

Results of Directional Survey

API number:	30-025-40591		
OGRID:		Operator:	XTO ENERGY, INC
		Property:	ESTANCIA SED # 1H

surface	ULSTR:	N	31	T	23S	R	33E
				330	FSL	1980	FWL

BH Loc	ULSTR:	C	31	T	23S	R	33E
15510	MD	11051.5	TVD	330	FNL	1928	FWL
				4950	FSL		

Top Perf/OH	ULSTR:	N	31	T	23S	R	33E
11079	MD	11001.1	TVD	536	FSL	1943	FWL

Bot Perf/OH	ULSTR:	C	31	T	23S	R	33E
15106	MD	11058.6	TVD	733	FNL	1945	FWL
				4547	FSL		

	MD	N/S	E/W	VD
	11054	184.50	-36.40	10988.1
TOP PERFS/OH	11079	205.87	-37.45	11001.08
	11085	211.00	-37.70	11004.20
	15050	4160.80	-33.10	11058.10
BOT PERFS/OH	15106	4216.74	-34.91	11058.58
	15143	4253.70	-36.10	11058.90

NEXT TO LAST	15509	4619.30	-52.10	11051.60
LAST READING	15510	4620.30	-52.10	11051.50
TD	15510	4620.30	-52.10	11051.50

Surface Location	330	FS	1980	FW
Projected BHL	4950	FS	1928	FW
Location of				
Top Perfs/OH	536	FS	1943	FW
Bottom Perfs/OH	4547	FS	1945	FW

SUMMARY of Subsurface Locations

Surface Location	N-31-23S-33E	330	FS	1980	FW	Vert. Depth
Top Perfs/OH	N-31-23S-33E	536	FS	1943	FW	11001.08
Bottom Perfs/OH	C-31-23S-33E	4547	FS	1945	FW	11058.58
Projected TD	C-31-23S-33E	4950	FS	1928	FW	11051.50

MAR 10 2013

Operator: XTO Energy
Well/Lease: Estancia SED 1H
County: Lea, NM

STATE OF NEW MEXICO
DEVIATION REPORT

REC'D/MIDLAND
NOV 19 2012

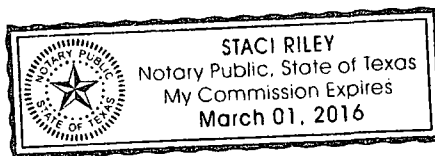
<u>Footage</u>	<u>Degree</u>	<u>Footage</u>	<u>Degree</u>
226	0.50	5002	2.50
462	0.75	5136	2.50
605	1.25	5231	2.60
735	0.75	5326	2.60
925	0.75	5517	2.70
1110	1.00	5707	2.70
1314	0.80	5893	2.00
1407	1.10	6080	1.30
1500	1.50	6265	0.70
1593	1.30	6452	0.70
1687	1.10	6638	0.40
2245	1.70	6823	0.30
2895	1.90	7010	0.20
2988	1.90	7196	0.30
3081	2.10	7382	0.20
3174	1.90	7567	0.20
3267	1.60	7754	0.30
3359	1.70	7940	0.30
3825	1.10	8126	0.40
3918	1.30	8312	0.70
4011	1.10	8497	1.00
4104	1.00	8686	0.50
4197	0.70	8871	0.60
4289	1.30	9057	0.70
4382	2.60	9243	0.80
4475	2.30	9429	1.10
4568	2.80	9597	1.50
4662	3.30	9783	1.00
4755	3.80	9969	0.30
4850	2.60	10155	1.00
4943	2.30	10341	0.30
4974	2.40	10527	1.60

SUR: N-31-23s-33e, 330/S & 1980/W
BHL: C-31-23s-33e, 4950/S & 1928/W
API # 30-025-40591

Signed By: Charles Walsh
Charles Walsh, Division Manager
Pioneer Drilling Company

Appeared before me on Nov 16, 2012.

Staci Riley
Notary Public



Staci Riley



Company: XTO Energy
Lease/Well: Estancia Sed / No. 001H
Location: 27 Miles West From Jal
Rig Name: Pioneer 33
State/County: New Mexico / Lea
Latitude: 32.2549, Longitude: -103.6467
GRID North is 0.3700 Degrees East of True North
VS-Azi: 0.0000 Degrees



Depth Reference : RKB 19 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 10/26/2012 / 09:59

SUR: N-31-23s-33e, 330/S & 1980/W
BHL: C-31-23s-33e, 4950/S & 1928/W
API # 30-025-40591

Vaughn Energy Services
Midland, Texas
432-563-5444

Surveyor: Jordan Rolando
Estancia Sed No. 001 / API 30-025-40591

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
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	****
100.0000	0.3353	19.3214	99.9994	0.2761	0.0968	0.2761	0.2926	19.3214	0.3353
200.0000	0.2348	52.2784	199.9982	0.6776	0.3557	0.6776	0.7653	27.6963	0.1883
300.0000	0.3999	348.7019	299.9969	1.1451	0.4494	1.1451	1.2302	21.4272	0.3626
400.0000	0.5649	285.1254	399.9940	1.6160	-0.0949	1.6160	1.6187	356.6403	0.5272
500.0000	0.7788	255.9094	499.9873	1.5791	-1.2299	1.5791	2.0016	322.0860	0.39
600.0000	0.9927	226.6934	599.9758	0.8195	-2.5195	0.8195	2.6494	288.0180	0.4924
700.0000	0.8498	232.9103	699.9629	-0.2219	-3.7414	-0.2219	3.7480	266.6061	0.1742
800.0000	0.7269	239.1272	799.9534	-0.9946	-4.8774	-0.9946	4.9778	258.4744	0.1496
900.0000	0.7597	252.3856	899.9451	-1.5207	-6.0537	-1.5207	6.2418	255.8990	0.1747
1000.000	0.7725	265.6439	999.9362	-1.7725	-7.3578	-1.7725	7.5683	256.4553	0.1773
1100.000	0.8625	275.9186	1099.926	-1.7461	-8.7786	-1.7461	8.9506	258.7504	0.1717
1200.000	0.9725	286.1932	1199.913	-1.4318	-10.3422	-1.4318	10.4409	262.1178	0.1975
1300.000	0.8520	279.4880	1299.901	-1.0726	-11.8905	-1.0726	11.9388	264.8455	0.1609
1400.000	0.7314	272.7828	1399.891	-0.9191	-13.2612	-0.9191	13.2930	266.0355	0.1519
1500.000	0.8532	277.4135	1499.882	-0.7920	-14.6370	-0.7920	14.6584	266.9027	0.1375
1600.000	0.9351	282.0442	1599.869	-0.5257	-16.1733	-0.5257	16.1818	268.1384	0.1091
1700.000	0.9541	284.6519	1699.856	-0.1448	-17.7768	-0.1448	17.7774	269.5332	0.0470
1800.000	1.0132	287.2597	1799.841	0.3281	-19.4266	0.3281	19.4293	270.9675	0.0741

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
1900.000	1.1876	298.4295	1899.823	1.0838	-21.1822	1.0838	21.2099	272.9289	0.2757
2000.000	1.3620	300.5993	1999.798	2.1821	-23.1165	2.1821	23.2192	275.3924	0.1809
2100.000	1.3496	301.6762	2099.770	3.4054	-25.1416	3.4054	25.3712	277.7138	0.0283
2200.000	1.2972	302.7531	2199.743	4.6362	-27.0958	4.6362	27.4896	279.7096	0.0580
2300.000	1.5745	305.0915	2299.712	6.0384	-29.1719	6.0384	29.7903	281.6947	0.2834
2400.000	1.8131	303.7915	2399.668	7.7081	-31.6107	7.7081	32.5369	283.7038	0.2417
2500.000	1.2214	304.4295	2499.632	9.1906	-33.8046	9.1906	35.0317	285.2095	0.5919
2600.000	1.8548	306.2918	2599.596	10.7510	-35.9881	10.7510	37.5597	286.6329	0.6352
2700.000	1.5311	308.9404	2699.552	12.5486	-38.3316	12.5486	40.3334	288.1269	0.3329
2800.000	2.1872	311.8321	2799.499	14.6611	-40.7927	14.6611	43.3473	289.7686	0.6626
2900.000	1.7622	314.8395	2899.439	17.0180	-43.3048	17.0180	46.5287	291.4539	0.4373
3000.000	1.9064	313.2434	2999.388	19.2417	-45.6067	19.2417	49.4997	292.8751	0.1529
3100.000	1.9275	324.8265	3099.333	21.7559	-47.7872	21.7559	52.5065	294.4782	0.3874
3200.000	1.8702	327.7812	3199.278	24.5112	-49.6260	24.5112	55.3492	296.2856	0.1134
3300.000	1.5091	316.6543	3299.234	26.8493	-51.3998	26.8493	57.9899	297.5809	0.4863
3400.000	1.0166	328.8360	3399.210	28.5661	-52.7628	28.5661	59.9994	298.4314	0.5583
3500.000	1.2193	328.3193	3499.191	30.2306	-53.7806	30.2306	61.6948	299.3407	0.2029
3600.000	1.0992	324.0121	3599.170	31.9121	-54.9030	31.9121	63.5038	300.1671	0.1483
3700.000	0.9642	336.1443	3699.154	33.4577	-55.8070	33.4577	65.0679	300.9438	0.2561
3800.000	0.6391	306.0778	3799.145	34.5556	-56.5980	34.5556	66.3131	301.4060	0.5210
3900.000	0.7956	281.1311	3899.137	35.0181	-57.7299	35.0181	67.5205	301.2404	0.3455
4000.000	0.8671	298.8139	3999.127	35.5168	-59.0741	35.5168	68.9289	301.0153	0.2651
4100.000	1.1599	284.3326	4099.111	36.1321	-60.7177	36.1321	70.6553	300.7561	0.3869
4200.000	0.6567	248.9670	4199.099	36.1769	-62.2333	36.1769	71.9844	300.1699	0.7310
4300.000	1.4446	139.6911	4299.088	35.0099	-61.9528	35.0099	71.1607	299.4711	1.7733
4400.000	2.2325	130.4152	4399.036	32.7859	-59.6543	32.7859	68.0702	298.7931	0.8397
4500.000	2.5293	136.5687	4498.949	29.9207	-56.6544	29.9207	64.0700	297.8397	0.3913
4600.000	2.8261	132.7222	4598.840	26.6458	-53.3263	26.6458	59.6129	296.5501	0.3468
4700.000	3.0162	121.3530	4698.711	23.6043	-49.2684	23.6043	54.6310	295.5989	0.6086
4800.000	3.2063	120.9838	4798.564	20.7957	-44.6241	20.7957	49.2318	294.9865	0.1912
4900.000	2.7243	118.5116	4898.429	18.2217	-40.1383	18.2217	44.0807	294.4167	0.4986
5000.000	2.2422	111.0394	4998.336	16.3850	-36.2242	16.3850	39.7575	294.3383	0.5797
5100.000	2.3856	106.0357	5098.254	15.1078	-32.3982	15.1078	35.7475	295.0004	0.2476
5200.000	2.5289	101.0320	5198.162	14.1107	-28.2326	14.1107	31.5625	296.5560	0.2579
5300.000	2.4467	103.8749	5298.068	13.1767	-23.9949	13.1767	27.3748	298.7731	0.1482
5400.000	2.3244	106.7177	5397.981	12.0815	-19.9805	12.0815	23.3492	301.1598	0.1701
5500.000	2.5653	105.9092	5497.890	10.8847	-15.8862	10.8847	19.2574	304.4177	0.2433
5600.000	2.7661	105.1007	5597.782	9.6427	-11.4043	9.6427	14.9345	310.2153	0.2043
5700.000	2.7229	103.5575	5697.667	8.4572	-6.7656	8.4572	10.8304	321.3409	0.0856

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
5800.000	2.6396	102.0143	5797.558	7.4211	-2.2043	7.4211	7.7415	343.4572	0.1102
5900.000	2.0602	101.0042	5897.473	6.5987	1.8124	6.5987	6.8430	15.3585	0.5809
6000.000	1.4408	99.9940	5997.426	6.0374	4.8150	6.0374	7.7223	38.5734	0.6202
6100.000	1.1740	100.5278	6097.400	5.6320	7.0603	5.6320	9.0315	51.4204	0.2670
6200.000	0.8873	101.0615	6197.384	5.2963	8.8274	5.2963	10.2943	59.0368	0.2869
6300.000	0.7939	93.0289	6297.373	5.1111	10.2791	5.1111	11.4797	63.5618	0.1501
6400.000	0.7005	84.9962	6397.365	5.1278	11.5799	5.1278	12.6645	66.1152	0.1401
6500.000	0.4044	114.4248	6497.360	5.0352	12.5102	5.0352	13.4855	68.0757	0.4010
6600.000	0.1082	343.8534	6597.359	4.9800	12.8053	4.9800	13.7396	68.7487	0.4818
6700.000	0.1773	154.9766	6697.359	4.9305	12.8444	4.9305	13.7583	68.9999	0.2847
6800.000	0.2464	126.0999	6797.358	4.6637	13.0836	4.6637	13.8900	70.3814	0.1250
6900.000	0.2554	123.4075	6897.357	4.4143	13.4434	4.4143	14.1496	71.8219	0.0
7000.000	0.2844	120.7151	6997.356	4.1648	13.8428	4.1648	14.4558	73.2554	0.0316
7100.000	0.2661	83.4213	7097.355	4.0646	14.2868	4.0646	14.8538	74.1188	0.1769
7200.000	0.2578	46.1276	7197.354	4.2472	14.6797	4.2472	15.2818	73.8636	0.1677
7300.000	0.2540	31.8421	7297.353	4.5914	14.9588	4.5914	15.6476	72.9369	0.0638
7400.000	0.2203	17.5566	7397.352	4.9630	15.1338	4.9630	15.9268	71.8435	0.0678
7500.000	0.2717	82.9502	7497.352	5.1754	15.4271	5.1754	16.2721	71.4546	0.2693
7600.000	0.3231	148.3439	7597.351	4.9645	15.8104	4.9645	16.5715	72.5676	0.3242
7700.000	0.4136	168.1003	7697.349	4.3713	16.0328	4.3713	16.6180	74.7493	0.1547
7800.000	0.5041	187.8566	7797.345	3.5823	16.0471	3.5823	16.4421	77.4160	0.1809
7900.000	0.3903	216.0714	7897.343	2.8711	15.7864	2.8711	16.0454	79.6920	0.2444
8000.000	0.2764	244.2861	7997.341	2.4912	15.3686	2.4912	15.5692	80.7926	0.1965
8100.000	0.4740	234.0653	8097.339	2.1438	14.8163	2.1438	14.9706	81.7670	0.2078
8200.000	0.6515	223.8445	8197.334	1.4910	14.0876	1.4910	14.1662	83.9585	0.2032
8300.000	0.7594	212.4449	8297.326	0.5217	13.3382	0.5217	13.3484	87.7600	0.1765
8400.000	0.8673	201.0452	8397.316	-0.7438	12.7109	-0.7438	12.7327	93.3491	0.19
8500.000	0.6663	227.1818	8497.308	-1.8453	12.0127	-1.8453	12.1536	98.7333	0.3982
8600.000	0.4653	253.3184	8597.303	-2.3571	11.1973	-2.3571	11.4427	101.8873	0.3222
8700.000	0.5178	229.2713	8697.299	-2.7684	10.4660	-2.7684	10.8259	104.8162	0.2111
8800.000	0.5703	205.2242	8797.295	-3.5134	9.9115	-3.5134	10.5158	109.5182	0.2324
8900.000	0.6304	219.7111	8897.289	-4.3867	9.3480	-4.3867	10.3261	115.1393	0.1627
9000.000	0.6905	234.1981	8997.283	-5.1624	8.5078	-5.1624	9.9516	121.2485	0.1769
9100.000	0.7601	251.0118	9097.275	-5.7307	7.3919	-5.7307	9.3531	127.7850	0.2230
9200.000	0.8298	267.8256	9197.265	-5.9740	6.0411	-5.9740	8.4961	134.6799	0.2424
9300.000	0.7085	265.7521	9297.256	-6.0473	4.7009	-6.0473	7.6595	142.1399	0.1244
9400.000	0.5873	253.6787	9397.250	-6.2371	3.5924	-6.2371	7.1977	150.0588	0.1820
9500.000	1.0172	268.3150	9497.240	-6.4072	2.2133	-6.4072	6.7787	160.9427	0.4729
9600.000	1.4471	242.9513	9597.217	-7.0075	0.2015	-7.0075	7.0104	178.3533	0.6845

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
9700.000	1.2918	259.1408	9697.189	-7.7941	-2.0302	-7.7941	8.0542	194.6000	0.4152
9800.000	1.1365	245.3304	9797.167	-8.4204	-4.0385	-8.4204	9.3388	205.6226	0.3302
9900.000	0.7152	215.9109	9897.154	-9.3399	-5.3057	-9.3399	10.7417	209.5999	0.6222
10000.00	0.2940	186.4914	9997.150	-10.1002	-5.7008	-10.1002	11.5980	209.4414	0.4813
10100.00	0.4088	136.7333	10097.15	-10.6149	-5.4853	-10.6149	11.9484	207.3280	0.3135
10200.00	0.5236	86.9751	10197.15	-10.8505	-4.7845	-10.8505	11.8586	203.7948	0.4059
10300.00	0.3851	37.6168	10297.14	-10.5602	-4.1230	-10.5602	11.3366	201.3272	0.3998
10400.00	0.2466	348.2585	10397.14	-10.0834	-3.9617	-10.0834	10.8337	201.4496	0.2922
10500.00	0.7088	337.2089	10497.14	-9.3024	-4.2451	-9.3024	10.2253	204.5293	0.4692
10540.00	1.0864	328.4607	10537.13	-8.7511	-4.5393	-8.7511	9.8584	207.4163	1.0014



A Schlumberger Company

XTO Energy Co

Lea County
Estancia Sed
#1H
OH

Design: OH

Pathfinder X&Y Report

05 November, 2012

SUR: N-31-23s-33e, 330/S & 1980/W
BHL: C-31-23s-33e, 4950/S & 1928/W
API # 30-025-40591





A Schlumberger Company

Pathfinder

Pathfinder X&Y Report



Company: XTO Energy Co
Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
MD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project Lea County

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Estancia Sed

Site Position:	Northing:	457,144.800 usft	Latitude:	32.254754
From: Map	Easting:	722,717.400 usft	Longitude:	-103.612887
Position Uncertainty: 0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well #1H

Well Position	+N/-S	0.0 usft	Northing:	457,144.800 usft	Latitude:	32.254754
	+E/-W	0.0 usft	Easting:	722,717.400 usft	Longitude:	-103.612887
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,646.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/24/2012	7.44	60.20	48,542

Design OH

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.70



A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: XTO Energy Co
Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
MD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey Program		Date	11/5/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	10,540.0	Gyro #1 (OH)	Gyro	GYRO	
10,620.0	15,510.0	MWD #2 (OH)	MWD	MWD - Standard	

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,665.0	0.0	0.0	0.0	0.00	457,144.80	722,717.40
100.0	0.34	19.32	100.0	-3,565.0	0.3	0.1	0.3	0.34	457,145.08	722,717.50
200.0	0.23	52.28	200.0	-3,465.0	0.7	0.4	0.7	0.19	457,145.48	722,717.76
300.0	0.40	348.70	300.0	-3,365.0	1.1	0.4	1.1	0.36	457,145.95	722,717.85
400.0	0.56	285.13	400.0	-3,265.0	1.6	-0.1	1.6	0.53	457,146.42	722,717.31
500.0	0.78	255.91	500.0	-3,165.0	1.6	-1.2	1.6	0.40	457,146.38	722,716.17
600.0	0.99	226.69	600.0	-3,065.0	0.8	-2.5	0.8	0.49	457,145.62	722,714.88
700.0	0.85	232.91	700.0	-2,965.0	-0.2	-3.7	-0.2	0.17	457,144.58	722,713.66
800.0	0.73	239.13	800.0	-2,865.0	-1.0	-4.9	-1.0	0.15	457,143.81	722,712.52
900.0	0.76	252.39	899.9	-2,765.1	-1.5	-6.1	-1.5	0.17	457,143.28	722,711.35
1,000.0	0.77	265.64	999.9	-2,665.1	-1.8	-7.4	-1.7	0.18	457,143.03	722,710.04
1,100.0	0.86	275.92	1,099.9	-2,565.1	-1.7	-8.8	-1.7	0.17	457,143.05	722,708.62
1,200.0	0.97	286.19	1,199.9	-2,465.1	-1.4	-10.3	-1.4	0.20	457,143.37	722,707.06
1,300.0	0.85	279.49	1,299.9	-2,365.1	-1.1	-11.9	-1.0	0.16	457,143.73	722,705.51
1,400.0	0.73	272.78	1,399.9	-2,265.1	-0.9	-13.3	-0.9	0.15	457,143.88	722,704.14
1,500.0	0.85	277.41	1,499.9	-2,165.1	-0.8	-14.6	-0.7	0.14	457,144.01	722,702.76
1,600.0	0.94	282.04	1,599.9	-2,065.1	-0.5	-16.2	-0.4	0.11	457,144.27	722,701.23
1,700.0	0.95	284.65	1,699.9	-1,965.1	-0.1	-17.8	-0.1	0.05	457,144.66	722,699.62
1,800.0	1.01	287.26	1,799.8	-1,865.2	0.3	-19.4	0.4	0.07	457,145.13	722,697.97
1,900.0	1.19	298.43	1,899.8	-1,765.2	1.1	-21.2	1.2	0.28	457,145.88	722,696.22
2,000.0	1.36	300.60	1,999.8	-1,665.2	2.2	-23.1	2.3	0.18	457,146.98	722,694.28



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Pathfinder

Pathfinder X&Y Report



Company: XTO Energy Co
Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
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Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,100.0	1.35	301.68	2,099.8	-1,565.2	3.4	-25.1	3.5	0.03	457,148.21	722,692.26
2,200.0	1.30	302.75	2,199.7	-1,465.3	4.6	-27.1	4.8	0.06	457,149.44	722,690.30
2,300.0	1.57	305.09	2,299.7	-1,365.3	6.0	-29.2	6.2	0.28	457,150.84	722,688.23
2,400.0	1.81	303.79	2,399.7	-1,265.3	7.7	-31.6	7.9	0.24	457,152.51	722,685.79
2,500.0	1.22	304.43	2,499.6	-1,165.4	9.2	-33.8	9.4	0.59	457,153.99	722,683.60
2,600.0	1.85	306.29	2,599.6	-1,065.4	10.8	-36.0	10.9	0.64	457,155.55	722,681.41
2,700.0	1.53	308.94	2,699.6	-965.4	12.5	-38.3	12.7	0.33	457,157.35	722,679.07
2,800.0	2.19	311.83	2,799.5	-865.5	14.7	-40.8	14.9	0.66	457,159.46	722,676.61
2,900.0	1.76	314.84	2,899.4	-765.6	17.0	-43.3	17.2	0.44	457,161.82	722,674.10
3,000.0	1.91	313.24	2,999.4	-665.6	19.2	-45.6	19.5	0.15	457,164.04	722,671.79
3,100.0	1.93	324.83	3,099.3	-565.7	21.8	-47.8	22.0	0.39	457,166.56	722,669.61
3,200.0	1.87	327.78	3,199.3	-465.7	24.5	-49.6	24.8	0.11	457,169.31	722,667.77
3,300.0	1.51	316.65	3,299.2	-365.8	26.8	-51.4	27.1	0.49	457,171.65	722,666.00
3,400.0	1.02	328.84	3,399.2	-265.8	28.6	-52.8	28.8	0.56	457,173.37	722,664.64
3,500.0	1.22	328.32	3,499.2	-165.8	30.2	-53.8	30.5	0.20	457,175.03	722,663.62
3,600.0	1.10	324.01	3,599.2	-65.8	31.9	-54.9	32.2	0.15	457,176.71	722,662.50
3,700.0	0.96	336.14	3,699.2	34.2	33.5	-55.8	33.7	0.26	457,178.26	722,661.59
3,800.0	0.64	306.08	3,799.1	134.1	34.6	-56.6	34.8	0.52	457,179.36	722,660.80
3,900.0	0.80	281.13	3,899.1	234.1	35.0	-57.7	35.3	0.35	457,179.82	722,659.67
4,000.0	0.87	298.81	3,999.1	334.1	35.5	-59.1	35.8	0.27	457,180.32	722,658.33
4,100.0	1.16	284.33	4,099.1	434.1	36.1	-60.7	36.4	0.39	457,180.93	722,656.68
4,200.0	0.66	248.97	4,199.1	534.1	36.2	-62.2	36.5	0.73	457,180.98	722,655.17
4,300.0	1.44	139.69	4,299.1	634.1	35.0	-62.0	35.3	1.77	457,179.81	722,655.45
4,400.0	2.23	130.42	4,399.0	734.0	32.8	-59.7	33.1	0.84	457,177.59	722,657.75
4,500.0	2.53	136.57	4,498.9	833.9	29.9	-56.7	30.2	0.39	457,174.72	722,660.75
4,600.0	2.83	132.72	4,598.8	933.8	26.6	-53.3	26.9	0.35	457,171.45	722,664.07
4,700.0	3.02	121.35	4,698.7	1,033.7	23.6	-49.3	23.9	0.61	457,168.40	722,668.13



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Pathfinder

Pathfinder X&Y Report



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Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
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Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
4,800.0	3.21	120.98	4,798.6	1,133.6	20.8	-44.6	21.0	0.19	457,165.60	722,672.78
4,900.0	2.72	118.51	4,898.4	1,233.4	18.2	-40.1	18.4	0.50	457,163.02	722,677.26
5,000.0	2.24	111.04	4,998.3	1,333.3	16.4	-36.2	16.6	0.58	457,161.19	722,681.18
5,100.0	2.39	106.04	5,098.3	1,433.3	15.1	-32.4	15.3	0.25	457,159.91	722,685.00
5,200.0	2.53	101.03	5,198.2	1,533.2	14.1	-28.2	14.3	0.26	457,158.91	722,689.17
5,300.0	2.45	103.87	5,298.1	1,633.1	13.2	-24.0	13.3	0.15	457,157.98	722,693.41
5,400.0	2.32	106.72	5,398.0	1,733.0	12.1	-20.0	12.2	0.17	457,156.88	722,697.42
5,500.0	2.57	105.91	5,497.9	1,832.9	10.9	-15.9	11.0	0.24	457,155.68	722,701.51
5,600.0	2.77	105.10	5,597.8	1,932.8	9.6	-11.4	9.7	0.20	457,154.44	722,706.00
5,700.0	2.72	103.56	5,697.7	2,032.7	8.5	-6.8	8.5	0.09	457,153.26	722,710.63
5,800.0	2.64	102.01	5,797.6	2,132.6	7.4	-2.2	7.4	0.11	457,152.22	722,715.20
5,900.0	2.06	101.00	5,897.5	2,232.5	6.6	1.8	6.6	0.58	457,151.40	722,719.21
6,000.0	1.44	99.99	5,997.4	2,332.4	6.0	4.8	6.0	0.62	457,150.84	722,722.22
6,100.0	1.17	100.53	6,097.4	2,432.4	5.6	7.1	5.6	0.27	457,150.43	722,724.46
6,200.0	0.89	101.06	6,197.4	2,532.4	5.3	8.8	5.3	0.29	457,150.10	722,726.23
6,300.0	0.79	93.03	6,297.4	2,632.4	5.1	10.3	5.1	0.15	457,149.91	722,727.68
6,400.0	0.70	85.00	6,397.4	2,732.4	5.1	11.6	5.1	0.14	457,149.93	722,728.98
6,500.0	0.40	114.42	6,497.4	2,832.4	5.0	12.5	5.0	0.40	457,149.84	722,729.91
6,600.0	0.11	343.85	6,597.4	2,932.4	5.0	12.8	4.9	0.48	457,149.78	722,730.21
6,700.0	0.18	154.98	6,697.4	3,032.4	4.9	12.8	4.9	0.28	457,149.73	722,730.24
6,800.0	0.25	126.10	6,797.4	3,132.4	4.7	13.1	4.6	0.13	457,149.46	722,730.48
6,900.0	0.26	123.41	6,897.4	3,232.4	4.4	13.4	4.3	0.01	457,149.21	722,730.84
7,000.0	0.28	120.72	6,997.4	3,332.4	4.2	13.8	4.1	0.03	457,148.96	722,731.24
7,100.0	0.27	83.42	7,097.4	3,432.4	4.1	14.3	4.0	0.18	457,148.86	722,731.69
7,200.0	0.26	46.13	7,197.4	3,532.4	4.2	14.7	4.2	0.17	457,149.05	722,732.08
7,300.0	0.25	31.84	7,297.4	3,632.4	4.6	15.0	4.5	0.06	457,149.39	722,732.36
7,400.0	0.22	17.56	7,397.4	3,732.4	5.0	15.1	4.9	0.07	457,149.76	722,732.53



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Pathfinder

Pathfinder X&Y Report



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
7,500.0	0.27	82.95	7,497.4	3,832.4	5.2	15.4	5.1	0.27	457,149.98	722,732.83
7,600.0	0.32	148.34	7,597.4	3,932.4	5.0	15.8	4.9	0.32	457,149.76	722,733.21
7,700.0	0.41	168.10	7,697.3	4,032.3	4.4	16.0	4.3	0.15	457,149.17	722,733.43
7,800.0	0.50	187.86	7,797.3	4,132.3	3.6	16.0	3.5	0.18	457,148.38	722,733.45
7,900.0	0.39	216.07	7,897.3	4,232.3	2.9	15.8	2.8	0.24	457,147.67	722,733.19
8,000.0	0.28	244.29	7,997.3	4,332.3	2.5	15.4	2.4	0.20	457,147.29	722,732.77
8,100.0	0.47	234.07	8,097.3	4,432.3	2.1	14.8	2.1	0.21	457,146.94	722,732.22
8,200.0	0.65	223.84	8,197.3	4,532.3	1.5	14.1	1.4	0.20	457,146.29	722,731.49
8,300.0	0.76	212.44	8,297.3	4,632.3	0.5	13.3	0.5	0.18	457,145.32	722,730.74
8,400.0	0.87	201.05	8,397.3	4,732.3	-0.7	12.7	-0.8	0.19	457,144.06	722,730.11
8,500.0	0.67	227.18	8,497.3	4,832.3	-1.8	12.0	-1.9	0.40	457,142.95	722,729.41
8,600.0	0.47	253.32	8,597.3	4,932.3	-2.4	11.2	-2.4	0.32	457,142.44	722,728.60
8,700.0	0.52	229.27	8,697.3	5,032.3	-2.8	10.5	-2.8	0.21	457,142.03	722,727.87
8,800.0	0.57	205.22	8,797.3	5,132.3	-3.5	9.9	-3.6	0.23	457,141.29	722,727.31
8,900.0	0.63	219.71	8,897.3	5,232.3	-4.4	9.3	-4.4	0.16	457,140.41	722,726.75
9,000.0	0.69	234.20	8,997.3	5,332.3	-5.2	8.5	-5.2	0.18	457,139.64	722,725.91
9,100.0	0.76	251.01	9,097.3	5,432.3	-5.7	7.4	-5.8	0.22	457,139.07	722,724.79
9,200.0	0.83	267.83	9,197.3	5,532.3	-6.0	6.0	-6.0	0.24	457,138.83	722,723.44
9,300.0	0.71	265.75	9,297.3	5,632.3	-6.0	4.7	-6.1	0.12	457,138.75	722,722.10
9,400.0	0.59	253.68	9,397.3	5,732.3	-6.2	3.6	-6.3	0.18	457,138.56	722,720.99
9,500.0	1.02	268.31	9,497.2	5,832.2	-6.4	2.2	-6.4	0.47	457,138.39	722,719.61
9,600.0	1.45	242.95	9,597.2	5,932.2	-7.0	0.2	-7.0	0.68	457,137.79	722,717.60
9,700.0	1.29	259.14	9,697.2	6,032.2	-7.8	-2.0	-7.8	0.42	457,137.01	722,715.37
9,800.0	1.14	245.33	9,797.2	6,132.2	-8.4	-4.0	-8.4	0.33	457,136.38	722,713.36
9,900.0	0.72	215.91	9,897.2	6,232.2	-9.3	-5.3	-9.3	0.62	457,135.46	722,712.09
10,000.0	0.29	186.49	9,997.2	6,332.2	-10.1	-5.7	-10.1	0.48	457,134.70	722,711.70
10,100.0	0.41	136.73	10,097.1	6,432.1	-10.6	-5.5	-10.6	0.31	457,134.18	722,711.91



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Pathfinder

Pathfinder X&Y Report



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10,200.0	0.52	86.98	10,197.1	6,532.1	-10.9	-4.8	-10.8	0.41	457,133.95	722,712.62
10,300.0	0.39	37.62	10,297.1	6,632.1	-10.6	-4.1	-10.5	0.40	457,134.24	722,713.28
10,400.0	0.25	348.26	10,397.1	6,732.1	-10.1	-4.0	-10.1	0.29	457,134.72	722,713.44
10,500.0	0.71	337.21	10,497.1	6,832.1	-9.3	-4.2	-9.3	0.47	457,135.50	722,713.15
10,540.0	1.09	328.46	10,537.1	6,872.1	-8.8	-4.5	-8.7	1.00	457,136.05	722,712.86
KOP - 10540.0 'MD, 10537.1 'TVD, -8.8 'N, -4.5 'E										
10,620.0	3.87	333.31	10,617.1	6,952.1	-5.7	-6.1	-5.7	3.49	457,139.11	722,711.25
10,651.0	5.80	344.82	10,647.9	6,982.9	-3.2	-7.0	-3.2	6.94	457,141.55	722,710.37
10,682.0	8.62	349.66	10,678.7	7,013.7	0.6	-7.9	0.6	9.30	457,145.35	722,709.54
10,713.0	12.31	349.75	10,709.2	7,044.2	6.1	-8.9	6.1	11.90	457,150.89	722,708.54
10,744.0	15.83	348.78	10,739.2	7,074.2	13.5	-10.3	13.5	11.38	457,158.29	722,707.13
10,775.0	19.26	348.52	10,768.8	7,103.8	22.7	-12.1	22.7	11.07	457,167.45	722,705.29
10,806.0	22.69	349.04	10,797.7	7,132.7	33.5	-14.3	33.6	11.08	457,178.34	722,703.13
10,837.0	25.50	349.31	10,826.0	7,161.0	46.0	-16.6	46.1	9.07	457,190.77	722,700.76
10,868.0	29.37	349.75	10,853.5	7,188.5	60.0	-19.2	60.1	12.50	457,204.81	722,698.16
10,899.0	33.68	350.54	10,880.0	7,215.0	76.0	-22.0	76.1	13.97	457,220.78	722,695.40
10,930.0	38.25	349.97	10,905.0	7,240.0	93.9	-25.1	94.0	14.78	457,238.71	722,692.31
10,961.0	43.18	350.78	10,928.5	7,263.5	113.8	-28.5	114.0	15.99	457,258.65	722,688.94
10,991.0	47.84	352.30	10,949.5	7,284.5	135.0	-31.6	135.2	15.95	457,279.81	722,685.80
11,022.0	52.14	354.26	10,969.5	7,304.5	158.6	-34.4	158.8	14.69	457,303.38	722,683.04
11,054.0	56.78	356.74	10,988.1	7,323.1	184.5	-36.4	184.7	15.81	457,329.33	722,681.01
11,085.0	60.59	357.70	11,004.2	7,339.2	211.0	-37.7	211.2	12.57	457,355.78	722,679.73
11,116.0	64.63	358.35	11,018.4	7,353.4	238.5	-38.6	238.7	13.16	457,383.28	722,678.79
11,147.0	68.41	359.01	11,030.8	7,365.8	266.9	-39.3	267.1	12.35	457,411.70	722,678.13
11,178.0	71.84	0.44	11,041.3	7,376.3	296.1	-39.4	296.3	11.88	457,440.85	722,678.00
11,209.0	74.66	2.06	11,050.3	7,385.3	325.7	-38.8	325.9	10.38	457,470.52	722,678.65
11,240.0	76.50	2.26	11,058.0	7,393.0	355.7	-37.6	355.9	5.97	457,500.53	722,679.78



A Schlumberger Company

Pathfinder

Pathfinder X&Y Report



Company: XTO Energy Co
Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #1H
 KB = 19' @ 3665.0usft (Pioneer 33)
 KB = 19' @ 3665.0usft (Pioneer 33)
 Grid
 Minimum Curvature
 EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
11,271.0	78.61	2.50	11,064.7	7,399.7	386.0	-36.4	386.2	6.85	457,530.77	722,681.04
11,302.0	80.72	2.10	11,070.2	7,405.2	416.4	-35.1	416.6	6.92	457,561.24	722,682.26
11,333.0	83.71	1.57	11,074.4	7,409.4	447.1	-34.2	447.3	9.79	457,591.93	722,683.24
11,363.0	86.44	0.59	11,077.0	7,412.0	477.0	-33.6	477.2	9.66	457,621.82	722,683.81
11,395.0	87.93	0.07	11,078.6	7,413.6	509.0	-33.4	509.1	4.93	457,653.78	722,683.99
11,426.0	88.32	359.91	11,079.6	7,414.6	540.0	-33.4	540.1	1.36	457,684.76	722,683.99
LP - 11426.0 'MD, 11079.6 'TVD, 540.0 'N, -33.4 'E										
11,456.0	88.64	359.82	11,080.4	7,415.4	569.9	-33.5	570.1	1.11	457,714.75	722,683.92
11,487.0	90.66	0.32	11,080.6	7,415.6	600.9	-33.4	601.1	6.71	457,745.75	722,683.95
11,581.0	92.33	0.92	11,078.1	7,413.1	694.9	-32.4	695.1	1.89	457,839.70	722,684.97
11,674.0	93.39	1.31	11,073.5	7,408.5	787.8	-30.6	787.9	1.21	457,932.57	722,686.78
11,767.0	93.12	2.48	11,068.2	7,403.2	880.6	-27.6	880.7	1.29	458,025.37	722,689.85
11,860.0	90.84	3.88	11,065.0	7,400.0	973.4	-22.4	973.5	2.88	458,118.16	722,695.00
11,953.0	91.54	3.56	11,063.0	7,398.0	1,066.1	-16.4	1,066.2	0.83	458,210.94	722,701.04
12,047.0	89.87	3.18	11,061.9	7,396.9	1,160.0	-10.8	1,160.0	1.82	458,304.77	722,706.56
12,078.0	90.40	3.09	11,061.8	7,396.8	1,190.9	-9.1	1,191.0	1.73	458,335.72	722,708.26
12,109.0	90.92	3.03	11,061.5	7,396.5	1,221.9	-7.5	1,221.9	1.69	458,366.68	722,709.91
12,139.0	89.08	3.28	11,061.5	7,396.5	1,251.8	-5.8	1,251.8	6.19	458,396.63	722,711.56
12,170.0	88.64	3.37	11,062.1	7,397.1	1,282.8	-4.0	1,282.8	1.45	458,427.57	722,713.36
12,202.0	88.90	3.59	11,062.8	7,397.8	1,314.7	-2.1	1,314.7	1.06	458,459.51	722,715.30
12,232.0	89.43	3.55	11,063.2	7,398.2	1,344.6	-0.2	1,344.6	1.77	458,489.44	722,717.17
12,263.0	89.87	3.17	11,063.4	7,398.4	1,375.6	1.6	1,375.6	1.88	458,520.39	722,718.99
12,294.0	90.13	3.40	11,063.4	7,398.4	1,406.5	3.4	1,406.5	1.12	458,551.34	722,720.76
12,325.0	90.48	2.95	11,063.2	7,398.2	1,437.5	5.1	1,437.4	1.84	458,582.29	722,722.48
12,356.0	90.92	3.27	11,062.8	7,397.8	1,468.4	6.8	1,468.4	1.75	458,613.24	722,724.16
12,387.0	89.52	2.49	11,062.7	7,397.7	1,499.4	8.3	1,499.3	5.17	458,644.20	722,725.72
12,418.0	88.99	2.16	11,063.1	7,398.1	1,530.4	9.6	1,530.3	2.01	458,675.17	722,726.98



A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: XTO Energy Co
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Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
MD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
12,449.0	89.34	1.92	11,063.6	7,398.6	1,561.4	10.7	1,561.3	1.37	458,706.15	722,728.08	
12,480.0	89.52	2.13	11,063.9	7,398.9	1,592.3	11.8	1,592.2	0.89	458,737.13	722,729.18	
12,511.0	87.85	2.06	11,064.6	7,399.6	1,623.3	12.9	1,623.2	5.39	458,768.10	722,730.31	
12,542.0	87.32	1.97	11,065.9	7,400.9	1,654.3	14.0	1,654.2	1.73	458,799.05	722,731.40	
12,573.0	87.49	1.91	11,067.3	7,402.3	1,685.2	15.0	1,685.1	0.58	458,830.00	722,732.45	
12,604.0	87.76	1.60	11,068.6	7,403.6	1,716.2	16.0	1,716.1	1.33	458,860.96	722,733.39	
12,636.0	87.93	1.30	11,069.8	7,404.8	1,748.1	16.8	1,748.0	1.08	458,892.93	722,734.20	
12,667.0	88.02	1.35	11,070.9	7,405.9	1,779.1	17.5	1,779.0	0.33	458,923.90	722,734.92	
12,697.0	88.71	1.21	11,071.8	7,406.8	1,809.1	18.2	1,809.0	2.35	458,953.88	722,735.59	
12,729.0	88.90	0.76	11,072.4	7,407.4	1,841.1	18.7	1,840.9	1.53	458,985.87	722,736.14	
12,760.0	89.43	0.32	11,072.9	7,407.9	1,872.1	19.0	1,871.9	2.22	459,016.87	722,736.43	
12,791.0	89.16	359.87	11,073.3	7,408.3	1,903.1	19.1	1,902.9	1.69	459,047.86	722,736.48	
12,822.0	89.43	359.77	11,073.6	7,408.6	1,934.1	19.0	1,933.9	0.93	459,078.86	722,736.39	
12,853.0	90.13	358.94	11,073.8	7,408.8	1,965.1	18.6	1,964.9	3.50	459,109.86	722,736.04	
12,884.0	90.66	358.83	11,073.5	7,408.5	1,996.1	18.0	1,995.9	1.75	459,140.85	722,735.43	
12,915.0	91.19	358.83	11,073.0	7,408.0	2,027.0	17.4	2,026.9	1.71	459,171.84	722,734.80	
12,946.0	91.28	358.45	11,072.4	7,407.4	2,058.0	16.7	2,057.9	1.26	459,202.82	722,734.07	
12,977.0	91.45	358.46	11,071.6	7,406.6	2,089.0	15.8	2,088.9	0.55	459,233.80	722,733.23	
13,007.0	91.89	357.85	11,070.8	7,405.8	2,119.0	14.9	2,118.9	2.51	459,263.78	722,732.26	
13,038.0	92.24	357.98	11,069.6	7,404.6	2,149.9	13.7	2,149.8	1.20	459,294.74	722,731.14	
13,069.0	92.77	358.27	11,068.3	7,403.3	2,180.9	12.7	2,180.8	1.95	459,325.69	722,730.12	
13,100.0	93.30	358.03	11,066.6	7,401.6	2,211.8	11.7	2,211.7	1.88	459,356.63	722,729.12	
13,131.0	93.56	357.81	11,064.8	7,399.8	2,242.8	10.6	2,242.7	1.10	459,387.55	722,728.00	
13,162.0	92.59	357.98	11,063.1	7,398.1	2,273.7	9.5	2,273.6	3.18	459,418.49	722,726.86	
13,193.0	92.42	358.20	11,061.8	7,396.8	2,304.6	8.4	2,304.6	0.90	459,449.44	722,725.83	
13,224.0	92.86	357.88	11,060.3	7,395.3	2,335.6	7.4	2,335.5	1.75	459,480.39	722,724.77	
13,255.0	91.36	358.09	11,059.2	7,394.2	2,366.5	6.3	2,366.5	4.89	459,511.35	722,723.68	



A Schlumberger Company

Pathfinder

Pathfinder X&Y Report



Company: XTO Energy Co
Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
MD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
13,286.0	91.01	357.99	11,058.6	7,393.6	2,397.5	5.2	2,397.5	1.17	459,542.32	722,722.62
13,317.0	91.45	358.16	11,057.9	7,392.9	2,428.5	4.2	2,428.4	1.52	459,573.30	722,721.58
13,348.0	91.89	357.97	11,057.0	7,392.0	2,459.5	3.1	2,459.4	1.55	459,604.27	722,720.54
13,379.0	90.84	358.39	11,056.3	7,391.3	2,490.4	2.2	2,490.4	3.65	459,635.24	722,719.55
13,410.0	90.48	358.75	11,055.9	7,390.9	2,521.4	1.4	2,521.4	1.64	459,666.23	722,718.78
13,441.0	90.66	358.54	11,055.6	7,390.6	2,552.4	0.6	2,552.4	0.89	459,697.22	722,718.05
13,472.0	89.69	358.56	11,055.5	7,390.5	2,583.4	-0.1	2,583.4	3.13	459,728.21	722,717.26
13,504.0	89.60	358.79	11,055.7	7,390.7	2,615.4	-0.9	2,615.4	0.77	459,760.20	722,716.52
13,535.0	89.87	358.26	11,055.8	7,390.8	2,646.4	-1.7	2,646.4	1.92	459,791.19	722,715.72
13,566.0	90.31	358.48	11,055.8	7,390.8	2,677.4	-2.6	2,677.4	1.59	459,822.18	722,714.84
13,597.0	89.34	358.74	11,055.9	7,390.9	2,708.4	-3.3	2,708.3	3.24	459,853.17	722,714.09
13,628.0	88.99	358.81	11,056.3	7,391.3	2,739.4	-4.0	2,739.3	1.15	459,884.16	722,713.43
13,659.0	89.43	358.70	11,056.8	7,391.8	2,770.3	-4.6	2,770.3	1.46	459,915.15	722,712.75
13,690.0	89.78	358.62	11,057.0	7,392.0	2,801.3	-5.4	2,801.3	1.16	459,946.14	722,712.03
13,721.0	90.31	358.18	11,057.0	7,392.0	2,832.3	-6.2	2,832.3	2.22	459,977.13	722,711.16
13,752.0	90.22	357.78	11,056.8	7,391.8	2,863.3	-7.3	2,863.3	1.32	460,008.11	722,710.07
13,783.0	90.57	357.35	11,056.6	7,391.6	2,894.3	-8.6	2,894.3	1.79	460,039.08	722,708.75
13,814.0	91.01	357.47	11,056.2	7,391.2	2,925.2	-10.0	2,925.3	1.47	460,070.04	722,707.35
13,845.0	89.96	357.99	11,055.9	7,390.9	2,956.2	-11.3	2,956.2	3.78	460,101.02	722,706.12
13,876.0	89.43	358.21	11,056.1	7,391.1	2,987.2	-12.3	2,987.2	1.85	460,132.00	722,705.10
13,907.0	89.60	358.02	11,056.3	7,391.3	3,018.2	-13.3	3,018.2	0.82	460,162.98	722,704.08
13,938.0	90.13	357.62	11,056.4	7,391.4	3,049.2	-14.5	3,049.2	2.14	460,193.96	722,702.90
14,000.0	90.04	358.53	11,056.3	7,391.3	3,111.1	-16.6	3,111.2	1.47	460,255.92	722,700.82
14,093.0	91.19	358.19	11,055.3	7,390.3	3,204.1	-19.2	3,204.1	1.29	460,348.88	722,698.15
14,186.0	89.52	358.61	11,054.7	7,389.7	3,297.0	-21.8	3,297.1	1.85	460,441.84	722,695.56
14,279.0	89.96	358.42	11,055.2	7,390.2	3,390.0	-24.3	3,390.1	0.52	460,534.80	722,693.15
14,373.0	91.01	358.21	11,054.4	7,389.4	3,484.0	-27.0	3,484.1	1.14	460,628.76	722,690.38



A Schlumberger Company

Pathfinder Pathfinder X&Y Report



Company: XTO Energy Co
Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
MD Reference: KB = 19' @ 3665.0usft (Pioneer 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
14,466.0	90.48	359.17	11,053.2	7,388.2	3,576.9	-29.1	3,577.0	1.18	460,721.72	722,688.26	
14,559.0	91.01	358.75	11,051.9	7,386.9	3,669.9	-30.8	3,670.0	0.73	460,814.70	722,686.57	
14,678.0	88.72	0.89	11,052.2	7,387.2	3,788.9	-31.2	3,789.0	2.63	460,933.68	722,686.20	
14,771.0	88.72	0.45	11,054.3	7,389.3	3,881.9	-30.1	3,882.0	0.47	461,026.66	722,687.28	
14,864.0	89.08	359.70	11,056.1	7,391.1	3,974.8	-30.0	3,974.9	0.89	461,119.64	722,687.40	
14,957.0	89.43	358.95	11,057.3	7,392.3	4,067.8	-31.1	4,067.9	0.89	461,212.62	722,686.31	
15,050.0	89.60	358.62	11,058.1	7,393.1	4,160.8	-33.1	4,160.9	0.40	461,305.60	722,684.34	
15,143.0	89.43	357.66	11,058.9	7,393.9	4,253.7	-36.1	4,253.9	1.05	461,398.54	722,681.32	
15,236.0	90.66	357.66	11,058.8	7,393.8	4,346.7	-39.9	4,346.8	1.32	461,491.46	722,677.52	
15,329.0	91.28	357.57	11,057.2	7,392.2	4,439.6	-43.7	4,439.7	0.67	461,584.37	722,673.65	
15,422.0	91.80	357.22	11,054.7	7,389.7	4,532.4	-48.0	4,532.6	0.67	461,677.24	722,669.43	
15,459.0	92.15	357.30	11,053.5	7,388.5	4,569.4	-49.7	4,569.6	0.97	461,714.18	722,667.66	
15,509.0	92.15	357.30	11,051.6	7,386.6	4,619.3	-52.1	4,619.5	0.00	461,764.08	722,665.31	
PBHL (Estancia 1H)											
15,510.0	92.15	357.30	11,051.5	7,386.5	4,620.3	-52.1	4,620.5	0.00	461,765.08	722,665.26	
PROJECTED BHL - 15510.0 'MD, 11051.5 'TVD, 4620.3 'N, -52.1 'E											

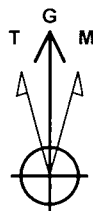
Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,540.0	10,537.1	-8.8	-4.5	KOP - 10540.0 'MD, 10537.1 'TVD, -8.8 'N, -4.5 'E
11,426.0	11,079.6	540.0	-33.4	LP - 11426.0 'MD, 11079.6 'TVD, 540.0 'N, -33.4 'E
15,510.0	11,051.5	4,620.3	-52.1	PROJECTED BHL - 15510.0 'MD, 11051.5 'TVD, 4620.3 'N, -52.1 'E

Checked By: _____ Approved By: _____ Date: _____



Project: Lea County
Site: Estancia Sed
Well: #1H
Wellbore: OH
Plan: Post Gyro Plan #3 (#1H/OH)



Azimuths to Grid North
True North: -0.39°
Magnetic North: 7.06°

Magnetic Field
Strength: 48542.3snT
Dip Angle: 60.20°
Date: 9/24/2012
Model: IGRF200510

PATHFINDER

A Schlumberger Company

PROJECT DETAILS: Lea County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

HOBBS OCD

FEB 21 2013

RECEIVED

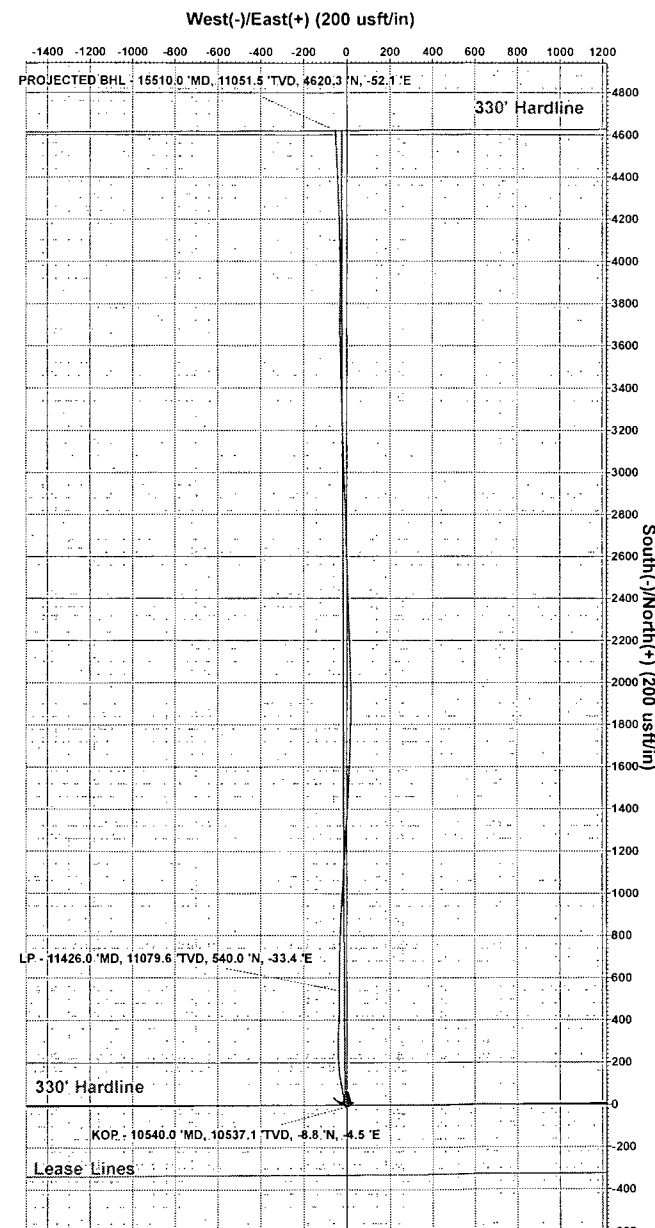
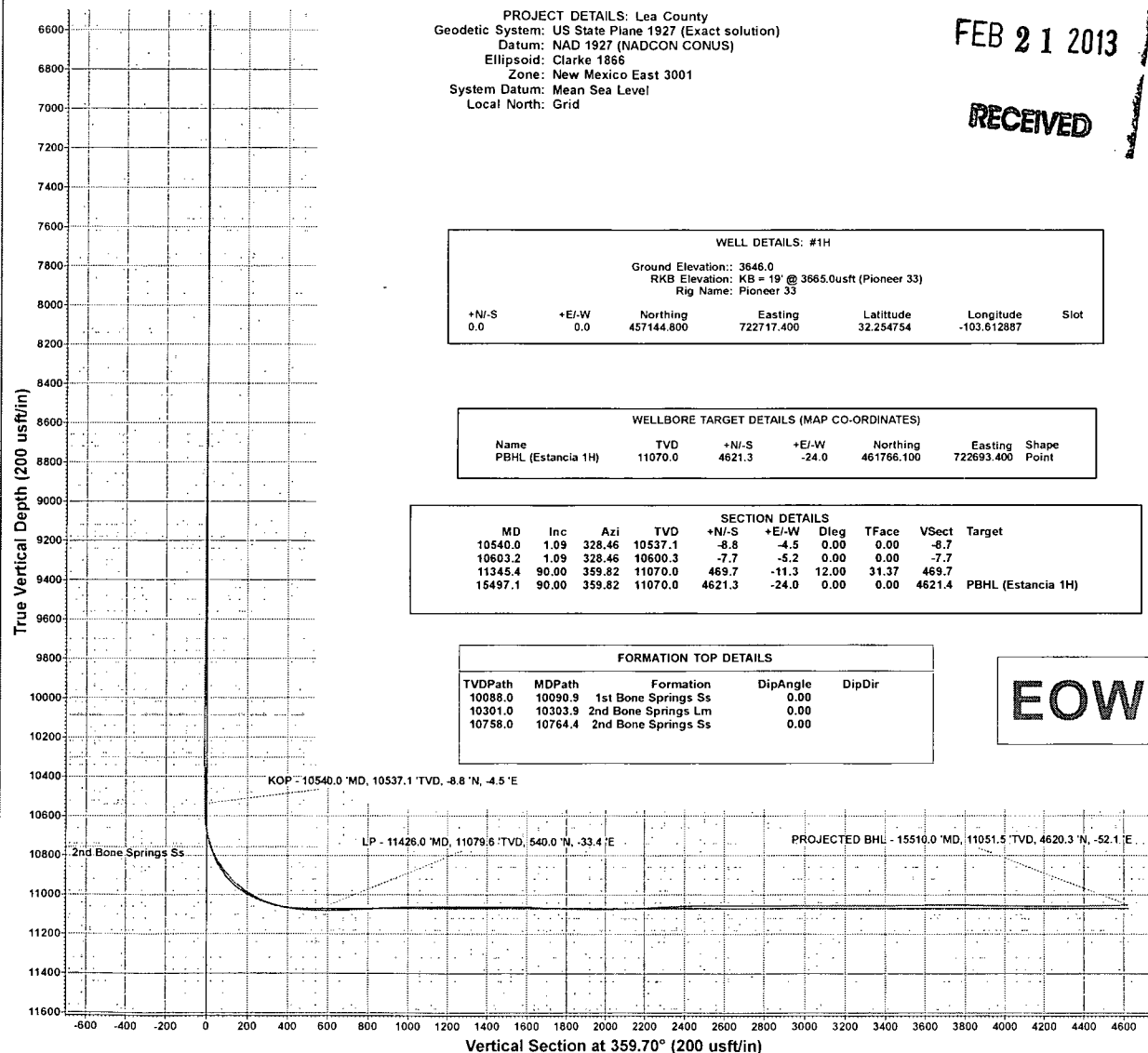
WELL DETAILS: #1H						
Ground Elevation:: 3646.0						
RKB Elevation: KB = 19' @ 3665.0usft (Pioneer 33)						
Rig Name: Pioneer 33						
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	457144.800	722717.400	32.254754	-103.612887	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PBHL (Estancia 1H)	11070.0	4621.3	-24.0	461766.100	722693.400	Point

SECTION DETAILS									
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl	Target
10540.0	1.09	328.46	10537.1	-8.8	-4.5	0.00	0.00	-8.7	
10603.2	1.09	328.46	10600.3	-7.7	-5.2	0.00	0.00	-7.7	
11345.4	90.00	359.82	11070.0	469.7	-11.3	12.00	31.37	469.7	
15497.1	90.00	359.82	11070.0	4621.3	-24.0	0.00	0.00	4621.4	PBHL (Estancia 1H)

FORMATION TOP DETAILS					
TVDPath	MDPath	Formation	DipAngle	DipDir	
10088.0	10090.9	1st Bone Springs Ss	0.00		
10301.0	10303.9	2nd Bone Springs Lm	0.00		
10758.0	10764.4	2nd Bone Springs Ss	0.00		

EOW



Plan: Post Gyro Plan #3 (#1H/OH)
Created By: Michael Trout Date: 8:26, November 05 2012
Checked: _____ Date: _____

XTO Energy Co
Lea County
Estancia Sed
#1H
Pioneer 33
OH
Post Gyro Plan #3