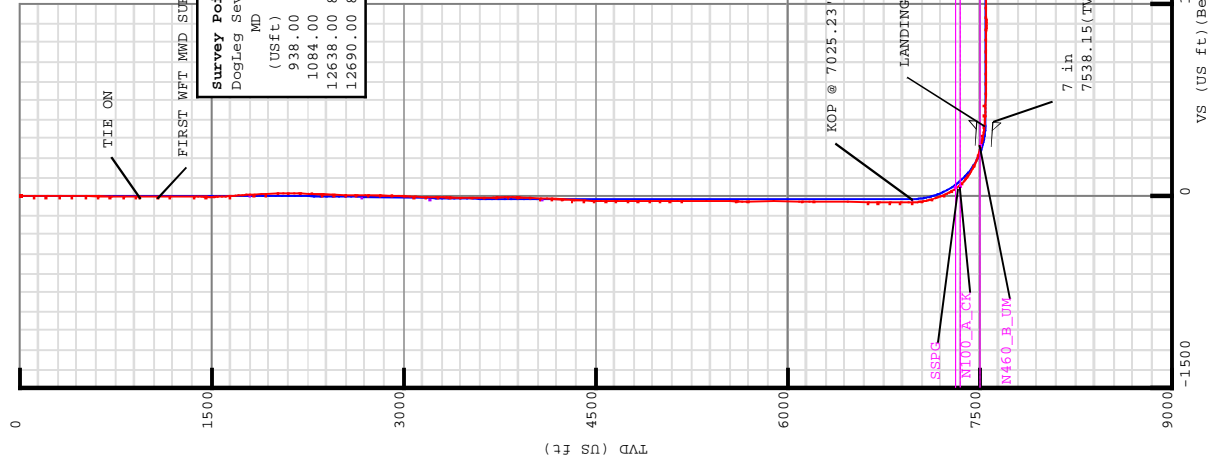




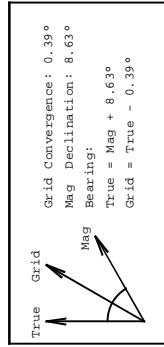
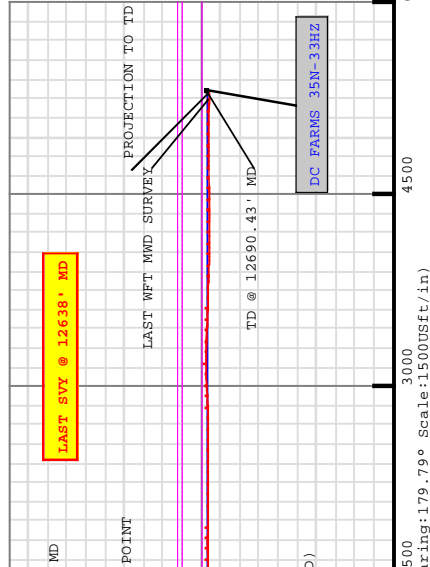
Weatherford®



Survey Point Information:									
DogLeg Severity	Unit:	°/100.00ft	Position	offsets	from	Slot	centre		
MD	Inc	Az	TVD	+N/-S	+E/-W	VSec	DLS	Toolface	Build
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(°)	(DLSU)	(DLSU)
938.00	0.15	339.73	937.98	4.06	-2.21	-4.07	0.41	112.8	-0.05
1084.00	0.16	282.86	1083.98	4.28	-2.47	-4.29	0.10	245.0	0.01
12638.00	87.16	181.42	7557.02	-5239.66	-453.51	5237.97	1.66	180.0	-1.66
12690.00	87.16	181.42	7559.60	-5291.58	-454.80	5289.88	0.00	0.00	0.00

Target Set Information:			
Name:	DC FARMS 35N-33HZ	Lat	Long
Name:	PBHL	7542.00	40.001612
Name:	SSPG	7324.00	-2300.00
Name:	N100_A_CK	7346.00	-2322.00
Name:	N460_B_UM	7511.00	-2487.00

Casing Point Information:			
Name:	DC FARMS 35N-33HZ	TVD	MD
Name:	7 in	7973.50	7538.15



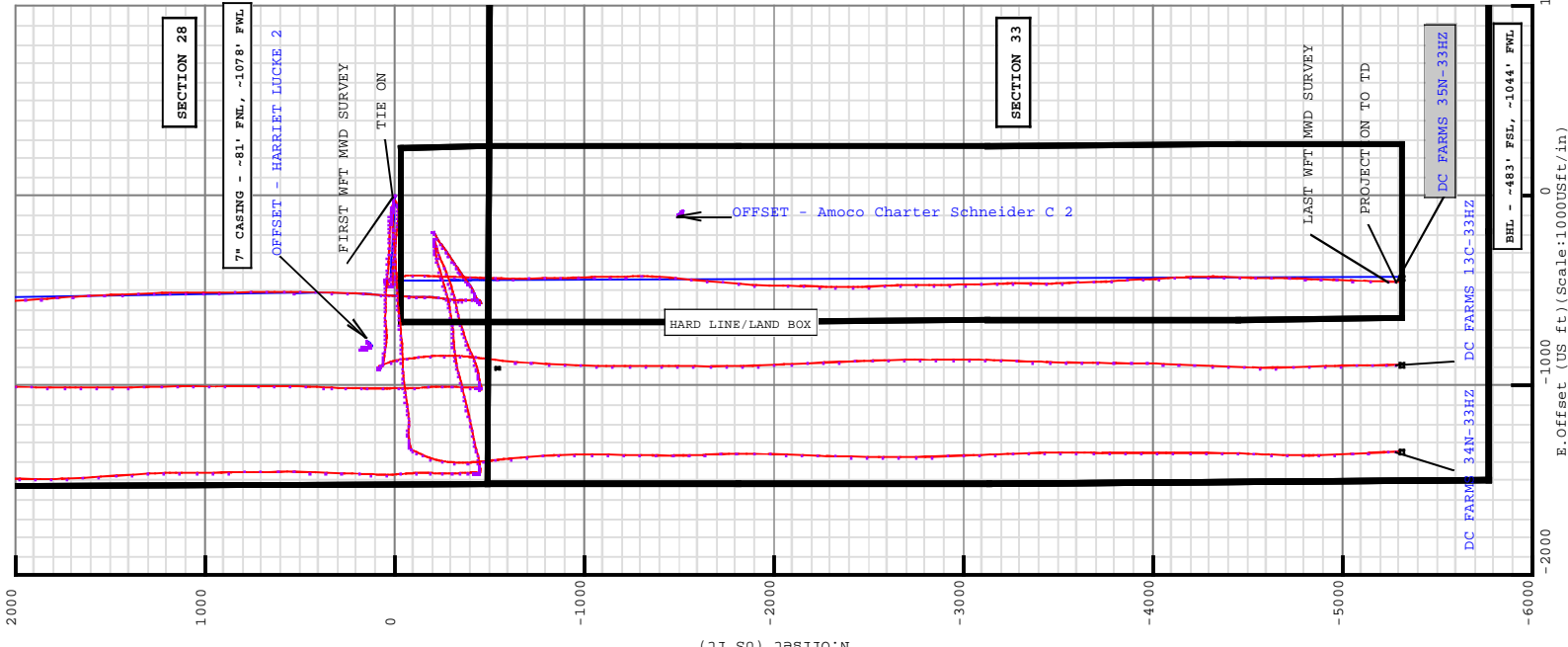
Plan Data for DC FARMS 35N-33HZ

Field: WATTENBERG ANADARKO_NAD 83
Map Unit: USft
Projected Coordinate System: NAD83 / Colorado North (ftUS)

Site: DC FARMS 13C-33HZ PAD
Unit: USfeet
Company Name: Anadarko Petroleum
Position: Northing: 1249319.07USft Latitude: 40.016205°
Eastng: 3168144.48USft Longitude: -104.899666°
North Reference: True
Elevation Above VRD: 5007.00USft

Slot: DC FARMS 35N-33HZ
Position: Offset is from Site centre
+N/-S: -0.73USft Northing: 1249318.75USft Latitude: 40.016203°
+E/-W: 59.94USft Eastng: 3168204.43USft Longitude: -104.899452°
Elevation Above VRD: 5008.00USft

Well: DC FARMS 35N-33HZ
Type: Main-Well
File Number: Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.73USft Azimuth: 179.79°
+E/-W: -59.94USft
Magnetic Parameters: Model: Field Strength: Declination: Dip: Date:
BGGM 52637(NT) 8.63° 66.63° 2013-10-07



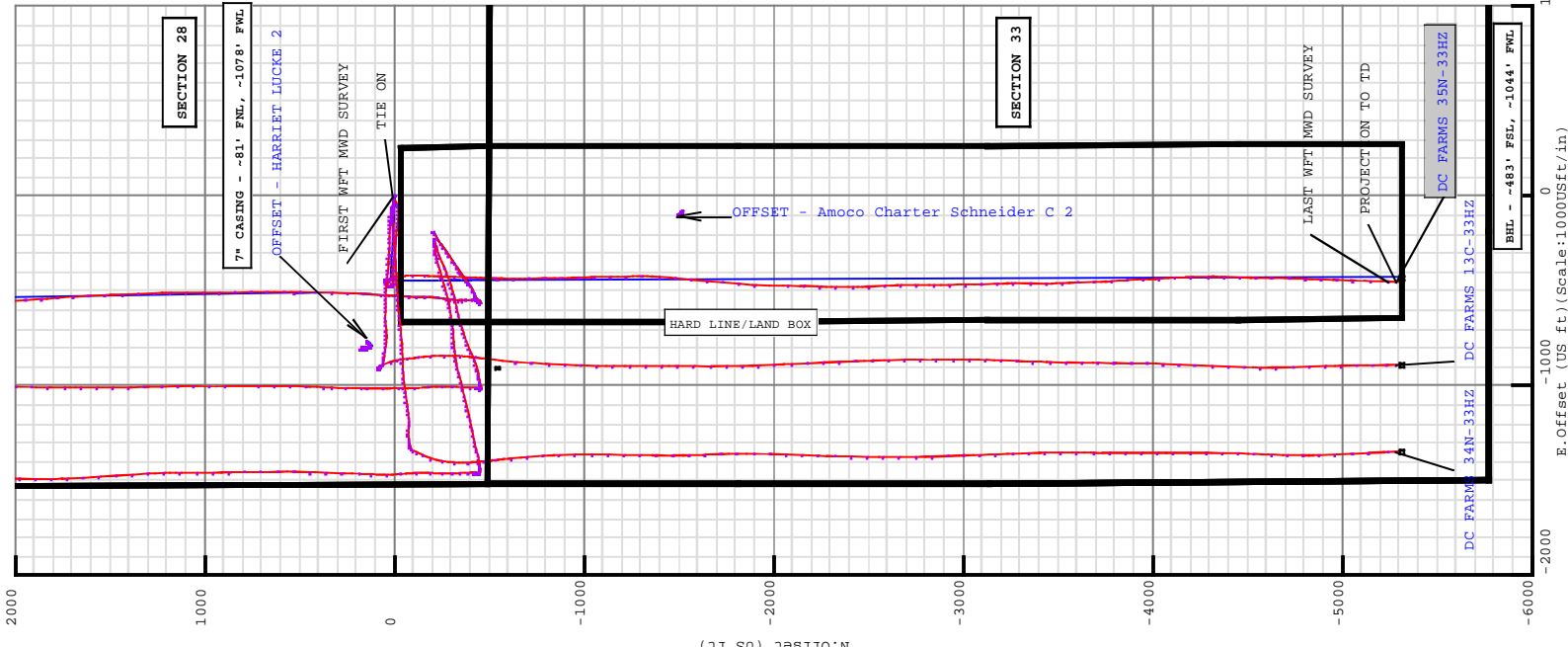
Plan Data for DC FARMS 35N-33HZ

Field: WATTENBERG ANADARKO_NAD 83
Map Unit: USft
Projected Coordinate System: NAD83 / Colorado North (ftUS)

Site: DC FARMS 13C-33HZ PAD
Unit: USfeet
Company Name: Anadarko Petroleum
Position: Northing: 1249319.07USft Latitude: 40.016205°
Eastng: 3168144.48USft Longitude: -104.899666°
North Reference: True
Elevation Above VRD: 5007.00USft

Slot: DC FARMS 35N-33HZ
Position: Offset is from Site centre
+N/-S: -0.73USft Northing: 1249318.75USft Latitude: 40.016203°
+E/-W: 59.94USft Eastng: 3168204.43USft Longitude: -104.899452°
Elevation Above VRD: 5008.00USft

Well: DC FARMS 35N-33HZ
Type: Main-Well
File Number: Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.73USft Azimuth: 179.79°
+E/-W: -59.94USft
Magnetic Parameters: Model: Field Strength: Declination: Dip: Date:
BGGM 52637(NT) 8.63° 66.63° 2013-10-07





5D Survey Report

Anadarko Petroleum

Field Name: WATTENBERG_ANADARKO_NAD 83
Site Name: DC FARMS 13C-33HZ PAD
Well Name: DC FARMS 35N-33HZ
Survey: Definitive Survey



DEFINITIVE SURVEYS FOR THE DC FARMS 35N-33HZ

Site Name DC FARMS 13C-33HZ PAD	Units : US ft	North Reference : True	Convergence Angle : 0.39
	Position	Northing : 1249319.07 US ft Easting : 3168144.48 US ft	Latitude : 40.016205 Longitude : -104.899666
	Elevation above:5007.00 US ft Comment :		
Slot Name DC FARMS 35N-33HZ	Position (Offsets relative to Site Centre)		
	+N / -S : -0.73 US ft +E / -W : 59.94 US ft	Northing :1249318.75 US ft Easting :3168204.43 US ft	Latitude : 40.016203 Longitude : -104.899452
	Slot TVD Reference : Ground Elevation Elevation above : 5008.00 US ft Comment :		
Well Name DC FARMS 35N-33HZ	Type : Main well	UWI :	
	Rig Height Drill Floor : 16.00 US ft Relative to : 5024.00 US ft	Comment :	
	Closure Distance : 5311.09 US ft Vertical Section (Position of Origin Relative to Slot)	Closure Azimuth : 184.912° +E / -W : -59.94 US ft +N / -S : 0.73 US ft Az :179.79°	

Target Set

Name : DC FARMS 35N-33HZ Number of Targets : 1

Comment :

TargetName: PBHL Shape: Cuboid	Position (Relative to centre)		
	+N / -S : -5315.12US ft +E / -W : -428.90 US ft	Northing : 1244000.84 US ft Easting : 3167811.53US ft	Latitude : 40°0'5.803200" Longitude : -104°54'3.538800"
	TVD (Drill Floor) : 7542.00 US ft		
Orientation	Azimuth : 0.00°	Inclination : 0.00°	Height : 20.00 US ft
Dimensions	Length : 20.00 US ft	Breadth : 20.00 US ft	

5D Survey Report

Survey Name :Definitive Survey			
Date : 05/Sep/2013		Survey Tool :	Company :
Magnetic Model			
Model Name: BGGM	Date: 07/Sep/2013	Field Strength: 52647.5 nT	Dip: 56.63°
Survey Tool Ranges			
Name	Start MD (us ft)	End MD (us ft)	Source Survey
NSG Static GMS	0.00	938.00	SURFACE GYRO SURVEYS
MWD	938.00	12690.00	WFT MWD SURVEYS

Well path created using minimum curvature

Survey Points (Relative to centre, TVD relative to Drill Floor)														
MD (US ft)	Inc (°)	Az (US ft)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Latitude (°)	-Longitude (°)	DLS (°/100 US ft)	T. Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	40.016203	-104.899452	0.00	0.00	0.00	0.95	0.00	0.00	2
16.00	0.00	0.00	16.00	0.00	0.00	40.016203	-104.899452	0.00	0.00	16.00	0.95	0.00	0.00	
116.00	0.38	296.27	116.00	0.15	-0.30	40.016203	-104.899453	0.38	296.27	100.00	0.80	-0.33	0.00	
216.00	0.08	338.16	216.00	0.36	-0.62	40.016204	-104.899454	0.32	170.54	100.00	0.59	-0.56	0.44	
316.00	0.43	298.40	316.00	0.60	-0.98	40.016205	-104.899455	0.37	312.34	100.00	0.34	-1.15	-0.06	
416.00	0.48	343.48	415.99	1.18	-1.43	40.016206	-104.899457	0.35	105.00	100.00	-0.24	-1.54	1.03	
516.00	0.41	321.92	515.99	1.86	-1.77	40.016208	-104.899458	0.18	236.78	100.00	-0.92	-2.56	0.24	
616.00	0.44	357.68	615.99	2.53	-2.00	40.016210	-104.899459	0.26	101.64	100.00	-1.59	-2.61	1.90	
716.00	0.53	348.93	715.99	3.37	-2.11	40.016212	-104.899460	0.12	316.12	100.00	-2.43	-3.71	1.42	
816.00	0.10	51.78	815.98	3.88	-2.13	40.016214	-104.899460	0.49	169.59	100.00	-2.94	-0.73	4.36	
916.00	0.16	306.33	915.98	4.01	-2.17	40.016214	-104.899460	0.21	227.24	100.00	-3.07	-4.13	-1.95	
938.00	0.15	339.73	937.98	4.06	-2.21	40.016214	-104.899460	0.41	112.84	22.00	-3.12	-4.57	0.66	TIE ON
1084.00	0.16	282.86	1083.98	4.28	-2.47	40.016215	-104.899461	0.10	244.97	146.00	-3.34	-3.36	-3.63	FIRST WFT MWD SURVEY
1178.00	0.63	294.88	1177.98	4.53	-3.07	40.016215	-104.899463	0.50	16.05	94.00	-3.59	-4.69	-2.82	
1366.00	1.54	299.98	1365.94	6.23	-6.19	40.016220	-104.899474	0.49	8.61	188.00	-5.30	-8.47	-2.30	
1460.00	5.06	280.68	1459.78	7.63	-11.36	40.016224	-104.899493	3.87	332.68	94.00	-6.72	-12.53	-5.39	
1647.00	6.26	214.04	1646.04	0.70	-25.19	40.016205	-104.899542	3.36	245.98	187.00	0.16	-13.44	-21.26	
1835.00	8.87	257.07	1832.53	-11.05	-45.07	40.016173	-104.899613	3.22	87.66	188.00	11.83	-45.74	0.74	
1928.00	10.53	256.41	1924.20	-14.65	-60.32	40.016163	-104.899667	1.79	355.84	93.00	15.38	-58.84	0.86	
2023.00	11.32	258.65	2017.48	-18.52	-77.90	40.016152	-104.899730	0.94	29.36	95.00	19.19	-71.26	4.97	
2114.00	12.14	268.96	2106.58	-20.46	-96.22	40.016147	-104.899796	2.47	73.73	91.00	21.05	-79.27	19.91	
2205.00	13.96	276.01	2195.24	-19.48	-116.71	40.016150	-104.899869	2.65	44.65	91.00	20.00	-85.41	30.03	
2296.00	15.16	279.02	2283.31	-16.47	-139.38	40.016158	-104.899950	1.56	33.70	91.00	16.90	-92.54	33.45	
2387.00	14.39	277.96	2371.30	-13.03	-162.33	40.016167	-104.900032	0.90	198.83	91.00	13.39	-99.47	29.97	
2478.00	15.62	277.02	2459.20	-9.97	-185.69	40.016176	-104.900115	1.38	348.35	91.00	10.24	-103.41	26.68	
2571.00	14.57	275.92	2548.99	-7.23	-209.75	40.016183	-104.900201	1.17	194.73	93.00	7.41	-104.45	23.23	
2663.00	13.41	273.94	2638.26	-5.31	-231.91	40.016188	-104.900280	1.36	201.46	92.00	5.40	-100.55	18.87	
2756.00	11.95	271.75	2728.99	-4.27	-252.29	40.016191	-104.900353	1.65	197.16	93.00	4.29	-92.35	15.36	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)																	
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T. Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment			
2848.00	12.69	272.59	2818.87	-3.52	-271.91	40.016193	-104.900423	0.83	14.03	92.00	3.47	-83.15	16.97				
2942.00	12.59	276.14	2910.60	-1.61	-292.36	40.016199	-104.900496	1.30	97.41	94.00	1.48	-72.48	22.94				
3128.00	16.48	276.36	3090.61	5.10	-338.55	40.016217	-104.900661	2.09	0.92	186.00	-5.40	-61.70	17.86				
3222.00	14.87	275.73	3181.11	8.24	-363.74	40.016226	-104.900751	1.87	202.55	94.00	-8.63	-58.55	13.13				
3315.00	15.86	272.75	3270.79	10.05	-388.31	40.016231	-104.900838	1.36	319.98	93.00	-10.52	-56.26	9.68				
3409.00	12.85	272.37	3361.84	11.09	-411.59	40.016233	-104.900921	3.20	181.61	94.00	-11.66	-54.68	9.48				
3502.00	11.09	270.19	3452.82	11.55	-430.87	40.016235	-104.900990	1.95	193.34	93.00	-12.18	-52.52	8.09				
3595.00	9.58	270.57	3544.30	11.66	-447.55	40.016235	-104.901050	1.63	177.60	93.00	-12.35	-50.30	9.25				
3689.00	6.20	266.94	3637.40	11.46	-460.45	40.016234	-104.901096	3.63	186.59	94.00	-12.21	-47.60	7.26				
3782.00	4.51	263.76	3729.99	10.80	-469.10	40.016231	-104.901127	1.84	188.38	93.00	-11.57	-43.79	6.39				
3868.00	3.11	267.00	3815.80	10.31	-474.79	40.016231	-104.901147	1.65	172.87	86.00	-11.10	-39.76	9.98				
3953.00	1.11	314.55	3900.74	10.77	-477.68	40.016233	-104.901157	2.94	160.86	85.00	-11.57	-16.82	33.25				
4038.00	2.38	3.26	3985.71	13.11	-478.16	40.016239	-104.901159	2.17	75.55	85.00	-13.91	11.52	30.94				
4124.00	1.97	0.93	4071.64	16.37	-478.04	40.016248	-104.901159	0.49	191.01	86.00	-17.17	7.10	29.54				
4209.00	3.74	4.99	4156.53	20.59	-477.77	40.016260	-104.901158	2.09	8.55	85.00	-21.39	4.94	29.01				
4295.00	3.43	2.96	4242.37	25.95	-477.40	40.016274	-104.901156	0.39	201.26	86.00	-26.76	-1.45	29.07				
4380.00	3.02	25.83	4327.24	30.51	-476.29	40.016287	-104.901152	1.58	118.87	85.00	-31.31	5.37	28.34				
4465.00	2.38	15.19	4412.14	34.23	-474.85	40.016297	-104.901147	0.95	212.83	85.00	-35.02	-3.91	28.43				
4550.00	2.20	51.78	4497.08	36.94	-473.11	40.016304	-104.901141	1.70	115.06	85.00	-37.73	10.75	26.21				
4636.00	2.35	106.08	4583.02	37.47	-470.12	40.016306	-104.901130	2.42	113.45	86.00	-38.25	24.82	7.90				
4721.00	1.48	77.58	4667.97	37.23	-467.37	40.016305	-104.901121	1.49	213.94	85.00	-37.99	15.42	17.96				
4806.00	2.55	91.82	4752.92	37.40	-464.41	40.016306	-104.901110	1.38	32.31	85.00	-38.16	16.40	13.89				
4892.00	2.18	87.19	4838.85	37.42	-460.86	40.016306	-104.901097	0.48	205.01	86.00	-38.16	11.69	15.01				
4977.00	2.03	83.11	4923.79	37.68	-457.75	40.016306	-104.901086	0.25	222.95	85.00	-38.41	7.48	15.69				
5062.00	1.54	74.75	5008.75	38.16	-455.16	40.016308	-104.901077	0.65	203.85	85.00	-38.88	2.49	16.39				
5147.00	1.13	55.17	5093.72	38.94	-453.37	40.016310	-104.901071	0.71	218.54	85.00	-39.66	-5.06	15.90				
5233.00	0.90	185.81	5179.72	38.75	-452.74	40.016309	-104.901068	2.15	158.30	86.00	-39.47	15.23	-5.87				
5659.00	1.44	353.42	5605.68	40.74	-453.69	40.016315	-104.901072	0.55	172.37	426.00	-41.46	-18.22	3.18				
5745.00	1.06	143.82	5691.67	41.17	-453.34	40.016316	-104.901071	2.81	167.50	86.00	-41.89	17.56	6.77				
6172.00	1.44	26.02	6118.62	42.81	-448.66	40.016321	-104.901054	0.50	216.35	427.00	-43.51	-17.70	8.99				
6257.00	0.35	176.12	6203.61	43.51	-448.18	40.016322	-104.901052	2.07	174.65	85.00	-44.20	20.49	0.93				
6684.00	1.27	355.72	6630.59	46.92	-448.49	40.016332	-104.901053	0.38	178.12	427.00	-47.62	-23.85	-1.73				
6769.00	0.07	101.01	6715.58	47.85	-448.51	40.016334	-104.901053	1.52	177.00	85.00	-48.55	4.82	24.38				
6854.00	0.16	320.02	6800.58	47.93	-448.54	40.016335	-104.901053	0.26	207.40	85.00	-48.63	-19.17	-15.94				
6939.00	0.21	57.28	6885.58	48.11	-448.48	40.016335	-104.901053	0.33	131.84	85.00	-48.81	-13.53	21.15				
7024.00	1.59	92.65	6970.57	48.14	-447.17	40.016335	-104.901049	1.68	40.27	85.00	-48.83	-0.10	25.17				
7110.00	10.15	162.60	7056.08	40.84	-443.71	40.016315	-104.901036	11.30	78.70	86.00	-41.52	21.74	11.66				
7195.00	18.23	164.20	7138.42	20.86	-437.84	40.016260	-104.901015	9.52	3.56	85.00	-21.52	18.96	15.98				
7281.00	22.66	166.69	7218.99	-8.34	-430.92	40.016180	-104.900991	5.46	21.61	86.00	7.71	20.01	21.18				
7366.00	33.37	172.47	7293.92	-47.69	-424.63	40.016072	-104.900968	12.77	11.11	85.00	47.08	22.50	26.05				
7451.00	44.33	179.24	7360.05	-100.75	-421.16	40.015926	-104.900956	13.81	23.88	85.00	100.15	22.29	26.99				

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)																	
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T. Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment			
7537.00	55.86	184.23	7415.15	-166.53	-423.39	40.015746	-104.900964	14.12	20.01	86.00	165.93	16.17	23.51				
7622.00	54.88	182.09	7457.13	-240.23	-427.40	40.015544	-104.900978	10.83	347.80	85.00	239.60	5.37	19.95				
7707.00	72.91	181.09	7487.71	-319.43	-429.58	40.015326	-104.900986	9.51	353.19	85.00	318.80	-5.23	17.65				
7793.00	76.66	181.97	7510.28	-402.37	-431.80	40.015098	-104.900994	4.47	12.88	86.00	401.73	-11.83	15.19				
7878.00	80.16	182.39	7527.36	-485.56	-434.97	40.014870	-104.901005	4.15	6.75	85.00	484.91	-10.84	11.65				
7928.00	84.19	181.44	7534.16	-535.06	-436.62	40.014734	-104.901011	8.28	346.79	50.00	534.40	-7.59	9.77				
8022.00	87.44	180.70	7541.02	-628.78	-438.37	40.014477	-104.901017	3.55	347.18	94.00	628.11	-0.97	7.68				
8107.00	87.72	177.89	7544.61	-713.69	-437.33	40.014244	-104.901013	3.32	275.63	85.00	713.03	2.60	8.41				
8192.00	88.52	176.88	7547.40	-798.60	-434.93	40.014011	-104.901005	1.50	51.06	85.00	797.95	5.39	10.49				
8278.00	89.69	180.41	7548.74	-884.59	-434.40	40.013775	-104.901003	2.24	52.61	86.00	883.94	6.74	10.71				
8363.00	89.14	177.27	7549.61	-969.56	-432.68	40.013541	-104.900997	3.75	260.05	85.00	968.91	7.60	12.11				
8448.00	90.49	179.29	7549.89	-1054.51	-430.13	40.013308	-104.900988	2.86	56.25	85.00	1053.87	7.89	14.36				
8534.00	90.25	179.79	7549.33	-1140.51	-429.44	40.013072	-104.900985	0.64	115.64	86.00	1139.87	7.33	14.74				
8619.00	89.38	177.56	7549.60	-1225.48	-427.47	40.012839	-104.900978	2.82	248.69	85.00	1224.85	7.60	16.38				
8704.00	89.32	180.47	7550.57	-1310.45	-426.01	40.012606	-104.900973	3.42	91.20	85.00	1309.83	8.57	17.54				
8790.00	91.17	183.79	7550.20	-1396.37	-429.21	40.012370	-104.900984	4.42	60.87	86.00	1395.74	8.18	13.99				
8875.00	90.86	185.33	7548.70	-1481.09	-435.96	40.012137	-104.901008	1.85	101.37	85.00	1480.43	6.68	6.93				
8960.00	90.99	185.08	7547.32	-1565.73	-443.67	40.011905	-104.901036	0.33	297.48	85.00	1565.04	5.32	-1.05				
9045.00	90.74	184.60	7546.04	-1650.41	-450.84	40.011672	-104.901062	0.64	242.49	85.00	1649.70	4.05	-8.51				
9131.00	90.12	185.25	7545.39	-1736.09	-458.23	40.011437	-104.901088	1.04	133.64	86.00	1735.35	3.40	-16.16				
9216.00	89.44	185.09	7545.72	-1820.75	-465.89	40.011205	-104.901115	0.82	193.24	85.00	1819.97	3.70	-24.10				
9301.00	89.81	182.60	7546.28	-1905.55	-471.59	40.010972	-104.901136	2.96	278.44	85.00	1904.75	4.27	-30.18				
9472.00	89.32	180.25	7547.58	-2076.48	-475.84	40.010503	-104.901151	1.40	258.21	171.00	2075.66	5.57	-35.09				
9557.00	89.94	181.44	7548.12	-2161.46	-477.09	40.010269	-104.901155	1.58	62.48	85.00	2160.65	6.12	-36.64				
9643.00	90.35	182.64	7547.91	-2247.41	-480.15	40.010033	-104.901166	1.47	71.14	86.00	2246.58	5.92	-39.99				
9728.00	90.67	179.50	7547.15	-2332.38	-481.74	40.009800	-104.901172	3.71	275.83	85.00	2331.54	5.15	-41.93				
9813.00	89.69	180.54	7546.88	-2417.37	-481.77	40.009567	-104.901172	1.68	133.30	85.00	2416.54	4.88	-42.27				
9899.00	89.82	177.03	7547.25	-2503.34	-479.95	40.009331	-104.901165	4.08	272.11	86.00	2502.51	5.26	-40.72				
9984.00	89.32	176.85	7547.89	-2588.22	-475.41	40.009098	-104.901146	0.63	195.80	85.00	2587.40	5.91	-36.49				
10069.00	89.94	179.51	7548.44	-2673.16	-472.71	40.008865	-104.901140	3.21	76.89	85.00	2672.36	6.44	-34.15				
10155.00	90.80	180.33	7547.88	-2759.16	-472.59	40.008629	-104.901139	1.38	43.63	86.00	2758.36	5.89	-34.35				
10240.00	92.16	179.80	7545.69	-2844.13	-472.69	40.008395	-104.901133	1.72	338.72	85.00	2843.33	3.69	-34.75				
10325.00	92.91	177.70	7541.93	-2929.02	-470.83	40.008162	-104.901133	2.62	289.72	85.00	2928.22	-0.13	-33.19				
10411.00	93.39	179.78	7537.20	-3014.87	-468.95	40.007927	-104.901126	2.48	76.93	86.00	3014.07	-4.79	-31.64				
10496.00	91.91	176.59	7533.27	-3099.76	-467.74	40.007694	-104.901122	2.23	218.80	85.00	3098.97	-8.75	-30.74				
10581.00	90.86	177.85	7531.22	-3184.69	-465.10	40.007460	-104.901112	1.51	215.18	85.00	3183.92	-10.80	-28.40				
10667.00	87.84	179.89	7532.19	-3270.66	-463.40	40.007224	-104.901106	4.24	145.97	86.00	3269.88	-9.80	-27.03				
10752.00	87.59	180.80	7535.58	-3355.59	-463.91	40.006991	-104.901108	1.11	105.39	85.00	3354.81	-6.43	-27.85				
10838.00	87.16	179.73	7539.52	-3441.50	-464.31	40.006753	-104.901110	1.34	248.06	86.00	3440.72	-2.48	-28.57				
10923.00	88.03	176.28	7543.09	-3526.36	-461.35	40.006523	-104.901095	4.18	284.09	85.00	3525.59	1.14	-25.87				
11009.00	87.90	178.88	7546.14	-3612.22	-457.73	40.006287	-104.901086	3.03	92.91	86.00	3611.46	4.15	-22.60				

5D Survey Report

Survey Points (Relative to centre, TVD relative to Drill Floor)														
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T. Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
11094.00	88.70	178.82	7548.66	-3697.16	-456.02	40.006054	-104.901080	0.94	355.71	85.00	3696.41	6.67	-21.21	
11179.00	89.38	175.81	7550.09	-3782.05	-452.04	40.005821	-104.901066	3.63	282.70	85.00	3781.31	8.10	-17.50	
11264.00	87.41	177.09	7552.47	-3866.84	-446.78	40.005588	-104.901047	2.76	147.01	85.00	3866.13	10.49	-12.58	
11350.00	88.33	177.80	7555.67	-3952.70	-442.95	40.005352	-104.901033	1.35	37.65	86.00	3951.99	13.67	-9.07	
11435.00	89.82	175.37	7557.04	-4037.53	-437.89	40.005119	-104.901015	3.35	301.49	85.00	4036.84	15.04	-4.31	
11520.00	90.00	177.35	7557.17	-4122.35	-432.49	40.004886	-104.900996	2.34	84.81	85.00	4121.68	15.17	0.76	
11606.00	89.01	178.81	7557.91	-4208.30	-429.61	40.004650	-104.900986	2.05	124.15	86.00	4207.64	15.91	3.33	
11691.00	89.63	178.57	7558.92	-4293.27	-427.66	40.004417	-104.900979	0.78	338.84	85.00	4292.62	16.92	4.96	
11777.00	90.74	182.22	7558.65	-4379.25	-428.26	40.004181	-104.900981	4.44	73.08	86.00	4378.60	16.64	4.05	
11862.00	91.42	182.47	7557.04	-4464.16	-431.73	40.003948	-104.900993	0.85	20.18	85.00	4463.50	15.04	0.26	
11947.00	90.43	181.16	7555.67	-4549.11	-434.43	40.003715	-104.901003	1.93	232.93	85.00	4548.43	13.67	-2.74	
12033.00	90.18	179.91	7555.21	-4635.10	-435.23	40.003479	-104.901006	1.48	258.69	86.00	4634.42	13.21	-3.86	
12118.00	90.80	181.26	7554.49	-4720.09	-436.10	40.003245	-104.901009	1.75	65.33	85.00	4719.41	12.49	-5.03	
12203.00	90.86	183.49	7553.25	-4805.00	-439.62	40.003012	-104.901021	2.62	88.44	85.00	4804.30	11.26	-8.85	
12289.00	90.80	180.75	7552.01	-4890.93	-442.80	40.002777	-104.901033	3.19	268.77	86.00	4890.22	10.01	-12.36	
12374.00	89.69	181.64	7551.65	-4975.90	-444.57	40.002543	-104.901039	1.67	141.27	85.00	4975.19	9.64	-14.44	
12460.00	89.45	182.92	7552.29	-5061.83	-447.99	40.002307	-104.901051	1.51	100.62	86.00	5061.10	10.28	-18.15	
12545.00	88.70	181.42	7553.66	-5146.76	-451.21	40.002074	-104.901063	1.97	243.42	85.00	5146.02	11.65	-21.70	LAST WFT
12638.00	87.16	181.42	7557.02	-5239.66	-453.51	40.001819	-104.901071	1.66	180.00	93.00	5238.91	14.97	-24.34	MWD SURVEY
12690.00	87.16	181.42	7559.60	-5291.58	-454.80	40.001677	-104.901075	0.00	0.00	52.00	5290.83	17.54	-25.82	PROJECTION TO TD

Formation Points (Relative to centre, TVD relative to Drill Floor)				MD (US ft)	TVD (US ft)
FOX HILLS BASE				744.02	744.00
SUSSEX				4890.15	4837.00
SHANNON				5379.29	5326.00
SSPG				7403.06	7324.00
N100_A_CK				7431.76	7346.00
N460_B_UM				7796.13	7511.00