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www.GreenAnalytical.com

Conoco Phillips-Farmington  
3401 30th Street  
Farmington NM, 87401

Project: Formation Comparison  
Project Name / Number: Area 1  
Project Manager: Darrell Savage

30-045-294B Reported:  
06/17/16 12:21

Aztec A #1A

1606069-01 (Water)

tubing

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**General Chemistry**

Alkalinity, Bicarbonate*	32.0	10.0		mg/L	1	06/14/16	2320 B		KDG
Alkalinity, Carbonate*	<10.0	10.0		mg/L	1	06/14/16	2320 B		KDG
Chloride	48.7	100	5.19	mg/L	100	06/15/16	EPA300.0		JDA
Total Dissolved Solids	185	10.0		mg/L	1	06/14/16	EPA160.1		KDG
Sulfate	<6.15	100	6.15	mg/L	100	06/15/16	EPA300.0		JDA

**Potentially Dissolved Metals by ICP**

Calcium*	1.83	0.400	0.055	mg/L	20	06/10/16	EPA200.7		JLM
Iron*	60.2	1.00	0.070	mg/L	20	06/10/16	EPA200.7		JLM
Magnesium*	<2.00	2.00	0.648	mg/L	20	06/10/16	EPA200.7		JLM
Sodium*	<20.0	20.0	6.11	mg/L	20	06/10/16	EPA200.7		JLM

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
\*Results reported on as received basis unless designated as dry.  
RPD Relative Percent Difference  
LCS Laboratory Control Sample (Blank Spike)  
RL Report Limit  
MDL Method Detection Limit

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Client: COP	Phone# (505) 320-2634	Contact: Darrell Savage
Address: 3401 E. 30th St. Farmington, NM 87402	E-Mail Address: darrell.q.savage@conocophillips.com	



CHAIN OF CUSTODY RECORD
GAL Work Order # 1606069
PO#
Project Name: Area 1

24.3°C  
NOI CR  
4.5°C  
on ice Dgo

Sample Location:	(1)BumperSpring, (2)CompressorDischarge, (3)Flowline, (4)Meter, (5)Oil Tank (6)PigLauncher, (7)PigReceiver, (8)Pipeline, (9)Pit Tank, (10)PostFilter, (11)PreFilter (12)SeparatorInlet, (13)SeparatorOutlet, (14)SeparatorDump, (15)SWDInlet (16)SWDOutlet, (17)TransferPump, (18)ValveCan, (19)WaterTank, (20)Wellhead (21)Other
Sample Type:	(1)Casing, (2)CO2GasTube, (3)Coupon, (4)Water, (5)H2SGasTube, (6)Metals (7)O2GasTube, (8)PipeSection, (9)Residual, (10)Sludge, (11)Solid, (12)Tubing, (13)Other

Collection							Preservative				Analyses Required			
Well Name (Sample Name)	Date	Time	Collected By: (Init.)	Sample Location	Sample Type	No. of Containers	Filtered: Y / N	Unpreserved	H2SO4	Other:	Iron and Manganese	Phosphate	Full Water API	Formation / Comparison
1. AZTCC A #1A	6-3-16	13:20	DS	20	4	1	N	Y					25	+
2.														
3.														
4.														
5.														
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17.														
18.														
19.														
20.														

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
Darrell	6-3-16	14:32	Christine Clark	6/3/16	1432
Christine Clark	6/6/16	1655	Kangaroo	6/6/16	1655
			Kangaroo	6-7-16	1000
			Michael Valentin		



[illegible]



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17 June 2016

OIL CONS. DIV DIST. 3

JUN 27 2016

Darrell Savage  
Conoco Phillips-Farmington  
3401 30th Street  
Farmington, NM 87401  
RE: Formation Comparison

Enclosed are the results of analyses for samples received by the laboratory on 06/03/16 14:32.  
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt  
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



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06/17/16 12:21

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Aztec A #1A	1606069-01	Water	06/03/16 13:20	06/03/16 14:32

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A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt, Reports Manager

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## Kuehling, Monica, EMNRD

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**From:** Busse, Dollie L <Dollie.L.Busse@conocophillips.com>  
**Sent:** Tuesday, June 28, 2016 7:04 AM  
**To:** Kuehling, Monica, EMNRD  
**Subject:** FW: Calloway SRC #1 30-045-10593 (Aztec A 1A Water Analysis)

Morning Monica,

I'm sorry but I missed the engineer's note saying the sample from the Aztec A 1A was taken from the tubing on 6/3/2016. Please see her note below ... she is going to check on water samples in that area to see if they are also fresh. Let me know what you think.

I hope today isn't like yesterday ... : )

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**From:** Wilcox, Michelle J  
**Sent:** Tuesday, June 28, 2016 6:59 AM  
**To:** Busse, Dollie L <Dollie.L.Busse@conocophillips.com>  
**Subject:** RE: Calloway SRC #1 30-045-10593 (Aztec A 1A Water Analysis)

Hi Dollie,

Sorry, I tried to be clear below. It was collected from the tubing on 6/3/16. I also noticed that it appeared fresh. I do not know why it is fresh. I can try and see if we have any other water samples for other wells nearby to see if they are also fresh. I'm pretty booked up today, but I'll look into it asap.

Michelle

Sent with Good ([www.good.com](http://www.good.com))

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**From:** Busse, Dollie L  
**Sent:** Monday, June 27, 2016 4:13:15 PM  
**To:** Wilcox, Michelle J  
**Subject:** FW: Calloway SRC #1 30-045-10593 (Aztec A 1A Water Analysis)

Hi Michelle,

Monica just called about this one saying the attached analysis doesn't say where the water sample was taken from. She also said it appears to be fresh water. Can you find out where it was taken and give me a heads up on why you think it would appear fresh?

Thanks so much! Sorry to have to keep going back and forth on these.  
Dollie

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**From:** Wilcox, Michelle J  
**Sent:** Tuesday, June 21, 2016 9:44 AM  
**To:** Busse, Dollie L <Dollie.L.Busse@conocophillips.com>  
**Subject:** RE: Calloway SRC #1 30-045-10593 (Aztec A 1A Water Analysis)



Hi Dollie,

Attached is the water analysis from the Aztec A 1A. The sample was collected from the tubing on 6/3/16.

Thank you,  
Michelle

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**From:** Busse, Dollie L  
**Sent:** Tuesday, June 21, 2016 6:19 AM  
**To:** Wilcox, Michelle J <[Michelle.J.Wilcox@conocophillips.com](mailto:Michelle.J.Wilcox@conocophillips.com)>  
**Subject:** RE: Calloway SRC #1 30-045-10593

Thanks Michelle!

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**From:** Wilcox, Michelle J  
**Sent:** Tuesday, June 21, 2016 6:19 AM  
**To:** Busse, Dollie L <[Dollie.L.Busse@conocophillips.com](mailto:Dollie.L.Busse@conocophillips.com)>  
**Subject:** RE: Calloway SRC #1 30-045-10593

We just got the results back yesterday afternoon. I haven't had a chance to look at them yet, but I will send them to you today. ☺

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**From:** Busse, Dollie L  
**Sent:** Tuesday, June 21, 2016 6:18 AM  
**To:** Wilcox, Michelle J <[Michelle.J.Wilcox@conocophillips.com](mailto:Michelle.J.Wilcox@conocophillips.com)>  
**Subject:** RE: Calloway SRC #1 30-045-10593

Hi Michelle,

Just checking on the status of the water analysis for this well.

Thanks!  
Dollie

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**From:** Wilcox, Michelle J  
**Sent:** Wednesday, May 25, 2016 9:22 AM  
**To:** Busse, Dollie L <[Dollie.L.Busse@conocophillips.com](mailto:Dollie.L.Busse@conocophillips.com)>  
**Subject:** RE: Calloway SRC #1 30-045-10593

Great. I'll order the water sample right away. Thank you!

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**From:** Busse, Dollie L  
**Sent:** Wednesday, May 25, 2016 9:21 AM  
**To:** Wilcox, Michelle J <[Michelle.J.Wilcox@conocophillips.com](mailto:Michelle.J.Wilcox@conocophillips.com)>  
**Subject:** RE: Calloway SRC #1 (30-045-10593) - Victoria Ramirez

She said that will work fine ... thanks again!