



ANADARKO PETROLEUM CORP.

ANADARKO COLORADO NORTHERN ZONE NAD 83

WELD_Johnstown Farms

Johnston Farms 22-9

Johnstown Farms 22-9

Plan: Johnstown Farms 22-9 (wp01)

Standard Planning Report

27 September, 2010



Johnston Farms 22-9
ANADARKO COLORADO NORTHERN ZONE NAD 83
40° 19' 28.067 N
104° 54' 3.262 W



n: Johnstown Farms 22-9 (wp01) (Johnston Farms 22-9/Johnstown Farms 22-9)

Created By: Jason Daguitera

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Johnston Farms 22-9, True North
Vertical (TVD) Reference: WELL @ 4780.00ft (Original Well Elev)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: WELL @ 4780.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

WELL DETAILS: Johnston Farms 22-9

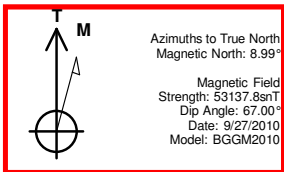
+N/-S	+E/-W	Northing	Ground Level: Easting	4780.00 Latitude	Longitude	Slot
0.00	0.00	1361606.97	3167038.52	40° 19' 28.067 N	104° 54' 3.262 W	

CASING DETAILS

TVD	MD	Name	Size
750.00	751.87	9 5/8"	9.625

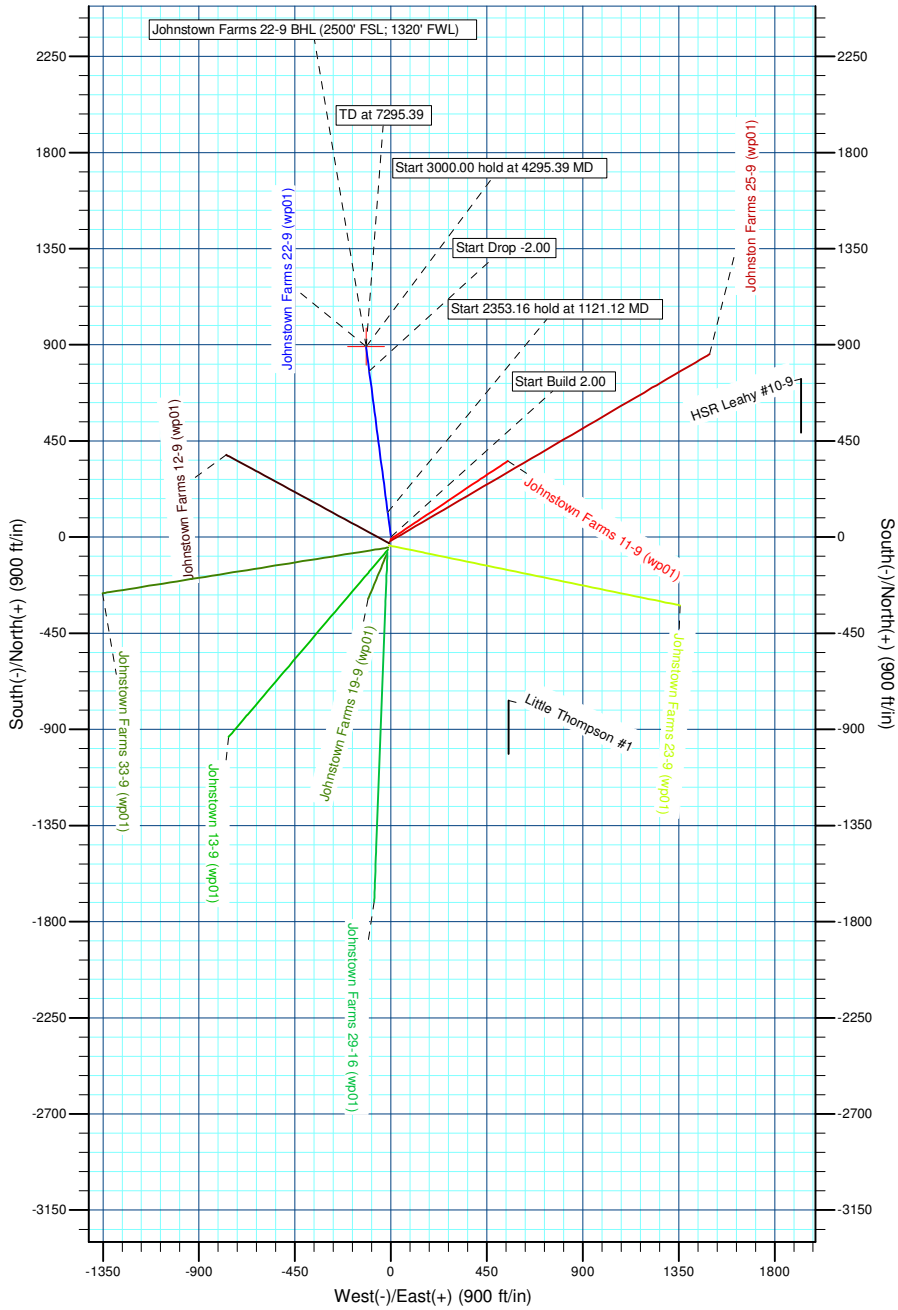
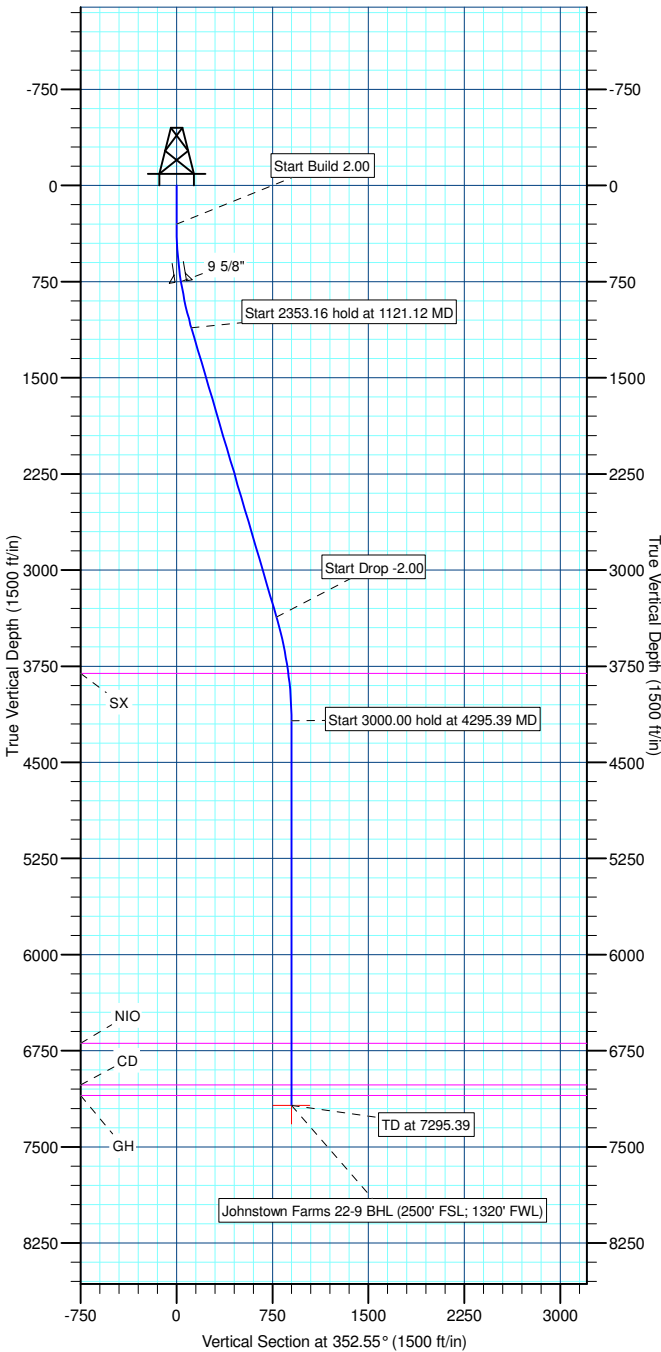
SECTION DETAILS

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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1121.12	16.42	352.55	1109.92	115.89	-15.15	2.00	352.55	116.87	
4	3474.28	16.42	352.55	3367.08	775.55	-101.39	0.00	0.00	782.14	
5	4295.39	0.00	0.00	4177.00	891.43	-116.54	2.00	180.00	899.02	
6	7295.39	0.00	0.00	7177.00	891.43	-116.54	0.00	0.00	899.02	Johnstown Farms 22-9 BHL (2500' FSL; 1320' FWL)



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Johnstown Farms 22-9 BHL (2500' FSL; 1320' FWL)	7177.00	891.43	-116.54	40° 19' 36.876 N	104° 54' 4.766 W	



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Johnston Farms 22-9
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4780.00ft (Original Well Elev)
Project:	ANADARKO COLORADO NOTHERN ZONE NAD 83	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site:	WELD_Johnstown Farms	North Reference:	True
Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Johnstown Farms 22-9		
Design:	Johnstown Farms 22-9 (wp01)		

Project	ANADARKO COLORADO NOTHERN ZONE NAD 83, ROCKIES, ROCKIES		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_Johnstown Farms		
Site Position:		Northing:	1,361,567.94 ft
From:	Lat/Long	Easting:	3,167,029.59 ft
Position Uncertainty:	0.00 ft	Slot Radius:	in
		Latitude:	40° 19' 27.682 N
		Longitude:	104° 54' 3.380 W
		Grid Convergence:	0.39 °

Well	Johnston Farms 22-9		
Well Position	+N/-S	38.97 ft	Northing:
	+E/-W	9.20 ft	Easting:
Position Uncertainty		0.00 ft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Johnstown Farms 22-9				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	9/27/2010	8.99	67.00	53,138

Design	Johnstown Farms 22-9 (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	352.55

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	
1,121.12	16.42	352.55	1,109.92	115.89	-15.15	2.00	2.00	0.00	352.55	
3,474.28	16.42	352.55	3,367.08	775.55	-101.39	0.00	0.00	0.00	0.00	
4,295.39	0.00	0.00	4,177.00	891.43	-116.54	2.00	-2.00	0.00	180.00	
7,295.39	0.00	0.00	7,177.00	891.43	-116.54	0.00	0.00	0.00	0.00	Johnstown Farms 2

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Johnston Farms 22-9
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4780.00ft (Original Well Elev)
Project:	ANADARKO COLORADO NOTHERN ZONE NAD 83	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site:	WELD_Johnstown Farms	North Reference:	True
Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Johnstown Farms 22-9		
Design:	Johnstown Farms 22-9 (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
Start Build 2.00									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	352.55	399.98	1.73	-0.23	1.75	2.00	2.00	0.00
500.00	4.00	352.55	499.84	6.92	-0.90	6.98	2.00	2.00	0.00
600.00	6.00	352.55	599.45	15.56	-2.03	15.69	2.00	2.00	0.00
700.00	8.00	352.55	698.70	27.64	-3.61	27.88	2.00	2.00	0.00
9 5/8"									
751.87	9.04	352.55	750.00	35.26	-4.61	35.56	2.00	2.00	0.00
800.00	10.00	352.55	797.47	43.16	-5.64	43.52	2.00	2.00	0.00
900.00	12.00	352.55	895.62	62.07	-8.12	62.60	2.00	2.00	0.00
1,000.00	14.00	352.55	993.06	84.38	-11.03	85.10	2.00	2.00	0.00
1,100.00	16.00	352.55	1,089.64	110.04	-14.39	110.98	2.00	2.00	0.00
Start 2353.16 hold at 1121.12 MD									
1,121.12	16.42	352.55	1,109.92	115.89	-15.15	116.87	2.00	2.00	0.00
1,200.00	16.42	352.55	1,185.59	138.00	-18.04	139.17	0.00	0.00	0.00
1,300.00	16.42	352.55	1,281.51	166.03	-21.71	167.45	0.00	0.00	0.00
1,400.00	16.42	352.55	1,377.43	194.07	-25.37	195.72	0.00	0.00	0.00
1,500.00	16.42	352.55	1,473.35	222.10	-29.04	223.99	0.00	0.00	0.00
1,600.00	16.42	352.55	1,569.27	250.13	-32.70	252.26	0.00	0.00	0.00
1,700.00	16.42	352.55	1,665.19	278.16	-36.37	280.53	0.00	0.00	0.00
1,800.00	16.42	352.55	1,761.11	306.20	-40.03	308.80	0.00	0.00	0.00
1,900.00	16.42	352.55	1,857.03	334.23	-43.70	337.07	0.00	0.00	0.00
2,000.00	16.42	352.55	1,952.95	362.26	-47.36	365.35	0.00	0.00	0.00
2,100.00	16.42	352.55	2,048.87	390.30	-51.03	393.62	0.00	0.00	0.00
2,200.00	16.42	352.55	2,144.79	418.33	-54.69	421.89	0.00	0.00	0.00
2,300.00	16.42	352.55	2,240.71	446.36	-58.36	450.16	0.00	0.00	0.00
2,400.00	16.42	352.55	2,336.63	474.39	-62.02	478.43	0.00	0.00	0.00
2,500.00	16.42	352.55	2,432.55	502.43	-65.69	506.70	0.00	0.00	0.00
2,600.00	16.42	352.55	2,528.47	530.46	-69.35	534.97	0.00	0.00	0.00
2,700.00	16.42	352.55	2,624.39	558.49	-73.02	563.25	0.00	0.00	0.00
2,800.00	16.42	352.55	2,720.31	586.53	-76.68	591.52	0.00	0.00	0.00
2,900.00	16.42	352.55	2,816.23	614.56	-80.35	619.79	0.00	0.00	0.00
3,000.00	16.42	352.55	2,912.15	642.59	-84.01	648.06	0.00	0.00	0.00
3,100.00	16.42	352.55	3,008.07	670.62	-87.68	676.33	0.00	0.00	0.00
3,200.00	16.42	352.55	3,103.99	698.66	-91.34	704.60	0.00	0.00	0.00
3,300.00	16.42	352.55	3,199.91	726.69	-95.01	732.87	0.00	0.00	0.00
3,400.00	16.42	352.55	3,295.83	754.72	-98.67	761.15	0.00	0.00	0.00
Start Drop -2.00									
3,474.28	16.42	352.55	3,367.08	775.55	-101.39	782.14	0.00	0.00	0.00
3,500.00	15.91	352.55	3,391.79	782.65	-102.32	789.31	2.00	-2.00	0.00
3,600.00	13.91	352.55	3,488.42	808.15	-105.66	815.03	2.00	-2.00	0.00
3,700.00	11.91	352.55	3,585.88	830.30	-108.55	837.37	2.00	-2.00	0.00
3,800.00	9.91	352.55	3,684.07	849.07	-111.00	856.29	2.00	-2.00	0.00
3,900.00	7.91	352.55	3,782.86	864.42	-113.01	871.77	2.00	-2.00	0.00
SX									
3,925.36	7.40	352.55	3,808.00	867.77	-113.45	875.15	2.00	-2.00	0.00
4,000.00	5.91	352.55	3,882.13	876.34	-114.57	883.80	2.00	-2.00	0.00
4,100.00	3.91	352.55	3,981.76	884.83	-115.68	892.36	2.00	-2.00	0.00
4,200.00	1.91	352.55	4,081.62	889.86	-116.34	897.43	2.00	-2.00	0.00

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Project:	ANADARKO COLORADO NOTHERN ZONE NAD 83	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site:	WELD_Johnstown Farms	North Reference:	True
Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Johnstown Farms 22-9		
Design:	Johnstown Farms 22-9 (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)
Start 3000.00 hold at 4295.39 MD									
4,295.39	0.00	0.00	4,177.00	891.43	-116.54	899.02	2.00	-2.00	0.00
4,300.00	0.00	0.00	4,181.61	891.43	-116.54	899.02	0.00	0.00	0.00
4,400.00	0.00	0.00	4,281.61	891.43	-116.54	899.02	0.00	0.00	0.00
4,500.00	0.00	0.00	4,381.61	891.43	-116.54	899.02	0.00	0.00	0.00
4,600.00	0.00	0.00	4,481.61	891.43	-116.54	899.02	0.00	0.00	0.00
4,700.00	0.00	0.00	4,581.61	891.43	-116.54	899.02	0.00	0.00	0.00
4,800.00	0.00	0.00	4,681.61	891.43	-116.54	899.02	0.00	0.00	0.00
4,900.00	0.00	0.00	4,781.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,000.00	0.00	0.00	4,881.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,100.00	0.00	0.00	4,981.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,200.00	0.00	0.00	5,081.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,300.00	0.00	0.00	5,181.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,400.00	0.00	0.00	5,281.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,500.00	0.00	0.00	5,381.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,600.00	0.00	0.00	5,481.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,700.00	0.00	0.00	5,581.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,800.00	0.00	0.00	5,681.61	891.43	-116.54	899.02	0.00	0.00	0.00
5,900.00	0.00	0.00	5,781.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,000.00	0.00	0.00	5,881.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,100.00	0.00	0.00	5,981.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,200.00	0.00	0.00	6,081.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,300.00	0.00	0.00	6,181.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,400.00	0.00	0.00	6,281.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,500.00	0.00	0.00	6,381.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,600.00	0.00	0.00	6,481.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,700.00	0.00	0.00	6,581.61	891.43	-116.54	899.02	0.00	0.00	0.00
6,800.00	0.00	0.00	6,681.61	891.43	-116.54	899.02	0.00	0.00	0.00
NIO									
6,811.39	0.00	0.00	6,693.00	891.43	-116.54	899.02	0.00	0.00	0.00
6,900.00	0.00	0.00	6,781.61	891.43	-116.54	899.02	0.00	0.00	0.00
7,000.00	0.00	0.00	6,881.61	891.43	-116.54	899.02	0.00	0.00	0.00
7,100.00	0.00	0.00	6,981.61	891.43	-116.54	899.02	0.00	0.00	0.00
CD									
7,135.39	0.00	0.00	7,017.00	891.43	-116.54	899.02	0.00	0.00	0.00
7,200.00	0.00	0.00	7,081.61	891.43	-116.54	899.02	0.00	0.00	0.00
GH									
7,218.39	0.00	0.00	7,100.00	891.43	-116.54	899.02	0.00	0.00	0.00
TD at 7295.39									
7,295.39	0.00	0.00	7,177.00	891.43	-116.54	899.02	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									
Johnstown Farms 22- - plan hits target center - Point	0.00	0.00	7,177.00	891.43	-116.54	1,362,497.60	3,166,915.96	40° 19' 36.876 N	104° 54' 4.766 W

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Johnston Farms 22-9
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4780.00ft (Original Well Elev)
Project:	ANADARKO COLORADO NOTHERN ZONE NAD 83	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site:	WELD_Johnstown Farms	North Reference:	True
Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Johnstown Farms 22-9		
Design:	Johnstown Farms 22-9 (wp01)		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
751.87	750.00	9 5/8"	9.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,135.39	7,017.00	CD		0.00	
6,811.39	6,693.00	NIO		0.00	
7,218.39	7,100.00	GH		0.00	
3,925.36	3,808.00	SX		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
1,121.12	1,109.92	115.89	-15.15	Start 2353.16 hold at 1121.12 MD
3,474.28	3,367.08	775.55	-101.39	Start Drop -2.00
4,295.39	4,177.00	891.43	-116.54	Start 3000.00 hold at 4295.39 MD
7,295.39	7,177.00	891.43	-116.54	TD at 7295.39



ANADARKO PETROLEUM CORP.

**ANADARKO COLORADO NOTHERN ZONE NAD 83
WELD_Johnstown Farms
Johnston Farms 22-9**

**Johnstown Farms 22-9
Johnstown Farms 22-9 (wp01)**

Anticollision Summary Report

27 September, 2010



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well Johnston Farms 22-9
Project:	ANADARKO COLORADO NOTHERN ZONE NAD 83	TVD Reference:	WELL @ 4780.00ft (Original Well Elev)
Reference Site:	WELD_Johnstown Farms	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	Johnstown Farms 22-9	Database:	EDM 2003.21 Single User Db
Reference Design:	Johnstown Farms 22-9 (wp01)	Offset TVD Reference:	Offset Datum

Reference	Johnstown Farms 22-9 (wp01)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,300.79ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 9/27/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	7,295.39	Johnstown Farms 22-9 (wp01) (Johnstowr	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_Johnstown Farms						
HSR-Leahy #10-9 - HSR Leahy #10-9 - HSR Leahy #10-9						Out of range
Johnstown 13-9 - Johnstown 13-9 - Johnstown 13-9 (wpC	300.00	300.00	60.29	59.16	53.643 CC, ES	
Johnstown Farms 11-9 - Johnstown Farms 11-9 - Johnst	300.00	300.00	10.09	8.96	8.974 CC, ES	
Johnstown Farms 12-9 - Johnstown Farms 12-9 - Johnst	300.00	300.00	29.97	28.84	26.664 CC, ES	
Johnstown Farms 19-9 - Johnstown Farms 19-9 - Johnst	300.00	300.00	80.17	79.04	71.332 CC, ES	
Johnstown Farms 23-9 - Johnstown Farms 23-9 - Johnst	300.00	300.00	40.05	38.93	35.637 CC, ES	
Johnstown Farms 25-9 - Johnstown Farms 25-9 - Johnst	300.00	300.00	20.25	19.13	18.019 CC, ES	
Johnstown Farms 29-16 - Johnstown Farms 29-16 - Johi	300.00	300.00	70.02	68.90	62.305 CC, ES	
Johnstown Farms 33-9 - Johnstown Farms 33-9 - Johnst	300.00	300.00	50.20	49.08	44.669 CC, ES	
Little Thompson #1 - Little Thompson #1 - Little Thompsc	394.10	429.38	1,148.02	1,146.38	702.033 CC	
Little Thompson #1 - Little Thompson #1 - Little Thompsc	400.00	435.28	1,148.03	1,146.36	690.819 ES	
Johnstown Farms 11-9 - Johnstown Farms 11-9 - Johnst	500.00	500.24	13.65	11.62	6.728 SF	
Johnstown Farms 25-9 - Johnstown Farms 25-9 - Johnst	500.00	500.68	23.18	21.15	11.435 SF	
Johnstown 13-9 - Johnstown 13-9 - Johnstown 13-9 (wpC	600.00	591.87	88.56	86.09	35.904 SF	
Johnstown Farms 12-9 - Johnstown Farms 12-9 - Johnst	600.00	600.13	41.68	39.17	16.587 SF	
Johnstown Farms 23-9 - Johnstown Farms 23-9 - Johnst	600.00	597.96	58.25	55.76	23.374 SF	
Johnstown Farms 29-16 - Johnstown Farms 29-16 - Johr	600.00	589.91	99.93	97.48	40.732 SF	
Johnstown Farms 33-9 - Johnstown Farms 33-9 - Johnst	600.00	596.34	71.34	68.85	28.601 SF	
Little Thompson #1 - Little Thompson #1 - Little Thompsc	1,400.00	1,418.85	1,299.84	1,293.31	199.099 SF	
Johnstown Farms 19-9 - Johnstown Farms 19-9 - Johnst	7,295.39	7,192.19	1,180.71	1,148.48	36.633 SF	

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well Johnston Farms 22-9
Project:	ANADARKO COLORADO NORTHERN ZONE NAD 83	TVD Reference:	WELL @ 4780.00ft (Original Well Elev)
Reference Site:	WELD_Johnstown Farms	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	Johnstown Farms 22-9	Database:	EDM 2003.21 Single User Db
Reference Design:	Johnstown Farms 22-9 (wp01)	Offset TVD Reference:	Offset Datum

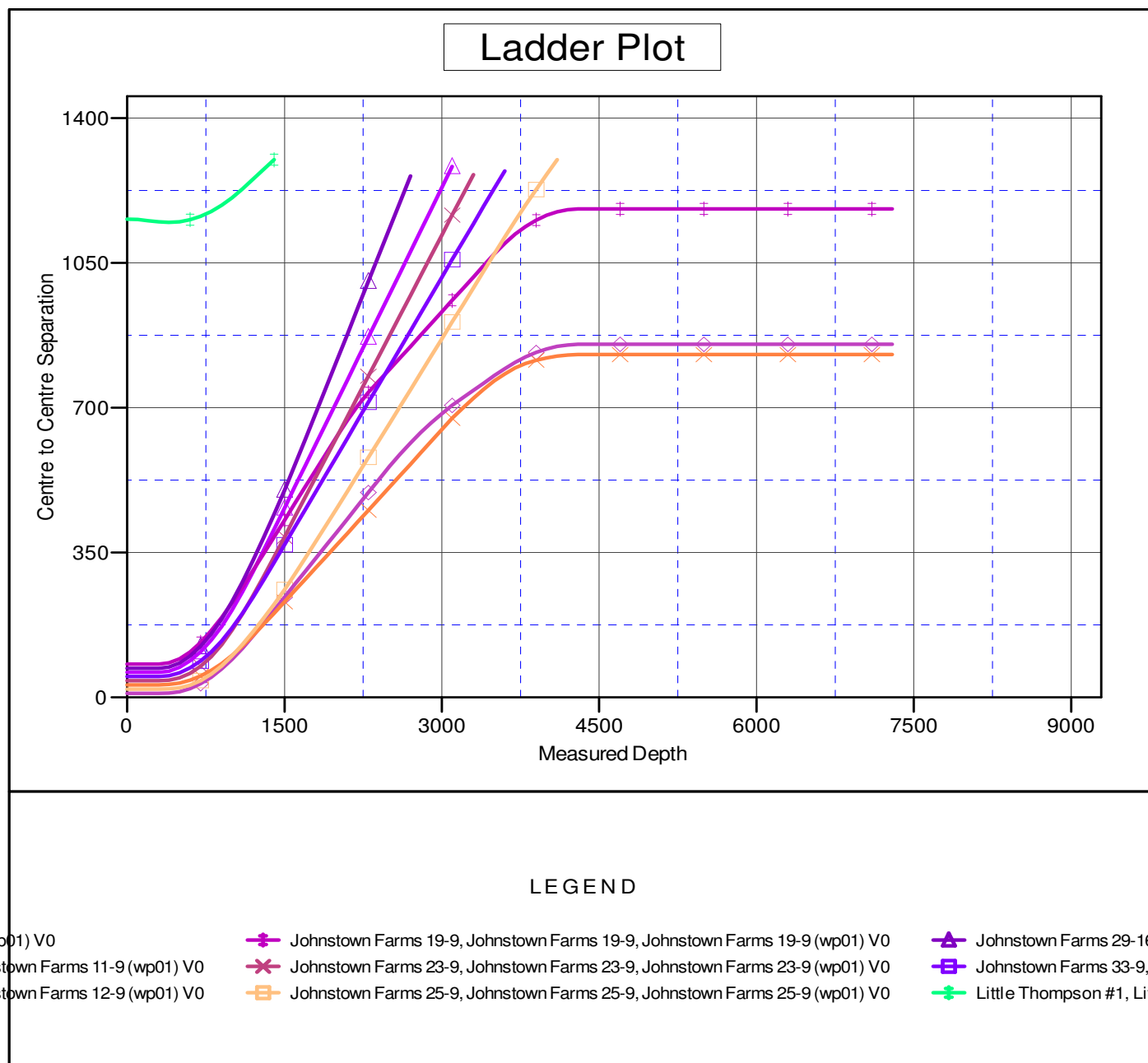
Reference Depths are relative to WELL @ 4780.00ft (Original Well Ele Coordinates are relative to: Johnston Farms 22-9

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W °

Coordinate System is US State Plane 1983, Colorado Northern Zone

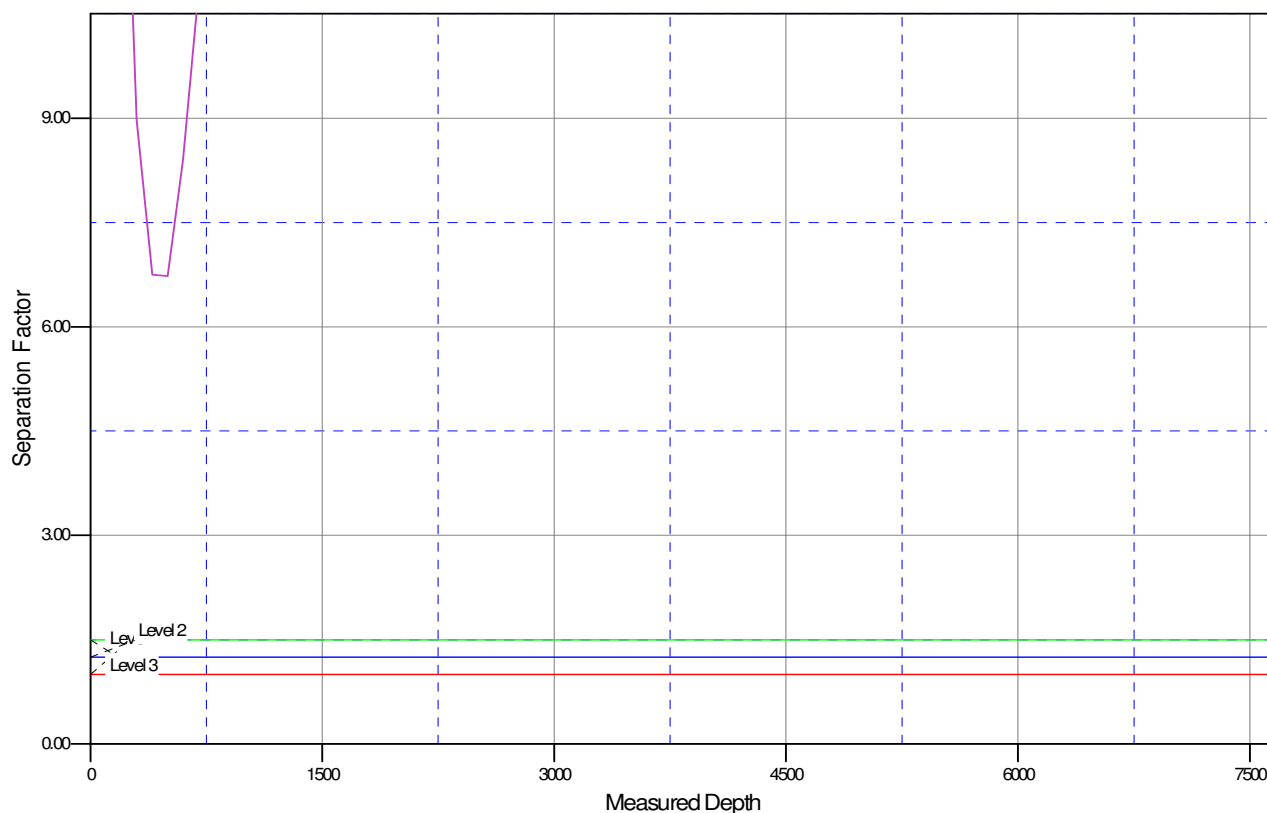
Grid Convergence at Surface is: 0.39°



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well Johnston Farms 22-9
Project:	ANADARKO COLORADO NORTHERN ZONE NAD 83	TVD Reference:	WELL @ 4780.00ft (Original Well Elev)
Reference Site:	WELD_Johnstown Farms	MD Reference:	WELL @ 4780.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	Johnston Farms 22-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	Johnstown Farms 22-9	Database:	EDM 2003.21 Single User Db
Reference Design:	Johnstown Farms 22-9 (wp01)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4780.00ft (Original Well Ele Coordinates are relative to: Johnston Farms 22-9
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

Johnstown Farms 19-9, Johnstown Farms 19-9, Johnstown Farms 19-9 (wp01) V0	Johnstown Farms 23-9, Johnstown Farms 23-9, Johnstown Farms 23-9 (wp01) V0	Johnstown Farms 29-16, Johnstown Farms 29-16, Johnstown Farms 29-16 (wp01) V0
Johnstown Farms 11-9 (wp01) V0	Johnstown Farms 25-9, Johnstown Farms 25-9, Johnstown Farms 25-9 (wp01) V0	Johnstown Farms 33-9, Johnstown Farms 33-9, Johnstown Farms 33-9 (wp01) V0
Johnstown Farms 12-9 (wp01) V0		Little Thompson #1, Little Thompson #1, Little Thompson #1 (wp01) V0