

"As Drilled"

RECEIVED

SEP 02 2011

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised July, 16, 2010
Farmington Field Office
Bureau of Land Management
District Office

Form C-102

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34912	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 022783	⁵ Property Name HB McGRADY A	
⁷ OGRID No. 5380	⁸ Operator Name XTO ENERGY INC.	⁶ Well Number 1H ⁹ Elevation 6011'

¹⁰ Surface Location

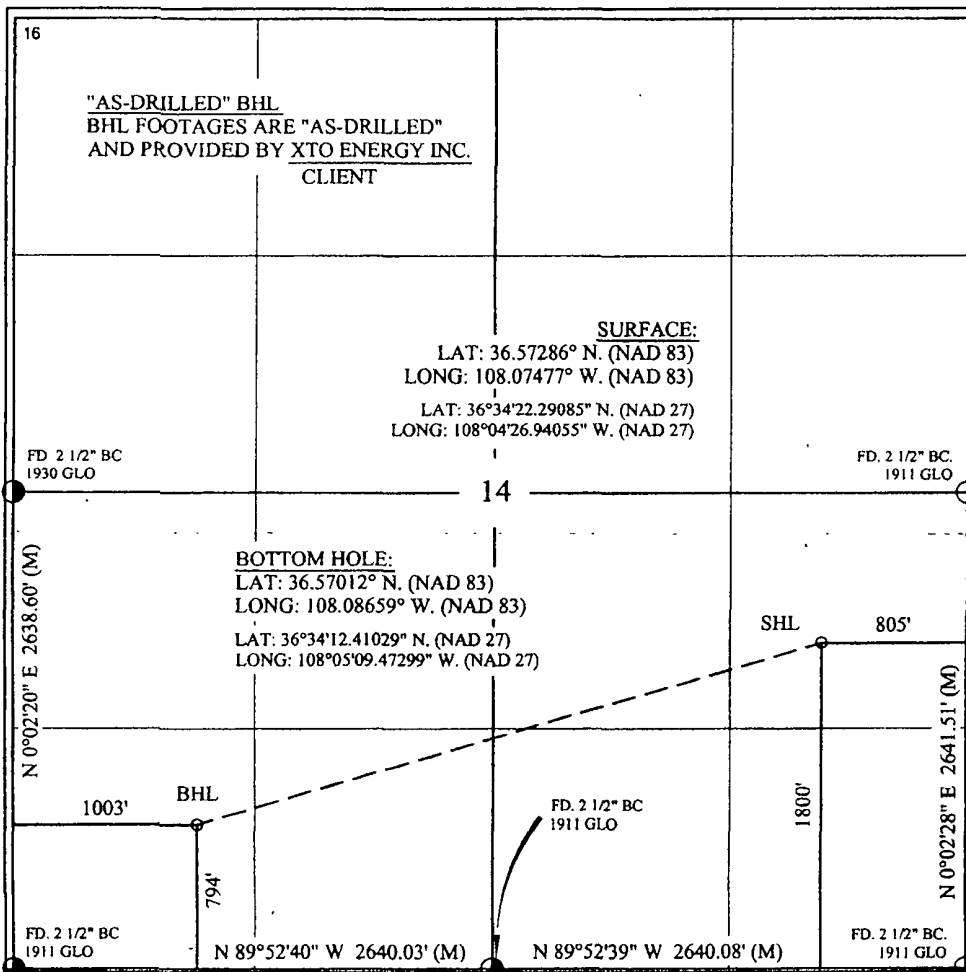
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	14	27-N	12-W		1800	SOUTH	805	EAST	SAN JUAN

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
M	14	27-N	12-W		794	SOUTH	1003	WEST	SAN JUAN

¹² Dedicated Acres 5/2 320	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



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.

Dolena Johnson
Signature Date

Dolena Johnson 8-31-11
Printed Name

dee-johnson@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.

Date of Survey: 8/21/11

Signature of Registered Professional Surveyor:
[Signature]

REGISTERED PROFESSIONAL LAND SURVEYOR
NEW MEXICO
8894

Certificate Number

AZ



HB McGrady A #1H
San Juan Co., New Mexico



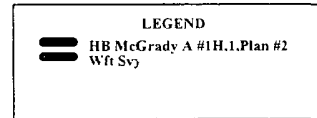
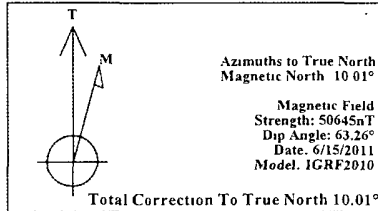
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	590.00	1.81	276.40	589.98	2.30	-3.52	0.00	0.00	2.74	
2	2106.97	90.76	253.64	1537.00	-264.71	-954.94	5.87	-22.76	990.89	
3	5044.53	90.76	253.64	1498.08	-1091.89	-3773.36	0.00	0.00	3928.17	PBHL

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	1498.08	-1091.89	-3773.36	36°34'11.500N	108°05'15.430W	Point

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Eastng	Latitude	Longitude	Slot
HB McGrady A #1H	0.00	0.00	2027923.58	2652203.21	36°34'22.300N	108°04'29.170W	N/A

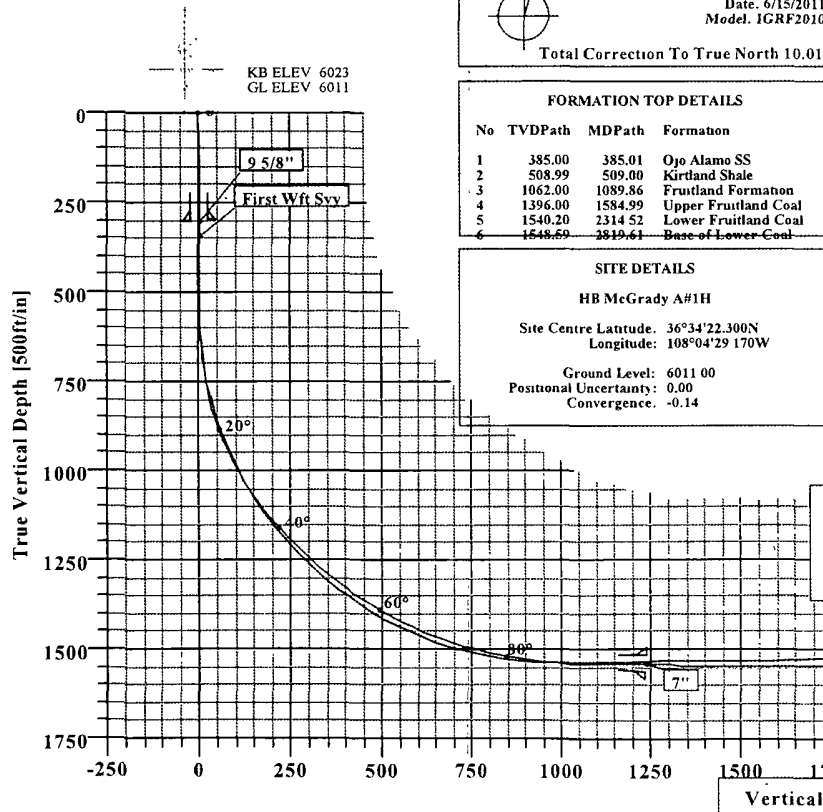
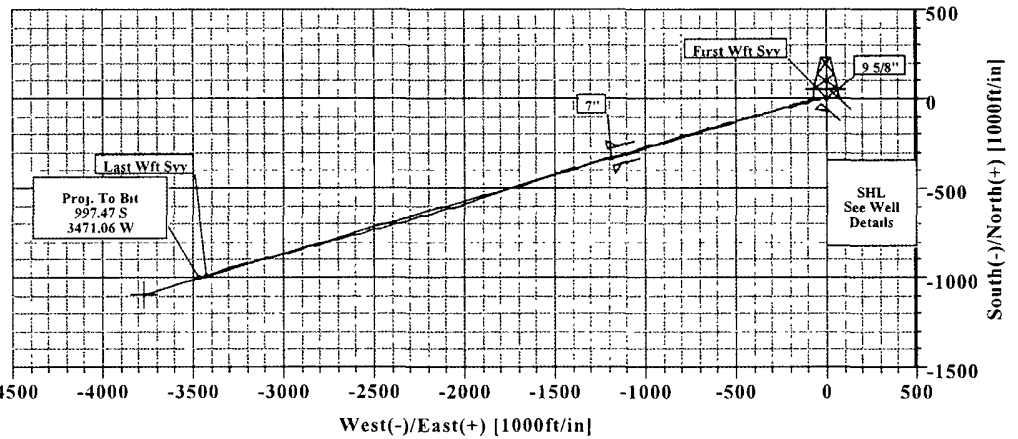
FIELD DETAILS	
San Juan, NM (NAD 83)	
Geodetic System:	US State Plane Coordinate System 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico, Western Zone
Magnetic Model:	IGRF2010
System Datum:	Mean Sea Level
Local North:	True North

CASING DETAILS				
No	TVD	MD	Name	Size
1	300.00	300.00	9 5/8"	9.625
2	1540.83	2344.00	7"	7.000



FORMATION TOP DETAILS			
No	TVDPath	MDPath	Formation
1	385.00	385.01	Ojo Alamo SS
2	508.99	509.00	Kirtland Shale
3	1062.00	1089.86	Fruitland Formation
4	1396.00	1584.99	Upper Fruitland Coal
5	1540.20	2314.52	Lower Fruitland Coal
6	1548.69	2819.61	Base of Lower Coal

SITE DETAILS	
HB McGrady A#1H	
Site Centre Latitude:	36°34'22.300N
Longitude:	108°04'29.170W
Ground Level:	6011.00
Positional Uncertainty:	0.00
Convergence:	-0.14



Survey Wft Svy (HB McGrady A #1H/1)										
No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	
145	4721.00	90.86	254.09	1532.84	-997.47	-3471.06	0.00	0.00	3611.53	

Survey Wft Svy (HB McGrady A #1H/1)
Created By Russell W Joyner Date 7/20/2011



Weatherford International Ltd.

WFT Survey Report Lat, Long



Weatherford

Company: XTO		Date: 7/20/2011		Time: 07:01:48		Page: 1	
Field: San Juan, NM (NAD 83)		Co-ordinate(NE) Reference: Well: HB McGrady A #1H, True North					
Site: HB McGrady A#1H		Vertical (TVD) Reference: SITE 6023.0					
Well: HB McGrady A #1H		Section (VS) Reference: Well (0.00N,0.00E,253.86Azi)					
Wellpath: 1		Survey Calculation Method: Minimum Curvature		Db: Sybase			

Survey: Wft Svy		Start Date: 7/8/2011	
Company: Weatherford International Ltd		Engineer: Russell W Joyner	
Tool: MWD,MWD - Standard		Tied-to: From Surface	

Field: San Juan, NM (NAD 83)	
Map System: US State Plane Coordinate System 1983	
Geo Datum: GRS 1980	
Sys Datum: Mean Sea Level	
Map Zone: New Mexico, Western Zone	
Coordinate System: Well Centre	
Geomagnetic Model: IGRF2010	

Site: HB McGrady A#1H	
Site Position:	
From: Geographic	Northing: 2027923 58 ft
Position Uncertainty: 0.00 ft	Easting: 2652203.21 ft
Ground Level: 6011.00 ft	Latitude: 36 34 22 300 N
	Longitude: 108 4 29 170 W
	North Reference: True
	Grid Convergence: -0 14 deg

Well: HB McGrady A #1H		Slot Name:	
Well Position:		Well Position:	
+N/-S 0.00 ft	Northing: 2027923 58 ft	Latitude:	36 34 22.300 N
+E/-W 0.00 ft	Easting : 2652203 21 ft	Longitude:	108 4 29 170 W
Position Uncertainty: 0 00 ft			

Wellpath: 1		Drilled From: Surface	
Current Datum: SITE		Tie-on Depth: 0 00 ft	
Magnetic Data: 6/15/2011		Above System Datum: Mean Sea Level	
Field Strength: 50645 nT		Declination: 10.01 deg	
Vertical Section: Depth From (TVD)		Mag Dip Angle: 63.26 deg	
ft	+N/-S ft	+E/-W ft	Direction deg
0 00	0 00	0.00	253 86

Survey														
MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	Lat	Min	Sec	Long	Min	Sec	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft							
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	36	34	22 300	108	4	29 170	
300 00	0 39	311 33	300 00	0 68	-0 77	0 55	0 13	36	34	22 307	108	4	29 179	9 5/8" First Wft Sv
345 00	0 45	311 33	345 00	0 89	-1 02	0 73	0 13	36	34	22 309	108	4	29 182	
376 00	0 58	306 71	376 00	1 07	-1 23	0 89	0 44	36	34	22 311	108	4	29 185	
407 00	0 48	311 01	406 99	1 25	-1 46	1 05	0 35	36	34	22 312	108	4	29 188	
438 00	0 58	295 05	437 99	1 40	-1 70	1 24	0 57	36	34	22 314	108	4	29 191	
468 00	0 50	307 76	467 99	1 54	-1 94	1 43	0 48	36	34	22 315	108	4	29 194	
498 00	0 75	303 64	497 99	1 73	-2 21	1 64	0 85	36	34	22 317	108	4	29 197	
528 00	0 56	308 14	527 99	1 93	-2 49	1 85	0 66	36	34	22 319	108	4	29 200	
559 00	0 88	297 01	558 98	2 13	-2 82	2 11	1 12	36	34	22 321	108	4	29 205	
590 00	1 81	276 40	589 98	2 30	-3 52	2 74	3 33	36	34	22 323	108	4	29 213	
620 00	3 13	268 64	619 95	2 33	-4 80	3 97	4 53	36	34	22 323	108	4	29 229	
650 00	4 56	265 89	649 88	2 23	-6 81	5 93	4 80	36	34	22 322	108	4	29 254	
680 00	5 85	263 58	679 76	1 97	-9 52	8 60	4 36	36	34	22 319	108	4	29 287	
711 00	7 63	262 51	710 54	1 52	-13 13	12 19	5 76	36	34	22 315	108	4	29 331	
741 00	9 44	262 64	740 21	0 95	-17 55	16 59	6 03	36	34	22 309	108	4	29 385	
772 00	11 56	262 76	770 69	0 23	-23 15	22 17	6 84	36	34	22 302	108	4	29 454	
803 00	13 63	262 51	800 94	-0 64	-29 85	28 85	6 68	36	34	22 294	108	4	29 536	
833 00	16 00	262 26	829 94	-1 65	-37 46	36 44	7 90	36	34	22 284	108	4	29 629	
865 00	18 24	260 45	860 52	-3 08	-46 77	45 78	7 19	36	34	22 270	108	4	29 743	
896 00	20 38	259 26	889 77	-4 89	-56 86	55 97	7 02	36	34	22 252	108	4	29 867	
926 00	22 50	257 51	917 70	-7 10	-67 59	66 90	7 38	36	34	22 230	108	4	29 999	
957 00	24 94	257 39	946 08	-9 82	-79 76	79 35	7 87	36	34	22 203	108	4	30 148	
989 00	27 08	257 54	974 83	-12 86	-93 46	93 35	6 69	36	34	22 173	108	4	30 316	



Weatherford International Ltd.

WFT Survey Report Lat, Long



Company: XTO	Date: 7/20/2011	Time: 07.01 48	Page: 2
Field: San Juan, NM (NAD 83)	Co-ordinate(NE) Reference: Well. HB McGrady A #1H, True North		
Site: HB McGrady A#1H	Vertical (TVD) Reference: SITE 6023.0		
Well: HB McGrady A #1H	Section (VS) Reference: Well (0.00N,0.00E,253.86Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
1020.00	29.00	257.14	1002.19	-16.06	-107.68	107.90	6.22	36	34	22.141	108	4	30.490	
1051.00	30.88	256.01	1029.05	-19.65	-122.73	123.35	6.33	36	34	22.106	108	4	30.675	
1083.00	32.75	254.76	1056.25	-23.91	-139.05	140.21	6.20	36	34	22.064	108	4	30.875	
1114.00	34.44	254.01	1082.07	-28.53	-155.57	157.37	5.61	36	34	22.018	108	4	31.077	
1145.00	36.53	253.02	1107.31	-33.64	-172.82	175.36	6.99	36	34	21.967	108	4	31.289	
1156.00	37.33	253.03	1116.10	-35.57	-179.14	181.97	7.27	36	34	21.948	108	4	31.366	
1187.00	38.75	252.76	1140.52	-41.19	-197.40	201.07	4.61	36	34	21.893	108	4	31.590	
1217.00	40.13	252.26	1163.68	-46.92	-215.57	220.12	4.72	36	34	21.836	108	4	31.813	
1248.00	42.06	252.26	1187.04	-53.13	-234.98	240.49	6.23	36	34	21.775	108	4	32.051	
1279.00	44.06	252.26	1209.69	-59.58	-255.14	261.64	6.45	36	34	21.711	108	4	32.298	
1309.00	45.81	252.64	1230.93	-65.96	-275.34	282.83	5.90	36	34	21.648	108	4	32.546	
1339.00	47.81	253.26	1251.46	-72.37	-296.25	304.69	6.83	36	34	21.584	108	4	32.802	
1370.00	49.63	253.76	1271.91	-78.99	-318.59	327.99	5.99	36	34	21.519	108	4	33.076	
1401.00	51.20	254.11	1291.67	-85.60	-341.55	351.88	5.14	36	34	21.454	108	4	33.357	
1432.00	52.13	254.14	1310.89	-92.25	-364.93	376.19	3.00	36	34	21.388	108	4	33.644	
1463.00	53.13	254.76	1329.71	-98.85	-388.67	400.83	3.60	36	34	21.322	108	4	33.935	
1493.00	55.00	255.14	1347.31	-105.16	-412.13	425.11	6.32	36	34	21.260	108	4	34.223	
1524.00	57.06	255.01	1364.64	-111.78	-436.97	450.82	6.65	36	34	21.195	108	4	34.527	
1555.00	59.33	255.11	1380.97	-118.57	-462.42	477.15	7.33	36	34	21.127	108	4	34.839	
1586.00	60.56	255.01	1396.50	-125.49	-488.34	503.98	3.98	36	34	21.059	108	4	35.157	
1617.00	61.94	254.64	1411.41	-132.60	-514.57	531.15	4.57	36	34	20.989	108	4	35.479	
1648.00	62.94	254.39	1425.75	-139.94	-541.06	558.63	3.30	36	34	20.916	108	4	35.803	
1679.00	64.06	253.89	1439.58	-147.52	-567.74	586.38	3.89	36	34	20.841	108	4	36.131	
1710.00	65.87	254.05	1452.70	-155.28	-594.74	614.46	5.86	36	34	20.764	108	4	36.462	
1741.00	68.50	254.14	1464.72	-163.11	-622.22	643.03	8.49	36	34	20.687	108	4	36.798	
1773.00	70.81	254.26	1475.84	-171.28	-651.08	673.04	7.23	36	34	20.606	108	4	37.152	
1804.00	72.88	254.26	1485.50	-179.27	-679.44	702.49	6.68	36	34	20.527	108	4	37.500	
1835.00	74.75	253.89	1494.14	-187.43	-708.06	732.26	6.14	36	34	20.446	108	4	37.851	
1867.00	76.17	254.01	1502.18	-196.00	-737.83	763.23	4.45	36	34	20.362	108	4	38.216	
1898.00	77.50	254.26	1509.24	-204.25	-766.86	793.42	4.36	36	34	20.280	108	4	38.572	
1930.00	79.06	254.01	1515.74	-212.82	-797.00	824.75	4.93	36	34	20.195	108	4	38.941	
1962.00	80.44	253.64	1521.43	-221.59	-827.25	856.24	4.46	36	34	20.109	108	4	39.312	
1993.00	81.85	253.83	1526.20	-230.17	-856.65	886.87	4.59	36	34	20.024	108	4	39.673	
2024.00	83.13	253.76	1530.26	-238.74	-886.16	917.60	4.14	36	34	19.939	108	4	40.034	
2056.00	83.75	253.76	1533.91	-247.63	-916.68	949.39	1.94	36	34	19.851	108	4	40.409	
2087.00	84.20	253.90	1537.16	-256.22	-946.29	980.22	1.52	36	34	19.766	108	4	40.772	
2119.00	85.96	254.10	1539.91	-265.01	-976.94	1012.10	5.54	36	34	19.679	108	4	41.147	
2150.00	88.99	254.17	1541.27	-273.47	-1006.72	1043.07	9.78	36	34	19.595	108	4	41.512	
2182.00	90.17	253.60	1541.51	-282.35	-1037.47	1075.07	4.10	36	34	19.508	108	4	41.889	
2213.00	90.81	253.14	1541.24	-291.22	-1067.17	1106.06	2.54	36	34	19.420	108	4	42.253	
2244.00	91.44	252.76	1540.64	-300.31	-1096.80	1137.05	2.37	36	34	19.330	108	4	42.617	
2276.00	90.50	252.89	1540.09	-309.76	-1127.37	1169.04	2.97	36	34	19.237	108	4	42.991	
2307.00	89.44	252.89	1540.11	-318.88	-1157.00	1200.04	3.42	36	34	19.146	108	4	43.355	
2322.00	89.03	252.97	1540.31	-323.28	-1171.33	1215.03	2.78	36	34	19.103	108	4	43.530	
2344.00	88.28	253.47	1540.83	-329.63	-1192.39	1237.03	4.10	36	34	19.040	108	4	43.789	
2375.00	87.75	254.26	1541.90	-338.24	-1222.15	1268.01	3.07	36	34	18.955	108	4	44.154	7"
2406.00	87.88	254.26	1543.08	-346.65	-1251.97	1298.98	0.42	36	34	18.872	108	4	44.519	
2437.00	87.56	253.39	1544.32	-355.27	-1281.72	1329.96	2.99	36	34	18.786	108	4	44.884	
2467.00	87.38	253.39	1545.64	-363.84	-1310.44	1359.93	0.60	36	34	18.702	108	4	45.236	
2497.00	87.41	253.41	1547.00	-372.40	-1339.16	1389.90	0.12	36	34	18.617	108	4	45.588	
2528.00	88.44	253.64	1548.13	-381.19	-1368.86	1420.88	3.40	36	34	18.530	108	4	45.952	
2558.00	89.75	253.51	1548.60	-389.67	-1397.64	1450.87	4.39	36	34	18.446	108	4	46.305	



Weatherford International Ltd.

WFT Survey Report Lat, Long



Weatherford

Company: XTO
 Field: San Juan, NM (NAD 83)
 Site: HB McGrady A#1H
 Well: HB McGrady A #1H
 Wellpath: 1

Date: 7/20/2011 Time: 07:01:48 Page: 3
 Co-ordinate(NE) Reference: Well. HB McGrady A #1H, True North
 Vertical (TVD) Reference: SITE 6023.0
 Section (VS) Reference: Well (0.00N,0.00E,253.86Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
2589.00	90.66	253.07	1548.49	-398.58	-1427.33	1481.87	3.26	36	34	18.358	108	4	46.669	
2620.00	91.06	253.01	1548.02	-407.63	-1456.97	1512.86	1.30	36	34	18.269	108	4	47.032	
2651.00	91.94	252.26	1547.21	-416.87	-1486.55	1543.84	3.73	36	34	18.177	108	4	47.395	
2681.00	92.06	251.51	1546.17	-426.20	-1515.05	1573.81	2.53	36	34	18.085	108	4	47.744	
2712.00	90.44	250.64	1545.49	-436.25	-1544.36	1604.76	5.93	36	34	17.986	108	4	48.104	
2744.00	88.69	251.26	1545.73	-446.69	-1574.61	1636.72	5.80	36	34	17.882	108	4	48.475	
2773.00	87.52	251.35	1546.69	-455.98	-1602.06	1665.67	4.05	36	34	17.790	108	4	48.811	
2803.00	87.75	251.39	1547.93	-465.56	-1630.47	1695.62	0.78	36	34	17.696	108	4	49.159	
2835.00	87.63	251.26	1549.22	-475.80	-1660.76	1727.56	0.55	36	34	17.594	108	4	49.531	
2864.00	88.38	250.89	1550.23	-485.20	-1688.17	1756.51	2.88	36	34	17.501	108	4	49.867	
2895.00	89.00	251.51	1550.94	-495.18	-1717.51	1787.47	2.83	36	34	17.403	108	4	50.226	
2925.00	90.69	251.76	1551.02	-504.63	-1745.98	1817.44	5.69	36	34	17.309	108	4	50.575	
2957.00	90.94	251.89	1550.56	-514.62	-1776.38	1849.42	0.88	36	34	17.210	108	4	50.948	
2987.00	91.50	251.89	1549.92	-523.94	-1804.89	1879.40	1.87	36	34	17.118	108	4	51.298	
3018.00	91.63	251.64	1549.08	-533.63	-1834.32	1910.36	0.91	36	34	17.022	108	4	51.659	
3049.00	91.56	251.51	1548.21	-543.43	-1863.72	1941.33	0.48	36	34	16.925	108	4	52.019	
3080.00	91.50	251.39	1547.39	-553.29	-1893.10	1972.29	0.43	36	34	16.828	108	4	52.379	
3111.00	91.31	251.51	1546.63	-563.15	-1922.48	2003.25	0.72	36	34	16.730	108	4	52.739	
3143.00	91.19	251.26	1545.93	-573.36	-1952.80	2035.21	0.87	36	34	16.629	108	4	53.111	
3175.00	91.88	251.46	1545.07	-583.58	-1983.11	2067.17	2.24	36	34	16.528	108	4	53.483	
3200.00	92.06	250.92	1544.21	-591.64	-2006.76	2092.13	2.28	36	34	16.449	108	4	53.773	
3231.00	92.06	251.89	1543.10	-601.52	-2036.12	2123.08	3.13	36	34	16.351	108	4	54.133	
3262.00	93.00	252.64	1541.73	-610.95	-2065.62	2154.04	3.88	36	34	16.258	108	4	54.494	
3292.00	93.94	254.14	1539.91	-619.51	-2094.31	2183.98	5.89	36	34	16.173	108	4	54.846	
3323.00	94.44	254.39	1537.65	-627.90	-2124.07	2214.90	1.80	36	34	16.090	108	4	55.211	
3353.00	94.25	254.01	1535.38	-636.04	-2152.85	2244.81	1.41	36	34	16.009	108	4	55.564	
3379.00	94.09	253.61	1533.48	-643.27	-2177.76	2270.74	1.65	36	34	15.938	108	4	55.869	
3415.00	93.19	253.51	1531.20	-653.44	-2212.22	2306.67	2.52	36	34	15.837	108	4	56.291	
3442.00	92.56	253.76	1529.85	-661.04	-2238.09	2333.63	2.51	36	34	15.762	108	4	56.609	
3476.00	91.69	253.76	1528.58	-670.54	-2270.71	2367.61	2.56	36	34	15.668	108	4	57.008	
3504.00	91.75	253.89	1527.74	-678.33	-2297.59	2395.60	0.51	36	34	15.591	108	4	57.338	
3527.00	90.94	253.89	1527.20	-684.71	-2319.68	2418.59	3.52	36	34	15.528	108	4	57.609	
3558.00	90.13	254.51	1526.91	-693.16	-2349.51	2449.59	3.29	36	34	15.445	108	4	57.974	
3589.00	89.69	254.64	1526.96	-701.40	-2379.39	2480.59	1.48	36	34	15.363	108	4	58.341	
3619.00	90.13	254.64	1527.01	-709.35	-2408.32	2510.58	1.47	36	34	15.284	108	4	58.695	
3649.00	90.06	254.64	1526.96	-717.29	-2437.25	2540.58	0.23	36	34	15.206	108	4	59.050	
3680.00	88.69	255.14	1527.30	-725.37	-2467.17	2571.57	4.70	36	34	15.126	108	4	59.417	
3711.00	88.55	255.59	1528.05	-733.20	-2497.16	2602.55	1.52	36	34	15.048	108	4	59.785	
3741.00	88.81	255.39	1528.74	-740.72	-2526.19	2632.53	1.09	36	34	14.974	108	5	0.141	
3772.00	89.25	255.39	1529.26	-748.54	-2556.19	2663.52	1.42	36	34	14.897	108	5	0.508	
3802.00	88.98	255.17	1529.72	-756.16	-2585.20	2693.50	1.16	36	34	14.821	108	5	0.864	
3833.00	87.44	255.76	1530.69	-763.93	-2615.19	2724.48	5.32	36	34	14.744	108	5	1.232	
3864.00	86.00	256.14	1532.47	-771.45	-2645.21	2755.40	4.80	36	34	14.670	108	5	1.600	
3894.00	85.25	255.14	1534.76	-778.87	-2674.19	2785.30	4.16	36	34	14.597	108	5	1.955	
3925.00	86.00	254.64	1537.12	-786.92	-2704.03	2816.21	2.91	36	34	14.517	108	5	2.321	
3956.00	86.69	254.26	1539.10	-795.22	-2733.84	2847.14	2.54	36	34	14.435	108	5	2.686	
3987.00	87.99	254.32	1540.53	-803.60	-2763.64	2878.11	4.20	36	34	14.352	108	5	3.052	
4017.00	89.56	254.64	1541.18	-811.63	-2792.54	2908.10	5.34	36	34	14.273	108	5	3.406	
4048.00	90.44	254.76	1541.18	-819.81	-2822.44	2939.09	2.86	36	34	14.192	108	5	3.772	
4078.00	90.56	254.88	1540.91	-827.66	-2851.40	2969.09	0.57	36	34	14.114	108	5	4.127	
4109.00	90.81	255.13	1540.54	-835.68	-2881.34	3000.08	1.14	36	34	14.035	108	5	4.494	
4139.00	90.50	255.51	1540.20	-843.28	-2910.36	3030.07	1.63	36	34	13.959	108	5	4.850	
4171.00	90.13	255.39	1540.02	-851.32	-2941.33	3062.05	1.22	36	34	13.880	108	5	5.230	



Weatherford International Ltd.

WFT Survey Report Lat, Long



Company: XTO	Date: 7/20/2011	Time: 07:01:48	Page: 4
Field: San Juan, NM (NAD 83)	Co-ordinate(NE) Reference:	Well: HB McGrady A #1H, True North	
Site: HB McGrady A#1H	Vertical (TVD) Reference:	SITE 6023.0	
Well: HB McGrady A #1H	Section (VS) Reference:	Well (0.00N,0.00E,253.86Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
4203.00	88.41	255.08	1540.43	-859.48	-2972.27	3094.04	5.46	36	34	13.799	108	5	5.609	
4230.00	87.81	255.81	1541.32	-866.26	-2998.39	3121.02	3.50	36	34	13.732	108	5	5.929	
4262.00	87.56	256.14	1542.62	-874.01	-3029.41	3152.97	1.29	36	34	13.655	108	5	6.310	
4292.00	87.94	256.14	1543.79	-881.19	-3058.51	3182.92	1.27	36	34	13.584	108	5	6.666	
4323.00	88.31	256.76	1544.81	-888.45	-3088.63	3213.87	2.33	36	34	13.513	108	5	7.036	
4354.00	89.25	255.14	1545.47	-895.97	-3118.70	3244.84	6.04	36	34	13.438	108	5	7.404	
4384.00	90.56	254.92	1545.52	-903.72	-3147.68	3274.84	4.43	36	34	13.361	108	5	7.760	
4416.00	91.38	253.89	1544.98	-912.32	-3178.50	3306.83	4.11	36	34	13.276	108	5	8.137	
4448.00	91.56	253.89	1544.15	-921.20	-3209.23	3338.82	0.56	36	34	13.189	108	5	8.514	
4480.00	91.63	253.91	1543.26	-930.07	-3239.96	3370.81	0.23	36	34	13.101	108	5	8.891	
4524.00	92.46	254.12	1541.69	-942.18	-3282.23	3414.78	1.95	36	34	12.981	108	5	9.409	
4555.00	92.88	253.76	1540.25	-950.75	-3311.99	3445.74	1.78	36	34	12.896	108	5	9.774	
4585.00	93.88	253.38	1538.48	-959.22	-3340.72	3475.69	3.57	36	34	12.812	108	5	10.126	
4615.00	94.19	253.26	1536.37	-967.81	-3369.38	3505.62	1.11	36	34	12.728	108	5	10.478	
4646.00	92.88	253.26	1534.46	-976.72	-3399.01	3536.55	4.23	36	34	12.639	108	5	10.841	
4674.00	90.86	254.09	1533.55	-984.58	-3425.87	3564.54	7.80	36	34	12.562	108	5	11.170	Last Wft Svy
4721.00	90.86	254.09	1532.84	-997.47	-3471.06	3611.53	0.00	36	34	12.434	108	5	11.724	Proj To Bit

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
300.00	300.00	9.625	12.250	9 5/8"
2344.00	1540.83	7.000	8.500	7"

Annotation

MD ft	TVD ft	
345.00	345.00	First Wft Svy
4674.00	1533.55	Last Wft Svy
4721.00	1532.84	Proj. To Bit

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
385.01	385.00	Ojo Alamo SS		0.00	0.00
509.00	508.99	Kirtland Shale		0.00	0.00
1089.86	1062.00	Fruitland Formation		0.00	0.00
1584.99	1396.00	Upper Fruitland Coal		0.00	0.00
2314.52	1540.20	Lower Fruitland Coal		-0.75	253.00
2819.61	1548.59	Base of Lower Coal		-0.75	253.00