

4-30507

Date of Survey _____

Signature and Seal of Professional Surveyor: _____

Glenn W. Russell

Certificate Number 15703

COP Deviation Report
SAN JUAN 31-6 UNIT #49P

Survey Data

Date	MD (ftKB)	Incl (°)	Method	Survey Company
10/13/2008	3,448.00	11.20	MWD	HB
10/13/2008	3,480.00	11.10	MWD	HB
10/13/2008	3,512.00	10.40	MWD	HB
10/13/2008	3,544.00	9.60	MWD	HB
10/13/2008	3,576.00	9.30	MWD	HB
10/13/2008	3,607.00	8.30	MWD	HB
10/13/2008	3,639.00	6.90	MWD	HB
10/13/2008	3,671.00	6.00	MWD	HB
10/13/2008	3,703.00	4.30	MWD	HB
10/13/2008	3,735.00	2.90	MWD	HB
10/13/2008	3,766.00	2.10	MWD	HB
10/13/2008	3,790.00	1.80	MWD	HB
10/13/2008	3,854.00	1.00	Extrap.	HB
10/29/2008	7,922.00	0.75	FINAL BHS	PHOENIX

RCVD MAY 22 '09
OIL CONS. DIV.
DIST. 3

I, the undersigned, certify that I acting in my capacity as Drilling Engineer for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

[Signature]

Subscribed and sworn to me this

21st May

[Signature]

Notary Public in and for San Juan County, New Mexico

My Commission expires

Feb 28th 2012

**COP Deviation Report
SAN JUAN 31-6 UNIT #49P**

Operator CONOCOPHILLIPS COMPANY	Legal WellName SAN JUAN 31-6 UNIT #49P	API / UWI 3003930476	County RIO ARRIBA	State/Province NEW MEXICO
Surface Legal Location 005-030N-006W-I		N/S Dist (ft) 1,460.00	N/S Ref FSL	E/W Dist (ft) 145.00
			E/W Ref FEL	

Survey Data					
Date	MD (ftKB)	Incl (°)	Method	Survey Company	
10/9/2008	256.00	0.70	MWD	HB	
10/9/2008	318.00	0.90	MWD	HB	
10/9/2008	409.00	0.80	MWD	HB	
10/10/2008	502.00	1.80	MWD	HB	
10/10/2008	595.00	4.20	MWD	HB	
10/10/2008	687.00	6.10	MWD	HB	
10/10/2008	783.00	7.80	MWD	HB	
10/10/2008	875.00	9.30	MWD	HB	
10/10/2008	970.00	10.90	MWD	HB	
10/10/2008	1,066.00	12.30	MWD	HB	
10/10/2008	1,161.00	13.50	MWD	HB	
10/10/2008	1,256.00	15.00	MWD	HB	
10/10/2008	1,352.00	16.90	MWD	HB	
10/10/2008	1,447.00	17.90	MWD	HB	
10/10/2008	1,542.00	19.80	MWD	HB	
10/10/2008	1,637.00	20.70	MWD	HB	
10/10/2008	1,733.00	21.10	MWD	HB	
10/10/2008	1,828.00	21.00	MWD	HB	
10/11/2008	1,922.00	20.60	MWD	HB	
10/11/2008	2,018.00	20.40	MWD	HB	
10/11/2008	2,113.00	20.40	MWD	HB	
10/11/2008	2,209.00	20.50	MWD	HB	
10/11/2008	2,305.00	19.80	MWD	HB	
10/11/2008	2,400.00	20.70	MWD	HB	
10/11/2008	2,495.00	21.90	MWD	HB	
10/11/2008	2,590.00	22.40	MWD	HB	
10/11/2008	2,686.00	21.60	MWD	HB	
10/12/2008	2,781.00	21.20	MWD	HB	
10/12/2008	2,877.00	20.90	MWD	HB	
10/12/2008	2,972.00	17.20	MWD	HB	
10/12/2008	3,067.00	17.10	MWD	HB	
10/12/2008	3,163.00	18.00	MWD	HB	
10/13/2008	3,258.00	16.70	MWD	HB	
10/13/2008	3,353.00	11.50	MWD	HB	
10/13/2008	3,385.00	11.30	MWD	HB	
10/13/2008	3,417.00	11.10	MWD	HB	

I, the undersigned, certify that I acting in my capacity as Drilling Engineer for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Al G. H.

Subscribed and sworn to me this

21st May

Jamie L. Goodwin

Notary Public in and for San Juan County, New Mexico

My Commission expires

Feb. 28th, 2012



Hathaway Burnham Navigational LLC
DIRECTIONAL AND MWD SERVICES

October 9 2008

RCVD MAY 22 '09

OIL CONS. DIV.

Ms. Geneva Blackwater
P.O. Box 4289
Farmington, NM 87499

DIST. 3

RE: Final Notarized Survey's Well San Juan 31-6 #49P

Dear Ms. Blackwater,

Please find the enclosed final surveys for well San Juan 31-6 #49P. I herby Certify to the best of my knowledge these surveys are true and correct.

Sincerely,

A handwritten signature in cursive script that reads 'Taryn Lambert'.

Taryn Lambert
Hathaway Burnham Navigational LLC

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

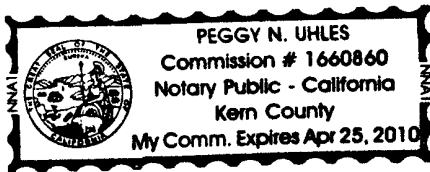
County of KERN

On OCT 21, 2008 before me,

PEGGY N. UHLES, NOTARY PUBLIC
Here Insert Name and Title of the Officer

personally appeared

TARYN LAMBERT
Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Peggy N. Uhles
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- ☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT
OF SIGNER
Top of thumb here

Signer's Name: _____

- ☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT
OF SIGNER
Top of thumb here

HB

Job Number: ☐Company: ☐Lease/Well: ☐Location: ☐Rig Name: ☐RKB: ☐G.L. or M.S.L.: ☐State/Country: ☐Declination: ☐Grid: ☐

File name: C:\WINSERVE\NM08306.SVY

Date/Time: 13-Oct-08 / 21:23

Curve Name: AS Drilled

Hathaway & Burnham Navigational

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 319.49
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

RCVD MAY 22 '09

OIL CONS. DIV.

DIST. 3

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
256.00	.70	211.80	255.99	-1.33	-.82	-.48	1.56	211.80	.27
318.00	.90	209.70	317.99	-2.07	-1.26	-.76	2.43	211.38	.33
409.00	.80	210.40	408.98	-3.24	-1.94	-1.20	3.78	210.90	.11
502.00	1.80	307.60	501.96	-2.91	-3.43	.01	4.50	229.65	2.21
595.00	4.20	316.60	594.83	.45	-6.92	4.84	6.94	273.76	2.62
687.00	6.10	324.90	686.45	6.90	-12.05	13.08	13.89	299.80	2.21
783.00	7.80	322.80	781.74	16.27	-18.92	24.66	24.95	310.68	1.79
875.00	9.30	325.40	872.72	27.36	-26.92	38.29	38.38	315.46	1.68
970.00	10.90	327.60	966.24	41.26	-36.09	54.81	54.82	318.82	1.73

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1066.00	12.30	325.00	1060.28	57.30	-46.82	73.98	74.00	320.75	1.56
1161.00	13.50	321.00	1152.88	74.21	-59.60	95.14	95.18	321.23	1.57
1256.00	15.00	319.10	1244.96	92.12	-74.63	118.52	118.56	320.99	1.65
1352.00	16.90	318.30	1337.26	111.93	-92.05	144.89	144.92	320.57	1.99
1447.00	17.90	319.40	1427.91	133.33	-110.74	173.30	173.32	320.29	1.11
1542.00	19.80	321.00	1517.81	156.92	-130.37	203.99	204.01	320.28	2.07
1637.00	20.70	322.60	1606.94	182.76	-150.69	236.84	236.87	320.49	1.11
1733.00	21.10	323.50	1696.62	210.13	-171.27	271.02	271.09	320.82	.53
1828.00	21.00	320.60	1785.29	237.03	-192.25	305.09	305.19	320.96	1.10
1922.00	20.60	317.60	1873.16	262.26	-214.09	338.46	338.55	320.77	1.21
2018.00	20.40	317.10	1963.08	286.99	-236.87	372.06	372.11	320.46	.28
2113.00	20.40	317.10	2052.12	311.24	-259.41	405.14	405.18	320.19	.00
2209.00	20.50	318.10	2142.07	336.01	-282.03	438.67	438.68	319.99	.38
2305.00	19.80	318.10	2232.20	360.63	-304.11	471.73	471.74	319.86	.73
2400.00	20.70	320.60	2321.33	385.58	-325.52	504.60	504.61	319.83	1.31
2495.00	21.90	321.60	2409.84	412.44	-347.18	539.09	539.11	319.91	1.32
2590.00	22.40	321.40	2497.83	440.47	-369.48	574.89	574.91	320.01	.53
2686.00	21.60	319.20	2586.84	468.14	-392.43	610.84	610.87	320.03	1.20
2781.00	21.20	317.40	2675.29	494.02	-415.49	645.49	645.51	319.94	.81
2877.00	20.90	316.60	2764.88	519.24	-439.00	679.94	679.95	319.79	.43
2972.00	17.20	314.50	2854.66	541.41	-460.67	710.87	710.87	319.61	3.96
3067.00	17.10	314.50	2945.44	561.04	-480.65	738.78	738.78	319.41	.11
3163.00	18.00	323.30	3036.99	582.83	-499.59	767.64	767.64	319.40	2.92
3258.00	16.70	324.60	3127.66	605.73	-516.27	795.89	795.89	319.56	1.43
3353.00	11.50	327.00	3219.77	624.81	-529.34	818.89	818.89	319.73	5.51
3385.00	11.30	327.40	3251.14	630.12	-532.77	825.15	825.16	319.79	.67
3417.00	11.10	326.50	3282.53	635.33	-536.16	831.32	831.33	319.84	.83
3448.00	11.20	324.80	3312.94	640.28	-539.54	837.28	837.29	319.88	1.11
3480.00	11.10	324.60	3344.34	645.33	-543.11	843.44	843.46	319.92	.34
3512.00	10.40	321.60	3375.78	650.11	-546.69	849.39	849.42	319.94	2.80

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3544.00	9.60	317.70	3407.29	654.34	-550.28	854.95	854.97	319.94	3.27
3576.00	9.30	314.70	3438.86	658.14	-553.92	860.19	860.21	319.91	1.80
3607.00	8.30	312.90	3469.49	661.42	-557.34	864.91	864.93	319.88	3.35
3639.00	6.90	309.80	3501.21	664.22	-560.50	869.10	869.11	319.84	4.56
3671.00	6.00	309.80	3533.01	666.53	-563.27	872.64	872.65	319.80	2.81
3703.00	4.30	305.70	3564.88	668.30	-565.53	875.46	875.47	319.76	5.43
3735.00	2.90	295.70	3596.81	669.35	-567.23	877.36	877.37	319.72	4.78
3766.00	2.10	279.90	3627.78	669.79	-568.50	878.52	878.52	319.68	3.38
3790.00	1.80	248.50	3651.77	669.72	-569.28	878.98	878.98	319.63	4.56
BIT PROJECTON									
3854.00	1.00	164.77	3715.76	668.82	-570.07	878.80	878.80	319.56	3.06