

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III

1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

AS-DRILLED PLAT

¹ API Number 30-015-45398	² Pool Code 97905	³ Pool Name WC G-07 S223021G; Bone Spring
⁴ Property Code 322839	⁵ Property Name JAMES RANCH UNIT DI 1 BS2A-5W	
⁶ Well Number 210H	⁷ OGRID No. 373075	
⁸ Operator Name XTO PERMIAN OPERATING, LLC.		⁹ Elevation 3,166'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	21	22 S	30 E		1,542	NORTH	1,761	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	19	22 S	30 E		1,973	SOUTH	28	WEST	EDDY

¹² Dedicated Acres 440	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.
NOTE: AS-DRILLED BOTTOM HOLE PLOTTED FROM DATA FURNISHED BY XTO ENERGY.

					¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Tracie J. Cherry</i> 06/26/20 Signature Date Tracie J. Cherry, Regulatory Coordinator Printed Name tracie_cherry@xtoenergy.com E-mail Address	
¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 6-23-2020 Date of Survey <i>Mark Dillon Harp</i> Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number					RR 2017050645	

Intent ☐ As Drilled ☒

API # 30-015-45398		
Operator Name: XTO PERMIAN OPERATING, LLC	Property Name: James Ranch Unit DI1 BS2A-5W	Well Number 210H

Kick Off Point (KOP)

UL I	Section 21	Township 22S	Range 30E	Lot	Feet 2494	From N/S S	Feet 1107	From E/W E	County Eddy
Latitude 32.377291 N					Longitude 103.881185 W				NAD 83

First Take Point (FTP)

UL J	Section 21	Township 22S	Range 30E	Lot	Feet 2013	From N/S S	Feet 1695	From E/W E	County Eddy
Latitude 32.375975 N					Longitude 103.883090 W				NAD 83

Last Take Point (LTP)

UL	Section 19S	Township 22S	Range 30E	Lot 3	Feet 1970	From N/S S	Feet 127	From E/W W	County Eddy
Latitude 32.375953 N					Longitude 103.929273 W				NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-45397		
Operator Name: XTO PERMIAN OPERATING, LLC	Property Name: James Ranch Unit BS1-3E	Well Number 213H

KZ 06/29/2018



I Gregg Wilson certify that I am employed by VES Survey International. That I did on the day(s) of 04/24/19 through 04/24/19 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 412.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO Energy for the James Ranch Unit D11 BS2A 5W Well # 210H API # 30-015-45301 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.



Gregg Wilson
Service Technician
VES Survey International



Company: XTO Energy
Lease/Well: James Ranch Unit DI1 BS2A 5W/210H

Rig Name: Noram 25
State/County: New Mexico/Eddy
VS-Azi: 0.00 Degrees
Latitude: 32.38059, Longitude: -103.88280
Grid North = True North -0.24 degs (NAD 27)
Grid Correction Applied = -0.24 degs



Depth Reference : RKB= 25 Ft

DRILLOG MS GYRO SURVEY CALCULATIONS
Filename: msgyro_run01-01.ut
Minimum Curvature Method
Report Date/Time: 4/29/2019 / 10:37

VES Survey International
Fort Worth, Texas
Office 817-741-3610
Surveyor: Gregg Wilson
James Ranch Unit DI1 BS2A 5W 210H / 30-015-45397

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.28	314.89	100.00	0.18	-0.18	0.18	0.25	314.89	0.28
200.00	0.84	268.83	199.99	0.34	-1.08	0.34	1.13	287.23	0.67
300.00	1.24	257.99	299.98	0.10	-2.87	0.10	2.87	271.90	0.45
412.00	1.63	260.97	411.94	-0.41	-5.63	-0.41	5.65	265.87	0.35



Weatherford

Drilling Services
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

XTO Energy
6401 Holliday Hill Road
Midland, TX 79707

Date: June 10, 2019

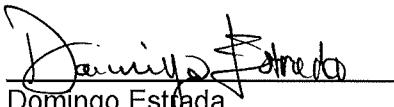
Attention: Robert Carlton

Re: XTO Energy
Well: James Ranch Unit DI 1 BS2A-5W #210H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Domingo Estrada	210H	1,623 MD	4/27/2019	Measurement
MWD Ops. Coordinator		24,270 MD	6/3/2019	While Drilling

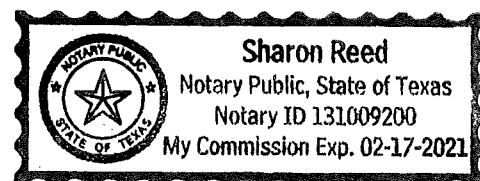
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Domingo Estrada
MWD Ops. Coordinator

On this, the 11th day of June, 2019, before me a notary public, the undersigned officer, personally appeared Domingo Estrada, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.


Notary Public



**5D Survey Report****XTO Energy**

Field Name: *XTO NAD 27 NME*
Site Name: *James Ranch Unit DI 1 #210H_211H_212H_213H*
Well Name: *James Ranch Unit DI 1 BS2A-5W #210H*
File number: *13710735*
Survey: *Definitive survey*

10 June 2019





James Ranch Unit DI 1 BS2A-5W #210H

Field Name: XTO NAD 27 NME	Map Units: US ft		Company Name: XTO Energy	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD27 / New Mexico East			
	Comment:			
Site: James Ranch Unit DI 1 #210H_211H_2 12H_213H	Units: US ft	North Reference: Grid	Convergence Angle: 0.24	
	Position:	Northing: 502465.80 US ft	Latitude: 32° 22' 50.12"	
		Easting: 639082.80 US ft	Longitude: -103° 52' 58.09"	
	Elevation above MSL:3166.00 US ft			
	Comment: Eddy Co, NM			
Slot: James Ranch Unit DI 1 BS2A- 5W #210H	Position (Relative to Site Centre)			
	+N/-S: 0.00 US ft	Northing: 502465.80 US ft	Latitude: 32° 22' 50.12"	
	+E/-W: 0.00 US ft	Easting: 639082.80 US ft	Longitude: -103° 52' 58.09"	
	Elevation above MSL: 3166.00 US ft			
	Comment:			
Well: James Ranch Unit DI 1 BS2A- 5W #210H	Type:Main well		UWI:	
	File Number:	Comment:		
	13710735			
	Closure Distance:14396.3US ft		Closure Azimuth:262.88°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft		+E/-W: -0.00 US ft	Az: 269.91°

Drill floor: Survey Name: Definitive Survey

Rig Height (Well TVD Reference): Elevation above MSL: 3191.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00°
25.00 US ft

Survey Name: Definitive Survey

Date: 05/Feb/2019 **Survey Tool:** See Survey **Comment:** **Company:**
Tool Ranges below.

Magnetic Model:

Model Name: MagVar **Date:** 28/Apr/2019 **Field Strength:** **Declination:** 7.16° **Dip:** 60.11°
IFR 47935.0 nT

Tie Point:

MD: 0.00 US ft **Inclination:** 0.00° **Azimuth:** 0.00° **TVD:** 0.00 US ft **North Offset:** 0.00 US ft **East Offset:** -0.00 US ft

5D Survey Report

Survey Tool Ranges:			
Name	Start MD(USFt)	End MD(USFt)	Source Survey
VES GyroFlex V3	0.00	1473.00	Gyro
MWD + IFR	1473.00	3420.00	WFT MWD+IFR_1
MWD + IFR	3420.00	8706.00	WFT MWD+IFR_2
MWD + IFR + MS	8706.00	11695.00	WFT MWD+IFR+MS_3
MWD + IFR + MS	11695.00	16074.00	WFT MWD+IFR+MS_4
MWD + IFR + MS	16074.00	20116.00	WFT MWD+IFR+MS_5
MWD + IFR + MS	20116.00	24300.00	WFT MWD+IFR+MS_7

Casing Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	TVD (MSL) (US ft)	Northing (US ft)	Easting (US ft)	Name
424.00	1.39	258.95	423.94	-0.46	-5.92	-2767.06	502465.34	639076.88	13 3/8 in
3497.00	8.23	154.32	3490.80	-53.33	74.29	299.80	502412.47	639157.09	9 5/8 in

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos.Dist (US ft)	Clos.Az (°)	Comment
1473.00	3.04	90.51	1471.46	-26.98	16.99	26.95	502482.79	639109.75	31.86	57.77	Tie On VES First WFT SVY
1623.00	2.21	78.54	1621.31	-33.79	17.53	33.76	502483.33	639116.56	38.04	62.56	
1717.00	2.72	89.47	1715.22	-37.80	17.91	37.77	502483.71	639120.57	41.80	64.63	
1812.00	1.42	93.96	1810.15	-41.23	17.85	41.20	502483.65	639124.00	44.90	66.58	9 5/8 in
1906.00	1.14	87.21	1904.13	-43.32	17.81	43.29	502483.61	639126.09	46.81	67.63	
2001.00	0.25	136.68	1999.12	-44.41	17.71	44.38	502483.51	639127.18	47.78	68.25	
2096.00	0.50	234.62	2094.12	-44.21	17.32	44.18	502483.12	639126.98	47.46	68.60	
2191.00	0.40	204.05	2189.12	-43.74	16.78	43.71	502482.58	639126.51	46.82	69.00	
2285.00	0.30	221.08	2283.12	-43.44	16.29	43.42	502482.09	639126.22	46.37	69.43	
2380.00	0.40	194.16	2378.12	-43.20	15.78	43.17	502481.58	639125.97	45.96	69.92	
2475.00	0.25	192.02	2473.11	-43.07	15.26	43.05	502481.06	639125.85	45.67	70.48	
2568.00	0.21	144.02	2566.11	-43.13	14.92	43.10	502480.72	639125.90	45.61	70.91	
2663.00	0.47	134.76	2661.11	-43.51	14.51	43.48	502480.31	639126.28	45.84	71.55	
2758.00	1.00	137.50	2756.10	-44.34	13.62	44.32	502479.42	639127.12	46.37	72.92	
2853.00	2.35	147.04	2851.06	-45.96	11.37	45.94	502477.17	639128.74	47.33	76.09	
2946.00	3.48	146.34	2943.94	-48.55	7.42	48.54	502473.22	639131.34	49.11	81.30	
3041.00	5.38	152.59	3038.65	-52.19	1.07	52.19	502466.87	639134.99	52.20	88.82	
3136.00	6.52	157.20	3133.14	-56.32	-7.86	56.33	502457.94	639139.13	56.88	97.94	
3231.00	7.72	160.56	3227.41	-60.51	-18.85	60.54	502446.95	639143.34	63.41	107.29	
3326.00	7.96	160.81	3321.52	-64.78	-31.07	64.83	502434.73	639147.63	71.89	115.61	
3420.00	8.19	156.13	3414.59	-69.61	-43.34	69.68	502422.46	639152.48	82.06	121.88	
3497.00	8.23	154.32	3490.80	-74.20	-53.33	74.29	502412.47	639157.09	91.44	125.67	
3599.00	8.29	151.96	3591.74	-80.80	-66.39	80.91	502399.41	639163.71	104.66	129.37	
3693.00	10.55	150.35	3684.47	-88.22	-79.86	88.35	502385.94	639171.15	119.09	132.11	
3788.00	11.54	151.64	3777.71	-97.01	-95.78	97.17	502370.02	639179.97	136.43	134.59	
3881.00	13.08	154.40	3868.57	-105.95	-113.45	106.13	502352.35	639188.93	155.36	136.91	
3975.00	15.26	155.72	3959.70	-115.60	-134.32	115.82	502331.48	639198.62	177.36	139.23	
4070.00	16.21	155.30	4051.14	-126.25	-157.77	126.50	502308.03	639209.30	202.22	141.28	
4164.00	15.05	151.78	4141.66	-137.47	-180.44	137.75	502285.36	639220.55	227.01	142.64	
4258.00	14.66	150.43	4232.52	-149.08	-201.54	149.39	502264.26	639232.19	250.87	143.45	
4353.00	14.60	149.65	4324.44	-161.03	-222.33	161.37	502243.47	639244.17	274.72	144.03	
4447.00	14.35	149.46	4415.46	-172.90	-242.59	173.28	502223.21	639256.08	298.12	144.46	
4542.00	15.32	150.61	4507.29	-185.01	-263.66	185.42	502202.14	639268.22	322.33	144.88	
4637.00	16.04	151.61	4598.75	-197.37	-286.14	197.82	502179.66	639280.62	347.87	145.34	
4732.00	16.34	152.09	4689.99	-209.83	-309.50	210.32	502156.30	639293.12	374.20	145.80	
4827.00	16.69	151.85	4781.07	-222.48	-333.34	223.01	502132.46	639305.81	401.05	146.22	
4921.00	15.53	154.46	4871.38	-234.24	-356.59	234.80	502109.21	639317.60	426.95	146.64	
5014.00	15.47	154.36	4960.99	-244.94	-379.01	245.54	502086.79	639328.34	451.59	147.06	
5109.00	15.24	153.56	5052.60	-255.95	-401.61	256.58	502064.19	639339.38	476.57	147.43	
5204.00	14.78	153.55	5144.36	-266.87	-423.64	267.54	502042.16	639350.34	501.04	147.73	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos.Dist (US ft)	Clos.Az (°)	Comment
5298.00	14.49	153.57	5235.31	-277.41	-444.90	278.11	502020.90	639360.91	524.68	147.99	
5393.00	14.44	153.98	5327.30	-287.86	-466.19	288.60	501999.61	639371.40	548.29	148.24	
5489.00	14.75	154.18	5420.20	-298.40	-487.95	299.17	501977.85	639381.97	572.36	148.49	
5584.00	15.03	154.03	5512.01	-309.03	-509.91	309.83	501955.89	639392.63	596.66	148.72	
5678.00	15.36	153.31	5602.73	-319.92	-531.99	320.76	501933.81	639403.56	621.21	148.91	
5773.00	15.85	152.65	5694.22	-331.50	-554.75	332.37	501911.05	639415.17	646.70	149.07	
5867.00	15.53	152.24	5784.72	-343.22	-577.29	344.13	501888.51	639426.93	672.08	149.20	
5961.00	14.58	152.25	5875.49	-354.56	-598.90	355.50	501866.90	639438.30	696.46	149.31	
6056.00	13.65	151.71	5967.62	-365.41	-619.35	366.38	501846.45	639449.18	719.61	149.39	
6151.00	14.26	156.43	6059.82	-375.37	-639.95	376.37	501825.85	639459.17	742.42	149.54	
6245.00	15.87	157.77	6150.59	-384.82	-662.46	385.87	501803.34	639468.67	766.64	149.78	
6340.00	16.53	157.99	6241.82	-394.77	-687.01	395.84	501778.79	639478.64	792.89	150.05	
6433.00	16.54	153.99	6330.97	-405.49	-711.18	406.61	501754.62	639489.41	819.21	150.24	
6528.00	16.21	152.49	6422.12	-417.51	-735.09	418.66	501730.71	639501.46	845.95	150.34	
6623.00	15.45	152.94	6513.52	-429.35	-758.12	430.55	501707.68	639513.35	871.84	150.41	
6717.00	15.43	153.81	6604.13	-440.53	-780.49	441.76	501685.31	639524.56	896.84	150.49	
6811.00	15.23	153.63	6694.78	-451.50	-802.77	452.76	501663.03	639535.56	921.65	150.58	
6906.00	15.00	154.10	6786.49	-462.38	-825.01	463.68	501640.79	639546.48	946.38	150.66	
7001.00	14.32	154.65	6878.40	-472.74	-846.69	474.08	501619.11	639556.88	970.38	150.75	
7096.00	14.25	154.87	6970.46	-482.71	-867.89	484.07	501597.91	639566.87	993.76	150.85	
7191.00	14.69	154.78	7062.45	-492.77	-889.37	494.17	501576.43	639576.97	1017.44	150.94	
7285.00	14.59	155.44	7153.40	-502.74	-910.92	504.17	501554.88	639586.97	1041.14	151.04	
7380.00	14.43	155.50	7245.37	-512.58	-932.58	514.05	501533.22	639596.85	1064.87	151.14	
7475.00	13.84	155.97	7337.49	-522.09	-953.73	523.59	501512.07	639606.39	1088.00	151.23	
7570.00	13.75	155.38	7429.75	-531.39	-974.37	532.92	501491.43	639615.72	1110.58	151.32	
7665.00	14.77	157.11	7521.82	-540.77	-995.79	542.33	501470.01	639625.13	1133.90	151.43	
7759.00	13.57	154.91	7612.96	-550.07	-1016.82	551.67	501448.98	639634.47	1156.83	151.52	
7853.00	12.63	150.65	7704.52	-559.75	-1035.76	561.38	501430.04	639644.18	1178.11	151.54	
7948.00	11.61	146.85	7797.40	-570.05	-1052.82	571.70	501412.98	639654.50	1198.03	151.50	
8043.00	12.53	157.16	7890.31	-579.25	-1070.32	580.93	501395.48	639663.73	1217.81	151.51	
8137.00	12.12	157.95	7982.14	-586.88	-1088.87	588.59	501376.93	639671.39	1237.77	151.61	
8232.00	14.97	154.52	8074.49	-595.87	-1109.19	597.62	501356.61	639680.42	1259.94	151.68	
8327.00	15.68	153.16	8166.11	-606.91	-1131.72	608.69	501334.08	639691.49	1285.03	151.73	
8421.00	14.71	156.16	8256.83	-617.44	-1153.97	619.25	501311.83	639702.05	1309.63	151.78	
8517.00	12.62	155.74	8350.11	-626.64	-1174.68	628.49	501291.12	639711.29	1332.25	151.85	
8611.00	13.62	156.33	8441.65	-635.27	-1194.18	637.15	501271.62	639719.95	1353.53	151.92	
8706.00	16.19	156.28	8533.45	-645.06	-1216.56	646.97	501249.24	639729.77	1377.89	152.00	
8765.00	16.01	156.39	8590.13	-651.60	-1231.54	653.54	501234.26	639736.34	1394.20	152.05	
8812.00	17.35	161.43	8635.16	-656.41	-1244.13	658.36	501221.67	639741.16	1407.58	152.11	
8860.00	22.37	171.76	8680.30	-659.98	-1259.96	661.96	501205.84	639744.76	1423.27	152.28	
8907.00	27.88	182.98	8722.86	-660.66	-1279.82	662.67	501185.98	639745.47	1441.20	152.63	
8955.00	33.41	189.55	8764.15	-657.84	-1304.08	659.89	501161.72	639742.69	1461.53	153.16	
9002.00	34.04	197.82	8803.26	-651.62	-1329.38	653.71	501136.42	639736.51	1481.42	153.81	
9050.00	34.77	202.29	8842.87	-642.28	-1354.84	644.41	501110.96	639727.21	1500.28	154.56	
9097.00	36.38	203.17	8881.10	-631.67	-1380.06	633.84	501085.74	639716.64	1518.65	155.33	
9144.00	39.09	205.78	8918.27	-619.70	-1406.22	621.91	501059.58	639704.71	1537.60	156.14	
9191.00	40.96	210.06	8954.27	-605.49	-1432.90	607.74	501032.90	639690.54	1556.46	157.02	
9240.00	43.08	214.50	8990.67	-587.92	-1460.60	590.21	501005.20	639673.01	1575.35	158.00	
9287.00	45.94	218.33	9024.19	-568.31	-1487.09	570.64	500978.71	639653.44	1592.82	159.01	
9335.00	48.95	222.48	9056.66	-545.33	-1513.98	547.71	500951.82	639630.51	1610.01	160.11	
9382.00	51.04	227.53	9086.88	-519.83	-1539.40	522.25	500926.40	639605.05	1625.58	161.26	
9429.00	53.15	231.78	9115.77	-491.53	-1563.38	493.99	500902.42	639576.79	1639.57	162.46	
9476.00	55.74	235.95	9143.10	-460.62	-1585.90	463.11	500879.90	639545.91	1652.14	163.72	
9524.00	58.56	239.72	9169.14	-426.45	-1607.34	428.97	500858.46	639511.77	1663.60	165.06	
9571.00	60.11	243.70	9193.12	-390.83	-1626.49	393.38	500839.31	639476.18	1673.38	166.40	
9618.00	63.68	247.07	9215.26	-353.11	-1643.73	355.70	500822.07	639438.50	1681.78	167.79	
9665.00	67.08	250.22	9234.84	-313.30	-1659.27	315.91	500806.53	639398.71	1689.07	169.22	
9713.00	69.79	252.62	9252.49	-270.97	-1673.48	273.60	500792.32	639356.40	1695.70	170.71	
9760.00	73.03	254.25	9267.47	-228.26	-1686.17	230.91	500779.63	639313.71	1701.91	172.20	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos.Dist (US ft)	Clos.Az (°)	Comment
9808.00	77.37	255.41	9279.73	-183.46	-1698.31	186.13	500767.49	639268.93	1708.48	173.75	
9855.00	81.36	257.27	9288.40	-138.57	-1709.21	141.25	500756.59	639224.05	1715.04	175.28	
9903.00	83.83	259.97	9294.59	-91.90	-1718.60	94.60	500747.20	639177.40	1721.20	176.85	
9950.00	86.01	263.08	9298.75	-45.59	-1725.50	48.30	500740.30	639131.10	1726.17	178.40	
9997.00	88.74	266.61	9300.90	1.17	-1729.71	1.55	500736.09	639084.35	1729.71	179.95	
10029.00	89.93	267.69	9301.27	33.13	-1731.30	-30.41	500734.50	639052.39	1731.57	181.01	
10092.00	91.33	267.97	9300.58	96.08	-1733.69	-93.36	500732.11	638989.44	1736.20	183.08	
10186.00	95.12	268.83	9295.29	189.88	-1736.31	-187.15	500729.49	638895.65	1746.37	186.15	
10281.00	90.07	267.09	9290.99	284.69	-1739.69	-281.96	500726.11	638800.84	1762.39	189.21	
10376.00	90.28	266.77	9290.70	379.56	-1744.78	-376.82	500721.02	638705.98	1785.00	192.19	
10470.00	91.68	267.53	9289.10	473.44	-1749.45	-470.69	500716.35	638612.11	1811.66	195.06	
10564.00	92.66	267.93	9285.54	567.30	-1753.17	-564.55	500712.63	638518.25	1841.83	197.85	
10658.00	90.70	267.02	9282.78	661.17	-1757.31	-658.41	500708.49	638424.39	1876.60	200.54	
10752.00	91.61	266.23	9280.89	754.99	-1762.84	-752.23	500702.96	638330.57	1916.63	203.11	
10847.00	93.36	266.09	9276.77	849.70	-1769.20	-846.92	500696.60	638235.88	1961.46	205.58	
10942.00	93.22	265.48	9271.32	944.30	-1776.17	-941.51	500689.63	638141.29	2010.28	207.93	
11036.00	91.82	266.09	9267.18	1037.96	-1783.07	-1035.16	500682.73	638047.64	2061.77	210.14	
11130.00	90.21	267.49	9265.52	1131.80	-1788.33	-1128.99	500677.47	637953.81	2114.89	212.26	
11224.00	90.14	269.56	9265.23	1225.77	-1790.75	-1222.96	500675.05	637859.84	2168.51	214.33	
11319.00	90.21	271.70	9264.94	1320.75	-1789.71	-1317.94	500676.09	637764.86	2222.62	216.37	
11414.00	92.10	271.98	9263.03	1415.68	-1786.66	-1412.87	500679.14	637669.93	2277.80	218.34	
11507.00	93.92	271.63	9258.14	1508.49	-1783.73	-1505.69	500682.07	637577.11	2334.27	220.17	
11601.00	92.94	272.45	9252.52	1602.26	-1780.39	-1599.46	500685.41	637483.34	2393.34	221.94	
11695.00	90.42	272.41	9249.76	1696.12	-1776.41	-1693.33	500689.39	637389.47	2454.18	223.63	
11822.00	90.14	272.11	9249.14	1823.01	-1771.40	-1820.23	500694.40	637262.57	2539.90	225.78	
11916.00	91.33	271.85	9247.94	1916.94	-1768.15	-1914.16	500697.65	637168.64	2605.84	227.27	
12011.00	91.82	271.04	9245.32	2011.87	-1765.76	-2009.10	500700.04	637073.70	2674.77	228.69	
12106.00	93.15	270.52	9241.21	2106.77	-1764.47	-2104.00	500701.33	636978.80	2745.93	230.02	
12200.00	91.12	269.83	9237.70	2200.69	-1764.18	-2197.92	500701.62	636884.88	2818.37	231.25	
12294.00	90.70	269.26	9236.21	2294.68	-1764.93	-2291.91	500700.87	636790.89	2892.72	232.40	
12388.00	91.05	269.00	9234.78	2388.66	-1766.35	-2385.89	500699.45	636696.91	2968.58	233.49	
12483.00	90.42	269.24	9233.56	2483.64	-1767.81	-2480.87	500697.99	636601.93	3046.29	234.53	
12577.00	89.93	268.67	9233.27	2577.63	-1769.53	-2574.85	500696.27	636507.95	3124.27	235.50	
12671.00	90.00	270.16	9233.33	2671.62	-1770.49	-2668.84	500695.31	636413.96	3202.71	236.44	
12765.00	90.70	271.20	9232.75	2765.61	-1769.37	-2762.83	500696.43	636319.97	3280.84	237.36	
12860.00	90.56	270.83	9231.71	2860.59	-1767.69	-2857.81	500698.11	636224.99	3360.33	238.26	
12955.00	90.07	270.26	9231.19	2955.58	-1766.79	-2952.81	500699.01	636129.99	3441.02	239.11	
13050.00	89.02	268.93	9231.94	3050.57	-1767.46	-3047.80	500698.34	636035.00	3523.20	239.89	
13144.00	89.79	269.62	9232.92	3144.56	-1768.65	-3141.78	500697.15	635941.02	3605.40	240.62	
13239.00	88.67	269.85	9234.19	3239.55	-1769.09	-3236.77	500696.71	635846.03	3688.68	241.34	
13333.00	90.49	271.35	9234.88	3333.53	-1768.10	-3330.76	500697.70	635752.04	3770.96	242.04	
13428.00	91.12	270.78	9233.55	3428.50	-1766.34	-3425.73	500699.46	635657.07	3854.29	242.72	
13522.00	90.00	270.31	9232.63	3522.49	-1765.44	-3519.72	500700.36	635563.08	3937.67	243.36	
13617.00	90.70	270.20	9232.05	3617.49	-1765.02	-3614.72	500700.78	635468.08	4022.62	243.97	
13711.00	91.75	270.70	9230.04	3711.46	-1764.28	-3708.69	500701.52	635374.11	4106.95	244.56	
13807.00	91.33	269.79	9227.46	3807.42	-1763.87	-3804.65	500701.93	635278.15	4193.64	245.13	
13901.00	92.52	270.37	9224.30	3901.37	-1763.74	-3898.60	500702.06	635184.20	4279.00	245.66	
13996.00	92.45	272.41	9220.18	3996.24	-1761.44	-3993.48	500704.36	635089.32	4364.69	246.20	
14090.00	91.75	272.20	9216.74	4090.09	-1757.66	-4087.34	500708.14	634995.46	4449.23	246.73	
14184.00	91.40	272.28	9214.15	4183.98	-1753.99	-4181.23	500711.81	634901.57	4534.22	247.24	
14279.00	90.42	271.90	9212.65	4278.90	-1750.52	-4276.15	500715.28	634806.65	4620.59	247.74	
14373.00	91.47	272.39	9211.10	4372.81	-1747.00	-4370.07	500718.80	634712.73	4706.33	248.21	
14468.00	90.70	272.21	9209.30	4467.71	-1743.19	-4464.98	500722.61	634617.82	4793.20	248.67	
14563.00	89.93	271.54	9208.77	4562.65	-1740.08	-4559.93	500725.72	634522.87	4880.66	249.11	
14658.00	88.95	270.52	9209.70	4657.63	-1738.38	-4654.90	500727.42	634427.90	4968.91	249.52	
14752.00	88.53	268.60	9211.77	4751.60	-1739.10	-4748.87	500726.70	634333.93	5057.30	249.89	
14847.00	91.05	268.27	9212.12	4846.56	-1741.69	-4843.83	500724.11	634238.97	5147.44	250.22	
14941.00	96.73	267.75	9205.74	4940.25	-1744.95	-4937.52	500720.85	634145.28	5236.78	250.54	
15036.00	93.50	267.37	9197.27	5034.78	-1748.98	-5032.04	500716.82	634050.76	5327.32	250.83	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos.Dist (US ft)	Clos.Az (°)	Comment
15130.00	92.10	266.63	9192.68	5128.55	-1753.89	-5125.80	500711.91	633957.00	5417.56	251.11	
15225.00	91.26	266.34	9189.90	5223.33	-1759.71	-5220.58	500706.09	633862.22	5509.17	251.37	
15319.00	90.21	267.33	9188.69	5317.19	-1764.90	-5314.42	500700.90	633768.38	5599.82	251.63	
15412.00	89.65	266.71	9188.81	5410.07	-1769.73	-5407.30	500696.07	633675.50	5689.54	251.88	
15506.00	89.65	268.06	9189.38	5503.97	-1774.02	-5501.19	500691.78	633581.61	5780.16	252.13	
15601.00	88.74	266.94	9190.71	5598.88	-1778.17	-5596.09	500687.63	633486.71	5871.81	252.37	
15695.00	90.28	267.80	9191.52	5692.78	-1782.48	-5689.99	500683.32	633392.81	5962.65	252.61	
15790.00	91.05	267.82	9190.42	5787.71	-1786.11	-5784.91	500679.69	633297.89	6054.37	252.84	
15885.00	90.42	268.59	9189.20	5882.66	-1789.08	-5879.85	500676.72	633202.95	6146.02	253.08	
15980.00	90.42	268.57	9188.50	5977.63	-1791.44	-5974.82	500674.36	633107.98	6237.61	253.31	
16074.00	94.83	270.87	9184.20	6071.50	-1791.90	-6068.69	500673.90	633014.11	6327.71	253.55	
16142.00	95.19	270.66	9178.26	6139.23	-1791.00	-6136.43	500674.80	632946.37	6392.45	253.73	
16237.00	94.38	273.19	9170.33	6233.83	-1787.82	-6231.03	500677.98	632851.77	6482.44	253.99	
16332.00	92.90	274.76	9164.30	6328.40	-1781.24	-6325.61	500684.56	632757.19	6571.62	254.27	
16427.00	91.42	274.62	9160.72	6423.00	-1773.48	-6420.22	500692.32	632662.58	6660.67	254.56	
16522.00	91.73	273.08	9158.11	6517.73	-1767.10	-6514.97	500698.70	632567.83	6750.37	254.82	
16617.00	91.11	273.34	9155.75	6612.55	-1761.79	-6609.79	500704.01	632473.01	6840.55	255.08	
16711.00	90.93	271.72	9154.08	6706.43	-1757.64	-6703.68	500708.16	632379.12	6930.27	255.31	
16806.00	90.86	268.77	9152.60	6801.41	-1757.23	-6798.66	500708.57	632284.14	7022.08	255.51	
16900.00	91.11	269.01	9150.98	6895.38	-1759.05	-6892.62	500706.75	632190.18	7113.55	255.68	
16995.00	90.25	267.68	9149.85	6990.33	-1761.80	-6987.57	500704.00	632095.23	7206.26	255.85	
17089.00	89.57	266.31	9150.00	7084.21	-1766.72	-7081.44	500699.08	632001.36	7298.50	255.99	
17184.00	87.90	264.67	9152.10	7178.90	-1774.19	-7176.12	500691.61	631906.68	7392.19	256.11	
17278.00	91.42	263.29	9152.66	7272.37	-1784.05	-7269.58	500681.75	631813.22	7485.29	256.21	
17374.00	91.91	267.21	9149.87	7368.00	-1791.99	-7365.19	500673.81	631717.61	7580.06	256.33	
17468.00	90.86	268.22	9147.59	7461.90	-1795.74	-7459.09	500670.06	631623.71	7672.20	256.46	
17564.00	89.51	267.55	9147.28	7557.84	-1799.28	-7555.02	500666.52	631527.78	7766.32	256.60	
17658.00	91.60	267.41	9146.37	7651.74	-1803.41	-7648.92	500662.39	631433.88	7858.64	256.73	
17753.00	92.10	270.00	9143.31	7746.66	-1805.56	-7743.84	500660.24	631338.96	7951.54	256.88	
17847.00	91.85	273.14	9140.07	7840.56	-1802.99	-7837.73	500662.81	631245.07	8042.44	257.05	
17941.00	92.47	274.04	9136.52	7934.29	-1797.11	-7931.48	500668.69	631151.32	8132.53	257.23	
18036.00	92.90	274.78	9132.07	8028.90	-1789.81	-8026.09	500675.99	631056.71	8223.24	257.43	
18130.00	92.84	273.93	9127.37	8122.49	-1782.68	-8119.70	500683.12	630963.10	8313.10	257.62	
18225.00	92.22	273.03	9123.17	8217.22	-1776.92	-8214.44	500688.88	630868.36	8404.43	257.79	
18320.00	93.02	271.61	9118.83	8312.03	-1773.08	-8309.26	500692.72	630773.54	8496.32	257.95	
18414.00	91.79	270.96	9114.88	8405.92	-1770.97	-8403.15	500694.83	630679.65	8587.74	258.10	
18509.00	93.27	272.04	9110.69	8500.78	-1768.49	-8498.02	500697.31	630584.78	8680.08	258.24	
18604.00	90.80	271.70	9107.32	8595.66	-1765.39	-8592.90	500700.41	630489.90	8772.37	258.39	
18698.00	90.43	270.86	9106.31	8689.63	-1763.29	-8686.87	500702.51	630395.93	8864.02	258.53	
18792.00	91.73	269.73	9104.54	8783.61	-1762.81	-8780.85	500702.99	630301.95	8956.05	258.65	
18886.00	91.36	268.70	9102.00	8877.56	-1764.09	-8874.80	500701.71	630208.00	9048.43	258.76	
18981.00	91.85	268.42	9099.34	8972.50	-1766.48	-8969.74	500699.32	630113.06	9142.02	258.86	
19077.00	91.91	267.00	9096.19	9068.37	-1770.31	-9065.61	500695.49	630017.19	9236.84	258.95	
19171.00	92.28	267.26	9092.76	9162.20	-1775.02	-9159.42	500690.78	629923.38	9329.83	259.03	
19265.00	91.17	267.80	9089.93	9256.08	-1779.07	-9253.29	500686.73	629829.51	9422.77	259.12	
19360.00	92.16	267.68	9087.17	9350.97	-1782.81	-9348.18	500682.99	629734.62	9516.66	259.20	
19454.00	93.09	271.15	9082.86	9444.85	-1783.77	-9442.06	500682.03	629640.74	9609.07	259.30	
19549.00	92.28	273.72	9078.41	9539.64	-1779.74	-9536.86	500686.06	629545.94	9701.50	259.43	
19645.00	90.31	272.93	9076.24	9635.44	-1774.17	-9632.67	500691.63	629450.13	9794.69	259.56	
19739.00	90.25	270.76	9075.78	9729.38	-1771.15	-9726.61	500694.65	629356.19	9886.55	259.68	
19834.00	90.37	269.47	9075.27	9824.38	-1770.96	-9821.61	500694.84	629261.19	9979.99	259.78	
19928.00	90.49	269.68	9074.56	9918.37	-1771.65	-9915.60	500694.15	629167.20	10072.63	259.87	
20022.00	89.07	268.72	9074.92	10012.36	-1772.97	-10009.59	500692.83	629073.21	10165.40	259.96	
20116.00	87.41	268.29	9077.81	10106.29	-1775.42	-10103.51	500690.38	628979.29	10258.32	260.03	
20211.00	88.27	268.80	9081.39	10201.19	-1777.83	-10198.41	500687.97	628884.39	10352.21	260.11	
20306.00	90.86	269.39	9082.11	10296.17	-1779.33	-10293.39	500686.47	628789.41	10446.04	260.19	
20400.00	92.16	270.14	9079.63	10390.13	-1779.71	-10387.35	500686.09	628695.45	10538.71	260.28	
20494.00	92.35	270.82	9075.93	10484.06	-1778.93	-10481.28	500686.87	628601.52	10631.17	260.37	
20589.00	92.10	271.34	9072.25	10578.97	-1777.14	-10576.19	500688.66	628506.61	10724.46	260.46	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Clos.Dist (US ft)	Clos.Az (°)	Comment
20684.00	91.23	271.53	9069.49	10673.89	-1774.76	-10671.12	500691.04	628411.68	10817.69	260.56	
20778.00	91.48	271.60	9067.26	10767.82	-1772.19	-10765.05	500693.61	628317.75	10909.95	260.65	
20872.00	91.60	272.56	9064.74	10861.72	-1768.78	-10858.96	500697.02	628223.84	11002.07	260.75	
20967.00	91.67	272.87	9062.03	10956.57	-1764.28	-10953.81	500701.52	628128.99	11094.99	260.85	
21061.00	91.36	271.58	9059.54	11050.46	-1760.64	-11047.71	500705.16	628035.09	11187.12	260.95	
21156.00	91.42	270.56	9057.24	11145.41	-1758.86	-11142.66	500706.94	627940.14	11280.62	261.03	
21250.00	91.36	269.33	9054.96	11239.38	-1758.95	-11236.63	500706.85	627846.17	11373.47	261.10	
21345.00	92.04	268.97	9052.14	11334.33	-1760.36	-11331.58	500705.44	627751.22	11467.50	261.17	
21439.00	91.73	268.85	9049.05	11428.26	-1762.15	-11425.51	500703.65	627657.29	11560.60	261.23	
21534.00	90.25	268.49	9047.40	11523.22	-1764.35	-11520.47	500701.45	627562.33	11654.79	261.29	
21628.00	90.49	267.63	9046.80	11617.17	-1767.53	-11614.41	500698.27	627468.39	11748.14	261.35	
21722.00	93.64	270.29	9043.41	11711.08	-1769.24	-11708.31	500696.56	627374.49	11841.23	261.41	
21816.00	90.68	270.02	9039.87	11805.00	-1768.99	-11802.24	500696.81	627280.56	11934.07	261.48	
21911.00	90.56	269.62	9038.84	11899.99	-1769.29	-11897.23	500696.51	627185.57	12028.07	261.54	
22005.00	90.49	268.56	9037.98	11993.98	-1770.78	-11991.21	500695.02	627091.59	12121.26	261.60	
22099.00	90.31	268.09	9037.32	12087.94	-1773.53	-12085.17	500692.27	626997.63	12214.61	261.65	
22195.00	90.31	268.84	9036.80	12183.91	-1776.10	-12181.13	500689.70	626901.67	12309.94	261.70	
22289.00	90.49	269.90	9036.15	12277.90	-1777.13	-12275.12	500688.67	626807.68	12403.10	261.76	
22384.00	90.62	270.14	9035.23	12372.90	-1777.10	-12370.12	500688.70	626712.68	12497.12	261.82	
22478.00	90.62	269.57	9034.21	12466.89	-1777.34	-12464.11	500688.46	626618.69	12590.20	261.88	
22572.00	90.62	269.18	9033.19	12560.88	-1778.36	-12558.10	500687.44	626524.70	12683.39	261.94	
22666.00	90.56	268.88	9032.22	12654.86	-1779.95	-12652.08	500685.85	626430.72	12776.68	261.99	
22761.00	90.68	268.75	9031.20	12749.84	-1781.92	-12747.06	500683.88	626335.74	12871.00	262.04	
22855.00	90.62	269.00	9030.13	12843.82	-1783.76	-12841.03	500682.04	626241.77	12964.33	262.09	
22950.00	90.43	268.52	9029.26	12938.80	-1785.82	-12936.01	500679.98	626146.79	13058.69	262.14	
23044.00	90.62	268.26	9028.40	13032.76	-1788.46	-13029.97	500677.34	626052.83	13152.13	262.18	
23139.00	90.68	268.37	9027.32	13127.72	-1791.25	-13124.92	500674.55	625957.88	13246.59	262.23	
23234.00	91.11	268.39	9025.84	13222.67	-1793.94	-13219.87	500671.86	625862.93	13341.03	262.27	
23328.00	91.17	268.68	9023.97	13316.62	-1796.34	-13313.82	500669.46	625768.98	13434.46	262.32	
23423.00	90.99	269.08	9022.18	13411.59	-1798.20	-13408.78	500667.60	625674.02	13528.82	262.36	
23518.00	91.17	269.62	9020.38	13506.57	-1799.27	-13503.76	500666.53	625579.04	13623.10	262.41	
23613.00	91.05	270.16	9018.54	13601.55	-1799.46	-13598.74	500666.34	625484.06	13717.28	262.46	
23707.00	91.05	270.54	9016.82	13695.53	-1798.88	-13692.72	500666.92	625390.08	13810.38	262.52	
23801.00	91.11	270.63	9015.05	13789.51	-1797.92	-13786.70	500667.88	625296.10	13903.44	262.57	
23896.00	91.23	271.23	9013.11	13884.47	-1796.38	-13881.67	500669.42	625201.13	13997.42	262.63	
23990.00	91.05	271.67	9011.24	13978.42	-1794.00	-13975.62	500671.80	625107.18	14090.30	262.69	
24084.00	91.17	271.89	9009.42	14072.35	-1791.08	-14069.56	500674.72	625013.24	14183.10	262.75	
24178.00	91.17	271.90	9007.50	14166.28	-1787.98	-14163.49	500677.82	624919.31	14275.90	262.81	
24270.00	91.11	272.16	9005.67	14258.20	-1784.72	-14255.41	500681.08	624827.39	14366.70	262.86	Last WFT SVY
24300.00	91.11	272.16	9005.09	14288.17	-1783.59	-14285.38	500682.21	624797.42	14396.30	262.88	PTB

Formation Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	TVD (MSL) (US ft)	Northing (US ft)	Easting (US ft)	Name	Comment
151.00	0.53	279.51	151.00	0.30	-0.50	-3040.00	502466.10	639082.30	Rustler	
226.01	0.94	265.13	226.00	0.31	-1.48	-2965.00	502466.11	639081.32	Magenta Dolomite	
482.07	0.44	220.02	482.00	-0.77	-6.75	-2709.00	502465.03	639076.05	Salado	
504.07	0.29	156.91	504.00	-0.90	-6.78	-2687.00	502464.90	639076.02	Top of Salt	
3277.02	7.84	160.68	3273.00	-24.72	62.61	82.00	502441.08	639145.41	Base Salt	
3565.92	8.27	152.72	3559.00	-62.17	78.69	368.00	502403.63	639161.49	Delaware/Lamar	
3581.07	8.28	152.37	3574.00	-64.11	79.70	383.00	502401.69	639162.50	Bell Canyon	
4484.75	14.73	149.93	4452.00	-250.77	178.06	1261.00	502215.03	639260.86	Cherry Canyon	
4688.26	16.20	151.87	4648.00	-298.68	204.56	1457.00	502167.12	639287.36	Manzanita Marker	
5848.60	15.59	152.32	5767.00	-572.92	341.84	2576.00	501892.88	639424.64	Brushy Canyon Ss.	
7221.55	14.66	154.99	7092.00	-896.38	497.45	3901.00	501569.42	639580.25	Basal Brushy Canyon Ss.	

5D Survey Report

Formation Points: (Relative to Slot centre)(TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	TVD (MSL) (US ft)	Northing (US ft)	Easting (US ft)	Name	Comment
7511.57	13.81	155.74	7373.00	-961.70	527.16	4182.00	501504.10	639609.96	Bone Spring Lm.	
7566.14	13.75	155.40	7426.00	-973.53	532.53	4235.00	501492.27	639615.33	Avalon Ss.	
7776.52	13.39	154.16	7630.00	-1020.50	553.42	4439.00	501445.30	639636.22	Upper Avalon Carb.	
7862.72	12.52	150.29	7714.00	-1037.60	562.42	4523.00	501428.20	639645.22	Upper Avalon Sh.	
8105.14	12.26	157.68	7951.00	-1082.64	586.05	4760.00	501383.16	639668.85	Lw. Avalon Carb.	
8105.14	12.26	157.68	7951.00	-1082.64	586.05	4760.00	501383.16	639668.85	Lw. Avalon Sh.	
8308.19	15.54	153.42	8148.00	-1127.20	606.42	4957.00	501338.60	639689.22	Bone Spring Carb.	
8542.52	12.89	155.91	8375.00	-1179.83	630.79	5184.00	501285.97	639713.59	First Bone Spring Ss.	
8925.44	29.96	185.76	8739.00	-1288.71	661.98	5548.00	501177.09	639744.78	Second Bone Spring Carb.	
9537.23	58.98	240.85	9176.00	-1612.95	419.15	5985.00	500852.85	639501.95	Second Bone Spring A Ss.	