

ALLISON UNIT COM 149H
AS-DRILLED

SECTION 7, T32N, R6W,
N.M.P.M., SAN JUAN COUNTY,
NEW MEXICO

ROAD JAN 7'11
ALL GAS. DIV.
051.3

PRODUCTION INTERVALS

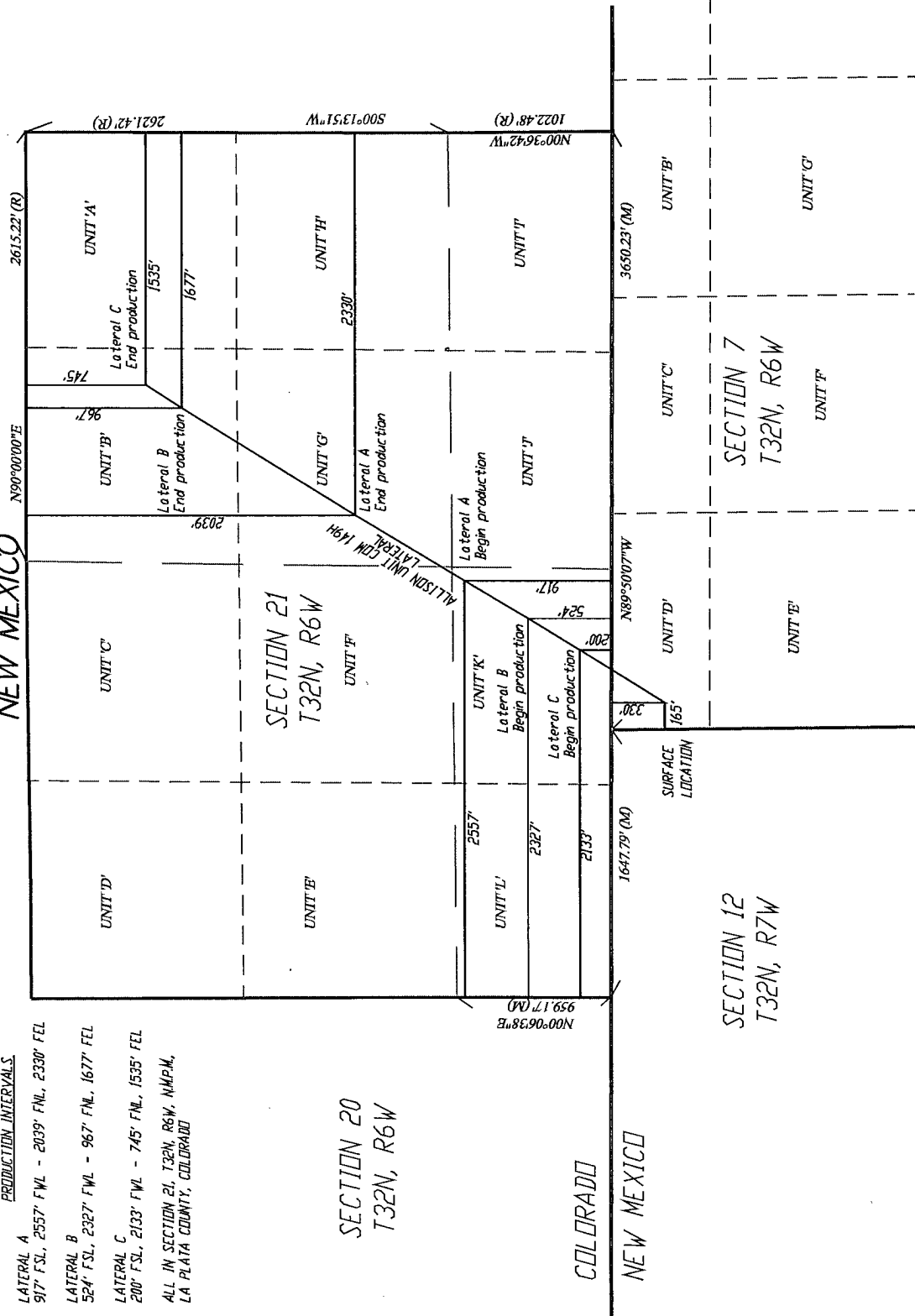
LATERAL A
917' FSL, 2557' FWL - 2039' FNL, 2330' FEL

LATERAL B
524' FSL, 2327' FWL - 967' FNL, 1677' FEL

LATERAL C
200' FSL, 2133' FWL - 745' FNL, 1535' FEL

ALL IN SECTION 21, T32N, R6W, N.M.P.M.,
LA PLATA COUNTY, COLORADO

SECTION 20
T32N, R6W



Co API - 05-067-09810

NM 30-045-35044

Aug 8
Patey



Scientific Drilling
Directional Drilling Operations

ConocoPhillips

SJB (NM West)
SEC 07-T32N-R6W
Allison Unit COM 149H

Lateral A

Design: As Drilled



Standard Survey Report

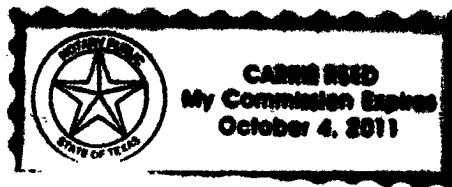
This survey is correct to the best of my knowledge and is supported by actual field data.

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Notorized this date 3rd of December, 2010.

[Signature]

Notary Signature
County of Midland
State of Texas




ConocoPhillips



Project: SJB (NM West)
 Site: SEC 07-T32N-R6W
 Well: Allison Unit COM 149H
 Wellbore: Lateral A
 Design: As Drilled



REFERENCE INFORMATION

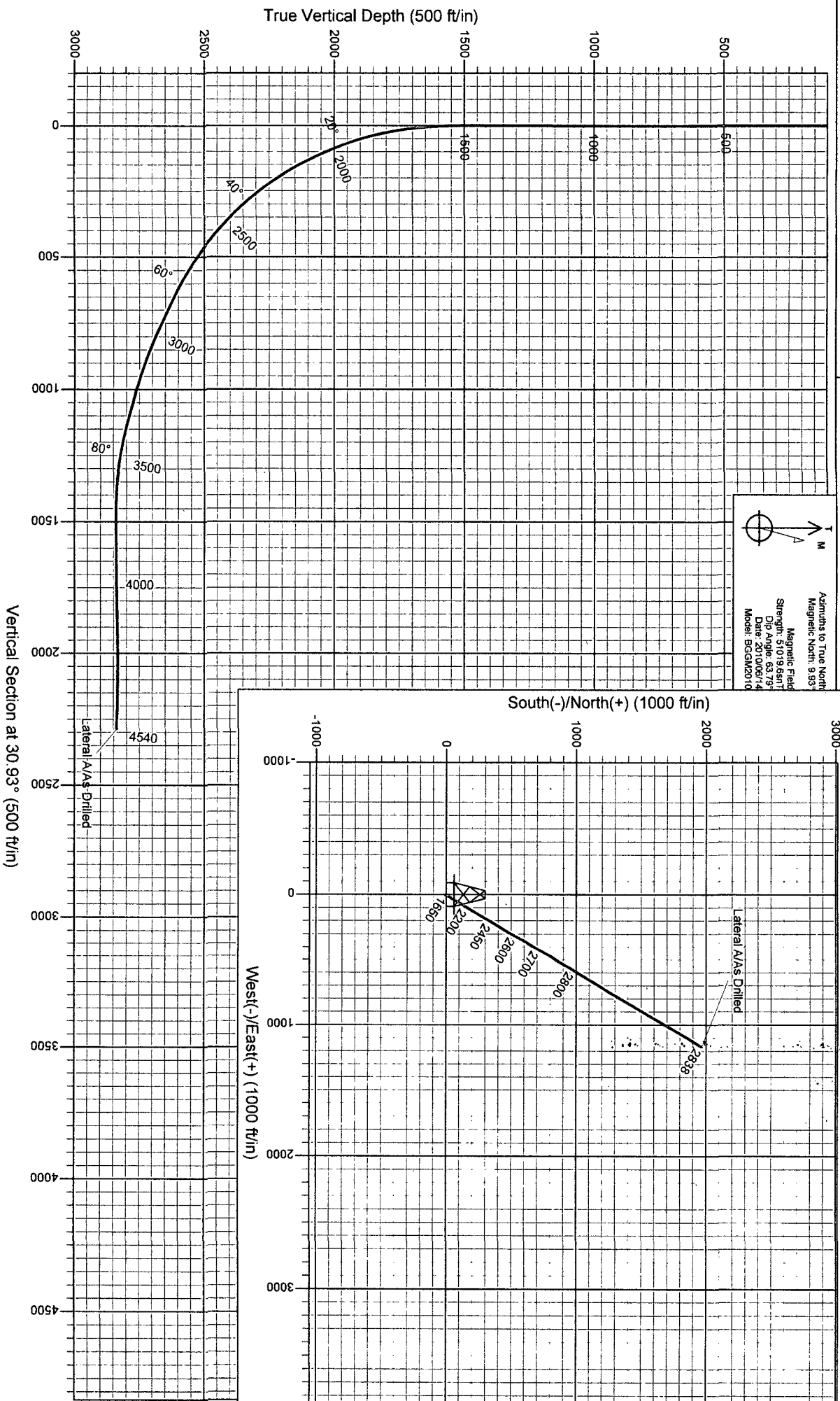
Coordinate (N/E) Reference: Well Allison Unit COM 149H, True North
 Vertical (TVD) Reference: DFE @ 8277.0ft (NWS 730)
 Section (N/S) Reference: Sp1 (0.0N, 0.0E)
 Measured Depth Reference: DFE @ 8277.0ft (NWS 730)
 Calculation Method: Minimum Curvature

PROJECT DETAILS

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003
 System Datum: Mean Sea Level

WELL DETAILS: Allison Unit COM 149H

+N/-S	+E/-W	Ground Level	2262.0'
0.0	0.0	Northing	595013.68
		Easting	2183131.65
		Latitude	36° 59' 57.030 N
		Longitude	107° 30' 28.674 W



Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral A	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Project	SJB (NM West), New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		Using Well Reference Point
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	SEC 07-T32N-R6W				
Site Position:		Northing:	2,179,789.17 ft	Latitude:	36° 59' 23.952 N
From:	Lat/Long	Easting:	595,785.91 ft	Longitude:	107° 30' 19.296 W
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"	Grid Convergence:	0.20 °

Well	Allison Unit COM 149H, HZ CMB Well / Dual Lateral					
Well Position	+N/-S	0.0 ft	Northing:	2,183,131.65 ft	Latitude:	36° 59' 57.030 N
	+E/-W	0.0 ft	Easting:	595,013.68 ft	Longitude:	107° 30' 28.674 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,262.0 ft

Wellbore	Lateral A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	2010/06/14	9.93	63.79	51,020

Design	As Drilled			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	30.93

Survey Program	Date 2010/10/19			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
634.0	4,540.0	SDI MWD (Lateral A)	MWD SDI	MWD - Standard ver 1.0.1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9.5	0.01	109.41	9.5	0.0	0.0	0.0	0.13	0.13	0.00
AUC #149 WH									
634.0	0.82	109.41	634.0	-1.5	4.3	0.9	0.13	0.13	0.00
726.0	0.91	98.36	726.0	-1.8	5.6	1.3	0.21	0.10	-12.01
819.0	0.84	96.77	819.0	-2.0	7.0	1.9	0.08	-0.08	-1.71
915.0	0.48	241.10	915.0	-2.3	7.4	1.8	1.31	-0.38	150.34
1,010.0	0.51	241.66	1,010.0	-2.7	6.7	1.1	0.03	0.03	0.59
1,104.0	0.41	253.20	1,103.9	-3.0	6.0	0.5	0.14	-0.11	12.28
1,199.0	0.24	251.14	1,198.9	-3.1	5.5	0.1	0.18	-0.18	-2.17
1,294.0	0.15	276.16	1,293.9	-3.2	5.1	-0.1	0.13	-0.09	26.34
1,388.0	0.10	279.57	1,387.9	-3.2	4.9	-0.2	0.05	-0.05	3.63
1,483.0	0.07	161.38	1,482.9	-3.2	4.9	-0.3	0.15	-0.03	-124.41

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral A	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,515.0	0.14	75.68	1,514.9	-3.2	4.9	-0.2	0.47	0.22	-267.81
1,547.0	0.81	37.28	1,546.9	-3.0	5.1	0.0	2.21	2.09	-120.00
1,578.0	1.95	32.49	1,577.9	-2.4	5.5	0.8	3.69	3.68	-15.45
1,610.0	3.31	33.05	1,609.9	-1.2	6.3	2.2	4.25	4.25	1.75
1,641.0	4.47	33.33	1,640.8	0.6	7.5	4.3	3.74	3.74	0.90
1,673.0	5.65	30.59	1,672.7	3.0	8.9	7.2	3.76	3.69	-8.56
1,705.0	6.98	27.44	1,704.5	6.1	10.6	10.7	4.29	4.16	-9.84
1,737.0	8.43	26.17	1,736.2	9.9	12.6	14.9	4.56	4.53	-3.97
1,768.0	9.77	26.60	1,766.8	14.3	14.8	19.8	4.33	4.32	1.39
1,800.0	11.32	27.45	1,798.3	19.5	17.4	25.7	4.87	4.84	2.66
1,831.0	12.90	31.58	1,828.6	25.1	20.6	32.2	5.81	5.10	13.32
1,863.0	14.77	32.24	1,859.7	31.6	24.7	39.8	5.86	5.84	2.06
1,895.0	16.32	31.83	1,890.5	38.9	29.2	48.4	4.86	4.84	-1.28
1,926.0	18.13	28.90	1,920.1	46.8	33.9	57.6	6.47	5.84	-9.45
1,958.0	19.57	29.02	1,950.4	55.9	38.9	67.9	4.50	4.50	0.38
1,990.0	20.89	29.10	1,980.4	65.6	44.2	79.0	4.13	4.13	0.25
2,022.0	22.33	29.17	2,010.2	75.8	50.0	90.7	4.50	4.50	0.22
2,053.0	23.85	28.35	2,038.7	86.5	55.8	102.9	5.01	4.90	-2.65
2,085.0	25.32	28.56	2,067.8	98.2	62.2	116.2	4.60	4.59	0.66
2,116.0	26.41	30.32	2,095.7	110.0	68.8	129.7	4.30	3.52	5.68
2,148.0	28.02	30.85	2,124.1	122.6	76.3	144.3	5.09	5.03	1.66
2,179.0	29.87	30.52	2,151.3	135.5	83.9	159.3	5.99	5.97	-1.06
2,210.0	31.12	31.25	2,178.0	149.0	92.0	175.1	4.21	4.03	2.35
2,242.0	32.45	31.16	2,205.2	163.4	100.7	191.9	4.16	4.16	-0.28
2,274.0	34.02	30.76	2,231.9	178.4	109.7	209.5	4.95	4.91	-1.25
2,306.0	35.53	31.40	2,258.2	194.1	119.2	227.7	4.85	4.72	2.00
2,338.0	37.26	30.66	2,284.0	210.3	129.0	246.7	5.58	5.41	-2.31
2,369.0	38.78	31.27	2,308.4	226.7	138.8	265.8	5.05	4.90	1.97
2,401.0	40.29	31.01	2,333.1	244.1	149.3	286.2	4.75	4.72	-0.81
2,432.0	42.08	30.70	2,356.4	261.7	159.8	306.6	5.81	5.77	-1.00
2,464.0	43.59	30.95	2,379.9	280.3	170.9	328.3	4.75	4.72	0.78
2,495.0	45.03	31.23	2,402.0	298.9	182.1	350.0	4.69	4.65	0.90
Blue TGT Line									
2,527.0	46.69	30.62	2,424.3	318.6	193.9	373.0	5.36	5.19	-1.91
2,527.9	46.74	30.62	2,424.9	319.1	194.2	373.6	5.88	5.87	-0.53
Green TGT Line									
2,558.0	48.51	30.46	2,445.2	338.3	205.5	395.8	5.88	5.87	-0.52
2,590.0	49.98	29.97	2,466.1	359.3	217.7	420.1	4.74	4.59	-1.53
2,622.0	51.91	29.39	2,486.3	380.8	230.0	444.9	6.19	6.03	-1.81
2,653.0	53.53	29.48	2,505.1	402.3	242.2	469.6	5.23	5.23	0.29
2,685.0	55.05	29.50	2,523.7	424.9	255.0	495.6	4.75	4.75	0.06
2,716.0	56.44	29.68	2,541.2	447.2	267.6	521.2	4.51	4.48	0.58
2,748.0	57.58	30.64	2,558.6	470.4	281.1	548.0	4.36	3.56	3.00
2,780.0	59.29	30.29	2,575.4	493.9	294.9	575.3	5.42	5.34	-1.09
2,811.0	60.75	30.39	2,590.9	517.1	308.5	602.1	4.72	4.71	0.32
2,843.0	62.51	30.00	2,606.1	541.4	322.6	630.3	5.60	5.50	-1.22
2,874.0	63.78	29.85	2,620.1	565.4	336.4	657.9	4.12	4.10	-0.48
2,906.0	64.66	30.50	2,634.0	590.3	350.9	686.7	3.30	2.75	2.03
2,937.0	64.75	29.76	2,647.2	614.6	365.0	714.8	2.18	0.29	-2.39
2,969.0	64.79	29.83	2,660.9	639.7	379.4	743.7	0.23	0.13	0.22
3,000.0	64.51	30.28	2,674.1	663.9	393.4	771.7	1.59	-0.90	1.45
3,031.0	65.21	29.74	2,687.3	688.2	407.4	799.8	2.75	2.26	-1.74
3,063.0	66.98	29.97	2,700.3	713.6	422.0	829.0	5.57	5.53	0.72
3,095.0	67.99	31.39	2,712.5	739.0	437.1	858.6	5.17	3.16	4.44

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral A	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,127.0	69.85	30.95	2,724.0	764.6	452.5	888.4	5.95	5.81	-1.38
3,158.0	70.84	30.73	2,734.5	789.6	467.5	917.6	3.26	3.19	-0.71
3,190.0	72.12	31.25	2,744.6	815.6	483.1	948.0	4.29	4.00	1.63
3,221.0	72.78	32.08	2,754.0	840.8	498.6	977.5	3.32	2.13	2.68
3,253.0	74.18	31.18	2,763.1	866.9	514.7	1,008.2	5.14	4.38	-2.81
3,260.0	74.33	31.19	2,765.0	872.7	518.2	1,014.9	2.13	2.13	0.10
AUC 149H Lat B TGT #1									
3,284.0	74.84	31.21	2,771.4	892.5	530.2	1,038.1	2.13	2.13	0.10
3,316.0	74.32	30.98	2,779.9	918.9	546.1	1,068.9	1.77	-1.63	-0.72
3,347.0	74.27	30.47	2,788.3	944.5	561.4	1,098.8	1.59	-0.16	-1.65
3,379.0	75.26	31.35	2,796.7	971.0	577.2	1,129.6	4.08	3.09	2.75
3,410.0	76.18	30.93	2,804.3	996.7	592.8	1,159.7	3.25	2.97	-1.35
3,442.0	77.95	31.23	2,811.5	1,023.5	608.9	1,190.9	5.61	5.53	0.94
3,473.0	79.70	31.72	2,817.5	1,049.4	624.8	1,221.3	5.85	5.65	1.58
3,505.0	81.06	31.23	2,822.8	1,076.3	641.2	1,252.8	4.51	4.25	-1.53
3,537.0	81.87	31.36	2,827.6	1,103.3	657.7	1,284.5	2.56	2.53	0.41
3,568.0	82.55	30.73	2,831.8	1,129.7	673.5	1,315.2	2.98	2.19	-2.03
3,600.0	83.50	30.52	2,835.7	1,157.0	689.7	1,347.0	3.04	2.97	-0.66
3,631.0	86.84	31.31	2,838.3	1,183.5	705.6	1,377.8	11.07	10.77	2.55
3,663.0	87.92	30.88	2,839.7	1,210.9	722.1	1,409.8	3.63	3.38	-1.34
3,747.0	90.44	31.29	2,840.9	1,282.8	765.4	1,493.8	3.04	3.00	0.49
3,778.0	90.84	30.99	2,840.6	1,309.3	781.5	1,524.8	1.61	1.29	-0.97
3,810.0	91.38	31.18	2,840.0	1,336.7	798.0	1,556.8	1.79	1.69	0.59
3,841.0	90.54	30.47	2,839.5	1,363.3	813.9	1,587.8	3.55	-2.71	-2.29
3,873.0	90.77	29.72	2,839.1	1,391.0	829.9	1,619.8	2.45	0.72	-2.34
3,904.0	90.00	30.30	2,838.9	1,417.9	845.4	1,650.8	3.11	-2.48	1.87
3,936.0	89.80	30.36	2,838.9	1,445.5	861.6	1,682.8	0.65	-0.63	0.19
3,967.0	90.54	30.86	2,838.8	1,472.2	877.4	1,713.8	2.88	2.39	1.61
3,998.0	90.77	30.57	2,838.5	1,498.8	893.2	1,744.8	1.19	0.74	-0.94
4,030.0	91.04	30.34	2,838.0	1,526.4	909.4	1,776.8	1.11	0.84	-0.72
4,060.0	91.24	29.95	2,837.4	1,552.3	924.5	1,806.7	1.46	0.67	-1.30
4,091.0	91.48	29.93	2,836.7	1,579.2	939.9	1,837.7	0.78	0.77	-0.06
4,121.0	91.11	30.50	2,836.0	1,605.1	955.0	1,867.7	2.26	-1.23	1.90
4,152.0	90.98	30.15	2,835.4	1,631.9	970.7	1,898.7	1.20	-0.42	-1.13
4,183.0	91.38	29.79	2,834.8	1,658.7	986.2	1,929.7	1.74	1.29	-1.16
4,213.0	92.35	29.24	2,833.8	1,684.8	1,000.9	1,959.7	3.72	3.23	-1.83
4,243.0	90.71	29.74	2,833.0	1,710.9	1,015.7	1,989.7	5.71	-5.47	1.67
4,255.1	90.19	30.10	2,832.9	1,721.4	1,021.7	2,001.8	5.17	-4.26	2.94
AUC 149H Lat B TGT #2									
4,274.0	89.39	30.65	2,833.0	1,737.7	1,031.3	2,020.7	5.17	-4.26	2.94
4,304.0	89.90	30.34	2,833.2	1,763.5	1,046.5	2,050.6	1.99	1.70	-1.03
4,335.0	90.34	30.32	2,833.1	1,790.3	1,062.2	2,081.6	1.42	1.42	-0.06
4,365.0	89.03	30.52	2,833.3	1,816.2	1,077.3	2,111.6	4.42	-4.37	0.67
4,396.0	89.23	30.73	2,833.7	1,842.8	1,093.1	2,142.6	0.94	0.65	0.68
4,427.0	89.93	30.89	2,833.9	1,869.5	1,109.0	2,173.6	2.32	2.26	0.52
4,457.0	88.99	31.75	2,834.2	1,895.1	1,124.6	2,203.6	4.25	-3.13	2.87
4,488.0	87.34	31.88	2,835.2	1,921.4	1,140.9	2,234.6	5.34	-5.32	0.42
AUC 149H Lat B BHL - AUC #63 WH - AUC 149H Lat B TGT #3									



Scientific Drilling
Directional Drilling Operations

ConocoPhillips

SJB (NM West)
SEC 07-T32N-R6W
Allison Unit COM 149H

Lateral B

Design: As Drilled



Standard Survey Report

This survey is correct to the best of my knowledge and is supported by actual field data.

Robert

Notorized this date And of December, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas




ConocoPhillips



Project: SJB (NM West)
Site: SEC 07-T32N-R6W
Well: Allison Unit COM 149H
Wellbore: Lateral B
Design: As Drilled

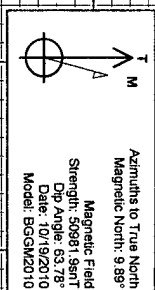


REFERENCE INFORMATION

Co-ordinate (N/E): Reference: Well Allison Unit COM 149H True North
Vertical (TVD): Reference: DFE @ 6277.0ft (AWS 730)
Section (VS): Reference: Std - (0.0N, 0.0E)
Measured Depth Reference: DFE @ 6277.0ft (AWS 730)
Calculation Method: Minimum Curvature

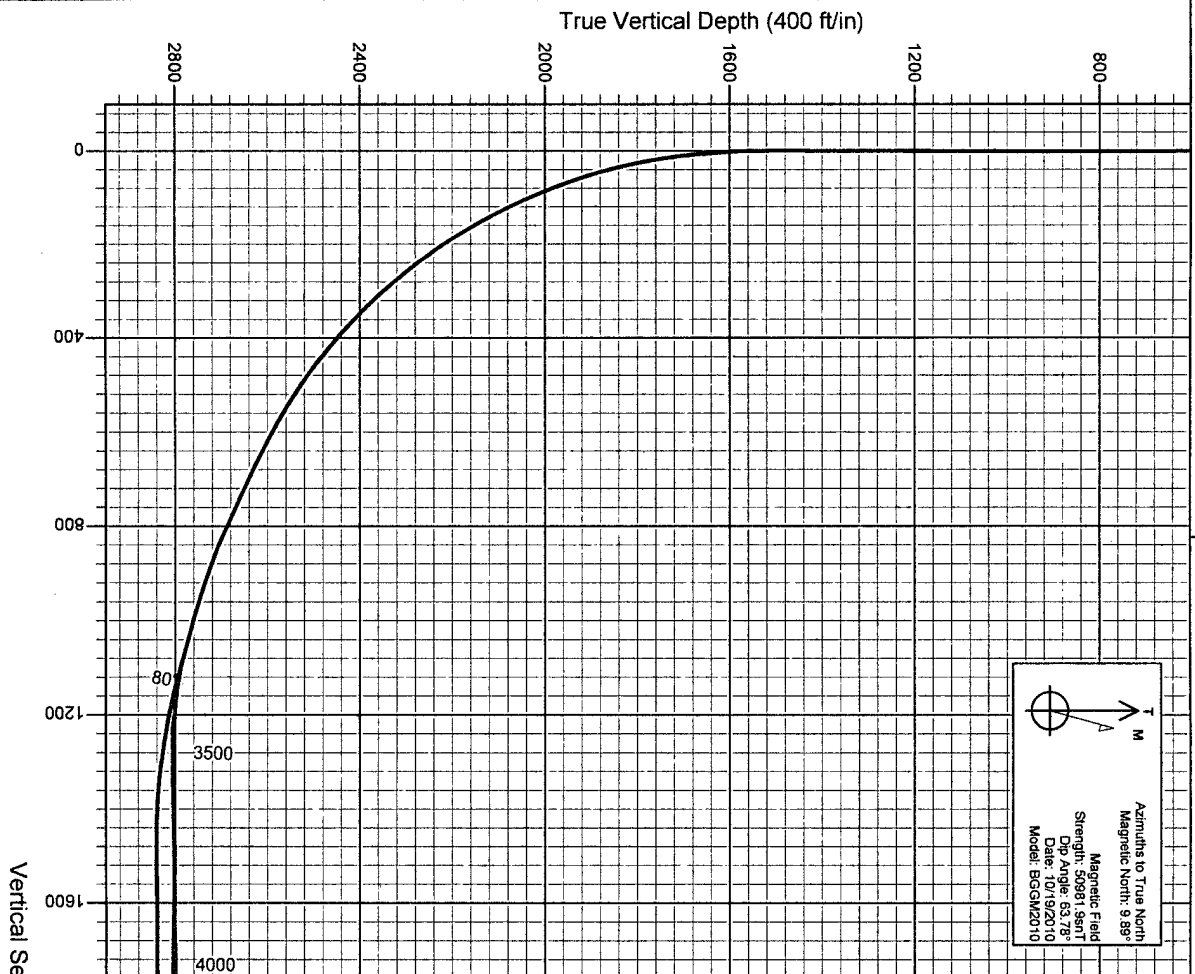
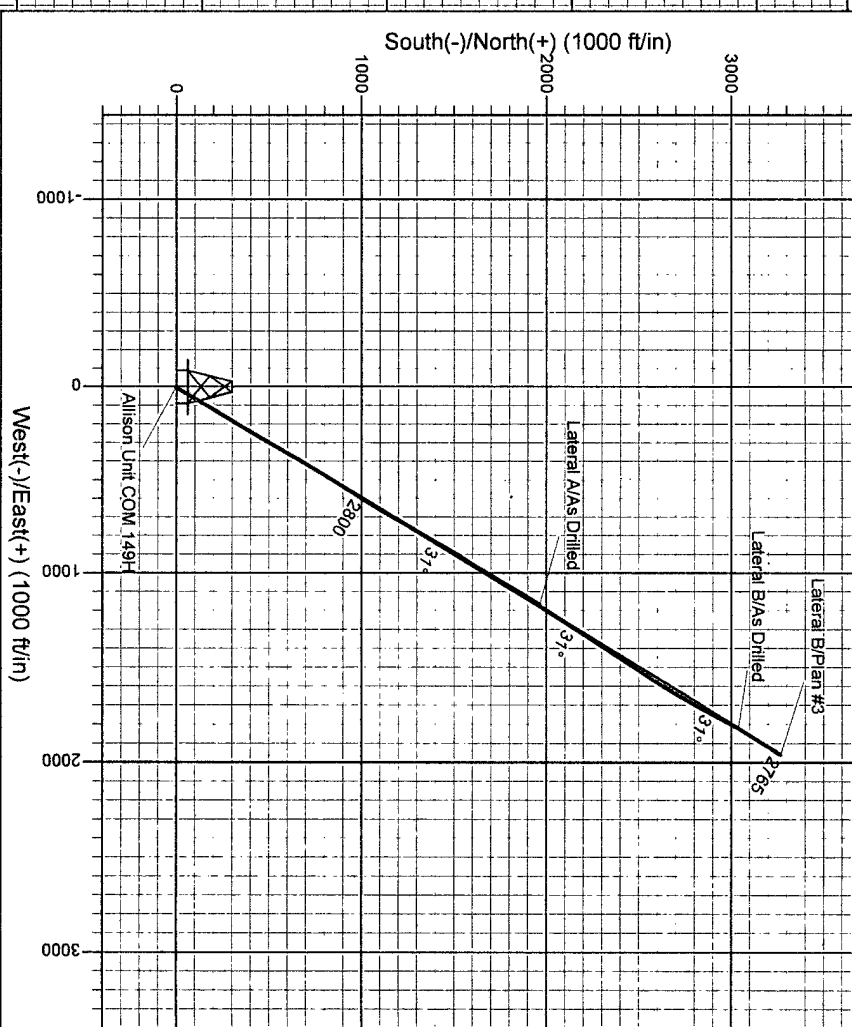
PROJECT DETAILS

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level



WELL DETAILS: Allison Unit COM 149H

	Ground Level:	6262.0	Latitude	Longitude
+N-S	+E-W	2183131.65	36° 59' 57.030 N	107° 30' 28.674 W
0.0	0.0	595013.68		



Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral B	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Project	SJB (NM West), New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		Using Well Reference Point
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	SEC 07-T32N-R6W				
Site Position:		Northing:	2,179,789.17 ft	Latitude:	36° 59' 23.952 N
From:	Lat/Long	Easting:	595,785.91 ft	Longitude:	107° 30' 19.296 W
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"	Grid Convergence:	0.20 °

Well	Allison Unit COM 149H, HZ CMB Well / Dual Lateral					
Well Position	+N/-S	0.0 ft	Northing:	2,183,131.65 ft	Latitude:	36° 59' 57.030 N
	+E/-W	0.0 ft	Easting:	595,013.68 ft	Longitude:	107° 30' 28.674 W
Position Uncertainty		3.5 ft	Wellhead Elevation:	ft	Ground Level:	6,262.0 ft

Wellbore	Lateral B				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	10/19/2010	9.89	63.79	50,982

Design	As Drilled			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 3,315.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	30.93

Survey Program	Date 10/25/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
634.0	3,315.0	SDI MWD (Lateral A)	MWD SDI	MWD - Standard ver 1.0.1
3,396.0	5,795.0	SDI MWD (Lateral B)	MWD SDI	MWD - Standard ver 1.0.1

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
634.0	0.82	109.41	634.0	-1.5	4.3	0.9	0.13	0.13	0.00
726.0	0.91	98.36	726.0	-1.8	5.6	1.3	0.21	0.10	-12.01
819.0	0.84	96.77	819.0	-2.0	7.0	1.9	0.08	-0.08	-1.71
915.0	0.48	241.10	915.0	-2.3	7.4	1.8	1.31	-0.38	150.34
1,010.0	0.51	241.66	1,010.0	-2.7	6.7	1.1	0.03	0.03	0.59
1,104.0	0.41	253.20	1,103.9	-3.0	6.0	0.5	0.14	-0.11	12.28
1,199.0	0.24	251.14	1,198.9	-3.1	5.5	0.1	0.18	-0.18	-2.17
1,294.0	0.15	276.16	1,293.9	-3.2	5.1	-0.1	0.13	-0.09	26.34
1,388.0	0.10	279.57	1,387.9	-3.2	4.9	-0.2	0.05	-0.05	3.63
1,483.0	0.07	161.38	1,482.9	-3.2	4.9	-0.3	0.15	-0.03	-124.41
1,515.0	0.14	75.68	1,514.9	-3.2	4.9	-0.2	0.47	0.22	-267.81

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral B	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,547.0	0.81	37.28	1,546.9	-3.0	5.1	0.0	2.21	2.09	-120.00
1,578.0	1.95	32.49	1,577.9	-2.4	5.5	0.8	3.69	3.68	-15.45
1,610.0	3.31	33.05	1,609.9	-1.2	6.3	2.2	4.25	4.25	1.75
1,641.0	4.47	33.33	1,640.8	0.6	7.5	4.3	3.74	3.74	0.90
1,673.0	5.65	30.59	1,672.7	3.0	8.9	7.2	3.76	3.69	-8.56
1,705.0	6.98	27.44	1,704.5	6.1	10.6	10.7	4.29	4.16	-9.84
1,737.0	8.43	26.17	1,736.2	9.9	12.6	14.9	4.56	4.53	-3.97
1,768.0	9.77	26.60	1,766.8	14.3	14.8	19.8	4.33	4.32	1.39
1,800.0	11.32	27.45	1,798.3	19.5	17.4	25.7	4.87	4.84	2.66
1,831.0	12.90	31.58	1,828.6	25.1	20.6	32.2	5.81	5.10	13.32
1,863.0	14.77	32.24	1,859.7	31.6	24.7	39.8	5.86	5.84	2.06
1,895.0	16.32	31.83	1,890.5	38.9	29.2	48.4	4.86	4.84	-1.28
1,926.0	18.13	28.90	1,920.1	46.8	33.9	57.6	6.47	5.84	-9.45
1,958.0	19.57	29.02	1,950.4	55.9	38.9	67.9	4.50	4.50	0.38
1,990.0	20.89	29.10	1,980.4	65.6	44.2	79.0	4.13	4.13	0.25
2,022.0	22.33	29.17	2,010.2	75.8	50.0	90.7	4.50	4.50	0.22
2,053.0	23.85	28.35	2,038.7	86.5	55.8	102.9	5.01	4.90	-2.65
2,085.0	25.32	28.56	2,067.8	98.2	62.2	116.2	4.60	4.59	0.66
2,116.0	26.41	30.32	2,095.7	110.0	68.8	129.7	4.30	3.52	5.68
2,148.0	28.02	30.85	2,124.1	122.6	76.3	144.3	5.09	5.03	1.66
2,179.0	29.87	30.52	2,151.3	135.5	83.9	159.3	5.99	5.97	-1.06
2,210.0	31.12	31.25	2,178.0	149.0	92.0	175.1	4.21	4.03	2.35
2,242.0	32.45	31.16	2,205.2	163.4	100.7	191.9	4.16	4.16	-0.28
2,274.0	34.02	30.76	2,231.9	178.4	109.7	209.5	4.95	4.91	-1.25
2,306.0	35.53	31.40	2,258.2	194.1	119.2	227.7	4.85	4.72	2.00
2,338.0	37.26	30.66	2,284.0	210.3	129.0	246.7	5.58	5.41	-2.31
2,369.0	38.78	31.27	2,308.4	226.7	138.8	265.8	5.05	4.90	1.97
2,401.0	40.29	31.01	2,333.1	244.1	149.3	286.2	4.75	4.72	-0.81
2,432.0	42.08	30.70	2,356.4	261.7	159.8	306.6	5.81	5.77	-1.00
2,464.0	43.59	30.95	2,379.9	280.3	170.9	328.3	4.75	4.72	0.78
2,495.0	45.03	31.23	2,402.0	298.9	182.1	350.0	4.69	4.65	0.90
2,527.0	46.69	30.62	2,424.3	318.6	193.9	373.0	5.36	5.19	-1.91
2,558.0	48.51	30.46	2,445.2	338.3	205.5	395.8	5.88	5.87	-0.52
2,590.0	49.98	29.97	2,466.1	359.3	217.7	420.1	4.74	4.59	-1.53
2,622.0	51.91	29.39	2,486.3	380.8	230.0	444.9	6.19	6.03	-1.81
2,653.0	53.53	29.48	2,505.1	402.3	242.2	469.6	5.23	5.23	0.29
2,685.0	55.05	29.50	2,523.7	424.9	255.0	495.6	4.75	4.75	0.06
2,716.0	56.44	29.68	2,541.2	447.2	267.6	521.2	4.51	4.48	0.58
2,748.0	57.58	30.64	2,558.6	470.4	281.1	548.0	4.36	3.56	3.00
2,780.0	59.29	30.29	2,575.4	493.9	294.9	575.3	5.42	5.34	-1.09
2,811.0	60.75	30.39	2,590.9	517.1	308.5	602.1	4.72	4.71	0.32
2,843.0	62.51	30.00	2,606.1	541.4	322.6	630.3	5.60	5.50	-1.22
2,874.0	63.78	29.85	2,620.1	565.4	336.4	657.9	4.12	4.10	-0.48
2,906.0	64.66	30.50	2,634.0	590.3	350.9	686.7	3.30	2.75	2.03
2,937.0	64.75	29.76	2,647.2	614.6	365.0	714.8	2.18	0.29	-2.39
2,969.0	64.79	29.83	2,660.9	639.7	379.4	743.7	0.23	0.13	0.22
3,000.0	64.51	30.28	2,674.1	663.9	393.4	771.7	1.59	-0.90	1.45
3,031.0	65.21	29.74	2,687.3	688.2	407.4	799.8	2.75	2.26	-1.74
3,063.0	66.98	29.97	2,700.3	713.6	422.0	829.0	5.57	5.53	0.72
3,095.0	67.99	31.39	2,712.5	739.0	437.1	858.6	5.17	3.16	4.44
3,127.0	69.85	30.95	2,724.0	764.6	452.5	888.4	5.95	5.81	-1.38
3,158.0	70.84	30.73	2,734.5	789.6	467.5	917.6	3.26	3.19	-0.71
3,190.0	72.12	31.25	2,744.6	815.6	483.1	948.0	4.29	4.00	1.63
3,221.0	72.78	32.08	2,754.0	840.8	498.6	977.5	3.32	2.13	2.68

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral B	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,253.0	74.18	31.18	2,763.1	866.9	514.7	1,008.2	5.14	4.38	-2.81
3,284.0	74.84	31.21	2,771.4	892.5	530.2	1,038.1	2.13	2.13	0.10
3,315.0	74.34	30.99	2,779.6	918.1	545.6	1,068.0	1.77	-1.63	-0.72
3,396.0	82.59	33.46	2,795.8	985.1	587.9	1,147.2	10.62	10.19	3.05
3,427.0	84.64	34.16	2,799.2	1,010.7	605.1	1,178.0	6.98	6.61	2.26
3,459.0	86.50	32.67	2,801.7	1,037.4	622.6	1,209.9	7.44	5.81	-4.66
3,490.0	88.01	31.32	2,803.2	1,063.6	639.1	1,240.8	6.53	4.87	-4.35
3,521.0	89.83	30.23	2,803.8	1,090.2	654.9	1,271.8	6.84	5.87	-3.52
3,553.0	90.20	29.55	2,803.8	1,118.0	670.9	1,303.8	2.42	1.16	-2.13
3,584.0	90.47	29.62	2,803.6	1,144.9	686.2	1,334.8	0.90	0.87	0.23
3,616.0	90.44	28.88	2,803.3	1,172.9	701.8	1,366.8	2.31	-0.09	-2.31
3,648.0	90.71	28.86	2,803.0	1,200.9	717.2	1,398.8	0.85	0.84	-0.06
3,679.0	90.81	30.47	2,802.6	1,227.8	732.6	1,429.8	5.20	0.32	5.19
3,711.0	90.98	30.82	2,802.1	1,255.3	748.9	1,461.8	1.22	0.53	1.09
3,742.0	89.90	30.67	2,801.9	1,282.0	764.7	1,492.8	3.52	-3.48	-0.48
3,774.0	90.71	30.05	2,801.7	1,309.6	780.9	1,524.7	3.19	2.53	-1.94
3,805.0	89.50	30.82	2,801.6	1,336.3	796.6	1,555.7	4.63	-3.90	2.48
3,837.0	89.09	29.73	2,802.0	1,364.0	812.8	1,587.7	3.64	-1.28	-3.41
3,868.0	88.92	28.94	2,802.6	1,391.0	827.9	1,618.7	2.61	-0.55	-2.55
3,900.0	88.52	28.12	2,803.3	1,419.1	843.2	1,650.7	2.85	-1.25	-2.56
3,931.0	88.75	28.70	2,804.0	1,446.3	858.0	1,681.7	2.01	0.74	1.87
3,963.0	89.83	30.25	2,804.4	1,474.2	873.7	1,713.6	5.90	3.38	4.84
3,994.0	90.27	31.83	2,804.4	1,500.8	889.7	1,744.6	5.29	1.42	5.10
4,026.0	90.47	31.87	2,804.2	1,527.9	906.6	1,776.6	0.64	0.63	0.13
4,056.0	90.64	31.90	2,803.9	1,553.4	922.4	1,806.6	0.58	0.57	0.10
4,087.0	91.48	33.18	2,803.3	1,579.5	939.1	1,837.6	4.94	2.71	4.13
4,118.0	91.95	33.71	2,802.4	1,605.4	956.2	1,868.6	2.28	1.52	1.71
4,148.0	92.72	33.54	2,801.2	1,630.4	972.8	1,898.5	2.63	2.57	-0.57
4,178.0	91.68	33.07	2,800.0	1,655.4	989.2	1,928.5	3.80	-3.47	-1.57
4,209.0	90.50	31.59	2,799.4	1,681.6	1,005.8	1,959.4	6.11	-3.81	-4.77
4,239.0	90.64	31.54	2,799.1	1,707.2	1,021.5	1,989.4	0.50	0.47	-0.17
4,270.0	90.98	31.48	2,798.7	1,733.6	1,037.7	2,020.4	1.11	1.10	-0.19
4,301.0	90.81	31.36	2,798.2	1,760.0	1,053.9	2,051.4	0.67	-0.55	-0.39
4,331.0	91.28	30.44	2,797.7	1,785.8	1,069.3	2,081.4	3.44	1.57	-3.07
4,362.0	91.78	29.99	2,796.8	1,812.5	1,084.9	2,112.4	2.17	1.61	-1.45
4,393.0	92.02	31.17	2,795.8	1,839.2	1,100.6	2,143.4	3.88	0.77	3.81
4,423.0	90.54	31.50	2,795.1	1,864.8	1,116.2	2,173.4	5.05	-4.93	1.10
4,454.0	90.34	31.57	2,794.9	1,891.3	1,132.4	2,204.4	0.68	-0.65	0.23
4,484.0	88.42	31.03	2,795.2	1,916.9	1,148.0	2,234.4	6.65	-6.40	-1.80
4,515.0	88.45	30.50	2,796.1	1,943.5	1,163.9	2,265.4	1.71	0.10	-1.71
4,545.0	88.92	31.42	2,796.7	1,969.2	1,179.3	2,295.4	3.44	1.57	3.07
4,576.0	89.83	32.21	2,797.1	1,995.6	1,195.6	2,326.3	3.89	2.94	2.55
4,606.0	90.10	32.60	2,797.1	2,020.9	1,211.7	2,356.3	1.58	0.90	1.30
4,637.0	90.30	32.20	2,797.0	2,047.1	1,228.3	2,387.3	1.44	0.65	-1.29
4,668.0	90.67	31.96	2,796.7	2,073.3	1,244.8	2,418.3	1.42	1.19	-0.77
4,698.0	91.08	31.39	2,796.3	2,098.9	1,260.5	2,448.3	2.34	1.37	-1.90
4,729.0	91.28	32.32	2,795.6	2,125.2	1,276.9	2,479.3	3.07	0.65	3.00
4,759.0	89.46	32.17	2,795.4	2,150.6	1,292.9	2,509.3	6.09	-6.07	-0.50
4,790.0	89.36	31.59	2,795.8	2,176.9	1,309.3	2,540.3	1.90	-0.32	-1.87
4,820.0	89.76	32.26	2,796.0	2,202.4	1,325.1	2,570.3	2.60	1.33	2.23
4,851.0	89.93	32.55	2,796.1	2,228.5	1,341.8	2,601.3	1.08	0.55	0.94
4,881.0	90.74	32.53	2,795.9	2,253.8	1,357.9	2,631.3	2.70	2.70	-0.07
4,912.0	90.98	33.18	2,795.4	2,279.9	1,374.7	2,662.2	2.23	0.77	2.10
4,943.0	90.64	32.83	2,795.0	2,305.8	1,391.6	2,693.2	1.57	-1.10	-1.13

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral B	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,973.0	91.65	31.97	2,794.4	2,331.2	1,407.7	2,723.2	4.42	3.37	-2.87
5,004.0	92.05	32.97	2,793.4	2,357.3	1,424.3	2,754.2	3.47	1.29	3.23
5,034.0	92.62	32.56	2,792.2	2,382.5	1,440.5	2,784.1	2.34	1.90	-1.37
5,065.0	90.94	32.01	2,791.2	2,408.7	1,457.1	2,815.1	5.70	-5.42	-1.77
5,096.0	91.08	32.62	2,790.7	2,434.9	1,473.6	2,846.1	2.02	0.45	1.97
5,126.0	91.28	33.06	2,790.0	2,460.1	1,489.9	2,876.1	1.61	0.67	1.47
5,157.0	92.82	32.71	2,788.9	2,486.1	1,506.7	2,907.0	5.09	4.97	-1.13
5,187.0	93.33	32.68	2,787.3	2,511.3	1,522.9	2,937.0	1.70	1.70	-0.10
5,218.0	93.43	33.35	2,785.5	2,537.3	1,539.8	2,967.9	2.18	0.32	2.16
5,248.0	92.49	32.84	2,784.0	2,562.4	1,556.1	2,997.8	3.56	-3.13	-1.70
5,279.0	91.99	32.56	2,782.7	2,588.4	1,572.9	3,028.8	1.85	-1.61	-0.90
5,310.0	91.45	31.19	2,781.8	2,614.8	1,589.2	3,059.8	4.75	-1.74	-4.42
5,340.0	92.12	30.88	2,780.9	2,640.5	1,604.7	3,089.8	2.46	2.23	-1.03
5,371.0	92.73	30.51	2,779.6	2,667.1	1,620.5	3,120.7	2.30	1.97	-1.19
5,401.0	91.62	30.23	2,778.4	2,693.0	1,635.6	3,150.7	3.82	-3.70	-0.93
5,431.0	90.50	29.88	2,777.9	2,718.9	1,650.7	3,180.7	3.91	-3.73	-1.17
5,462.0	90.57	29.54	2,777.6	2,745.8	1,666.0	3,211.7	1.12	0.23	-1.10
5,493.0	89.29	28.45	2,777.6	2,772.9	1,681.1	3,242.7	5.42	-4.13	-3.52
5,523.0	87.85	28.68	2,778.4	2,799.3	1,695.4	3,272.6	4.86	-4.80	0.77
5,553.0	88.25	28.04	2,779.4	2,825.7	1,709.6	3,302.6	2.51	1.33	-2.13
5,585.0	85.49	28.06	2,781.1	2,853.9	1,724.7	3,334.5	8.63	-8.63	0.06
5,616.0	85.25	25.83	2,783.6	2,881.4	1,738.7	3,365.3	7.21	-0.77	-7.19
5,648.0	85.46	26.91	2,786.2	2,910.0	1,752.8	3,397.1	3.43	0.66	3.38
5,679.0	85.52	27.69	2,788.7	2,937.4	1,767.0	3,428.0	2.52	0.19	2.52
5,711.0	86.33	27.28	2,790.9	2,965.8	1,781.7	3,459.8	2.84	2.53	-1.28
5,743.0	86.43	27.85	2,793.0	2,994.1	1,796.5	3,491.7	1.80	0.31	1.78



Scientific Drilling
Directional Drilling Operations

ConocoPhillips

SJB (NM West)
SEC 07-T32N-R6W
Allison Unit COM 149H

Lateral C

Design: As Drilled



Standard Survey Report

This survey is correct to the best of my knowledge and is supported by actual field data.

Robert

Notorized this date 2nd of December, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



ConocoPhillips

REFERENCE INFORMATION

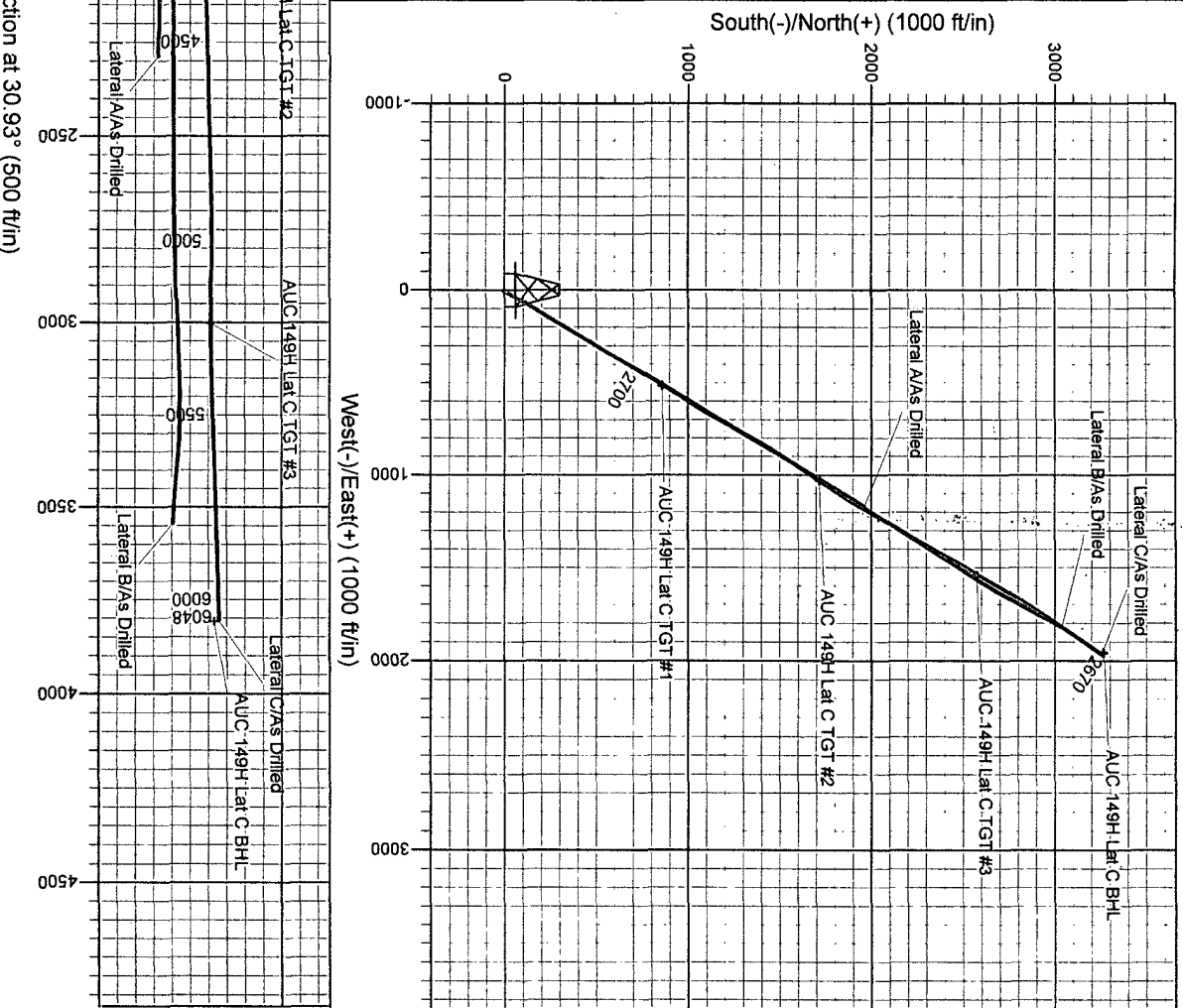
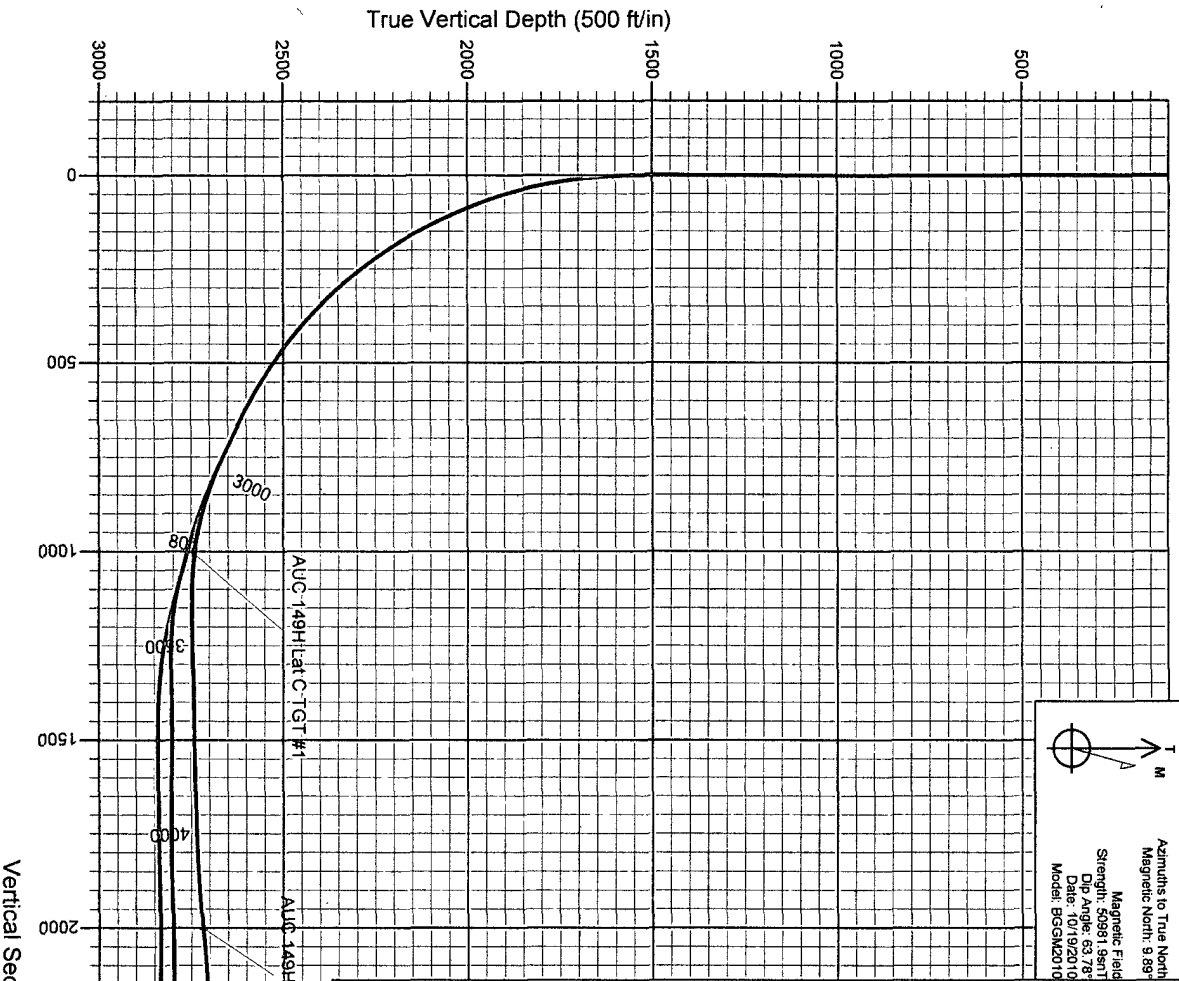
Co-ordinate (N/E) Reference: Well Allison Unit COM 149H, True North
Vertical (TVD) Reference: DFE @ 6277.0ft (AWS 730)
Section (VS) Reference: Slot: (0.0N, 0.0E)
Measured Depth Reference: DFE @ 6277.0ft (AWS 730)
Calculation Method: Minimum Curvature

PROJECT DETAILS

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

WELL DETAILS: Allison Unit COM 149H

+N/-S	+E/-W	Ground Level:	6262.0	Latitude	36° 59' 57.030 N	Longitude	107° 30' 28.674 W
0.0	0.0	Northing	2183131.65	Easting	595013.68		



Vertical Section at 30.93° (500 ft/in)

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral C	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Project	SJB (NM West), New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		Using Well Reference Point
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	SEC 07-T32N-R6W		
Site Position:		Northing:	2,179,789.17 ft
From:	Lat/Long	Easting:	595,785.91 ft
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8"
		Latitude:	36° 59' 23.952 N
		Longitude:	107° 30' 19.296 W
		Grid Convergence:	0.20 °

Well	Allison Unit COM 149H, HZ CMB Well / Dual Lateral		
Well Position	+N/-S	0.0 ft	Northing: 2,183,131.65 ft
	+E/-W	0.0 ft	Easting: 595,013.68 ft
Position Uncertainty	3.5 ft	Wellhead Elevation:	ft
		Latitude:	36° 59' 57.030 N
		Longitude:	107° 30' 28.674 W
		Ground Level:	6,262.0 ft

Wellbore	Lateral C				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	10/19/2010	9.89	63.79	50,982

Design	As Drilled			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 2,991.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	30.93

Survey Program	Date 11/1/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
634.0	2,991.0	SDI MWD (Lateral A)	MWD SDI	MWD - Standard ver 1.0.1
3,082.0	6,048.0	SDI MWD (Lateral C)	MWD SDI	MWD - Standard ver 1.0.1

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
634.0	0.82	109.41	634.0	-1.5	4.3	0.9	0.13	0.13	0.00
726.0	0.91	98.36	726.0	-1.8	5.6	1.3	0.21	0.10	-12.01
819.0	0.84	96.77	819.0	-2.0	7.0	1.9	0.08	-0.08	-1.71
915.0	0.48	241.10	915.0	-2.3	7.4	1.8	1.31	-0.38	150.34
1,010.0	0.51	241.66	1,010.0	-2.7	6.7	1.1	0.03	0.03	0.59
1,104.0	0.41	253.20	1,103.9	-3.0	6.0	0.5	0.14	-0.11	12.28
1,199.0	0.24	251.14	1,198.9	-3.1	5.5	0.1	0.18	-0.18	-2.17
1,294.0	0.15	276.16	1,293.9	-3.2	5.1	-0.1	0.13	-0.09	26.34
1,388.0	0.10	279.57	1,387.9	-3.2	4.9	-0.2	0.05	-0.05	3.63
1,483.0	0.07	161.38	1,482.9	-3.2	4.9	-0.3	0.15	-0.03	-124.41
1,515.0	0.14	75.68	1,514.9	-3.2	4.9	-0.2	0.47	0.22	-267.81

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral C	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,547.0	0.81	37.28	1,546.9	-3.0	5.1	0.0	2.21	2.09	-120.00
1,578.0	1.95	32.49	1,577.9	-2.4	5.5	0.8	3.69	3.68	-15.45
1,610.0	3.31	33.05	1,609.9	-1.2	6.3	2.2	4.25	4.25	1.75
1,641.0	4.47	33.33	1,640.8	0.6	7.5	4.3	3.74	3.74	0.90
1,673.0	5.65	30.59	1,672.7	3.0	8.9	7.2	3.76	3.69	-8.56
1,705.0	6.98	27.44	1,704.5	6.1	10.6	10.7	4.29	4.16	-9.84
1,737.0	8.43	26.17	1,736.2	9.9	12.6	14.9	4.56	4.53	-3.97
1,768.0	9.77	26.60	1,766.8	14.3	14.8	19.8	4.33	4.32	1.39
1,800.0	11.32	27.45	1,798.3	19.5	17.4	25.7	4.87	4.84	2.66
1,831.0	12.90	31.58	1,828.6	25.1	20.6	32.2	5.81	5.10	13.32
1,863.0	14.77	32.24	1,859.7	31.6	24.7	39.8	5.86	5.84	2.06
1,895.0	16.32	31.83	1,890.5	38.9	29.2	48.4	4.86	4.84	-1.28
1,926.0	18.13	28.90	1,920.1	46.8	33.9	57.6	6.47	5.84	-9.45
1,958.0	19.57	29.02	1,950.4	55.9	38.9	67.9	4.50	4.50	0.38
1,990.0	20.89	29.10	1,980.4	65.6	44.2	79.0	4.13	4.13	0.25
2,022.0	22.33	29.17	2,010.2	75.8	50.0	90.7	4.50	4.50	0.22
2,053.0	23.85	28.35	2,038.7	86.5	55.8	102.9	5.01	4.90	-2.65
2,085.0	25.32	28.56	2,067.8	98.2	62.2	116.2	4.60	4.59	0.66
2,116.0	26.41	30.32	2,095.7	110.0	68.8	129.7	4.30	3.52	5.68
2,148.0	28.02	30.85	2,124.1	122.6	76.3	144.3	5.09	5.03	1.66
2,179.0	29.87	30.52	2,151.3	135.5	83.9	159.3	5.99	5.97	-1.06
2,210.0	31.12	31.25	2,178.0	149.0	92.0	175.1	4.21	4.03	2.35
2,242.0	32.45	31.16	2,205.2	163.4	100.7	191.9	4.16	4.16	-0.28
2,274.0	34.02	30.76	2,231.9	178.4	109.7	209.5	4.95	4.91	-1.25
2,306.0	35.53	31.40	2,258.2	194.1	119.2	227.7	4.85	4.72	2.00
2,338.0	37.26	30.66	2,284.0	210.3	129.0	246.7	5.58	5.41	-2.31
2,369.0	38.78	31.27	2,308.4	226.7	138.8	265.8	5.05	4.90	1.97
2,401.0	40.29	31.01	2,333.1	244.1	149.3	286.2	4.75	4.72	-0.81
2,432.0	42.08	30.70	2,356.4	261.7	159.8	306.6	5.81	5.77	-1.00
2,464.0	43.59	30.95	2,379.9	280.3	170.9	328.3	4.75	4.72	0.78
2,495.0	45.03	31.23	2,402.0	298.9	182.1	350.0	4.69	4.65	0.90
2,527.0	46.69	30.62	2,424.3	318.6	193.9	373.0	5.36	5.19	-1.91
2,558.0	48.51	30.46	2,445.2	338.3	205.5	395.8	5.88	5.87	-0.52
2,590.0	49.98	29.97	2,466.1	359.3	217.7	420.1	4.74	4.59	-1.53
2,622.0	51.91	29.39	2,486.3	380.8	230.0	444.9	6.19	6.03	-1.81
2,653.0	53.53	29.48	2,505.1	402.3	242.2	469.6	5.23	5.23	0.29
2,685.0	55.05	29.50	2,523.7	424.9	255.0	495.6	4.75	4.75	0.06
2,716.0	56.44	29.68	2,541.2	447.2	267.6	521.2	4.51	4.48	0.58
2,748.0	57.58	30.64	2,558.6	470.4	281.1	548.0	4.36	3.56	3.00
2,780.0	59.29	30.29	2,575.4	493.9	294.9	575.3	5.42	5.34	-1.09
2,811.0	60.75	30.39	2,590.9	517.1	308.5	602.1	4.72	4.71	0.32
2,843.0	62.51	30.00	2,606.1	541.4	322.6	630.3	5.60	5.50	-1.22
2,874.0	63.78	29.85	2,620.1	565.4	336.4	657.9	4.12	4.10	-0.48
2,906.0	64.66	30.50	2,634.0	590.3	350.9	686.7	3.30	2.75	2.03
2,937.0	64.75	29.76	2,647.2	614.6	365.0	714.8	2.18	0.29	-2.39
2,969.0	64.79	29.83	2,660.9	639.7	379.4	743.7	0.23	0.13	0.22
2,991.0	64.59	30.15	2,670.3	656.9	389.3	763.6	1.59	-0.90	1.45
3,082.0	71.48	30.28	2,704.3	729.8	431.8	847.9	7.57	7.57	0.14
3,113.0	73.68	31.09	2,713.6	755.2	446.9	877.5	7.52	7.10	2.61
3,145.0	75.52	31.42	2,722.1	781.6	462.9	908.4	5.84	5.75	1.03
3,176.0	77.67	30.85	2,729.3	807.4	478.5	938.5	7.16	6.94	-1.84
3,208.0	79.44	30.52	2,735.6	834.4	494.5	969.9	5.62	5.53	-1.03
3,240.0	81.82	28.44	2,740.8	861.9	510.0	1,001.4	9.82	7.44	-6.50
3,241.4	81.95	28.53	2,741.0	863.1	510.7	1,002.8	11.12	9.12	6.43

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral C	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
AUC 149H Lat C TGT #1									
3,271.0	84.65	30.42	2,744.5	888.7	525.1	1,032.2	11.12	9.13	6.39
3,303.0	86.80	31.33	2,746.8	916.1	541.5	1,064.1	7.29	6.72	2.84
3,334.0	89.43	32.14	2,747.9	942.4	557.8	1,095.1	8.88	8.48	2.61
3,366.0	90.50	31.54	2,747.9	969.6	574.7	1,127.1	3.83	3.34	-1.88
3,398.0	90.41	30.39	2,747.6	997.0	591.1	1,159.1	3.60	-0.28	-3.59
3,430.0	90.91	30.03	2,747.3	1,024.7	607.2	1,191.1	1.93	1.56	-1.13
3,461.0	91.32	31.64	2,746.7	1,051.3	623.1	1,222.1	5.36	1.32	5.19
3,493.0	91.49	30.75	2,745.9	1,078.6	639.7	1,254.1	2.83	0.53	-2.78
3,525.0	91.81	32.45	2,745.0	1,105.9	656.4	1,286.0	5.40	1.00	5.31
3,556.0	92.24	31.82	2,743.9	1,132.1	672.9	1,317.0	2.46	1.39	-2.03
3,588.0	90.71	30.52	2,743.0	1,159.5	689.5	1,349.0	6.27	-4.78	-4.06
3,619.0	90.80	29.84	2,742.6	1,186.3	705.1	1,380.0	2.21	0.29	-2.19
3,650.0	90.64	30.85	2,742.2	1,213.0	720.7	1,411.0	3.30	-0.52	3.26
3,682.0	90.84	31.06	2,741.8	1,240.5	737.2	1,443.0	0.91	0.63	0.66
3,713.0	91.35	29.58	2,741.2	1,267.2	752.8	1,474.0	5.05	1.65	-4.77
3,744.0	91.69	29.72	2,740.4	1,294.2	768.2	1,505.0	1.19	1.10	0.45
3,776.0	90.68	30.04	2,739.7	1,321.9	784.1	1,536.9	3.31	-3.16	1.00
3,807.0	90.88	28.97	2,739.3	1,348.9	799.4	1,567.9	3.51	0.65	-3.45
3,839.0	91.09	29.60	2,738.8	1,376.8	815.0	1,599.9	2.07	0.66	1.97
3,870.0	91.56	31.12	2,738.1	1,403.5	830.7	1,630.9	5.13	1.52	4.90
3,902.0	90.67	29.37	2,737.4	1,431.2	846.8	1,662.9	6.13	-2.78	-5.47
3,933.0	90.97	30.62	2,737.0	1,458.0	862.3	1,693.9	4.15	0.97	4.03
3,965.0	92.16	32.75	2,736.1	1,485.2	879.1	1,725.9	7.62	3.72	6.66
3,996.0	92.85	32.51	2,734.8	1,511.3	895.8	1,756.8	2.36	2.23	-0.77
4,028.0	92.95	32.01	2,733.1	1,538.3	912.8	1,788.8	1.59	0.31	-1.56
4,059.0	93.07	34.14	2,731.5	1,564.3	929.7	1,819.7	6.87	0.39	6.87
4,089.0	93.54	32.97	2,729.8	1,589.2	946.3	1,849.6	4.20	1.57	-3.90
4,120.0	93.65	33.68	2,727.8	1,615.1	963.3	1,880.5	2.31	0.35	2.29
4,150.0	94.34	33.03	2,725.8	1,640.1	979.7	1,910.4	3.16	2.30	-2.17
4,181.0	94.79	33.66	2,723.3	1,665.9	996.7	1,941.3	2.49	1.45	2.03
4,211.0	94.88	33.91	2,720.8	1,690.7	1,013.4	1,971.2	0.88	0.30	0.83
4,241.9	95.21	32.67	2,718.0	1,716.5	1,030.2	2,001.9	4.16	1.06	-4.03
AUC 149H Lat C TGT #2									
4,242.0	95.21	32.66	2,718.0	1,716.6	1,030.3	2,002.0	4.16	1.06	-4.03
4,272.0	95.23	34.25	2,715.3	1,741.5	1,046.8	2,031.9	5.28	0.07	5.30
4,303.0	95.43	34.38	2,712.4	1,767.0	1,064.2	2,062.7	0.77	0.65	0.42
4,334.0	94.51	34.00	2,709.7	1,792.5	1,081.5	2,093.5	3.21	-2.97	-1.23
4,364.0	94.14	32.14	2,707.5	1,817.6	1,097.8	2,123.4	6.30	-1.23	-6.20
4,395.0	92.56	31.49	2,705.7	1,843.9	1,114.2	2,154.3	5.51	-5.10	-2.10
4,426.0	92.56	30.83	2,704.3	1,870.4	1,130.2	2,185.3	2.13	0.00	-2.13
4,456.0	91.00	30.33	2,703.3	1,896.2	1,145.4	2,215.3	5.46	-5.20	-1.67
4,487.0	90.71	28.89	2,702.9	1,923.2	1,160.8	2,246.3	4.74	-0.94	-4.65
4,517.0	90.87	29.28	2,702.5	1,949.4	1,175.3	2,276.3	1.41	0.53	1.30
4,548.0	91.21	29.79	2,701.9	1,976.3	1,190.6	2,307.3	1.98	1.10	1.65
4,579.0	91.14	29.51	2,701.3	2,003.3	1,205.9	2,338.2	0.93	-0.23	-0.90
4,609.0	91.41	29.40	2,700.6	2,029.4	1,220.7	2,368.2	0.97	0.90	-0.37
4,640.0	91.41	29.75	2,699.8	2,056.3	1,236.0	2,399.2	1.13	0.00	1.13
4,670.0	91.72	29.81	2,699.0	2,082.4	1,250.9	2,429.2	1.05	1.03	0.20
4,701.0	91.82	29.81	2,698.1	2,109.3	1,266.3	2,460.2	0.32	0.32	0.00
4,732.0	92.19	30.36	2,697.0	2,136.1	1,281.8	2,491.1	2.14	1.19	1.77
4,762.0	91.27	30.84	2,696.1	2,161.9	1,297.1	2,521.1	3.46	-3.07	1.60
4,793.0	91.35	30.27	2,695.4	2,188.6	1,312.8	2,552.1	1.86	0.26	-1.84
4,823.0	91.54	31.09	2,694.6	2,214.3	1,328.1	2,582.1	2.80	0.63	2.73

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Allison Unit COM 149H
Project:	SJB (NM West)	TVD Reference:	DFE @ 6277.0ft (AWS 730)
Site:	SEC 07-T32N-R6W	MD Reference:	DFE @ 6277.0ft (AWS 730)
Well:	Allison Unit COM 149H	North Reference:	True
Wellbore:	Lateral C	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 2003.21 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,854.0	91.58	30.48	2,693.8	2,241.0	1,344.0	2,613.1	1.97	0.13	-1.97	
4,884.0	91.71	31.45	2,692.9	2,266.7	1,359.4	2,643.1	3.26	0.43	3.23	
4,915.0	91.98	31.35	2,691.9	2,293.1	1,375.6	2,674.1	0.93	0.87	-0.32	
4,945.0	90.74	30.23	2,691.2	2,318.9	1,390.9	2,704.1	5.57	-4.13	-3.73	
4,976.0	89.53	28.80	2,691.1	2,345.9	1,406.2	2,735.0	6.04	-3.90	-4.61	
5,007.0	89.50	26.97	2,691.4	2,373.3	1,420.7	2,766.0	5.90	-0.10	-5.90	
5,037.0	89.83	29.16	2,691.6	2,399.7	1,434.8	2,796.0	7.38	1.10	7.30	
5,068.0	89.93	27.87	2,691.6	2,427.0	1,449.6	2,826.9	4.17	0.32	-4.16	
5,099.0	88.86	29.90	2,691.9	2,454.1	1,464.6	2,857.9	7.40	-3.45	6.55	
5,129.0	89.02	29.56	2,692.5	2,480.2	1,479.5	2,887.9	1.25	0.53	-1.13	
5,160.0	89.26	29.92	2,693.0	2,507.1	1,494.8	2,918.9	1.40	0.77	1.16	
5,190.0	89.23	31.03	2,693.4	2,532.9	1,510.0	2,948.9	3.70	-0.10	3.70	
5,221.0	89.83	30.40	2,693.6	2,559.6	1,525.9	2,979.9	2.81	1.94	-2.03	
5,243.3	90.36	30.06	2,693.6	2,578.8	1,537.1	3,002.2	2.83	2.39	-1.52	
AUC 149H Lat C TGT #3										
5,252.0	90.57	29.93	2,693.5	2,586.4	1,541.5	3,010.9	2.83	2.39	-1.52	
5,282.0	90.50	30.28	2,693.2	2,612.3	1,556.5	3,040.9	1.19	-0.23	1.17	
5,313.0	90.87	28.77	2,692.9	2,639.3	1,571.8	3,071.9	5.01	1.19	-4.87	
5,343.0	90.94	30.47	2,692.4	2,665.4	1,586.6	3,101.9	5.67	0.23	5.67	
5,374.0	91.81	29.89	2,691.6	2,692.2	1,602.2	3,132.8	3.37	2.81	-1.87	
5,404.0	91.75	31.80	2,690.7	2,717.9	1,617.6	3,162.8	6.37	-0.20	6.37	
5,435.0	91.83	31.66	2,689.7	2,744.3	1,633.8	3,193.8	0.52	0.26	-0.45	
5,465.0	91.89	31.58	2,688.8	2,769.8	1,649.6	3,223.8	0.33	0.20	-0.27	
5,496.0	91.74	31.72	2,687.8	2,796.2	1,665.8	3,254.8	0.66	-0.48	0.45	
5,526.0	91.89	31.45	2,686.8	2,821.7	1,681.5	3,284.8	1.03	0.50	-0.90	
5,556.0	91.94	33.30	2,685.8	2,847.0	1,697.6	3,314.7	6.17	0.17	6.17	
5,588.0	92.29	32.60	2,684.7	2,873.9	1,715.0	3,346.7	2.44	1.09	-2.19	
5,619.0	92.61	31.58	2,683.3	2,900.1	1,731.4	3,377.6	3.45	1.03	-3.29	
5,651.0	92.93	31.88	2,681.8	2,927.3	1,748.2	3,409.6	1.37	1.00	0.94	
5,682.0	91.21	33.08	2,680.7	2,953.4	1,764.9	3,440.6	6.76	-5.55	3.87	
5,714.0	91.55	32.53	2,679.9	2,980.3	1,782.2	3,472.5	2.02	1.06	-1.72	
5,746.0	91.86	32.52	2,678.9	3,007.3	1,799.4	3,504.5	0.97	0.97	-0.03	
5,777.0	92.39	33.63	2,677.8	3,033.2	1,816.3	3,535.5	3.97	1.71	3.58	
5,809.0	90.87	33.72	2,676.9	3,059.9	1,834.1	3,567.4	4.76	-4.75	0.28	
5,841.0	90.84	33.15	2,676.4	3,086.6	1,851.7	3,599.4	1.78	-0.09	-1.78	
5,872.0	91.07	33.73	2,675.9	3,112.4	1,868.8	3,630.4	2.01	0.74	1.87	
5,904.0	91.58	32.94	2,675.1	3,139.2	1,886.3	3,662.3	2.94	1.59	-2.47	
5,935.0	91.76	34.40	2,674.2	3,164.9	1,903.5	3,693.3	4.74	0.58	4.71	
5,967.0	91.99	33.91	2,673.2	3,191.4	1,921.5	3,725.2	1.69	0.72	-1.53	
5,998.0	92.19	34.03	2,672.1	3,217.1	1,938.8	3,756.1	0.75	0.65	0.39	
AUC 149H Lat C BHL										