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www.msenergyservices.com

NM OIL CONSERVATION
ARTESIA DISTRICT

State of Texas

MAR 03 2017

County of Tarrant

RECEIVED

I, NESBY CAIN, certify that; I am employed by MS Energy Services;
that I did on the day(s) of 11/10/15 through 1/12/16 conduct or supervise
the taking of MWD survey(s) from a depth of 4,266 feet to a depth of 18,949
feet; that the data is true, correct, complete and within the limitations of the tool set forth by MS Energy
Services; that I am authorized and qualified to make this report; that this survey(s) was / were
conducted at the request of CONOCO PHILLIPS COMPANY,
for the GARDEN SPUR 36 COM W1 2H, API No. 30-015-43375
in EDDY County / Parish, NEW MEXICO; and that I have
reviewed this report and find that it conforms to the principles and procedures as set forth by
MS Energy Services.

Signature: _____

Title: _____

MWD FIELD SPECIALIST

SURVEY CALCULATION PROGRAM

1/19/16 11:56

Company:	ConocoPhillips Company
Well Name:	Golden Spur 36 COM W1 2H
Location:	Eddy County, NM
Rig:	H&P #486
Job Number:	DDMO-150661
API #:	30-015-43375

REFERENCED TO GRID NORTH

Magnetic Declination: 6.79

Proposed Direction: 359.38

Vertical Section Azimuth: 359.38

Survey Calculation Method: Minimum Curvature

#	Depth Feet	Inc		Azm		TVD		N/S		E/W		Surface		Closure		DLS/		BUR/	
		MD	MD	MD	MD	INC	INC	FEET	FEET	FEET	FEET	VERT SEC	VERT SEC	DISTANCE	DISTANCE	100	100	100'	100'
PTB:		19,013				89.8		357.7		11868.03		7178.72		-505.02				7178.72	

TIE IN	4,170	4.80		235.00		4163.12		-67.60		-139.75		-66.08		155.24					
1	4,266	4.40		237.40		4258.41		-71.87		-146.12		-70.28		162.83		0.46		-0.42	
2	4,360	4.30		237.50		4352.14		-75.71		-152.13		-74.06		169.92		0.11		-0.11	
3	4,455	4.40		236.70		4446.87		-79.62		-158.18		-77.90		177.08		0.12		0.11	
4	4,550	4.10		239.50		4541.61		-83.34		-164.15		-81.56		184.09		0.38		-0.32	
5	4,644	5.20		240.70		4635.30		-87.14		-170.76		-85.28		191.70		1.17		1.17	
6	4,738	6.50		240.10		4728.80		-91.87		-179.09		-89.93		201.28		1.38		1.38	
7	4,832	6.30		240.20		4822.22		-97.09		-188.17		-95.05		211.74		0.21		-0.21	
8	4,927	6.20		240.00		4916.65		-102.24		-197.14		-100.10		222.08		0.11		-0.11	
9	5,021	5.90		238.90		5010.13		-107.28		-205.67		-105.04		231.97		0.34		-0.32	
10	5,115	5.60		238.00		5103.66		-112.20		-213.70		-109.88		241.36		0.33		-0.32	
11	5,209	5.50		239.50		5197.22		-116.92		-221.47		-114.52		250.44		0.19		-0.11	
12	5,304	5.40		237.60		5291.79		-121.63		-229.17		-119.14		259.44		0.22		-0.11	
13	5,398	5.40		237.40		5385.37		-126.38		-236.63		-123.81		268.26		0.02		0.00	
14	5,493	5.60		235.60		5479.93		-131.41		-244.22		-128.75		277.33		0.28		0.21	
15	5,587	5.70		233.10		5573.48		-136.80		-251.73		-134.07		286.50		0.28		0.11	
16	5,681	4.80		233.70		5667.08		-141.93		-258.64		-139.12		295.02		0.96		-0.96	
17	5,776	4.70		232.70		5761.75		-146.64		-264.94		-143.77		302.81		0.14		-0.11	
18	5,870	4.70		232.20		5855.44		-151.34		-271.04		-148.39		310.43		0.04		0.00	
19	5,964	4.30		234.30		5949.15		-155.75		-276.95		-152.75		317.74		0.46		-0.43	
20	6,059	4.10		231.30		6043.89		-159.95		-282.49		-156.89		324.63		0.31		-0.21	
21	6,153	3.90		230.80		6137.66		-164.08		-287.59		-160.95		331.10		0.22		-0.21	
22	6,248	4.70		237.10		6232.40		-168.23		-293.36		-165.05		338.18		0.98		0.84	
23	6,342	4.70		241.00		6326.08		-172.19		-299.96		-168.94		345.87		0.34		0.00	
24	6,437	4.30		239.40		6420.79		-175.89		-306.43		-172.56		353.33		0.44		-0.42	
25	6,531	3.90		241.10		6514.55		-179.23		-312.27		-175.84		360.05		0.44		-0.43	
26	6,626	3.80		238.10		6609.33		-182.45		-317.77		-179.01		366.42		0.24		-0.11	
27	6,720	3.80		236.00		6703.13		-185.84		-322.99		-182.34		372.64		0.15		0.00	
28	6,814	4.30		242.20		6796.89		-189.23		-328.69		-185.66		379.27		0.71		0.53	
29	6,909	4.40		245.50		6891.62		-192.40		-335.16		-188.76		386.46		0.28		0.11	
30	7,003	4.10		243.70		6985.36		-195.38		-341.45		-191.68		393.40		0.35		-0.32	
31	7,098	4.50		242.30		7080.09		-198.62		-347.80		-194.85		400.52		0.44		0.42	

009.04.02

Company:		ConocoPhillips Company									
Well Name:		Golden Spur 36 COM W1 2H									
Location:		Eddy County, NM									
Rig:		H&P #486									
Job Number:		DDMO-150661									
API #:		30-015-43375									
Vertical Section Azimuth:		359.38									
Survey Calculation Method:		Minimum Curvature									
PTB:		MD		INC		AZM		TVD		VS	
		19,013		89.8		357.7		11868.03		7178.72	
		Depth		Inc		Azim		TVD		N/S	
		Feet		Degrees		Degrees		Feet		Feet	
#		7,192		4.30		242.60		7173.81		-201.96	
		33		7,287		4.80		241.40		-205.50	
		34		7,381		4.60		241.20		-209.20	
		35		7,476		4.10		238.50		-212.81	
		36		7,570		5.40		244.10		-216.50	
		37		7,665		5.10		242.60		-220.39	
		38		7,759		5.50		245.30		-224.20	
		39		7,853		5.30		245.20		-227.90	
		40		7,948		5.30		244.40		-231.64	
		41		8,042		5.10		243.70		-235.36	
		42		8,136		5.10		244.40		-239.02	
		43		8,231		4.60		241.20		-242.68	
		44		8,325		4.40		241.40		-246.22	
		45		8,420		3.70		240.70		-249.47	
		46		8,514		3.60		231.70		-252.78	
		47		8,608		3.10		221.30		-256.52	
		48		8,703		2.80		220.10		-260.22	
		49		8,797		2.30		216.30		-263.50	
		50		8,892		2.60		228.60		-266.46	
		51		8,986		1.70		244.00		-268.48	
		52		9,081		1.90		245.10		-269.76	
		53		9,175		1.60		236.50		-271.14	
		54		9,270		1.50		239.40		-272.51	
		55		9,367		0.90		226.70		-273.68	
		56		9,462		0.90		252.10		-274.42	
		57		9,556		1.10		248.00		-274.98	
		58		9,650		0.80		260.10		-275.43	
		59		9,745		0.80		7.80		-274.89	
		60		9,839		1.20		3.30		-273.26	
		61		9,934		1.20		9.80		-271.28	
		62		10,028		0.90		7.50		-269.58	
		63		10,123		1.00		331.70		-268.11	
		64		10,217		0.60		316.70		-267.03	

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V09.04.02

Company: ConocoPhillips Company

Well Name: Golden Spur 36 COM W1 2H

Location: Eddy County, NM

Rig: H&P #486

Job Number: DDMO-150661

API #: 30-015-43375

Vertical Section Azimuth: 359.38

Survey Calculation Method: Minimum Curvature

Proposed Direction: 359.38

Magnetic Declination: 6.79 REFERENCED TO GRID NORTH

PTB:	MD		INC		TVD		NS		E/W		VS	
	19.013		89.8		357.7		11868.03		-505.02		7178.72	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Distance	Closure Azm	DLS/ 100	BUR/ 100'	
65	10,312	0.30	313.00	10288.36	-266.50	-482.00	-261.27	550.76	241.06	0.32	-0.32	
66	10,406	0.40	285.80	10382.36	-266.24	-482.49	-261.01	551.07	241.11	0.20	0.11	
67	10,501	0.30	219.10	10477.36	-266.35	-482.97	-261.10	551.54	241.12	0.41	-0.11	
68	10,595	0.30	271.40	10571.36	-266.53	-483.37	-261.28	551.98	241.13	0.28	0.00	
69	10,690	0.60	250.30	10666.35	-266.69	-484.09	-261.44	552.69	241.15	0.36	0.32	
70	10,784	0.30	357.90	10760.35	-266.61	-484.56	-261.35	553.06	241.18	0.80	-0.32	
71	10,879	0.30	358.50	10855.35	-266.11	-484.57	-260.86	552.84	241.23	0.00	0.00	
72	10,973	0.60	352.50	10949.35	-265.38	-484.64	-260.12	552.55	241.30	0.32	0.32	
73	11,068	0.40	298.90	11044.34	-264.73	-485.00	-259.46	552.54	241.37	0.51	-0.21	
74	11,162	0.30	239.90	11138.34	-264.69	-485.50	-259.42	552.97	241.40	0.38	-0.11	
75	11,193	0.40	226.20	11169.34	-264.81	-485.65	-259.54	553.15	241.40	0.42	0.32	
76	11,225	0.70	329.80	11201.34	-264.72	-485.83	-259.44	553.27	241.42	2.76	0.94	
77	11,256	4.50	344.70	11232.30	-263.38	-486.24	-258.10	552.99	241.56	12.35	12.26	
78	11,287	9.10	347.90	11263.08	-259.81	-487.08	-254.52	552.04	241.92	14.88	14.84	
79	11,319	12.80	350.30	11294.49	-253.84	-488.21	-248.54	550.25	242.53	11.65	11.56	
80	11,350	15.20	352.00	11324.57	-246.43	-489.35	-241.12	547.90	243.27	7.85	7.74	
81	11,382	17.30	351.90	11355.29	-237.56	-490.60	-232.24	545.09	244.16	6.56	6.56	
82	11,413	20.20	349.80	11384.64	-227.73	-492.20	-222.39	542.33	245.17	9.60	9.35	
83	11,445	22.60	349.50	11414.43	-216.24	-494.30	-210.88	539.53	246.37	7.51	7.50	
84	11,476	24.70	348.40	11442.83	-204.04	-496.69	-198.65	536.97	247.67	6.92	6.77	
85	11,508	27.50	349.10	11471.56	-190.23	-499.43	-184.82	534.43	249.15	8.80	8.75	
86	11,539	30.90	350.90	11498.62	-175.34	-502.04	-169.90	531.78	250.75	11.33	10.97	
87	11,571	33.70	353.60	11525.66	-158.40	-504.33	-152.93	528.62	252.56	9.84	8.75	
88	11,602	36.30	356.30	11551.06	-140.69	-505.89	-135.21	525.09	254.46	9.76	8.39	
89	11,634	38.40	358.50	11576.49	-121.30	-506.76	-115.81	521.07	256.54	7.77	6.56	
90	11,665	40.80	359.00	11600.38	-101.55	-507.19	-96.05	517.25	258.68	7.81	7.74	
91	11,697	44.10	0.00	11623.99	-79.95	-507.37	-74.46	513.63	261.04	10.53	10.31	
92	11,728	47.50	1.90	11645.60	-57.74	-506.99	-52.25	510.27	263.50	11.81	10.97	
93	11,760	50.30	3.00	11666.63	-33.65	-505.95	-28.17	507.07	266.19	9.13	8.75	
94	11,851	56.90	4.00	11720.60	39.41	-501.46	44.84	503.00	274.49	7.31	7.25	
95	11,883	61.90	2.00	11736.89	66.91	-500.03	72.32	504.49	277.62	16.52	15.63	
96	11,914	67.50	2.40	11750.13	94.91	-498.95	100.30	507.90	280.77	18.10	18.06	

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009.04.02

Company: ConocoPhillips Company

Well Name: Golden Spur 36 COM W1 2H

Location: Eddy County, NM

Rig: H&P #486

Job Number: DDMO-150661

API #: 30-015-43375

Vertical Section Azimuth: 359.38

Survey Calculation Method: Minimum Curvature

Proposed Direction: 359.38

Magnetic Declination: 6.79

REFERENCED TO GRID NORTH

PTB:	MD		INC		TVD		N/S		E/W		VS	
	19,013		89.8		357.7	11868.03	7178.72		-505.02		7178.72	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'	
97	11,946	72.70	3.40	11761.02	124.94	-497.43	130.32	512.88	284.10	16.51	16.25	
98	11,977	75.30	3.70	11769.57	154.68	-495.58	160.04	519.16	287.33	8.44	8.39	
99	12,009	76.60	4.30	11777.33	185.65	-493.41	190.98	527.18	290.62	4.45	4.06	
100	12,040	76.90	4.20	11784.44	215.74	-491.18	221.04	536.47	293.71	1.02	0.97	
101	12,071	78.00	4.90	11791.17	245.91	-488.78	251.18	547.15	296.71	4.18	3.55	
102	12,103	78.60	4.70	11797.66	277.13	-486.16	282.37	559.60	299.69	1.97	1.87	
103	12,134	78.70	4.00	11803.77	307.44	-483.85	312.65	573.26	302.43	2.24	0.32	
104	12,166	79.90	3.60	11809.71	338.81	-481.77	344.00	588.97	305.12	3.95	3.75	
105	12,197	82.00	2.70	11814.58	369.38	-480.09	374.55	605.74	307.57	7.36	6.77	
106	12,229	85.40	1.30	11818.09	401.16	-478.98	406.32	624.78	309.95	11.48	10.63	
107	12,260	88.20	0.30	11819.82	432.10	-478.54	437.26	644.76	312.08	9.59	9.03	
108	12,323	91.90	0.10	11819.77	495.09	-478.32	500.24	688.41	315.99	5.88	5.87	
109	12,417	92.60	0.20	11816.08	589.02	-478.08	594.16	758.62	320.94	0.75	0.74	
110	12,512	89.80	359.00	11814.09	683.98	-478.74	689.12	834.88	325.01	3.21	-2.95	
111	12,606	89.20	0.00	11814.91	777.98	-479.56	783.12	913.91	328.35	1.24	-0.64	
112	12,701	89.20	359.70	11816.24	872.97	-479.81	878.11	996.14	331.21	0.32	0.00	
113	12,795	89.40	359.70	11817.38	966.96	-480.30	972.10	1079.67	333.59	0.21	0.21	
114	12,890	86.90	358.50	11820.45	1061.89	-481.79	1067.04	1166.07	335.60	2.92	-2.63	
115	12,984	87.80	358.50	11824.80	1155.75	-484.25	1160.93	1253.10	337.27	0.96	0.96	
116	13,078	87.00	356.70	11829.06	1249.57	-488.18	1254.78	1341.55	338.66	2.09	-0.85	
117	13,172	87.00	357.60	11833.98	1343.32	-492.85	1348.58	1430.88	339.85	0.96	0.00	
118	13,267	86.40	357.60	11839.45	1438.08	-496.82	1443.37	1521.48	340.94	0.63	-0.63	
119	13,361	90.20	358.10	11842.24	1531.96	-500.35	1537.28	1611.60	341.91	4.08	4.04	
120	13,455	89.70	356.10	11842.32	1625.83	-505.10	1631.20	1702.49	342.74	2.19	-0.53	
121	13,549	89.70	356.20	11842.81	1719.62	-511.41	1725.05	1794.05	343.44	0.11	0.00	
122	13,644	91.60	359.20	11841.73	1814.52	-515.23	1819.99	1886.25	344.15	3.74	2.00	
123	13,738	92.30	358.40	11838.54	1908.44	-517.19	1913.93	1977.28	344.84	1.13	0.74	
124	13,833	89.50	359.70	11837.04	2003.41	-518.77	2008.90	2069.48	345.48	3.25	-2.95	
125	13,927	89.10	358.80	11838.19	2097.39	-520.00	2102.90	2160.89	346.08	1.05	-0.43	
126	14,021	91.10	358.90	11838.03	2191.37	-521.88	2196.89	2252.66	346.60	2.13	2.13	
127	14,115	93.10	1.70	11834.58	2285.29	-521.39	2290.80	2344.01	347.15	3.66	2.13	
128	14,210	93.50	2.70	11829.11	2380.06	-517.75	2385.52	2435.72	347.73	1.13	0.42	



SURVEY CALCULATION PROGRAM

1/19/16 11:56

09.04.02

Company:		ConocoPhillips Company									
Well Name:		Golden Spur 36 COM W1 2H									
Location:		Eddy County, NM									
Rig:		H&P #486									
Job Number:		DDMO-150661									
API #:		30-015-43375									
Vertical Section Azimuth:		359.38									
Survey Calculation Method:		Minimum Curvature									
PTB:		MD		INC		AZM		TVD		N/S	
		19,013		89.8		357.7		11868.03		7178.72	
#		Depth Feet		Inc Degrees		Azim Degrees		TVD Feet		N/S Feet	
129		14,304		91.50		2.50		11825.01		2473.87	
130		14,399		89.50		1.10		11824.18		2568.81	
131		14,493		87.50		0.80		11826.65		2662.76	
132		14,588		87.00		359.50		11831.20		2757.65	
133		14,682		88.50		0.20		11834.89		2851.57	
134		14,776		89.10		359.30		11836.86		2945.55	
135		14,871		88.80		358.90		11838.60		3040.52	
136		14,965		88.80		358.00		11840.57		3134.47	
137		15,059		89.40		356.80		11842.05		3228.36	
138		15,154		90.20		357.60		11842.38		3323.24	
139		15,248		89.00		357.70		11843.04		3417.16	
140		15,342		89.80		0.20		11844.02		3511.13	
141		15,437		89.20		359.70		11844.85		3606.12	
142		15,531		88.30		1.40		11846.90		3700.09	
143		15,625		88.40		0.00		11849.61		3794.04	
144		15,719		87.30		1.60		11853.13		3887.96	
145		15,813		87.60		0.40		11857.32		3981.86	
146		15,908		87.00		1.20		11861.79		4076.74	
147		16,002		87.20		1.20		11866.55		4170.60	
148		16,097		89.50		1.30		11869.28		4265.53	
149		16,191		88.40		359.60		11871.01		4359.51	
150		16,285		87.60		358.60		11874.29		4453.44	
151		16,380		88.80		357.90		11877.27		4548.34	
152		16,474		89.10		359.10		11878.99		4642.29	
153		16,569		88.70		358.10		11880.82		4737.25	
154		16,663		89.00		357.90		11882.70		4831.17	
155		16,758		90.90		359.40		11882.79		4926.14	
156		16,853		92.00		358.90		11880.38		5021.09	
157		16,947		93.30		359.40		11876.04		5114.98	
158		17,041		91.90		357.80		11871.77		5208.85	
159		17,136		92.00		357.50		11868.54		5303.71	
160		17,230		90.50		357.20		11866.49		5397.59	
										Page 5 -544.86	

Vertical Section Azimuth: 359.38

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Vertical Section Azimuth: 359.38

Company:	ConocoPhillips Company	
Well Name:	Golden Spur 36 COM W1 2H	
Location:	Eddy County, NM	
Rig:	H&P #486	Magnetic Declination: 6.79
Job Number:	DDMO-150661	REFERENCED TO GRID NORTH
API #:	30-015-43375	

Vertical Section Azimuth:	359.38	Proposed Direction:	359.38
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Survey Calculation Method:				Minimum Curvature										
PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	19,013		89.8		357.7		11868.03		7178.72		-505.02		7178.72	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Distance	Closure Azim	DLS/ 100'	BUR/ 100'			
161	17,324	87.30	357.10	11868.29	5491.44	-549.54	5497.07	5518.87	354.29	3.41	-3.40			
162	17,419	89.40	1.10	11871.03	5586.37	-551.03	5592.00	5613.48	354.37	4.75	2.21			
163	17,513	90.30	2.30	11871.28	5680.32	-548.24	5685.92	5706.72	354.49	1.60	0.96			
164	17,607	90.40	2.40	11870.70	5774.24	-544.38	5779.79	5799.85	354.61	0.15	0.11			
165	17,702	90.60	1.70	11869.87	5869.18	-540.99	5874.69	5894.06	354.73	0.77	0.21			
166	17,796	90.60	1.50	11868.89	5963.14	-538.36	5968.61	5987.39	354.84	0.21	0.00			
167	17,890	90.50	2.60	11867.99	6057.07	-535.00	6062.50	6080.65	354.95	1.17	-0.11			
168	17,984	88.70	2.80	11868.64	6150.96	-530.57	6156.34	6173.80	355.07	1.93	-1.91			
169	18,079	88.20	2.00	11871.21	6245.84	-526.59	6251.17	6268.00	355.18	0.99	-0.53			
170	18,173	87.40	2.60	11874.82	6339.69	-522.82	6344.98	6361.22	355.29	1.06	-0.85			
171	18,267	89.40	2.80	11877.44	6433.55	-518.40	6438.78	6454.40	355.39	2.14	2.13			
172	18,362	89.70	2.90	11878.19	6528.43	-513.68	6533.60	6548.60	355.50	0.33	0.32			
173	18,456	91.40	3.80	11877.29	6622.26	-508.18	6627.37	6641.73	355.61	2.05	1.81			
174	18,551	91.00	2.00	11875.30	6717.11	-503.38	6722.17	6735.95	355.71	1.94	-0.42			
175	18,645	92.80	2.60	11872.18	6810.98	-499.61	6815.99	6829.28	355.80	2.02	1.91			
176	18,739	91.50	0.40	11868.65	6904.87	-497.15	6909.85	6922.75	355.88	2.72	-1.38			
177	18,833	89.90	358.20	11867.51	6998.85	-498.30	7003.83	7016.57	355.93	2.89	-1.70			
178	18,949	89.80	357.70	11867.81	7114.78	-502.45	7119.80	7132.50	355.96	0.44	-0.09			



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Fort Worth, Texas 76140

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State of Texas

County of Tarrant

I, Billy Spurlock, certify that; I am employed by MS Energy Services;
that I did on the day(s) of 11/27/15 through 12/29/15 conduct or supervise
the taking of MWD survey(s) from a depth of 1,162 feet to a depth of 18,722
feet; that the data is true, correct, complete and within the limitations of the tool set forth by MS Energy
Services; that I am authorized and qualified to make this report; that this survey(s) was / were
conducted at the request of CONOCO PHILLIPS Company,
for the GOLDEN SPUR 36 COM W I H, API No. 30-DIS-43374
in EDDY County Parish, NEW MEXICO; and that I have
reviewed this report and find that it conforms to the principles and procedures as set forth by
MS Energy Services.

Signature: [Signature]
Title: MWD Field Specialist

MS Directional

MS Guidance

MS Survey

MS Wireline



SURVEY CALCULATION PROGRAM

1/19/16 14:26

Company:	ConocoPhillips Company
Well Name:	Golden Spur 36 COM W1 1H
Location:	Eddy County, NM
Rig:	H&P #486
Job Number:	DDMO-150646
API #:	30-015-43374

Magnetic Declination:

6.79



Vertical Section Azimuth:

359.38

Proposed Direction:

359.38

Survey Calculation Method:

Minimum Curvature

#	Depth Feet	Inc		Azim	TVD		N/S	Feet	E/W	Feet	TVD	N/S	Feet	Surface Vert Sec	Distance	Closure		DLS/ 100'	BUR/ 100'
		MD	MD		INC	INC										E/W	Azm		
PTB:	18,785				89.2	89.2	355.4		11698.09		7220.45					-279.55		7223.05	

TIE IN	1,001	1.70		71.20	1001.28		8.15		1.84		8.13				8.36	12.72			
1	1,162	2.60		71.90	1161.77		10.05		7.56		9.97				12.57	36.94		0.56	0.56
2	1,257	0.60		84.10	1256.72		10.77		10.10		10.66				14.77	43.16		2.12	-2.11
3	1,351	1.10		271.70	1350.72		10.85		9.69		10.74				14.54	41.77		1.80	0.53
4	1,445	1.50		289.00	1444.70		11.27		7.62		11.19				13.61	34.06		0.59	0.43
5	1,540	1.50		234.60	1539.67		10.96		5.43		10.90				12.23	26.37		1.44	0.00
6	1,634	3.30		242.30	1633.58		8.99		2.04		8.97				9.22	12.76		1.94	1.91
7	1,728	2.40		226.50	1727.47		6.38		-1.79		6.40				6.62	344.34		1.26	-0.96
8	1,823	4.10		216.40	1822.31		2.27		-5.25		2.33				5.72	293.43		1.88	1.79
9	1,917	3.90		211.90	1916.08		-3.15		-8.93		-3.05				9.47	250.60		0.40	-0.21
10	2,012	5.80		208.70	2010.74		-10.10		-12.94		-9.96				16.42	232.03		2.02	2.00
11	2,106	5.90		208.00	2104.25		-18.53		-17.49		-18.34				25.48	223.35		0.13	0.11
12	2,201	5.90		208.50	2198.74		-27.13		-22.11		-26.89				35.00	219.18		0.05	0.00
13	2,295	6.00		208.30	2292.24		-35.70		-26.75		-35.41				44.61	216.84		0.11	0.11
14	2,390	6.20		209.50	2386.70		-44.54		-31.63		-44.20				54.63	215.38		0.25	0.21
15	2,484	5.80		209.70	2480.18		-53.08		-36.48		-52.69				64.41	214.50		0.43	-0.43
16	2,578	5.00		211.60	2573.77		-60.70		-40.98		-60.25				73.24	214.02		0.87	-0.85
17	2,673	4.60		208.20	2668.43		-67.58		-44.95		-67.09				81.17	213.63		0.52	-0.42
18	2,767	3.90		200.50	2762.18		-73.90		-47.85		-73.38				88.04	212.92		0.96	-0.74
19	2,861	4.60		204.60	2855.92		-80.32		-50.54		-79.77				94.90	212.18		0.81	0.74
20	2,956	4.50		203.90	2950.62		-87.19		-53.64		-86.61				102.37	211.60		0.12	-0.11
21	3,050	4.50		205.40	3044.33		-93.89		-56.71		-93.28				109.69	211.13		0.13	0.00
22	3,144	3.50		197.50	3138.10		-99.96		-59.16		-99.32				116.15	210.62		1.21	-1.06
23	3,239	4.70		210.70	3232.85		-106.07		-62.01		-105.40				122.87	210.31		1.60	1.26
24	3,333	5.10		213.40	3326.51		-112.87		-66.28		-112.15				130.90	210.42		0.49	0.43
25	3,428	4.90		215.20	3421.15		-119.71		-70.94		-118.94				139.16	210.65		0.27	-0.21
26	3,522	4.10		201.00	3514.86		-126.13		-74.46		-125.32				146.47	210.56		1.45	-0.85
27	3,616	5.00		185.40	3608.57		-133.35		-76.05		-132.52				153.51	209.70		1.62	0.96
28	3,711	5.40		197.80	3703.18		-141.73		-77.81		-140.88				161.68	208.77		1.25	0.42
29	3,805	6.20		183.50	3796.70		-151.01		-79.47		-150.14				170.64	207.76		1.75	0.85
30	3,900	6.50		190.50	3891.12		-161.41		-80.76		-160.53				180.49	206.58		0.87	0.32
31	3,995	4.60		205.90	3985.68		-170.13		-83.41		-169.22				189.47	206.12		2.52	-2.00

009.04.02

Company:		ConocoPhillips Company									
Well Name:		Golden Spur 36 COM W1 1H									
Location:		Eddy County, NM									
Rig:		H&P #486									
Job Number:		DDMO-150646									
API #:		30-015-43374									
Vertical Section Azimuth:		359.38									
Survey Calculation Method:		Minimum Curvature									
PTB:	MD	INC	AZM		TVD	N/S	TVD	N/S	EW	VS	
	18.785	89.2	355.4		11698.09	7220.45	-279.55	7223.05			
Depth		Inc	Azm	TVD	N/S	EW	Surface	Distance	Closure	DLS/ 100'	BUR/ 100'
#		Feet	Degrees	Feet	Feet	Feet	Vert Sec	Feet	Azm		
32	4,089	3.70	206.20	4079.43	-176.24	-86.39	-175.30	196.28	206.11	0.96	-0.96
33	4,184	4.40	211.70	4174.19	-182.09	-89.66	-181.11	202.97	206.22	0.84	0.74
34	4,278	4.40	211.80	4267.92	-188.22	-93.46	-187.20	210.15	206.41	0.01	0.00
35	4,373	3.90	212.60	4362.67	-194.04	-97.12	-192.98	216.99	206.59	0.53	-0.53
36	4,467	4.60	221.80	4456.41	-199.55	-101.35	-198.44	223.81	206.93	1.04	0.74
37	4,562	4.50	220.10	4551.11	-205.24	-106.29	-204.07	231.13	207.38	0.18	-0.11
38	4,656	4.30	220.00	4644.83	-210.76	-110.93	-209.54	238.17	207.76	0.21	-0.21
39	4,751	3.80	218.20	4739.59	-215.96	-115.17	-214.70	244.75	208.07	0.54	-0.53
40	4,845	3.50	217.10	4833.40	-220.70	-118.83	-219.40	250.65	208.30	0.33	-0.32
41	4,939	3.20	213.90	4927.24	-225.16	-122.02	-223.83	256.10	208.45	0.38	-0.32
42	5,033	2.80	209.60	5021.11	-229.34	-124.62	-227.97	261.01	208.52	0.49	-0.43
43	5,128	2.60	208.40	5116.01	-233.25	-126.79	-231.86	265.48	208.53	0.22	-0.21
44	5,222	2.50	206.50	5209.92	-236.96	-128.72	-235.55	269.66	208.51	0.14	-0.11
45	5,316	2.30	198.10	5303.83	-240.59	-130.22	-239.16	273.57	208.42	0.43	-0.21
46	5,411	0.60	60.40	5398.81	-242.15	-130.38	-240.73	275.02	208.30	2.92	-1.79
47	5,505	0.20	60.30	5492.81	-241.83	-129.81	-240.41	274.46	208.23	0.43	-0.43
48	5,600	1.30	339.30	5587.80	-240.74	-130.04	-239.32	273.62	208.38	1.35	1.16
49	5,694	1.40	330.10	5681.77	-238.74	-130.99	-237.31	272.32	208.75	0.25	0.11
50	5,788	1.30	323.10	5775.75	-236.90	-132.21	-235.45	271.29	209.16	0.20	-0.11
51	5,883	1.20	315.80	5870.72	-235.32	-133.55	-233.86	270.58	209.58	0.20	-0.11
52	5,977	1.10	317.00	5964.71	-233.96	-134.85	-232.48	270.04	209.96	0.11	-0.11
53	6,071	1.00	307.70	6058.69	-232.79	-136.11	-231.31	269.67	210.31	0.21	-0.11
54	6,165	0.70	298.30	6152.68	-232.02	-137.27	-230.52	269.58	210.61	0.35	-0.32
55	6,260	0.60	296.50	6247.67	-231.52	-138.22	-230.01	269.65	210.84	0.11	-0.11
56	6,355	0.50	276.30	6342.67	-231.26	-139.08	-229.74	269.86	211.02	0.23	-0.11
57	6,449	0.50	263.40	6436.67	-231.26	-139.90	-229.73	270.28	211.17	0.12	0.00
58	6,544	0.60	256.80	6531.66	-231.42	-140.79	-229.88	270.88	211.32	0.12	0.11
59	6,638	0.60	284.00	6625.66	-231.41	-141.75	-229.87	271.38	211.49	0.30	0.00
60	6,732	0.50	273.50	6719.65	-231.27	-142.64	-229.71	271.72	211.66	0.15	-0.11
61	6,827	0.40	274.30	6814.65	-231.22	-143.38	-229.65	272.07	211.80	0.11	-0.11
62	6,921	0.60	253.80	6908.65	-231.33	-144.18	-229.76	272.58	211.93	0.28	0.21
63	7,016	0.50	251.80	7003.64	-231.60	-145.05	-230.02	273.27	212.06	0.11	-0.11
64	7,110	0.70	248.80	7097.64	-231.94	-145.98	-230.34	274.05	212.19	0.22	0.21

V09.04.02

Company:		ConocoPhillips Company									
Well Name:		Golden Spur 36 COM W1 1H									
Location:		Eddy County, NM									
Rig:		H&P #486									
Job Number:		DDMO-150646									
API #:		30-015-43374									
Vertical Section Azimuth:		359.38									
Survey Calculation Method:		Minimum Curvature									
PTB:	MD	INC		AZM		TVD		N/S		VS	
	18.785	89.2		355.4		11698.09		7220.45		-279.55	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	TVD E/W Feet	N/S Surface Vert Sec	Distance Closure	Azm	DLS/ 100'	BUR/ 100'
65	7,205	0.70	246.70	7192.63	-232.37	-147.05	-230.77	274.99	212.33	0.03	0.00
66	7,299	0.60	246.90	7286.62	-232.80	-148.03	-231.18	275.87	212.45	0.11	-0.11
67	7,394	0.70	235.10	7381.62	-233.32	-148.96	-231.70	276.82	212.56	0.18	0.11
68	7,488	0.60	225.20	7475.61	-234.00	-149.78	-232.36	277.83	212.62	0.16	-0.11
69	7,583	0.60	202.20	7570.61	-234.81	-150.32	-233.17	278.81	212.63	0.25	0.00
70	7,677	0.50	197.90	7664.60	-235.65	-150.64	-234.01	279.69	212.59	0.12	-0.11
71	7,771	0.60	194.50	7758.60	-236.52	-150.89	-234.87	280.55	212.54	0.11	0.11
72	7,866	0.80	190.10	7853.59	-237.66	-151.13	-236.01	281.64	212.45	0.22	0.21
73	7,960	0.80	191.30	7947.58	-238.95	-151.37	-237.29	282.86	212.35	0.02	0.00
74	8,054	0.90	194.40	8041.57	-240.30	-151.68	-238.65	284.17	212.26	0.12	0.11
75	8,149	0.90	201.10	8136.56	-241.72	-152.14	-240.06	285.61	212.19	0.11	0.00
76	8,243	1.00	207.30	8230.55	-243.14	-152.78	-241.47	287.16	212.14	0.15	0.11
77	8,338	0.90	215.40	8325.53	-244.49	-153.59	-242.81	288.73	212.14	0.18	-0.11
78	8,432	1.10	217.00	8419.52	-245.81	-154.56	-244.12	290.36	212.16	0.21	0.21
79	8,527	0.80	210.20	8514.51	-247.11	-155.44	-245.41	291.93	212.17	0.34	-0.32
80	8,621	0.40	239.40	8608.50	-247.84	-156.06	-246.14	292.88	212.20	0.52	-0.43
81	8,715	0.60	329.00	8702.50	-247.59	-156.59	-245.88	292.95	212.31	0.76	0.21
82	8,808	0.90	316.60	8795.49	-246.64	-157.34	-244.92	292.56	212.54	0.36	0.32
83	8,903	1.90	301.10	8890.46	-245.28	-159.21	-243.55	292.42	212.99	1.12	1.05
84	8,997	1.60	323.10	8984.42	-243.43	-161.33	-241.67	292.04	213.53	0.78	-0.32
85	9,092	1.10	4.70	9079.39	-241.46	-162.05	-239.69	290.80	213.87	1.12	-0.53
86	9,186	1.00	344.20	9173.38	-239.77	-162.20	-238.00	289.48	214.08	0.41	-0.11
87	9,281	0.70	345.20	9268.37	-238.41	-162.57	-236.64	288.57	214.29	0.32	-0.32
88	9,375	0.80	314.20	9362.36	-237.40	-163.19	-235.62	288.08	214.50	0.44	0.11
89	9,470	1.00	301.80	9457.35	-236.50	-164.37	-234.71	288.01	214.80	0.29	0.21
90	9,565	1.30	294.70	9552.33	-235.61	-166.05	-233.80	288.25	215.18	0.35	0.32
91	9,659	1.40	301.30	9646.30	-234.57	-168.00	-232.74	288.53	215.61	0.20	0.11
92	9,753	1.40	269.50	9740.28	-233.99	-170.13	-232.13	289.30	216.02	0.82	0.00
93	9,848	1.70	251.30	9835.24	-234.45	-172.63	-232.57	291.15	216.37	0.60	0.32
94	9,943	2.20	246.90	9930.19	-235.61	-175.64	-233.70	293.88	216.70	0.55	0.53
95	10,037	2.30	242.20	10024.11	-237.20	-178.97	-235.25	297.14	217.03	0.22	0.11
96	10,132	2.30	238.70	10119.04	-239.08	-182.28	-237.10	300.65	217.32	0.15	0.00

03/04/02

Company: ConocoPhillips Company

Well Name: Golden Spur 36 COM W1 1H

Location: Eddy County, NM

Rig: H&P #486

Job Number: DDMO-150646

API #: 30-015-43374

Vertical Section Azimuth: 359.38

Survey Calculation Method: Minimum Curvature

PTB: MD 18.785 INC 89.2 AZM 355.4

TVD 1168.09 E/W 7220.45 N/S 7223.05

Proposed Direction: 359.38

Magnetic Declination: 6.79

REFERENCED TO GRID NORTH

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	Vert Sec	Distance	E/W Closure	Azm	DLS/ 100'	BUR/ 100'
97	10,209	2.30	237.20	10195.98	-240.72	-238.71	303.54	-279.55	217.53	0.08	0.00
98	10,303	1.40	241.70	10289.93	-242.29	-240.24	306.36	217.74	217.74	0.97	-0.96
99	10,398	0.20	105.10	10384.92	-242.88	-240.83	307.36	217.79	217.79	1.63	-1.26
100	10,492	0.70	111.90	10478.91	-243.14	-241.09	307.14	217.66	217.66	0.53	0.53
101	10,587	0.40	141.20	10573.91	-243.61	-241.58	307.06	217.50	217.50	0.42	-0.32
102	10,681	0.40	157.60	10667.91	-244.17	-242.14	307.31	217.39	217.39	0.12	0.00
103	10,776	0.60	166.60	10762.90	-244.96	-242.93	307.79	217.26	217.26	0.23	0.21
104	10,807	0.60	176.30	10793.90	-245.28	-243.25	308.01	217.22	217.22	0.33	0.00
105	10,839	0.70	180.60	10825.90	-245.65	-243.61	308.30	217.18	217.18	0.35	0.31
106	10,870	0.30	262.00	10856.90	-245.85	-243.81	308.51	217.17	217.17	2.32	-1.29
107	10,902	3.10	337.90	10888.88	-245.06	-243.02	308.13	217.32	217.32	9.50	8.75
108	10,933	6.50	342.60	10919.77	-242.60	-240.56	306.69	217.72	217.72	11.03	10.97
109	10,965	9.50	348.00	10951.45	-238.29	-236.24	303.97	218.38	218.38	9.65	9.38
110	10,996	12.40	358.10	10981.89	-232.46	-230.40	299.82	219.17	219.17	11.18	9.35
111	11,028	14.80	3.10	11012.99	-224.94	-222.88	293.97	220.07	220.07	8.34	7.50
112	11,059	17.80	6.10	11042.74	-216.28	-214.22	286.92	221.08	221.08	10.05	9.68
113	11,091	20.60	7.60	11072.96	-205.83	-203.79	278.27	222.30	222.30	8.88	8.75
114	11,123	23.20	10.00	11102.65	-194.04	-192.02	268.40	223.70	223.70	8.59	8.12
115	11,154	25.70	10.10	11130.87	-181.41	-179.42	257.81	225.28	225.28	8.07	8.06
116	11,198	27.10	5.80	11170.28	-162.04	-160.08	242.57	228.09	228.09	5.38	3.18
117	11,256	26.90	3.80	11221.96	-135.81	-133.87	224.13	232.70	232.70	1.60	-0.34
118	11,288	26.10	3.70	11250.60	-121.56	-119.63	215.02	235.57	235.57	2.50	-2.50
119	11,319	25.80	3.50	11278.47	-108.02	-106.10	206.94	238.53	238.53	1.01	-0.97
120	11,351	28.80	3.10	11306.90	-93.37	-91.46	198.94	242.01	242.01	9.39	9.38
121	11,379	33.90	2.80	11330.81	-78.83	-76.93	191.87	245.74	245.74	18.22	18.21
122	11,411	40.00	3.30	11356.37	-59.63	-57.74	183.84	251.07	251.07	19.09	19.06
123	11,442	44.30	5.00	11379.35	-38.89	-37.02	176.71	257.29	257.29	14.35	13.87
124	11,474	46.70	6.30	11401.78	-16.18	-14.33	170.89	264.57	264.57	8.04	7.50
125	11,505	48.30	7.40	11422.72	6.51	8.32	167.52	272.23	272.23	5.79	5.16
126	11,536	50.90	8.30	11442.81	29.90	31.67	166.87	280.32	280.32	8.67	8.39
127	11,568	51.80	8.60	11462.80	54.62	56.35	169.54	288.79	288.79	2.91	2.81
128	11,599	53.80	7.90	11481.54	79.05	80.75	175.74	296.73	296.73	6.70	6.45

10/9/04.02

Company:		ConocoPhillips Company									
Well Name:		Golden Spur 36 COM W1 1H									
Location:		Eddy County, NM									
Rig:		H&P #486									
Job Number:		DDMO-150646									
API #:		30-015-43374									
Vertical Section Azimuth:		359.38									
Survey Calculation Method:		Minimum Curvature									
PTB:	MD	INC		AZM		TVD		N/S		VS	
	18.785	89.2		355.4		11698.09		7220.45		-279.55	
Depth		Inc		Azim		TVD		N/S		Distance	
Feet		Degrees		Degrees		Feet		Vert Sec		Closure	
#						N/S		Surface		Azim	
						Feet		Feet		DLS/	
										100'	
										BUR/	
										100'	
129	11,631	55.10	7.10	11500.14	104.86	-153.56	106.52	185.95	304.33	4.54	4.06
130	11,662	57.30	5.90	11517.39	130.46	-150.65	132.08	199.28	310.89	7.79	7.10
131	11,694	60.10	5.00	11534.01	157.67	-148.05	159.27	216.29	316.80	9.07	8.75
132	11,725	62.40	3.60	11548.92	184.77	-146.02	186.34	235.51	321.68	8.41	7.42
133	11,757	64.60	2.50	11563.20	213.37	-144.50	214.92	257.69	325.89	7.53	6.87
134	11,788	66.80	1.50	11575.95	241.60	-143.52	243.14	281.01	329.29	7.68	7.10
135	11,820	68.90	0.80	11588.02	271.23	-142.92	272.76	306.58	332.21	6.87	6.56
136	11,851	70.90	0.50	11598.67	300.34	-142.59	301.87	332.47	334.60	6.52	6.45
137	11,883	73.50	0.00	11608.45	330.81	-142.46	332.33	360.18	336.70	8.26	8.12
138	11,914	75.80	0.50	11616.66	360.70	-142.33	362.22	387.76	338.47	7.58	7.42
139	11,945	78.10	0.40	11623.66	390.90	-142.09	392.41	415.92	340.02	7.43	7.42
140	11,977	80.70	1.60	11629.54	422.34	-141.54	423.85	445.43	341.47	8.92	8.13
141	12,008	82.60	1.70	11634.05	453.00	-140.66	454.49	474.33	342.75	6.14	6.13
142	12,040	85.30	1.00	11637.42	484.81	-139.91	486.29	504.59	343.90	8.71	8.44
143	12,134	91.90	1.50	11639.71	578.71	-137.86	580.16	594.90	346.60	7.04	7.02
144	12,228	91.50	0.20	11636.92	672.65	-136.47	674.09	686.35	348.53	1.45	-0.43
145	12,323	87.50	358.30	11637.75	767.62	-137.71	769.06	779.87	349.83	4.66	-4.21
146	12,417	88.40	358.20	11641.12	861.51	-140.58	862.98	872.91	350.73	0.96	0.96
147	12,512	92.60	0.30	11640.29	956.47	-141.82	957.95	966.93	351.57	4.94	4.42
148	12,606	90.80	359.00	11637.50	1050.42	-142.40	1051.90	1060.03	352.28	2.36	-1.91
149	12,700	86.80	354.40	11639.47	1144.20	-147.80	1145.74	1153.71	352.64	6.48	-4.26
150	12,795	88.50	356.50	11643.36	1238.82	-155.33	1240.42	1248.52	352.85	2.84	1.79
151	12,889	90.00	356.40	11644.59	1332.62	-161.15	1334.29	1342.33	353.10	1.60	1.60
152	12,984	90.20	359.60	11644.43	1427.55	-164.46	1429.25	1437.00	353.43	3.37	0.21
153	13,078	89.20	358.50	11644.92	1521.54	-166.02	1523.24	1530.57	353.77	1.58	-1.06
154	13,172	91.20	358.90	11644.59	1615.51	-168.15	1617.23	1624.24	354.06	2.17	2.13
155	13,267	90.10	358.50	11643.51	1710.48	-170.31	1712.22	1718.93	354.31	1.23	-1.16
156	13,361	87.80	359.30	11645.24	1804.43	-172.11	1806.19	1812.62	354.55	2.59	-2.45
157	13,455	88.90	359.90	11647.94	1898.39	-172.77	1900.15	1906.24	354.80	1.33	1.17
158	13,549	90.90	1.80	11648.11	1992.37	-171.38	1994.11	1999.73	355.08	2.93	2.13
159	13,644	89.50	0.30	11647.78	2087.35	-169.63	2089.06	2094.23	355.35	2.16	-1.47
160	13,738	90.50	359.90	11647.78	2181.35	-169.47	2183.06	2187.92	355.56	1.15	1.06

SURVEY CALCULATION PROGRAM

1/19/16 14:26

Company:		ConocoPhillips Company					
Well Name:		Golden Spur 36 COM W1 1H					
Location:		Eddy County, NM					
Rig:		H&P #486		Magnetic Declination:		6.79	
Job Number:		DDMO-150646				REFERENCED TO GRID NORTH	
API #:		30-015-43374					
Vertical Section Azimuth:		359.38		Proposed Direction:		359.38	
Survey Calculation Method:		Minimum Curvature					
PTB:	MD		INC			N/S	VS
	18.785		89.2			355.4	7223.05
Depth		Inc	Azm	TVD	N/S	TVD	E/W
		Degrees	Degrees	Feet	Feet	Feet	Feet
#	Feet	Degrees	Degrees	Feet	Feet	Feet	Feet
161	13,832	90.70	359.50	11646.79	2275.34	-169.96	2277.05
162	13,927	87.80	359.50	11648.04	2370.32	-170.79	2372.03
163	14,021	88.20	359.20	11651.32	2464.26	-171.86	2465.97
164	14,115	89.30	359.20	11653.37	2558.22	-173.17	2559.95
165	14,210	91.40	359.40	11652.79	2653.21	-174.33	2654.94
166	14,304	86.10	358.50	11654.84	2747.14	-176.05	2748.88
167	14,398	88.20	359.20	11659.51	2841.00	-177.93	2842.76
168	14,493	86.10	358.20	11664.23	2935.85	-180.09	2937.62
169	14,587	89.80	0.60	11667.60	3029.76	-181.07	3031.54
170	14,682	91.20	1.40	11666.77	3124.74	-179.41	3126.50
171	14,776	89.70	0.30	11666.03	3218.72	-178.02	3220.46
172	14,870	89.50	359.30	11666.68	3312.72	-178.34	3314.45
173	14,965	89.20	357.30	11667.76	3407.66	-181.16	3409.42
174	15,059	92.50	2.70	11666.37	3501.61	-181.16	3503.36
175	15,153	91.80	1.20	11662.84	3595.48	-177.97	3597.20
176	15,248	87.40	357.70	11663.50	3690.44	-178.88	3692.16
177	15,342	89.70	359.70	11665.88	3784.37	-181.01	3786.11
178	15,436	85.50	357.60	11669.82	3878.24	-183.22	3879.99
179	15,531	86.30	358.50	11676.61	3972.94	-186.44	3974.72
180	15,625	86.30	358.10	11682.68	4066.70	-189.22	4068.51
181	15,719	88.10	358.20	11687.27	4160.53	-192.26	4162.37
182	15,813	90.30	3.10	11688.58	4254.48	-191.19	4256.30
183	15,907	88.80	2.00	11689.32	4348.38	-187.01	4350.15
184	16,002	89.20	3.80	11690.98	4443.24	-182.20	4444.96
185	16,096	90.10	1.60	11691.55	4537.13	-177.77	4538.79
186	16,191	91.10	355.80	11690.56	4632.06	-179.93	4633.74
187	16,285	88.70	353.30	11690.72	4725.62	-188.85	4727.39
188	16,379	92.70	358.10	11689.57	4819.30	-195.90	4821.14
189	16,474	91.50	357.30	11686.09	4914.16	-199.71	4916.03
190	16,568	88.00	353.90	11686.50	5007.85	-206.92	5009.80
191	16,663	90.00	354.90	11688.16	5102.38	-216.19	5104.42
192	16,758	90.70	356.80	11687.58	5197.12	-223.06	5199.23
				Closure		Distance	
				-279.55		357.54	
				Azimuth		DLS/ BUR/	
				100'		100'	
				0.48		0.21	
				3.05		-3.05	
				0.53		0.43	
				1.17		1.17	
				2.22		2.21	
				5.72		-5.64	
				2.35		2.23	
				2.45		-2.21	
				4.69		3.94	
				1.70		1.47	
				1.98		-1.60	
				1.08		-0.21	
				2.13		-0.32	
				6.73		3.51	
				1.76		-0.74	
				5.92		-4.63	
				3.24		2.45	
				4.99		-4.47	
				1.27		0.84	
				0.42		0.00	
				1.92		1.91	
				5.71		2.34	
				1.98		-1.60	
				1.94		0.42	
				2.53		0.96	
				6.19		1.05	
				3.69		-2.55	
				6.65		4.26	
				1.52		-1.26	
				5.19		-3.72	
				2.35		2.11	
				2.13		0.74	



SURVEY CALCULATION PROGRAM

1/19/16 14:26

Company:		ConocoPhillips Company									
Well Name:		Golden Spur 36 COM W1 1H									
Location:		Eddy County, NM									
Rig:		H&P #486		Magnetic Declination: 6.79							
Job Number:		DDMO-150646		REFERENCED TO GRID NORTH							
API #:		30-015-43374									
Vertical Section Azimuth:		359.38		Proposed Direction: 359.38							
Survey Calculation Method:				Minimum Curvature							
PTB:		MD		INC		AZM					
		18,785		89.2		355.4					
Depth		Inc		Azim		TVD					
Feet		Degrees		Degrees		Feet					
		N/S		E/W		Surface Vert Sec					
		Distance		Closure		DLS/ BUR/					
		Azim		100'		100'					
193	16,852	89.30	355.00	11687.58	5290.88	-229.78	5293.05	5295.86	357.51	2.43	-1.49
194	16,947	89.20	356.30	11688.82	5385.59	-236.99	5387.84	5390.81	357.48	1.37	-0.11
195	17,041	89.40	357.80	11689.97	5479.46	-241.82	5481.76	5484.79	357.47	1.61	0.21
196	17,135	90.40	359.50	11690.13	5573.43	-244.04	5575.74	5578.77	357.49	2.10	1.06
197	17,228	90.50	358.10	11689.40	5666.40	-245.99	5668.73	5671.74	357.51	1.51	0.11
198	17,323	89.40	358.60	11689.49	5761.36	-248.72	5763.72	5766.73	357.53	1.27	-1.16
199	17,419	90.60	358.10	11689.49	5857.32	-251.49	5859.70	5862.72	357.54	1.35	1.25
200	17,513	90.40	0.60	11688.67	5951.30	-252.55	5953.69	5956.66	357.57	2.67	-0.21
201	17,607	90.80	358.40	11687.68	6045.29	-253.37	6047.68	6050.60	357.60	2.38	0.43
202	17,701	88.70	356.30	11688.09	6139.18	-257.72	6141.61	6144.58	357.60	3.16	-2.23
203	17,796	90.10	358.40	11689.09	6234.06	-262.11	6236.53	6239.57	357.59	2.66	1.47
204	17,890	89.00	3.00	11689.83	6328.03	-260.96	6330.48	6333.40	357.64	5.03	-1.17
205	17,984	89.90	5.40	11690.73	6421.76	-254.08	6424.13	6426.78	357.73	2.73	0.96
206	18,079	90.30	4.30	11690.56	6516.42	-246.05	6518.70	6521.06	357.84	1.23	0.42
207	18,173	89.70	1.80	11690.56	6610.28	-241.04	6612.50	6614.67	357.91	2.74	-0.64
208	18,267	90.90	0.50	11690.07	6704.25	-239.16	6706.45	6708.52	357.96	1.88	1.28
209	18,361	89.20	354.90	11689.99	6798.14	-242.93	6800.37	6802.48	357.95	6.23	-1.81
210	18,456	89.10	355.70	11691.40	6892.81	-250.71	6895.12	6897.36	357.92	0.85	-0.11
211	18,550	88.70	355.30	11693.20	6986.50	-258.09	6988.88	6991.26	357.88	0.60	-0.43
212	18,644	88.40	353.70	11695.58	7080.03	-267.09	7082.51	7085.07	357.84	1.73	-0.32
213	18,722	89.20	355.40	11697.21	7157.66	-274.50	7160.21	7162.92	357.80	2.41	1.03