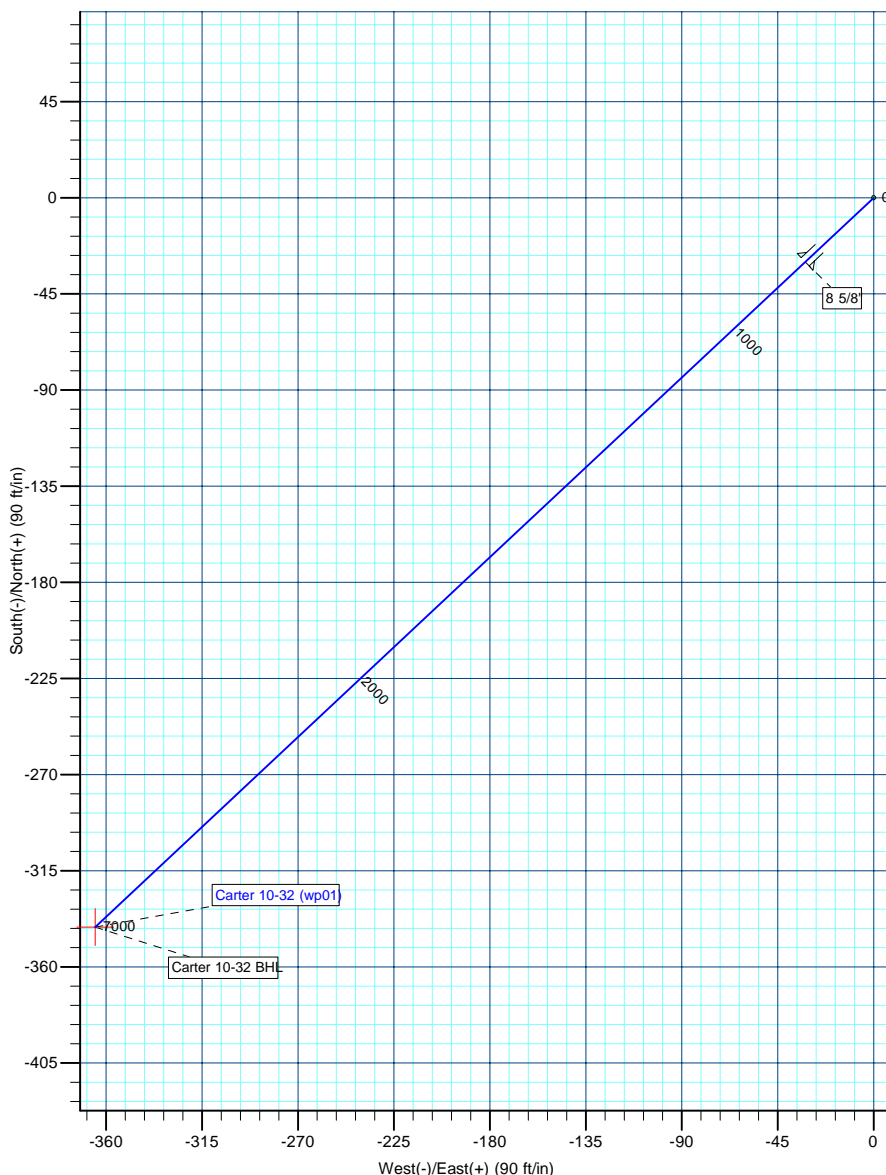
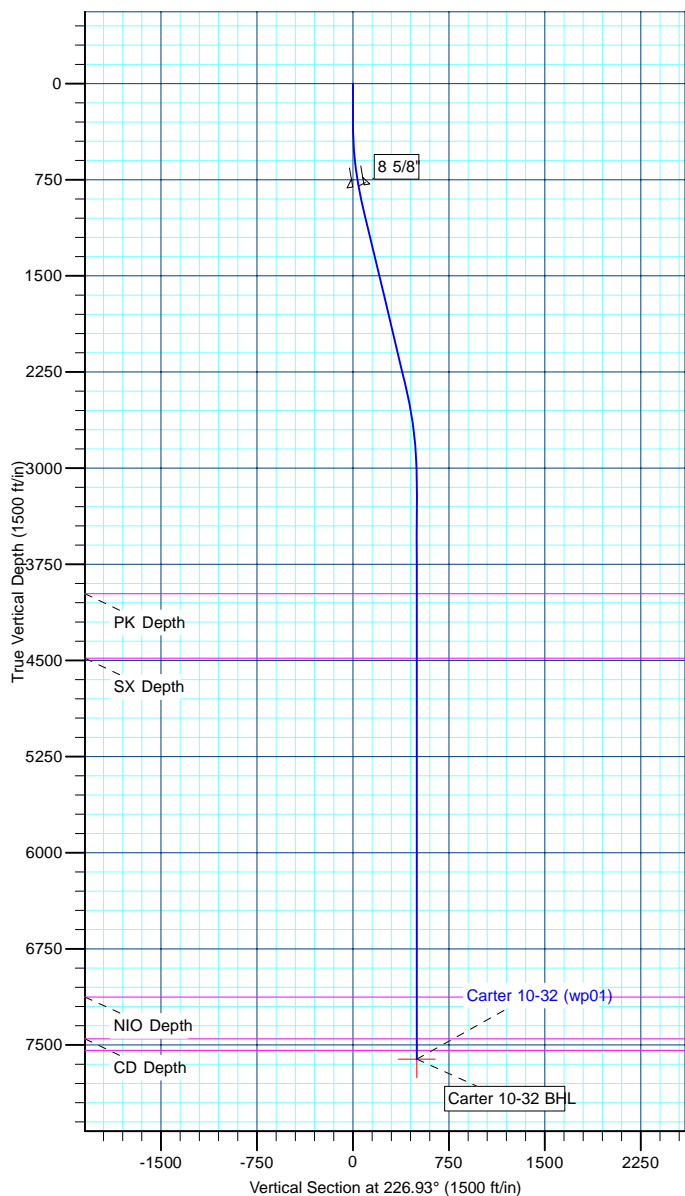
TVD	MD	Name	Size
800.00	802.57	8 5/8"	8-5/8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point
Carter 10-32 BHL	7612.00	-341.30	-365.10	1277424.23	3196207.10	40.092791	-104.798683	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
973.28	13.47	226.93	967.10	-53.78	-57.53	2.00	226.93	78.75
2394.86	13.47	226.93	2349.60	-279.84	-299.35	0.00	0.00	409.79
3164.32	0.00	0.00	3112.00	-341.30	-365.10	1.75	180.00	499.79
7664.32	0.00	0.00	7612.00	-341.30	-365.10	0.00	0.00	499.79



Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 10-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 10-32		
Design:	Carter 10-32 (wp01)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		WELD_CARTER 10 PAD			
Site Position:		Northing:	1,277,768.43 ft	Latitude:	40.093728
From:	Lat/Long	Easting:	3,196,569.49 ft	Longitude:	-104.797378
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.45

Well	Carter 10-32					
Well Position	+N/-S	-0.02 ft	Northing:	1,277,768.41 ft	Latitude:	40.093728
	+E/-W	0.00 ft	Easting:	3,196,569.49 ft	Longitude:	-104.797378
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	0.00 ft

Wellbore	Carter 10-32				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/3/2010	8.93	66.81	53,022

Design	Carter 10-32 (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	226.93

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
0.00	0.00	0.00	0.00	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	
973.28	13.47	226.93	967.10	-53.78	-57.53	2.00	2.00	0.00	226.93	
2,394.86	13.47	226.93	2,349.60	-279.84	-299.35	0.00	0.00	0.00	0.00	
3,164.32	0.00	0.00	3,112.00	-341.30	-365.10	1.75	-1.75	0.00	180.00	
7,664.32	0.00	0.00	7,612.00	-341.30	-365.10	0.00	0.00	0.00	0.00	Carter 10-32 BHL

Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 10-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 10-32		
Design:	Carter 10-32 (wp01)		

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	2.00	226.93	399.98	-1.19	-1.27	1.75	2.00	2.00	0.00
500.00	4.00	226.93	499.84	-4.77	-5.10	6.98	2.00	2.00	0.00
600.00	6.00	226.93	599.45	-10.72	-11.46	15.69	2.00	2.00	0.00
700.00	8.00	226.93	698.70	-19.04	-20.37	27.88	2.00	2.00	0.00
800.00	10.00	226.93	797.47	-29.72	-31.79	43.52	2.00	2.00	0.00
802.57	10.05	226.93	800.00	-30.03	-32.12	43.97	2.00	2.00	0.00
8 5/8"									
900.00	12.00	226.93	895.62	-42.75	-45.73	62.60	2.00	2.00	0.00
973.28	13.47	226.93	967.10	-53.78	-57.53	78.75	2.00	2.00	0.00
1,000.00	13.47	226.93	993.08	-58.03	-62.08	84.98	0.00	0.00	0.00
1,100.00	13.47	226.93	1,090.34	-73.93	-79.09	108.26	0.00	0.00	0.00
1,200.00	13.47	226.93	1,187.59	-89.83	-96.10	131.55	0.00	0.00	0.00
1,300.00	13.47	226.93	1,284.84	-105.74	-113.11	154.83	0.00	0.00	0.00
1,400.00	13.47	226.93	1,382.09	-121.64	-130.12	178.12	0.00	0.00	0.00
1,500.00	13.47	226.93	1,479.34	-137.54	-147.13	201.41	0.00	0.00	0.00
1,600.00	13.47	226.93	1,576.59	-153.44	-164.14	224.69	0.00	0.00	0.00
1,700.00	13.47	226.93	1,673.84	-169.34	-181.15	247.98	0.00	0.00	0.00
1,800.00	13.47	226.93	1,771.09	-185.25	-198.16	271.26	0.00	0.00	0.00
1,900.00	13.47	226.93	1,868.34	-201.15	-215.17	294.55	0.00	0.00	0.00
2,000.00	13.47	226.93	1,965.59	-217.05	-232.18	317.84	0.00	0.00	0.00
2,100.00	13.47	226.93	2,062.85	-232.95	-249.20	341.12	0.00	0.00	0.00
2,200.00	13.47	226.93	2,160.10	-248.85	-266.21	364.41	0.00	0.00	0.00
2,300.00	13.47	226.93	2,257.35	-264.76	-283.22	387.70	0.00	0.00	0.00
2,394.86	13.47	226.93	2,349.60	-279.84	-299.35	409.79	0.00	0.00	0.00
2,400.00	13.38	226.93	2,354.60	-280.66	-300.23	410.98	1.75	-1.75	0.00
2,500.00	11.63	226.93	2,452.22	-295.44	-316.04	432.62	1.75	-1.75	0.00
2,600.00	9.88	226.93	2,550.47	-308.17	-329.66	451.27	1.75	-1.75	0.00
2,700.00	8.13	226.93	2,649.23	-318.86	-341.09	466.92	1.75	-1.75	0.00
2,800.00	6.38	226.93	2,748.43	-327.48	-350.31	479.54	1.75	-1.75	0.00
2,900.00	4.63	226.93	2,847.96	-334.02	-357.31	489.12	1.75	-1.75	0.00
3,000.00	2.88	226.93	2,947.74	-338.49	-362.09	495.67	1.75	-1.75	0.00
3,100.00	1.13	226.93	3,047.68	-340.87	-364.64	499.16	1.75	-1.75	0.00
3,164.32	0.00	0.00	3,112.00	-341.30	-365.10	499.79	1.75	-1.75	0.00
3,200.00	0.00	0.00	3,147.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,300.00	0.00	0.00	3,247.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,400.00	0.00	0.00	3,347.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,500.00	0.00	0.00	3,447.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,600.00	0.00	0.00	3,547.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,700.00	0.00	0.00	3,647.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,800.00	0.00	0.00	3,747.68	-341.30	-365.10	499.79	0.00	0.00	0.00
3,900.00	0.00	0.00	3,847.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,000.00	0.00	0.00	3,947.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,032.32	0.00	0.00	3,980.00	-341.30	-365.10	499.79	0.00	0.00	0.00
PK Depth									
4,100.00	0.00	0.00	4,047.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,200.00	0.00	0.00	4,147.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,300.00	0.00	0.00	4,247.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,400.00	0.00	0.00	4,347.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,500.00	0.00	0.00	4,447.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,534.32	0.00	0.00	4,482.00	-341.30	-365.10	499.79	0.00	0.00	0.00

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Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 10-32		
Design:	Carter 10-32 (wp01)		

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)
SX Depth									
4,600.00	0.00	0.00	4,547.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,700.00	0.00	0.00	4,647.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,800.00	0.00	0.00	4,747.68	-341.30	-365.10	499.79	0.00	0.00	0.00
4,900.00	0.00	0.00	4,847.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,000.00	0.00	0.00	4,947.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,100.00	0.00	0.00	5,047.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,200.00	0.00	0.00	5,147.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,300.00	0.00	0.00	5,247.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,400.00	0.00	0.00	5,347.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,500.00	0.00	0.00	5,447.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,600.00	0.00	0.00	5,547.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,700.00	0.00	0.00	5,647.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,800.00	0.00	0.00	5,747.68	-341.30	-365.10	499.79	0.00	0.00	0.00
5,900.00	0.00	0.00	5,847.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,000.00	0.00	0.00	5,947.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,100.00	0.00	0.00	6,047.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,200.00	0.00	0.00	6,147.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,300.00	0.00	0.00	6,247.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,400.00	0.00	0.00	6,347.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,500.00	0.00	0.00	6,447.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,600.00	0.00	0.00	6,547.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,700.00	0.00	0.00	6,647.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,800.00	0.00	0.00	6,747.68	-341.30	-365.10	499.79	0.00	0.00	0.00
6,900.00	0.00	0.00	6,847.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,000.00	0.00	0.00	6,947.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,100.00	0.00	0.00	7,047.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,179.32	0.00	0.00	7,127.00	-341.30	-365.10	499.79	0.00	0.00	0.00
NIO Depth									
7,200.00	0.00	0.00	7,147.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,300.00	0.00	0.00	7,247.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,400.00	0.00	0.00	7,347.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,500.00	0.00	0.00	7,447.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,504.32	0.00	0.00	7,452.00	-341.30	-365.10	499.79	0.00	0.00	0.00
CD Depth									
7,594.32	0.00	0.00	7,542.00	-341.30	-365.10	499.79	0.00	0.00	0.00
GH Depth									
7,600.00	0.00	0.00	7,547.68	-341.30	-365.10	499.79	0.00	0.00	0.00
7,664.32	0.00	0.00	7,612.00	-341.30	-365.10	499.79	0.00	0.00	0.00
Carter 10-32 BHL									

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									
Carter 10-32 BHL	0.00	0.00	7,612.00	-341.30	-365.10	1,277,424.22	3,196,207.10	40.092791	-104.798683
- plan hits target center									
- Point									

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Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 10-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 10-32		
Design:	Carter 10-32 (wp01)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
802.57	800.00	8 5/8"	8-5/8	11	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,032.32	3,980.00	PK Depth				
4,534.32	4,482.00	SX Depth				
7,179.32	7,127.00	NIO Depth				
7,504.32	7,452.00	CD Depth				
7,594.32	7,542.00	GH Depth				