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received 12/01/2015
Project 4212
Document 2144729

May 21, 2015

Mr. Chris Canfield, P.G.
Environmental Protection Specialist, Northeast Region
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

**RE: FORM 27 SUPPLEMENT AND REQUEST FOR NO FURTHER ACTION (NFA)
BUNYAN 1 TANK BATTERY
API #: 05-123-11273
NESW S21 T4N R67W
REMEDATION #: 4212**

Dear Mr. Canfield:

PDC Energy, Inc. (PDC) is submitting this Form 27 Supplement and Request for No Further Action (NFA) to the Colorado Oil and Gas Commission (COGCC) to summarize additional remediation and environmental sampling that was performed by Tasman Geosciences (Tasman), on behalf of PDC at the Bunyan 1 tank battery (Figure 1). On January 10, 2008, a historic release was discovered during the replacement of the produced water vessel. LT Environmental (LTE) was contracted by PDC to complete excavation oversight, environmental sampling, and quarterly groundwater monitoring. A Form 19 was submitted to the COGCC on January 18, 2008 and a Form 27 was submitted on April 21, 2008. The COGCC issued Remediation #4212 to the project.

In March 2013, remediation and groundwater monitoring responsibilities were transferred to Tasman. A summary of additional remediation and sampling activities completed on site are described below.

Post Form 27 Site Activities

Quarterly groundwater monitoring commenced on February 27, 2008 at four temporary monitoring well locations (MW01 – MW04), as illustrated on Figure 3. Two down-gradient monitoring wells (MW05 – MW06) were installed during the first quarter 2009 and second quarter 2011 to establish point of compliance. Monitoring well MW05 was destroyed during the first quarter 2010 and was subsequently replaced as MW05R during the second quarter 2011. Groundwater samples were submitted to Summit Scientific Laboratories (Summit) for laboratory

analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX).

In March 2013, chemical oxidant (chem-ox) injections were completed on site to address residual dissolved phase petroleum hydrocarbon concentrations. Approximately 450 gallons of 20% persulfate were injected into temporary well MW03, which consistently exhibited BTEX concentrations in exceedance of regulatory standards since installation in 2008. Following chem-ox injections, monitored natural attenuation (MNA) was selected as the remedial strategy for the site.

During the first quarter 2015, four consecutive quarters of constituent concentrations in compliance with COGCC Table 910-1 groundwater standards were achieved. Groundwater analytical results from the fourth quarter 2014 and first quarter 2015 are illustrated on Figure 3. Groundwater analytical results are summarized in Table 2 and the laboratory analytical reports are included as Attachment A.

Request for No Further Action

Based on groundwater analytical results described herein, PDC is requesting a No Further Action (NFA) determination from the COGCC for this location.

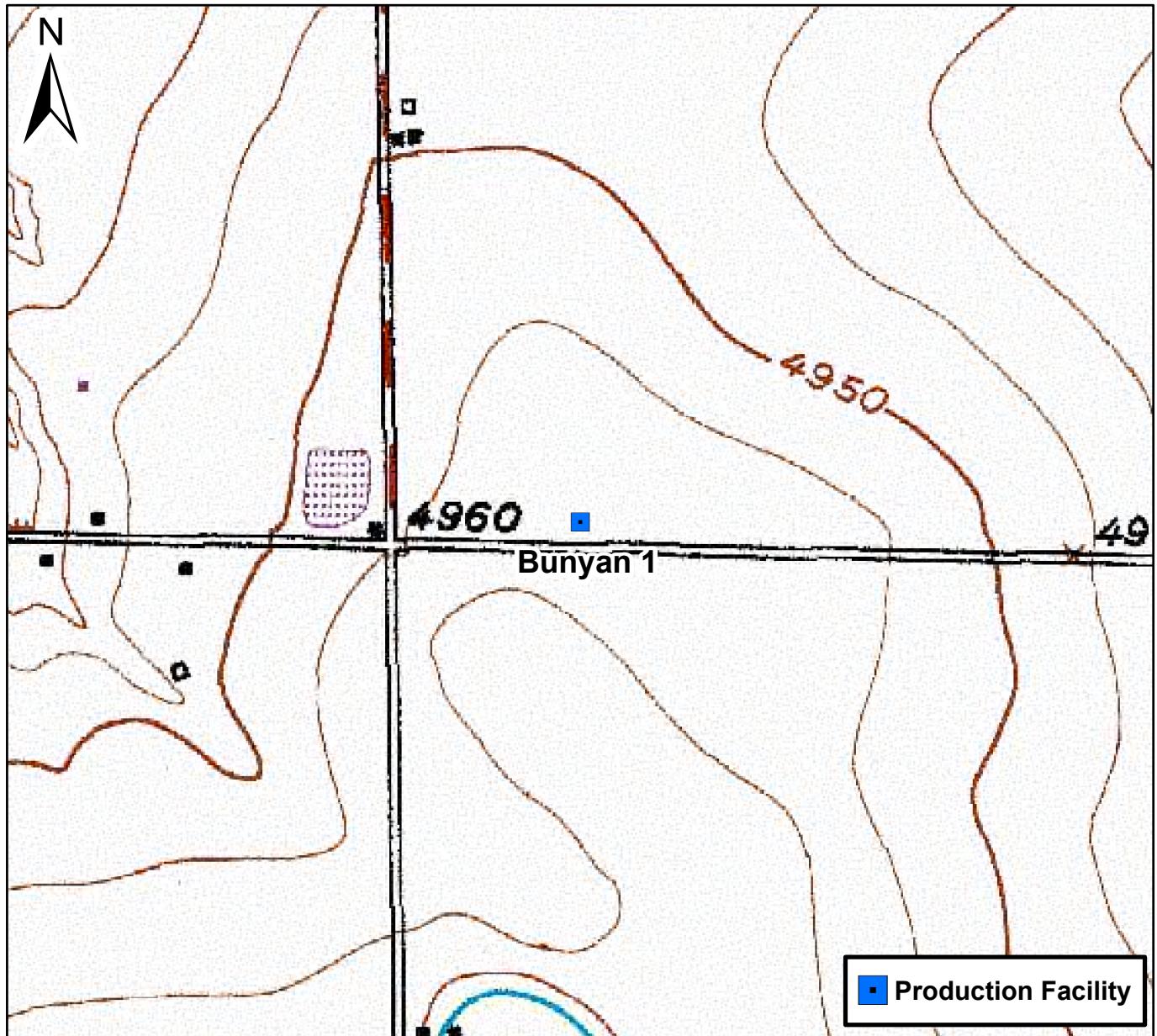
If you have any questions regarding this location, please contact me by phone at (303) 318-6144.

Sincerely,

Charity B. Fleenor
Director of EHS
PDC Energy, Inc.

Enclosures:

Figure 1 – Site Location Map
Figure 2 – Site Map (Prepared by LTE)
Figure 3 – Groundwater Analytical Results Map
Table 1 – Soil Sample Analytical Results (Prepared by LTE)
Table 1 – Groundwater Analytical Results Summary Table
Attachment A – Laboratory Analytical Reports

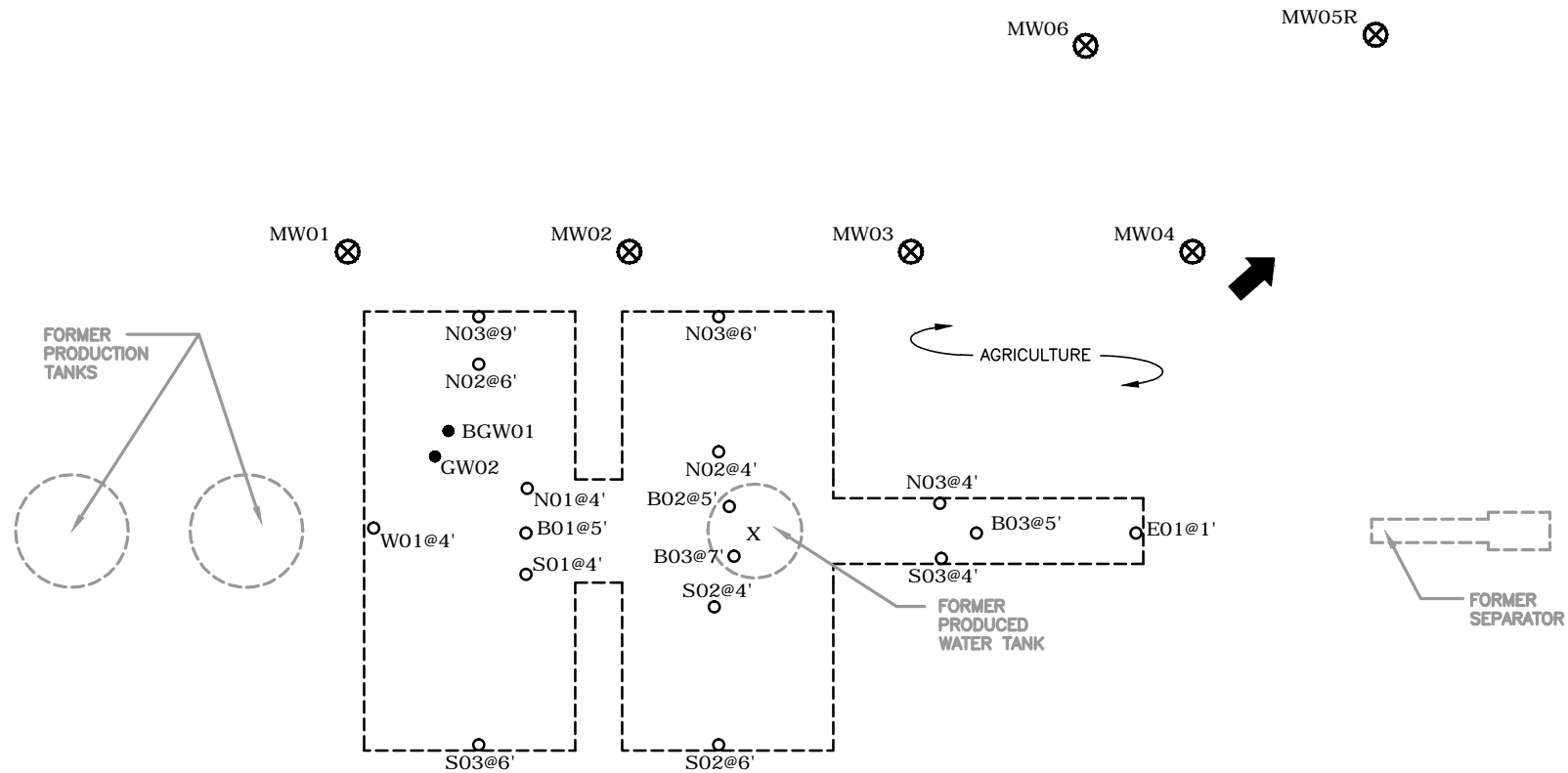


0 750 1,500 Feet

Figure 1

Site Location Map
Bunyan 1
NESW S21 T4N R67W
Weld County, Colorado





WCR 42

LEGEND

- ⊗ MONITORING WELL
- SOIL SAMPLE
- EXCAVATION GROUNDWATER SAMPLE
- X RELEASE
- EXTENT OF EXCAVATION
- ➔ ESTIMATED GROUNDWATER FLOW DIRECTION

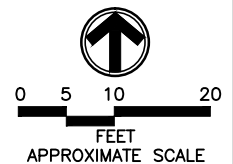


FIGURE 2
SITE MAP
BUNYAN No. 1
NESW 21-T4N-R67W
WELD COUNTY, CO
PETROLEUM DEVELOPMENT CORPORATION



PDC087603

MW01		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

MW02		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	NS	NS
Toluene	NS	NS
Ethylbenzene	NS	NS
Total Xylenes	NS	NS

MW06		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0



Surface
Drainage

300 bbl
Condensate
Tank

300 bbl
Condensate
Tank

Agriculture

MW01

MW02

MW06

MW05R

MW05R		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	<1.0

MW04

MW03

100 bbl
PW Tank

MW03		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	<1.0	<1.0
Toluene	<1.0	<1.0
Ethylbenzene	<1.0	<1.0
Total Xylenes	<1.0	2.0

MW04		
Compound (ug/L)	12/4/2014	3/17/2015
Benzene	NS	NS
Toluene	NS	NS
Ethylbenzene	NS	NS
Total Xylenes	NS	NS

Note: Surface drainage is estimated based on site topography and is not related to regional topography.

Weld County Rd 42

DRAWN BY: ESS

DATE: 4/2/2015

Facility Diagram
PDC Energy – DJ Basin
Bunyan #1
NESW S21 T4N R67W
Weld County, CO



6899 Pecos Street
Unit C
Denver, CO 80221

LEGEND

- Former Site Features
- ⊗ Temporary Groundwater Monitoring Well

FIGURE 3
GROUNDWATER
ANALYTICAL RESULTS
Not to Scale

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BUNYAN 1 (API No. 05-123-11273)
WELD COUNTY
PETROLEUM DEVELOPMENT CORPORATION

Sample ID	Depth (ft bgs)	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Xylenes (mg/kg)	TPH (mg/kg)
B01	5	01/04/2008	NA	NA	NA	NA	4400
B02	5	01/04/2008	NA	NA	NA	NA	1900
B03	5	01/04/2008	NA	NA	NA	NA	<100
	7	01/11/2008	NA	NA	NA	NA	2600
E01	1	01/04/2008	NA	NA	NA	NA	<100
N01	4	01/04/2008	NA	NA	NA	NA	<100
N02	4	01/04/2008	NA	NA	NA	NA	3600
	6	01/10/2008	NA	NA	NA	NA	960
N03	4	01/04/2008	NA	NA	NA	NA	<100
	6	01/10/2008	NA	NA	NA	NA	<100
	9	01/11/2008	NA	NA	NA	NA	<100
S01	4	01/04/2008	NA	NA	NA	NA	2070
S02	4	01/04/2008	NA	NA	NA	NA	5200
	6	01/10/2008	NA	NA	NA	NA	120
S03	4	01/04/2008	NA	NA	NA	NA	<100
	6	01/10/2008	NA	NA	NA	NA	<100
W01	4	01/04/2008	NA	NA	NA	NA	<100
COGCC Sensitive Area Standard			NS	NS	NS	NS	1000

Notes: < - less than stated laboratory reporting limit
TPH - Total Petroleum Hydrocarbons (C6-C28)

API - American Petroleum Institute

Bold numbers indicate result equalled or exceeded standard.

COGCC Sensitive Area Standard is taken from COGCC Table 910-1, prior to April 1, 2009.

NA - Not Analyzed

NS - No Standard

mg/kg - milligrams per kilogram

ft bgs - feet below ground surface



TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
BGW01	1/10/2008	4,200	1.8	450	2,900
GW02	9/8/2008	1,700	26	330	2,800
MW01	2/27/2008	<1.0	<1.0	<1.0	<1.0
MW01	6/26/2008	<1.0	<1.0	<1.0	<1.0
MW01	9/24/2008	<1.0	<1.0	<1.0	<1.0
MW01	12/10/2008	<1.0	<1.0	<1.0	<1.0
MW01	3/18/2009	<1.0	<1.0	<1.0	<1.0
MW01	6/18/2009	<1.0	<1.0	<1.0	<1.0
MW01	9/24/2009	<1.0	<1.0	<1.0	<1.0
MW01	12/8/2009	<1.0	<1.0	<1.0	<1.0
MW01	3/19/2010	<1.0	<1.0	<1.0	<1.0
MW01	6/28/2010	<1.0	<1.0	<1.0	<1.0
MW01	9/16/2010	<1.0	<1.0	<1.0	<1.0
MW01	12/8/2010	<1.0	<1.0	<1.0	<1.0
MW01	3/3/2011	<1.0	<1.0	<1.0	<1.0
MW01	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW01	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW01	12/15/2011	<1.0	<1.0	<1.0	<1.0
MW01	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW01	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW01	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW01	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW01	6/19/2013	NS	NS	NS	NS
MW01	9/30/2013	<1.0	<1.0	<1.0	<1.0
MW01	12/19/2013	<1.0	<1.0	<1.0	<1.0
MW01	3/13/2014	<1.0	<1.0	<1.0	<1.0
MW01	6/25/2014	<1.0	<1.0	<1.0	<1.0
MW01	9/10/2014	<1.0	<1.0	<1.0	<1.0
MW01	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW01	3/17/2015	<1.0	<1.0	<1.0	<1.0
MW02	2/27/2008	DRY	DRY	DRY	DRY
MW02	6/26/2008	<1.0	<1.0	<1.0	<1.0
MW02	9/24/2008	<1.0	<1.0	<1.0	<1.0
MW02	12/10/2008	<1.0	<1.0	<1.0	<1.0
MW02	3/18/2009	DRY	DRY	DRY	DRY
MW02	6/18/2009	DRY	DRY	DRY	DRY

TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW02	9/24/2009	<1.0	<1.0	<1.0	<1.0
MW02	12/8/2009	DRY	DRY	DRY	DRY
MW02	3/19/2010	DRY	DRY	DRY	DRY
MW02	6/28/2010	DRY	DRY	DRY	DRY
MW02	9/16/2010	<1.0	<1.0	<1.0	<1.0
MW02	12/8/2010	<1.0	<1.0	<1.0	<1.0
MW02	3/3/2011	<1.0	<1.0	<1.0	<1.0
MW02	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW02	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW02	12/15/2011	<1.0	<1.0	<1.0	<1.0
MW02	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW02	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW02	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW02	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW02	6/19/2013	<1.0	<1.0	<1.0	<1.0
MW02	9/24/2013	DRY	DRY	DRY	DRY
MW02	12/19/2013	DRY	DRY	DRY	DRY
MW02	3/13/2014	DRY	DRY	DRY	DRY
MW02	6/25/2014	DRY	DRY	DRY	DRY
MW02	9/10/2014	DRY	DRY	DRY	DRY
MW02	12/4/2014	DRY	DRY	DRY	DRY
MW02	3/17/2015	DRY	DRY	DRY	DRY
MW03	2/27/2008	50	<1.0	13	30
MW03	6/26/2008	100	<1.0	6.0	<1.0
MW03	9/24/2008	120	<1.0	110	220
MW03	12/10/2008	230	<1.0	140	200
MW03	3/18/2009	70	<1.0	14	220
MW03	6/18/2009	200	<1.0	110	320.0
MW03	9/24/2009	200	<1.0	63	200
MW03	12/8/2009	130	<1.0	6.1	<1.0
MW03	3/19/2010	2.1	<1.0	<1.0	<1.0
MW03	6/28/2010	83	<1.0	14	140
MW03	9/16/2010	53	<1.0	43	19
MW03	12/8/2010	22	<1.0	14	33
MW03	3/3/2011	170	<1.0	94	300

TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW03	6/7/2011	180	<1.0	130	420
MW03	7/28/2011	74	<1.0	58	160
MW03	9/27/2011	30	<1.0	46	150
MW03	12/15/2011	120	<1.0	54	100
MW03	3/22/2012	120	<1.0	31	63
MW03	6/25/2012	90	<1.0	14	25
MW03	9/14/2012	21	<1.0	5.5	12
MW03	12/12/2012	160	<1.0	3.3	6.7
MW03	6/19/2013	30	<1.0	16	94
MW03	9/24/2013	26	<1.0	12	36
MW03	12/19/2013	27	<1.0	6.0	15
MW03	3/13/2014	9.1	1.0	<1.0	4.4
MW03	6/25/2014	3.2	<1.0	<1.0	<1.0
MW03	9/10/2014	4.3	<1.0	<1.0	<1.0
MW03	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW03	3/17/2015	<1.0	<1.0	<1.0	2.0
MW04	2/27/2008	DRY	DRY	DRY	DRY
MW04	6/26/2008	DRY	DRY	DRY	DRY
MW04	9/24/2008	35	<1.0	5.6	<1.0
MW04	12/10/2008	230	<1.0	130	350
MW04	3/18/2009	DRY	DRY	DRY	DRY
MW04	6/18/2009	DRY	DRY	DRY	DRY
MW04	9/24/2009	DRY	DRY	DRY	DRY
MW04	12/8/2009	DRY	DRY	DRY	DRY
MW04	3/19/2010	DRY	DRY	DRY	DRY
MW04	6/28/2010	DRY	DRY	DRY	DRY
MW04	9/16/2010	<1.0	<1.0	<1.0	<1.0
MW04	12/8/2010	3.8	<1.0	<1.0	<1.0
MW04	3/3/2011	DRY	DRY	DRY	DRY
MW04	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW04	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW04	12/15/2011	2.9	<1.0	<1.0	<1.0
MW04	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW04	6/25/2012	1.0	<1.0	<1.0	<1.0
MW04	9/14/2012	DRY	DRY	DRY	DRY
MW04	12/12/2012	DRY	DRY	DRY	DRY

TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW04	6/19/2013	DRY	DRY	DRY	DRY
MW04	9/24/2013	DRY	DRY	DRY	DRY
MW04	12/19/2013	DRY	DRY	DRY	DRY
MW04	3/13/2014	DRY	DRY	DRY	DRY
MW04	6/25/2014	DRY	DRY	DRY	DRY
MW04	9/10/2014	DRY	DRY	DRY	DRY
MW04	12/4/2014	DRY	DRY	DRY	DRY
MW04	3/17/2015	DRY	DRY	DRY	DRY
MW05	1/6/2009	<1.0	<1.0	<1.0	<1.0
MW05	3/18/2009	<1.0	<1.0	<1.0	<1.0
MW05	6/18/2009	<1.0	<1.0	<1.0	<1.0
MW05	9/24/2009	<1.0	<1.0	<1.0	<1.0
MW05	12/8/2009	<1.0	<1.0	<1.0	<1.0
MW05	3/19/2010	NS	NS	NS	NS
MW05	6/28/2010	NS	NS	NS	NS
MW05	9/16/2010	NS	NS	NS	NS
MW05	12/8/2010	NS	NS	NS	NS
MW05	3/3/2011	NS	NS	NS	NS
MW05	12/15/2011	<1.0	<1.0	<1.0	<1.0
MW05	3/22/2012	<1.0	<1.0	<1.0	<1.0
MW05R	4/19/2011	<1.0	<1.0	<1.0	<1.0
MW05R	6/7/2011	<1.0	<1.0	<1.0	<1.0
MW05R	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW05R	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW05R	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW05R	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW05R	6/19/2013	<1.0	<1.0	<1.0	<1.0
MW05R	9/24/2013	<1.0	<1.0	<1.0	<1.0
MW05R	12/19/2013	<1.0	<1.0	<1.0	<1.0
MW05R	3/13/2014	<1.0	<1.0	<1.0	<1.0
MW05R	6/25/2014	<1.0	<1.0	<1.0	<1.0
MW05R	9/10/2014	<1.0	<1.0	<1.0	<1.0
MW05R	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW05R	3/17/2015	<1.0	<1.0	<1.0	<1.0
MW06	4/19/2011	<1.0	<1.0	<1.0	<1.0
MW06	6/7/2011	<1.0	<1.0	<1.0	<1.0

TABLE 2
BUNYAN 1
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
COGCC Table 910-1 Groundwater Standard (ug/L) ⁽¹⁾		5	560	700	1,400
MW06	9/27/2011	<1.0	<1.0	<1.0	<1.0
MW06	6/25/2012	<1.0	<1.0	<1.0	<1.0
MW06	9/14/2012	<1.0	<1.0	<1.0	<1.0
MW06	12/12/2012	<1.0	<1.0	<1.0	<1.0
MW06	6/19/2013	1.3	<1.0	<1.0	<1.0
MW06	9/24/2013	<1.0	<1.0	<1.0	<1.0
MW06	12/19/2013	<1.0	<1.0	<1.0	<1.0
MW06	3/13/2014	<1.0	<1.0	<1.0	<1.0
MW06	6/25/2014	<1.0	<1.0	<1.0	<1.0
MW06	9/10/2014	<1.0	<1.0	<1.0	<1.0
MW06	12/4/2014	<1.0	<1.0	<1.0	<1.0
MW06	3/17/2015	<1.0	<1.0	<1.0	<1.0

Notes:

1. Groundwater standards referenced from 2 CCR 404-1, Table 910-1, effective February 1, 2014.

COGCC = Colorado Oil and Gas Conservation Commission

ug/L = Micrograms per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

NS = Not sampled, well damaged or destroyed.

DRY = Not sampled, insufficient water in well.

BOLD= Analytical result is in exceedance of COGCC groundwater standards.

ATTACHMENT A

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 07, 2008

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/30/08 13:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS' or 'Shrewsbury', written in a cursive style.

Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW03	R807002-01	Water	06/26/08 13:30	06/30/08 13:40
MW02	R807002-02	Water	06/26/08 13:20	06/30/08 13:40
MW01	R807002-03	Water	06/26/08 13:10	06/30/08 13:40

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

Summit Scientific (2807002)

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-277-9531 Fax

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: Philip Hansen

Project Manager:

John Peterson

E-Mail: jpeterson@ltenv.com

Project Name: BUNYAN 1

Project Number: PDC08076

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:				Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Total Carbon Chain	BTEX			
MW04	8-26-08	1330	2	X												Not Sampled
MW03	8-26-08	1520	1	X												
MW02	8-26-08	1520	1	X												
MW01	8-26-08	1310	2	X												
<div> <div>Relinquished by: <i>JP</i></div> <div>Date Time: 8/30/08 1344</div> </div> <div> <div>Relinquished by: <i>JP</i></div> <div>Date Time: 8/30/08 1344</div> </div> <div> <div>Relinquished by: <i>JP</i></div> <div>Date Time: 8/30/08 1344</div> </div>																

Notes:

Turn Around Time (Check)

Same Day ☐ 72 Hours ☒
24 Hours ☐ Standard ☐

Sample Integrity:

Temperatures Upon Receipt: 49
Intact: Yes ☒ No ☐

www.s2scientific.com

Summit Scientific

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.

JP



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

MW03
R807002-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/08 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	100	1.0	ug/l	1	8070305	07/03/08	07/06/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	6.0	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/26/08 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		82.7 %	80-120		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.7 %	92.1-106		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.2 %	84.5-110		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

MW02
R807002-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/08 13:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	8070305	07/03/08	07/06/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/26/08 13:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	80-120		"	"	"	"	
Surrogate: Toluene-d8		97.0 %	92.1-106		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %	84.5-110		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

MW01
R807002-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/26/08 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	8070305	07/03/08	07/06/08	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **06/26/08 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		83.5 %		80-120		"	"	"	"	
Surrogate: Toluene-d8		97.0 %		92.1-106		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %		84.5-110		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 8070305 - EPA 5030 Water MS

Blank (8070305-BLK1)

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.2	80-120			
Surrogate: Toluene-d8	12.8		"	13.3		96.2	92.1-106			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	84.5-110			

LCS (8070305-BS1)

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	32.4	1.0	ug/l	33.3		97.3	61.4-110			
Toluene	35.4	1.0	"	33.3		106	54.2-116			
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		85.0	80-120			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	92.1-106			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	84.5-110			

LCS Dup (8070305-BSD1)

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	32.4	1.0	ug/l	33.3		97.3	61.4-110	0.00	11.8	
Toluene	35.5	1.0	"	33.3		107	54.2-116	0.282	12.2	
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		85.0	80-120			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	92.1-106			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	84.5-110			

Matrix Spike (8070305-MS1)

Source: R807001-01

Prepared: 07/03/08 Analyzed: 07/05/08

Benzene	32.2	1.0	ug/l	33.3	ND	96.7	61.5-109			
Toluene	35.3	1.0	"	33.3	ND	106	55.6-113			
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	80-120			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	92.1-106			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	84.5-110			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 8070305 - EPA 5030 Water MS

Matrix Spike Dup (8070305-MSD1)				Source: R807001-01		Prepared: 07/03/08		Analyzed: 07/05/08		
Benzene	31.2	1.0	ug/l	33.3	ND	93.7	61.5-109	3.15	21.7	
Toluene	34.1	1.0	"	33.3	ND	102	55.6-113	3.46	9.18	
Surrogate: 1,2-Dichloroethane-d4	11.7		"	13.3		88.0	80-120			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	92.1-106			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		94.0	84.5-110			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
07/07/08 09:16

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to be 'JMP'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 01, 2008

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/24/08 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long, sweeping horizontal line extending to the right.

Paul Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R809128-01	Water	09/24/08 11:45	09/24/08 16:15
MW02	R809128-02	Water	09/24/08 11:55	09/24/08 16:15
MW03	R809128-03	Water	09/24/08 12:05	09/24/08 16:15
MW04	R809128-04	Water	09/24/08 12:20	09/24/08 16:15

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

MW01
R809128-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/08 11:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.5 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		96.2 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.2 %	85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

MW02
R809128-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/24/08 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		116 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		102 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.5 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

MW03
R809128-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	120	1.0		ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	110	1.0		"	"	"	"	"	"	
Xylenes (total)	220	1.0		"	"	"	"	"	"	

Date Sampled: **09/24/08 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		94.0 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		98.5 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

MW04
R809128-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/08 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	35	1.0		ug/l	1	8092610	09/26/08	09/28/08	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	5.6	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/24/08 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		117 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		100 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.5 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 8092610 - EPA 5030 Water MS

Blank (8092610-BLK1)

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.3		85.7	77.3-121			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107			
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3		85.7	85.3-109			

LCS (8092610-BS1)

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	28.0	1.0	ug/l	33.3		84.1	70-114			
Toluene	29.3	1.0	"	33.3		88.0	72.7-116			
Surrogate: 1,2-Dichloroethane-d4	11.1		"	13.3		83.5	77.3-121			
Surrogate: Toluene-d8	13.1		"	13.3		98.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3		85.7	85.3-109			

LCS Dup (8092610-BSD1)

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	26.8	1.0	ug/l	33.3		80.5	70-114	4.38	8.14	
Toluene	28.6	1.0	"	33.3		85.9	72.7-116	2.42	7.88	
Surrogate: 1,2-Dichloroethane-d4	11.1		"	13.3		83.5	77.3-121			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	91.4-107			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.2	85.3-109			

Matrix Spike (8092610-MS1)

Source: R809125-01

Prepared: 09/26/08 Analyzed: 09/27/08

Benzene	38.3	1.0	ug/l	33.3	4.7	101	66.8-117			
Toluene	31.0	1.0	"	33.3	ND	93.1	71.5-117			
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.2	77.3-121			
Surrogate: Toluene-d8	13.1		"	13.3		98.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.7	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 8092610 - EPA 5030 Water MS

Matrix Spike Dup (8092610-MSD1)		Source: R809125-01			Prepared: 09/26/08		Analyzed: 09/27/08			
Benzene	32.3	1.0	ug/l	33.3	4.7	82.9	66.8-117	17.0	17.8	
Toluene	29.8	1.0	"	33.3	ND	89.5	71.5-117	3.95	14.4	
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		101	77.3-121			
Surrogate: Toluene-d8	12.8		"	13.3		96.2	91.4-107			
Surrogate: 4-Bromofluorobenzene	11.9		"	13.3		89.5	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/01/08 09:11

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JP' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 15, 2008

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/10/08 16:49. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R812061-01	Water	12/10/08 13:40	12/10/08 16:49
MW02	R812061-02	Water	12/10/08 13:45	12/10/08 16:49
MW03	R812061-03	Water	12/10/08 13:50	12/10/08 16:49
MW04	R812061-04	Water	12/10/08 13:55	12/10/08 16:49

Summit Scientific

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.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

Summit Scientific
S₂
R912061
7410 Cambridge Street, Suite 101, C-12 — Cambridge, MA 02141

S₂
741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Client:	L.T. Environmental, Inc.
Project Manager:	John Peterson
Address:	4600 West 60th Avenue
E-Mail:	jpeterson@ltenv.com
City/State/Zip:	Arvada, CO 80003
Project Name:	Bunyan I
Phone:	(303) 433-9788
Fax:	(303) 433-1432
Project Number:	P0C0876
Sampler Name:	M. H.

Page / of

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative						Matrix		Analyze For:	Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)		
MW01	1340	12-10-08	2	X				X					
MW02	1345		1	X				X					
MW03	1350		2	X				X					
MW04	1355		2	X				X					
Relinquished by:	Date/Time:								Received by:	Date/Time:	Turn Around Time (Check)	Notes:	
WAF 12-10-08									MS 12-10-08	12-09	<input type="checkbox"/> Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours		
Relinquished by:	Date/Time:								Received by:	Date/Time:			
Relinquished by:	Date/Time:								Received in Lab by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>4.9</u> Inact: <input checked="" type="radio"/> Yes <input type="radio"/> No		

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Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

MW01
R812061-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:40

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 12/10/08 13:40

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		101 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

MW02
R812061-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:45

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/10/08 13:45

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		101 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

MW03
R812061-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	230	1.0	ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	140	1.0	"	"	"	"	"	"	
Xylenes (total)	200	1.0	"	"	"	"	"	"	

Date Sampled: 12/10/08 13:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		102 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	85.3-109		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

MW04
R812061-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/10/08 13:55

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	230	1.0		ug/l	1	8121109	12/11/08	12/11/08	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	130	1.0		"	"	"	"	"	"	
Xylenes (total)	350	1.0		"	"	"	"	"	"	

Date Sampled: 12/10/08 13:55

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		106 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		102 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 8121109 - EPA 5030 Water MS

Blank (8121109-BLK1)

Prepared & Analyzed: 12/11/08

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3	99.2	77.3-121				
Surrogate: Toluene-d8	13.5		"	13.3	102	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3	102	85.3-109				

LCS (8121109-BS1)

Prepared & Analyzed: 12/11/08

Benzene	26.3	1.0	ug/l	33.3	79.0	70-114				
Toluene	27.2	1.0	"	33.3	81.7	72.7-116				
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.3	97.7	77.3-121				
Surrogate: Toluene-d8	13.1		"	13.3	98.5	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3	102	85.3-109				

LCS Dup (8121109-BSD1)

Prepared & Analyzed: 12/11/08

Benzene	26.9	1.0	ug/l	33.3	80.8	70-114	2.26	8.14		
Toluene	27.8	1.0	"	33.3	83.5	72.7-116	2.18	7.88		
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3	98.5	77.3-121				
Surrogate: Toluene-d8	13.3		"	13.3	100	91.4-107				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3	101	85.3-109				

Matrix Spike (8121109-MS1)

Source: R812059-01

Prepared & Analyzed: 12/11/08

Benzene	27.6	1.0	ug/l	33.3	ND	82.9	66.8-117			
Toluene	28.1	1.0	"	33.3	ND	84.4	71.5-117			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3		99.2	77.3-121			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 8121109 - EPA 5030 Water MS

Matrix Spike Dup (8121109-MSD1)		Source: R812059-01			Prepared & Analyzed: 12/11/08					
Benzene	27.2	1.0	ug/l	33.3	ND	81.7	66.8-117	1.46	17.8	
Toluene	28.2	1.0	"	33.3	ND	84.7	71.5-117	0.355	14.4	
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		97.0	77.3-121			
Surrogate: Toluene-d8	13.4		"	13.3		101	91.4-107			
Surrogate: 4-Bromofluorobenzene	14.1		"	13.3		106	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
12/15/08 14:30

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JP' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

January 10, 2009

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 01/06/09 16:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'PS' followed by a long, sweeping horizontal line.

Paul Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW05	R901029-01	Water	01/06/09 12:35	01/06/09 16:53

Summit Scientific 2906029

S₂
741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: L-7

CRISTAL
 cristalline bottiglie

Project Manager: John Peterson

E-Mail: jpeterson@lter.berkeley.edu

Project Name: Review

Project Number: 001-040-7

000001

Sample Description		Date Sampled		Time Sampled		Number of Containers		Preservative					Matrix		Analyze For:		Special Instructions	
								HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Total Carbon Chain		BTEX
10405		1/16/88	12:35	2				X				X					X	
Relinquished by:	Date/Time:	1-6-88 1653		1-6-88 1653				Received by:					Date/Time:		Turn Around Time (Check)		Notes:	
															<input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input checked="" type="checkbox"/> 48 Hours		<input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard	
Relinquished by:	Date/Time:	1-6-88 1653		1-6-88 1653				Received by:					Date/Time:		Turn Around Time (Check)		Notes:	
															<input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours		<input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard	
Relinquished by:	Date/Time:							Received in Lab by:					Date/Time:		Sample Integrity:		Temperature upon Receipt: 4.2	
															Inact: <input checked="" type="checkbox"/> Yes No			

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Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

MW05
R901029-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/06/09 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9010806	01/08/09	01/09/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **01/06/09 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.2 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		100 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 9010806 - EPA 5030 Water MS

Blank (9010806-BLK1)

Prepared & Analyzed: 01/08/09

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		90.2	77.3-121			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

LCS (9010806-BS1)

Prepared & Analyzed: 01/08/09

Benzene	27.8	1.0	ug/l	33.3		83.5	70-114			
Toluene	29.6	1.0	"	33.3		88.9	72.7-116			
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		87.2	77.3-121			
Surrogate: Toluene-d8	13.1		"	13.3		98.5	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

LCS Dup (9010806-BSD1)

Prepared & Analyzed: 01/08/09

Benzene	27.8	1.0	ug/l	33.3		83.5	70-114	0.00	8.14	
Toluene	29.9	1.0	"	33.3		89.8	72.7-116	1.01	7.88	
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.3		94.0	77.3-121			
Surrogate: Toluene-d8	13.3		"	13.3		100	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

Matrix Spike (9010806-MS1)

Source: R901034-04

Prepared: 01/08/09 Analyzed: 01/09/09

Benzene	28.6	1.0	ug/l	33.3	ND	85.9	66.8-117			
Toluene	29.8	1.0	"	33.3	ND	89.5	71.5-117			
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	77.3-121			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 9010806 - EPA 5030 Water MS

Matrix Spike Dup (9010806-MSD1)				Source: R901034-04		Prepared: 01/08/09		Analyzed: 01/09/09		
Benzene	29.3	1.0	ug/l	33.3	ND	88.0	66.8-117	2.42	17.8	
Toluene	30.4	1.0	"	33.3	ND	91.3	71.5-117	1.99	14.4	
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.3		114	77.3-121			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	91.4-107			
Surrogate: 4-Bromofluorobenzene	14.0		"	13.3		105	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: John Peterson

Reported:
01/10/09 19:32

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JP' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 23, 2009

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/18/09 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'LS' followed by a long, sweeping horizontal line.

Logan Shrewsbury For Ben Shrewsbury
Vice President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R903082-01	Water	03/18/09 13:00	03/18/09 16:00
MW03	R903082-03	Water	03/18/09 13:20	03/18/09 16:00
MW05	R903082-05	Water	03/18/09 13:40	03/18/09 16:00

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

Summit Scientific
S₂ R903082

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9531 • 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc.
Address: 4600 West 60th Avenue
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788
Fax: (303) 433-1432
Project Manager: John Peterson
E-Mail: jpeterson@ltenv.com
Project Name: Bunyan No. 1
Project Number: PDC 0876
Sampler Name: Philip Hawthorn

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
MW01	3/18/09	1300	2	HCl	Groundwater	Total Carbon Chain	Dry imp
MW02	3/18/09	1310	1	HNO ₃	Soil	Other (Specify)	Dry imp
MW03	3/18/09	1320	1	None	Air - Canister Serial #	Other (Specify)	
MW04	3/18/09	1330	1	None	Other (Specify)	Other (Specify)	
MW05	3/18/09	1340	1	None	Other (Specify)	Other (Specify)	

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
John L.	3/18/09 10:00			<input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	Temperature Upon Receipt: 42
				Intact: Yes No	

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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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

MW01
R903082-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/18/09 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	9031902	03/19/09	03/22/09	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **03/18/09 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		116 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		105 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

MW03
R903082-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/18/09 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	70	1.0		ug/l	1	9031902	03/19/09	03/22/09	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	14	1.0		"	"	"	"	"	"	
Xylenes (total)	220	1.0		"	"	"	"	"	"	

Date Sampled: **03/18/09 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		114 %		77.3-121		"	"	"	"	
Surrogate: Toluene-d8		106 %		91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

MW05
R903082-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/18/09 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	9031902	03/19/09	03/22/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/18/09 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		118 %	77.3-121		"	"	"	"	
Surrogate: Toluene-d8		105 %	91.4-107		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	85.3-109		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 9031902 - EPA 5030 Water MS

Blank (9031902-BLK1)

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		96.2	77.3-121			
Surrogate: Toluene-d8	13.5		"	13.3		102	91.4-107			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	85.3-109			

LCS (9031902-BS1)

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	26.8	1.0	ug/l	33.3		80.5	70-114			
Toluene	29.0	1.0	"	33.3		87.1	72.7-116			
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		97.0	77.3-121			
Surrogate: Toluene-d8	13.5		"	13.3		102	91.4-107			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.2	85.3-109			

LCS Dup (9031902-BSD1)

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	25.7	1.0	ug/l	33.3		77.2	70-114	4.19	8.14	
Toluene	28.0	1.0	"	33.3		84.1	72.7-116	3.51	7.88	
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.3		97.7	77.3-121			
Surrogate: Toluene-d8	13.6		"	13.3		102	91.4-107			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	85.3-109			

Matrix Spike (9031902-MS1)

Source: R903076-01

Prepared: 03/19/09 Analyzed: 03/21/09

Benzene	26.3	1.0	ug/l	33.3	ND	79.0	66.8-117			
Toluene	28.3	1.0	"	33.3	ND	85.0	71.5-117			
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.5	77.3-121			
Surrogate: Toluene-d8	13.6		"	13.3		102	91.4-107			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.2	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 9031902 - EPA 5030 Water MS

Matrix Spike Dup (9031902-MSD1)				Source: R903076-01		Prepared: 03/19/09		Analyzed: 03/21/09		
Benzene	26.7	1.0	ug/l	33.3	ND	80.2	66.8-117	1.51	17.8	
Toluene	28.8	1.0	"	33.3	ND	86.5	71.5-117	1.75	14.4	
Surrogate: 1,2-Dichloroethane-d4	15.4		"	13.3		116	77.3-121			
Surrogate: Toluene-d8	13.7		"	13.3		103	91.4-107			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.2	85.3-109			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC0876
Project Manager: John Peterson

Reported:
03/23/09 17:20

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JP' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 05, 2009

John Peterson
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/24/09 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R909158-01	Water	09/24/09 10:45	09/24/09 16:00
MW02	R909158-02	Water	09/24/09 10:55	09/24/09 16:00
MW03	R909158-03	Water	09/24/09 11:05	09/24/09 16:00
MW05	R909158-04	Water	09/24/09 11:25	09/24/09 16:00

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

MW01
R909158-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/09 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.7 %	74.3-129		"	"	"	"	
Surrogate: Toluene-d8		97.8 %	87.7-110		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	83.5-115		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

MW02
R909158-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/24/09 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		102 %		74.3-129		"	"	"	"	
Surrogate: Toluene-d8		98.6 %		87.7-110		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %		83.5-115		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

MW03
R909158-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	200	10		ug/l	10	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0		"	1	"	"	"	"	
Ethylbenzene	63	1.0		"	"	"	"	"	"	
Xylenes (total)	200	1.0		"	"	"	"	"	"	

Date Sampled: **09/24/09 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		107 %		74.3-129		"	"	"	"	
Surrogate: Toluene-d8		102 %		87.7-110		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		83.5-115		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

MW05
R909158-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/09 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	9093004	09/30/09	10/02/09	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/09 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	74.3-129		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	87.7-110		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	83.5-115		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 9093004 - EPA 5030 Water MS

Blank (9093004-BLK1)

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	10.0		"	13.3		75.4	74.3-129			
Surrogate: Toluene-d8	13.4		"	13.3		101	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		99.8	83.5-115			

LCS (9093004-BS1)

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	31.6	1.0	ug/l	33.3		94.8	70-114		8.14	
Toluene	30.8	1.0	"	33.3		92.4	72.7-116		7.88	
Surrogate: 1,2-Dichloroethane-d4	10.6		"	13.3		79.2	74.3-129			
Surrogate: Toluene-d8	13.7		"	13.3		103	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.4	83.5-115			

LCS Dup (9093004-BSD1)

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	32.5	1.0	ug/l	33.3		97.5	70-114	2.87	8.14	
Toluene	32.1	1.0	"	33.3		96.2	72.7-116	3.98	7.88	
Surrogate: 1,2-Dichloroethane-d4	10.5		"	13.3		78.5	74.3-129			
Surrogate: Toluene-d8	13.5		"	13.3		101	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.3	83.5-115			

Matrix Spike (9093004-MS1)

Source: R909153-03

Prepared: 09/30/09 Analyzed: 10/01/09

Benzene	32.3	1.0	ug/l	33.3	ND	96.9	66.8-117		17.8	
Toluene	31.1	1.0	"	33.3	ND	93.2	71.5-117		14.4	
Surrogate: 1,2-Dichloroethane-d4	11.0		"	13.3		82.9	74.3-129			
Surrogate: Toluene-d8	13.7		"	13.3		102	87.7-110			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	83.5-115			

Summit Scientific

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Page 7 of 8



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: John Peterson

Reported:
10/05/09 15:30

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JP' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

March 24, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/19/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS' or 'Shrewsbury', written in a cursive style.

Ben Shrewsbury
President / Laboratory Director

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R003123-01	Water	03/19/10 14:40	03/19/10 17:00
MW03	R003123-02	Water	03/19/10 14:50	03/19/10 17:00

Summit Scientific 2003123

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: El. Kean

Project Manager: Brian Dodek

E-Mail: bdodek@ltenv.com

Project Name: R-1102#1

Project Number: 01V 08071

Preservative		Matrix		Analyze For:		Special Instructions													
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃		None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	DBT	GBTEX	BTEX 2,4,6,2,4,6	Table 9.10 Full	Table 9.10 Short	PH / EC	SAR
M1001	3/19	1440	3	X				X						X					
M1003	3/19	1450	3	X				X						X					
Relinquished by: <i>[Signature]</i>	Date/Time: 3/19	Received by: <i>[Signature]</i>	Date/Time: 3/19/10	1700	Turn Around Time (Check)	Same Day	24 Hours	48 Hours	72 Hours	Standard	Notes:								
Relinquished by: <i>[Signature]</i>	Date/Time: 3/19	Received by: <i>[Signature]</i>	Date/Time: 3/19/10	1700	Turn Around Time (Check)	Same Day	24 Hours	48 Hours	72 Hours	Standard	Notes:								
Relinquished by: <i>[Signature]</i>	Date/Time: 3/19	Received by: <i>[Signature]</i>	Date/Time: 3/19/10	1700	Turn Around Time (Check)	Same Day	24 Hours	48 Hours	72 Hours	Standard	Notes:								

www.s2scientific.com

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

MW01
R003123-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/19/10 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0032201	03/22/10	03/23/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/19/10 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		85.4 %	70.4-127		"	"	"	"	
Surrogate: Toluene-d8		93.8 %	85.7-111		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.4 %	83.9-116		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

MW03
R003123-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/19/10 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2.1	1.0	ug/l	1	0032201	03/22/10	03/23/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/19/10 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		90.9 %	70.4-127		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.3 %	85.7-111		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		88.7 %	83.9-116		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 0032201 - EPA 5030 Water MS

Blank (0032201-BLK1)

Prepared: 03/22/10 Analyzed: 03/23/10

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.3		86.9	70.4-127			
Surrogate: Toluene-d8	12.4		"	13.3		93.1	85.7-111			
Surrogate: 4-Bromofluorobenzene	11.7		"	13.3		87.5	83.9-116			

LCS (0032201-BS1)

Prepared: 03/22/10 Analyzed: 03/23/10

Benzene	30.0	1.0	ug/l	33.3		89.9	64.2-127		10.9	
Toluene	30.6	1.0	"	33.3		91.8	66.4-125		11.3	
Ethylbenzene	32.4	1.0	"	33.3		97.1	70-130		20	
m,p-Xylene	72.8	2.0	"	66.7		109	70-130		20	
o-Xylene	30.4	1.0	"	33.3		91.3	70-130		20	
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		89.9	70.4-127			
Surrogate: Toluene-d8	12.5		"	13.3		93.5	85.7-111			
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.6	83.9-116			

LCS Dup (0032201-BSD1)

Prepared: 03/22/10 Analyzed: 03/23/10

Benzene	30.8	1.0	ug/l	33.3		92.3	64.2-127	2.73	10.9	
Toluene	31.3	1.0	"	33.3		93.8	66.4-125	2.20	11.3	
Ethylbenzene	33.5	1.0	"	33.3		100	70-130	3.40	20	
m,p-Xylene	74.8	2.0	"	66.7		112	70-130	2.72	20	
o-Xylene	31.2	1.0	"	33.3		93.6	70-130	2.47	20	
Surrogate: 1,2-Dichloroethane-d4	12.1		"	13.3		90.6	70.4-127			
Surrogate: Toluene-d8	13.0		"	13.3		97.1	85.7-111			
Surrogate: 4-Bromofluorobenzene	11.9		"	13.3		89.3	83.9-116			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 0032201 - EPA 5030 Water MS

Matrix Spike (0032201-MS1)				Source: R003123-01		Prepared: 03/22/10		Analyzed: 03/23/10		
Benzene	28.9	1.0	ug/l	33.3	ND	86.8	57.4-127		19.3	
Toluene	29.5	1.0	"	33.3	ND	88.5	60.1-123		18.7	
Ethylbenzene	31.3	1.0	"	33.3	ND	93.8	70-130		20	
m,p-Xylene	69.8	2.0	"	66.7	ND	105	70-130		20	
o-Xylene	29.5	1.0	"	33.3	ND	88.4	70-130		20	
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		90.2	70.4-127			
Surrogate: Toluene-d8	12.7		"	13.3		95.1	85.7-111			
Surrogate: 4-Bromofluorobenzene	11.9		"	13.3		89.5	83.9-116			
Matrix Spike Dup (0032201-MSD1)				Source: R003123-01		Prepared: 03/22/10		Analyzed: 03/23/10		
Benzene	29.3	1.0	ug/l	33.3	ND	88.0	57.4-127	1.41	19.3	
Toluene	30.1	1.0	"	33.3	ND	90.4	60.1-123	2.15	18.7	
Ethylbenzene	30.0	1.0	"	33.3	ND	89.9	70-130	4.21	20	
m,p-Xylene	67.1	2.0	"	66.7	ND	101	70-130	3.96	20	
o-Xylene	28.4	1.0	"	33.3	ND	85.4	70-130	3.49	20	
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.3		95.3	70.4-127			
Surrogate: Toluene-d8	12.7		"	13.3		95.2	85.7-111			
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3		85.3	83.9-116			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08076
Project Manager: Brian Dodek

Reported:
03/24/10 17:54

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to be 'JMM'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 06, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/28/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'LS' followed by a long horizontal stroke.

Logan Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R006163-01	Water	06/28/10 12:20	06/28/10 17:00
MW03	R006163-02	Water	06/28/10 12:30	06/28/10 17:00

Summit Scientific

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.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076

Project Manager: Brian Dodek

Reported:

07/06/10 14:14

Summit Scientific

5

74 | Corporate Circle Suite I • Golden, Colorado 80401
303-277-9310 • 303-277-9531 Fax

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: S. Kach

NAME: _____

Project Manager:

E-Mail:

Project Name: _____

Project Number:

100

1

1998

1997

1

[illegible]

www.sciencedirect.com

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

MW01
R006163-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/10 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	0070501	07/05/10	07/05/10	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **06/28/10 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		103 %		70.4-127		"	"	"	"	
Surrogate: Toluene-d8		96.4 %		85.7-111		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %		83.9-116		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

MW03
R006163-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/28/10 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	83	1.0		ug/l	1	0070501	07/05/10	07/05/10	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	14	1.0		"	"	"	"	"	"	
Xylenes (total)	140	1.0		"	"	"	"	"	"	

Date Sampled: **06/28/10 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		105 %		70.4-127		"	"	"	"	
Surrogate: Toluene-d8		98.6 %		85.7-111		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %		83.9-116		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 0070501 - EPA 5030 Water MS

Blank (0070501-BLK1)

Prepared & Analyzed: 07/05/10

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.3		"	13.3		99.8	70.4-127			
Surrogate: Toluene-d8	12.8		"	13.3		96.2	85.7-111			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.3	83.9-116			

LCS (0070501-BS1)

Prepared & Analyzed: 07/05/10

Benzene	29.4	1.0	ug/l	33.3		88.1	64.2-127		10.9	
Toluene	28.3	1.0	"	33.3		85.0	66.4-125		11.3	
Ethylbenzene	31.1	1.0	"	33.3		93.4	70-130		20	
m,p-Xylene	59.0	2.0	"	66.7		88.5	70-130		20	
o-Xylene	26.8	1.0	"	33.3		80.3	70-130		20	
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	70.4-127			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	85.7-111			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.6	83.9-116			

LCS Dup (0070501-BSD1)

Prepared & Analyzed: 07/05/10

Benzene	29.4	1.0	ug/l	33.3		88.1	64.2-127	0.00	10.9	
Toluene	28.6	1.0	"	33.3		85.8	66.4-125	0.983	11.3	
Ethylbenzene	31.7	1.0	"	33.3		95.1	70-130	1.81	20	
m,p-Xylene	60.5	2.0	"	66.7		90.7	70-130	2.49	20	
o-Xylene	27.5	1.0	"	33.3		82.4	70-130	2.58	20	
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3		104	70.4-127			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	85.7-111			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.5	83.9-116			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 0070501 - EPA 5030 Water MS

Matrix Spike (0070501-MS1)				Source: R006162-03		Prepared & Analyzed: 07/05/10				
Benzene	28.4	1.0	ug/l	33.3	ND	85.2	57.4-127		19.3	
Toluene	27.5	1.0	"	33.3	ND	82.6	60.1-123		18.7	
Ethylbenzene	30.1	1.0	"	33.3	ND	90.3	70-130		20	
m,p-Xylene	56.8	2.0	"	66.7	ND	85.2	70-130		20	
o-Xylene	26.0	1.0	"	33.3	ND	78.0	70-130		20	
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3		111	70.4-127			
Surrogate: Toluene-d8	13.6		"	13.3		102	85.7-111			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.5	83.9-116			
Matrix Spike Dup (0070501-MSD1)				Source: R006162-03		Prepared & Analyzed: 07/05/10				
Benzene	29.0	1.0	ug/l	33.3	ND	87.1	57.4-127	2.19	19.3	
Toluene	28.4	1.0	"	33.3	ND	85.1	60.1-123	2.93	18.7	
Ethylbenzene	31.3	1.0	"	33.3	ND	94.0	70-130	4.07	20	
m,p-Xylene	59.2	2.0	"	66.7	ND	88.8	70-130	4.15	20	
o-Xylene	26.9	1.0	"	33.3	ND	80.8	70-130	3.59	20	
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	70.4-127			
Surrogate: Toluene-d8	13.3		"	13.3		99.8	85.7-111			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.1	83.9-116			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC08076
Project Manager: Brian Dodek

Reported:
07/06/10 14:14

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 22, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/16/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'LS' followed by a long horizontal stroke.

Logan Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R009145-01	Water	09/16/10 12:50	09/16/10 17:00
MW02	R009145-02	Water	09/16/10 12:55	09/16/10 17:00
MW03	R009145-03	Water	09/16/10 13:00	09/16/10 17:00
MW04	R009145-04	Water	09/16/10 13:05	09/16/10 17:00

Summit Scientific

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.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026

Project Manager: Brian Dodek

Reported:

09/22/10 14:04

Summit Scientific
2009/45

2009/45

5

7741 Corporate Circle Suite 1 ♦ Golden, Colorado 80401

303-277-9310 ♦ 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: T. D. ...

Project Manager: Brian Dodek

E-Mail: bdodek@ltnv.comProject Name: Rev. #1Project Name: DATA/100 #1
Project Number: DATA/08076

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative						Matrix			Analyze For:							Special Instructions
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	DRO	GBTEX	BTEX	Table 9.10 Full	Table 9.10 Short	pH / EC	SAR		
MW01	9/16	1250	3	X																
MW02	9/16	1255	3	X																
MW03	9/16	1300	3	X																
MW04	9/16	1305	3	X																
Relinquished by: [Signature]	Date/Time: 9/16	1700		Received by: [Signature]	Date/Time: 9-16-18	1700		Turn Around Time (Check) Same Day <input type="checkbox"/> 72 Hours <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>	Notes:											
Relinquished by: [Signature]	Date/Time: 9/16			Received by: [Signature]	Date/Time: 9-16-18			Sample Integrity: Temperature Upon Receipt: 50 Intact: Yes No												
Relinquished by:	Date/Time:			Received in Lab by:	Date/Time:															

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

MW01
R009145-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/16/10 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		102 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		99.3 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

MW02
R009145-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/16/10 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		102 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		100 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

MW03
R009145-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	53	1.0	ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	43	1.0	"	"	"	"	"	"	
Xylenes (total)	19	1.0	"	"	"	"	"	"	

Date Sampled: **09/16/10 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		105 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

MW04
R009145-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/16/10 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	0092007	09/20/10	09/21/10	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/16/10 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		106 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		101 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 0092007 - EPA 5030 Water MS

Blank (0092007-BLK1)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3	108	57.9-139				
Surrogate: Toluene-d8	12.3		"	13.3	92.0	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3	101	80.8-120				

LCS (0092007-BS1)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	29.6	1.0	ug/l	33.3	88.8	60.1-131			10.9	
Toluene	26.8	1.0	"	33.3	80.3	65.9-127			11.3	
Ethylbenzene	34.7	1.0	"	33.3	104	65.1-129			20	
m,p-Xylene	63.4	2.0	"	66.7	95.1	66.8-127			20	
o-Xylene	30.1	1.0	"	33.3	90.3	61.2-120			20	
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.3	109	57.9-139				
Surrogate: Toluene-d8	13.2		"	13.3	99.3	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.7	80.8-120				

LCS (0092007-BS2)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	31.4	1.0	ug/l	33.3	94.1	60.1-131			10.9	
Toluene	28.3	1.0	"	33.3	84.9	65.9-127			11.3	
Ethylbenzene	36.0	1.0	"	33.3	108	65.1-129			20	
m,p-Xylene	66.6	2.0	"	66.7	99.8	66.8-127			20	
o-Xylene	30.5	1.0	"	33.3	91.5	61.2-120			20	
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.3	114	57.9-139				
Surrogate: Toluene-d8	13.6		"	13.3	102	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.9	80.8-120				

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 0092007 - EPA 5030 Water MS

LCS Dup (0092007-BSD1)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	30.2	1.0	ug/l	33.3		90.5	60.1-131	1.91	10.9	
Toluene	27.1	1.0	"	33.3		81.2	65.9-127	1.04	11.3	
Ethylbenzene	34.8	1.0	"	33.3		104	65.1-129	0.0575	20	
m,p-Xylene	62.9	2.0	"	66.7		94.3	66.8-127	0.792	20	
o-Xylene	29.5	1.0	"	33.3		88.6	61.2-120	1.95	20	
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.3		109	57.9-139			
Surrogate: Toluene-d8	13.4		"	13.3		100	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.9	80.8-120			

LCS Dup (0092007-BSD2)

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	31.4	1.0	ug/l	33.3		94.3	60.1-131	0.127	10.9	
Toluene	28.2	1.0	"	33.3		84.5	65.9-127	0.425	11.3	
Ethylbenzene	36.0	1.0	"	33.3		108	65.1-129	0.0834	20	
m,p-Xylene	66.2	2.0	"	66.7		99.3	66.8-127	0.558	20	
o-Xylene	30.8	1.0	"	33.3		92.5	61.2-120	1.08	20	
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	57.9-139			
Surrogate: Toluene-d8	13.7		"	13.3		103	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.1	80.8-120			

Matrix Spike (0092007-MS1)

Source: R009143-05

Prepared: 09/20/10 Analyzed: 09/21/10

Benzene	250	1.0	ug/l	33.3	222	84.5	52.7-130		19.3	
Toluene	27.5	1.0	"	33.3	ND	82.5	57-127		18.7	
Ethylbenzene	52.6	1.0	"	33.3	12.7	120	59.2-127		20	
m,p-Xylene	64.4	2.0	"	66.7	ND	96.6	53.2-132		20	
o-Xylene	30.8	1.0	"	33.3	ND	92.6	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	57.9-139			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.5	80.8-120			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 0092007 - EPA 5030 Water MS

Matrix Spike (0092007-MS2)		Source: R009143-06			Prepared: 09/20/10		Analyzed: 09/21/10			
Benzene	35.2	1.0	ug/l	33.3	ND	106	52.7-130		19.3	
Toluene	27.0	1.0	"	33.3	ND	81.0	57-127		18.7	
Ethylbenzene	34.9	1.0	"	33.3	ND	105	59.2-127		20	
m,p-Xylene	63.3	2.0	"	66.7	ND	95.0	53.2-132		20	
o-Xylene	29.5	1.0	"	33.3	ND	88.5	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.3		107	57.9-139			
Surrogate: Toluene-d8	12.4		"	13.3		93.2	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.3		"	13.3		92.3	80.8-120			

Matrix Spike Dup (0092007-MSD1)		Source: R009143-05			Prepared: 09/20/10		Analyzed: 09/21/10			
Benzene	264	1.0	ug/l	33.3	222	128	52.7-130	5.61	19.3	
Toluene	28.8	1.0	"	33.3	ND	86.3	57-127	4.59	18.7	
Ethylbenzene	52.6	1.0	"	33.3	12.7	120	59.2-127	0.0760	20	
m,p-Xylene	65.8	2.0	"	66.7	ND	98.7	53.2-132	2.17	20	
o-Xylene	31.2	1.0	"	33.3	ND	93.5	56.3-117	1.06	20	
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.3		109	57.9-139			
Surrogate: Toluene-d8	13.0		"	13.3		97.4	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.3	80.8-120			

Matrix Spike Dup (0092007-MSD2)		Source: R009143-06			Prepared: 09/20/10		Analyzed: 09/21/10			
Benzene	36.8	1.0	ug/l	33.3	ND	110	52.7-130	4.50	19.3	
Toluene	27.0	1.0	"	33.3	ND	81.1	57-127	0.185	18.7	
Ethylbenzene	34.5	1.0	"	33.3	ND	103	59.2-127	1.24	20	
m,p-Xylene	60.8	2.0	"	66.7	ND	91.2	53.2-132	4.06	20	
o-Xylene	28.8	1.0	"	33.3	ND	86.6	56.3-117	2.19	20	
Surrogate: 1,2-Dichloroethane-d4	14.2		"	13.3		107	57.9-139			
Surrogate: Toluene-d8	12.6		"	13.3		94.9	83.1-115			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.3	80.8-120			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 08026
Project Manager: Brian Dodek

Reported:
09/22/10 14:04

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 13, 2010

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/08/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS' followed by a long, sweeping horizontal line.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R012057-01	Water	12/08/10 11:40	12/08/10 17:00
MW02	R012057-02	Water	12/08/10 11:45	12/08/10 17:00
MW03	R012057-03	Water	12/08/10 11:50	12/08/10 17:00
MW04	R012057-04	Water	12/08/10 11:55	12/08/10 17:00

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

Summit Scientific 2022057

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page 1 of 1

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: *Y. Lee*

Project Manager:

E-Mail:

Project Name:

[illegible][illegible]

www.s2scientific.com

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

MW01
R012057-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

MW02
R012057-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:45

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:45

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		109 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

MW03
R012057-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	22	1.0	ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	14	1.0	"	"	"	"	"	"	
Xylenes (total)	33	1.0	"	"	"	"	"	"	

Date Sampled: 12/08/10 11:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		115 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		98.7 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

MW04
R012057-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/08/10 11:55

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	3.8	1.0		ug/l	1	0121102	12/11/10	12/12/10	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 12/08/10 11:55

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		109 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		91.8 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.1 %		80.8-120		"	"	"	"	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 0121102 - EPA 5030 Water MS

Blank (0121102-BLK1)

Prepared: 12/11/10 Analyzed: 12/12/10

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3	108	57.9-139				
Surrogate: Toluene-d8	13.0		"	13.3	97.6	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3	99.0	80.8-120				

LCS (0121102-BS1)

Prepared: 12/11/10 Analyzed: 12/12/10

Benzene	28.6	1.0	ug/l	33.3	85.9	60.1-131			10.9	
Toluene	28.3	1.0	"	33.3	84.8	65.9-127			11.3	
Ethylbenzene	30.6	1.0	"	33.3	91.7	65.1-129			20	
m,p-Xylene	60.2	2.0	"	66.7	90.3	66.8-127			20	
o-Xylene	29.5	1.0	"	33.3	88.5	61.2-120			20	
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3	111	57.9-139				
Surrogate: Toluene-d8	13.1		"	13.3	98.4	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3	93.2	80.8-120				

LCS Dup (0121102-BSD1)

Prepared: 12/11/10 Analyzed: 12/12/10

Benzene	29.9	1.0	ug/l	33.3	89.7	60.1-131	4.30		10.9	
Toluene	30.0	1.0	"	33.3	90.1	65.9-127	6.04		11.3	
Ethylbenzene	32.2	1.0	"	33.3	96.7	65.1-129	5.25		20	
m,p-Xylene	63.2	2.0	"	66.7	94.7	66.8-127	4.78		20	
o-Xylene	32.5	1.0	"	33.3	97.6	61.2-120	9.80		20	
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3	111	57.9-139				
Surrogate: Toluene-d8	12.7		"	13.3	95.6	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.7	80.8-120				

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 0121102 - EPA 5030 Water MS

Matrix Spike (0121102-MS1)		Source: R012051-01			Prepared: 12/11/10		Analyzed: 12/12/10			
Benzene	29.1	1.0	ug/l	33.3	ND	87.3	52.7-130		19.3	
Toluene	29.8	1.0	"	33.3	ND	89.5	57-127		18.7	
Ethylbenzene	31.2	1.0	"	33.3	ND	93.5	59.2-127		20	
m,p-Xylene	60.2	2.0	"	66.7	ND	90.2	53.2-132		20	
o-Xylene	30.3	1.0	"	33.3	ND	90.8	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3		111	57.9-139			
Surrogate: Toluene-d8	12.8		"	13.3		96.3	83.1-115			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.3	80.8-120			
Matrix Spike Dup (0121102-MSD1)		Source: R012051-01			Prepared: 12/11/10		Analyzed: 12/12/10			
Benzene	30.0	1.0	ug/l	33.3	ND	90.0	52.7-130	3.08	19.3	
Toluene	29.6	1.0	"	33.3	ND	88.8	57-127	0.774	18.7	
Ethylbenzene	32.0	1.0	"	33.3	ND	96.0	59.2-127	2.69	20	
m,p-Xylene	61.4	2.0	"	66.7	ND	92.1	53.2-132	2.01	20	
o-Xylene	31.8	1.0	"	33.3	ND	95.6	56.3-117	5.09	20	
Surrogate: 1,2-Dichloroethane-d4	15.3		"	13.3		115	57.9-139			
Surrogate: Toluene-d8	13.0		"	13.3		97.6	83.1-115			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	80.8-120			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 0876
Project Manager: Brian Dodek

Reported:
12/13/10 16:17

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 11, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/03/11 16:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS', with a long horizontal flourish extending to the right.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R103030-01	Water	03/03/11 13:40	03/03/11 16:55
MW02	R103030-02	Water	03/03/11 13:45	03/03/11 16:55
MW03	R103030-03	Water	03/03/11 13:50	03/03/11 16:55

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

MW01
R103030-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/11 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1030406	03/04/11	03/10/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/03/11 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		102 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.7 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

MW02
R103030-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/11 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1030406	03/04/11	03/10/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/03/11 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		100 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.7 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

MW03
R103030-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/11 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	170	1.0	ug/l	1	1030406	03/04/11	03/10/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	94	1.0	"	"	"	"	"	"	
Xylenes (total)	300	1.0	"	"	"	"	"	"	

Date Sampled: **03/03/11 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>103 %</i>	<i>57.9-139</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Toluene-d8</i>		<i>105 %</i>	<i>83.1-115</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>102 %</i>	<i>80.8-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1030406 - EPA 5030 Water MS

Blank (1030406-BLK1)

Prepared: 03/04/11 Analyzed: 03/10/11

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3	102	57.9-139				
Surrogate: Toluene-d8	13.3		"	13.3	99.8	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3	96.6	80.8-120				

LCS (1030406-BS1)

Prepared: 03/04/11 Analyzed: 03/10/11

Benzene	38.6	1.0	ug/l	33.3	116	60.1-131			10.9	
Toluene	37.9	1.0	"	33.3	114	65.9-127			11.3	
Ethylbenzene	37.0	1.0	"	33.3	111	65.1-129			20	
m,p-Xylene	76.8	2.0	"	66.7	115	66.8-127			20	
o-Xylene	36.6	1.0	"	33.3	110	61.2-120			20	
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3	102	57.9-139				
Surrogate: Toluene-d8	13.9		"	13.3	104	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3	94.9	80.8-120				

LCS Dup (1030406-BSD1)

Prepared: 03/04/11 Analyzed: 03/10/11

Benzene	32.4	1.0	ug/l	33.3	97.1	60.1-131	17.5		10.9	
Toluene	31.4	1.0	"	33.3	94.2	65.9-127	18.7		11.3	
Ethylbenzene	33.4	1.0	"	33.3	100	65.1-129	9.94		20	
m,p-Xylene	66.7	2.0	"	66.7	100	66.8-127	14.1		20	
o-Xylene	33.7	1.0	"	33.3	101	61.2-120	8.33		20	
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3	103	57.9-139				
Surrogate: Toluene-d8	13.9		"	13.3	104	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3	104	80.8-120				

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1030406 - EPA 5030 Water MS

Matrix Spike (1030406-MS1)				Source: R103030-01		Prepared: 03/04/11		Analyzed: 03/10/11		
Benzene	34.8	1.0	ug/l	33.3	ND	104	52.7-130		19.3	
Toluene	35.6	1.0	"	33.3	ND	107	57-127		18.7	
Ethylbenzene	36.0	1.0	"	33.3	ND	108	59.2-127		20	
m,p-Xylene	74.6	2.0	"	66.7	1.24	110	53.2-132		20	
o-Xylene	36.0	1.0	"	33.3	ND	108	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3		101	57.9-139			
Surrogate: Toluene-d8	13.8		"	13.3		103	83.1-115			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.1	80.8-120			
Matrix Spike Dup (1030406-MSD1)				Source: R103030-01		Prepared: 03/04/11		Analyzed: 03/10/11		
Benzene	34.4	1.0	ug/l	33.3	ND	103	52.7-130	1.21	19.3	
Toluene	34.3	1.0	"	33.3	ND	103	57-127	3.60	18.7	
Ethylbenzene	34.8	1.0	"	33.3	ND	104	59.2-127	3.47	20	
m,p-Xylene	70.7	2.0	"	66.7	1.24	104	53.2-132	5.42	20	
o-Xylene	34.6	1.0	"	33.3	ND	104	56.3-117	3.80	20	
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	57.9-139			
Surrogate: Toluene-d8	13.7		"	13.3		103	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		92.7	80.8-120			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
03/11/11 16:18

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 23, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 04/19/11 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS' followed by a long horizontal stroke.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW06	R104111-01	Water	04/19/11 10:00	04/19/11 17:00
MW05R	R104111-02	Water	04/19/11 10:20	04/19/11 17:00

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

R10411

Summit Scientific

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page / of

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: J. S. Smith

Project Manager:

E-Mail:

Project Name:

Project Number:

[illegible]

www.s2scientific.com

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

MW06
R104111-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/11 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1042103	04/21/11	04/22/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **04/19/11 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.4 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		100 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.9 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

MW05R
R104111-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/19/11 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1042103	04/21/11	04/22/11	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **04/19/11 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		95.0 %		57.9-139		"	"	"	"	
Surrogate: Toluene-d8		100 %		83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1042103 - EPA 5030 Water MS

Blank (1042103-BLK1)

Prepared & Analyzed: 04/21/11

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.3		109	57.9-139			
Surrogate: Toluene-d8	12.8		"	13.3		96.3	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.1		"	13.3		90.5	80.8-120			

LCS (1042103-BS1)

Prepared: 04/21/11 Analyzed: 04/22/11

Benzene	28.7	1.0	ug/l	33.3		86.2	60.1-131		10.9	
Toluene	28.9	1.0	"	33.3		86.7	65.9-127		11.3	
Ethylbenzene	30.2	1.0	"	33.3		90.7	65.1-129		20	
m,p-Xylene	57.2	2.0	"	66.7		85.8	66.8-127		20	
o-Xylene	29.7	1.0	"	33.3		89.2	61.2-120		20	
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.3		97.1	57.9-139			
Surrogate: Toluene-d8	13.4		"	13.3		100	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.3	80.8-120			

Matrix Spike (1042103-MS1)

Source: R104095-01

Prepared: 04/21/11 Analyzed: 04/22/11

Benzene	29.8	1.0	ug/l	33.3	ND	89.3	52.7-130		19.3	
Toluene	30.0	1.0	"	33.3	ND	90.1	57-127		18.7	
Ethylbenzene	31.4	1.0	"	33.3	ND	94.2	59.2-127		20	
m,p-Xylene	59.6	2.0	"	66.7	ND	89.5	53.2-132		20	
o-Xylene	31.5	1.0	"	33.3	ND	94.4	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.2	57.9-139			
Surrogate: Toluene-d8	13.5		"	13.3		101	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.3	80.8-120			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1042103 - EPA 5030 Water MS

Matrix Spike Dup (1042103-MSD1)	Source: R104095-01			Prepared: 04/21/11		Analyzed: 04/22/11				
Benzene	29.4	1.0	ug/l	33.3	ND	88.3	52.7-130	1.08	19.3	
Toluene	29.7	1.0	"	33.3	ND	89.1	57-127	1.10	18.7	
Ethylbenzene	31.9	1.0	"	33.3	ND	95.6	59.2-127	1.55	20	
m,p-Xylene	60.0	2.0	"	66.7	ND	90.0	53.2-132	0.618	20	
o-Xylene	31.5	1.0	"	33.3	ND	94.5	56.3-117	0.127	20	
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.0	57.9-139			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		92.9	80.8-120			

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC 00876
Project Manager: Brian Dodek

Reported:
04/23/11 17:23

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 15, 2011

Brian Dodek
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: PDC - Bunyan No.1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/07/11 16:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'LS' followed by a long, sweeping horizontal stroke.

Logan Shrewsbury For Ben Shrewsbury
President / Laboratory Director



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R106068-01	Water	06/07/11 12:15	06/07/11 16:55
MW02	R106068-02	Water	06/07/11 12:20	06/07/11 16:55
MW03	R106068-03	Water	06/07/11 12:25	06/07/11 16:55
MW04	R106068-04	Water	06/07/11 12:30	06/07/11 16:55
MW05	R106068-05	Water	06/07/11 12:35	06/07/11 16:55
MW06	R106068-06	Water	06/07/11 12:40	06/07/11 16:55

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

R106061

Summit Scientific

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-277-9531 Fax

Client: LT Environmental, Inc. Project Manager: Brian Dodek
Address: 4600 West 60th Avenue E-Mail: bdodek@ltenv.com
City/State/Zip: Arvada, CO 80003
Phone: (303) 433-9788 Fax: (303) 433-1432
Project Name: Bunyan No.1
Sampler Name: J. Kagan Project Number: PDC00876

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative					Matrix		Analyze For:					Special Instructions	Notes	
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	DRO	GBTEX	BTEX	Table 9.10 Full			Table 9.10 Short
M1001	6/7	1215	2	X				X										
M1002	7	1320	3	X				X										
M1003	7	1325	3	X				X										
M1004	7	1330	2	X				X										
M1005	7	1335	3	X				X										
M1006	7	1340	3	X				X										
Relinquished by: [Signature]	Date/Time: 6/7/11 1055	Received by: [Signature]	Date/Time: 6/7/11 1055	Turn Around Time (Check)				72 Hours <input checked="" type="checkbox"/>		Standard <input type="checkbox"/>		Notes:						
Relinquished by: [Signature]	Date/Time: 6/7/11 1055	Received by: [Signature]	Date/Time: 6/7/11 1055	Sample Integrity:				Temperature Upon Receipt: 5.2		Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Relinquished by: [Signature]	Date/Time: 6/7/11 1055	Received by: [Signature]	Date/Time: 6/7/11 1055															

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

MW01
R106068-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

MW02
R106068-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		100 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		89.0 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.3 %	80.8-120		"	"	"	"	

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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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

MW03
R106068-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	180	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	130	1.0	"	"	"	"	"	"	
Xylenes (total)	420	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.4 %	57.9-139		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		89.4 %	83.1-115		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

MW04
R106068-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/14/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

MW05
R106068-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/15/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.5 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	80.8-120		"	"	"	"	

Summit Scientific

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.



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

MW06
R106068-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/07/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1061302	06/13/11	06/15/11	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/07/11 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	57.9-139		"	"	"	"	
Surrogate: Toluene-d8		92.0 %	83.1-115		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %	80.8-120		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units		Level	Result	%REC	Limits	RPD	Limit

Batch 1061302 - EPA 5030 Water MS

Blank (1061302-BLK1)

Prepared: 06/13/11 Analyzed: 06/14/11

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.3		"	13.3	99.5	57.9-139				
Surrogate: Toluene-d8	11.8		"	13.3	88.3	83.1-115				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3	101	80.8-120				

LCS (1061302-BS1)

Prepared: 06/13/11 Analyzed: 06/14/11

Benzene	31.8	1.0	ug/l	33.3	95.4	60.1-131		10.9		
Toluene	29.3	1.0	"	33.3	88.0	65.9-127		11.3		
Ethylbenzene	37.4	1.0	"	33.3	112	65.1-129		20		
m,p-Xylene	72.1	2.0	"	66.7	108	66.8-127		20		
o-Xylene	36.6	1.0	"	33.3	110	61.2-120		20		
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3	99.2	57.9-139				
Surrogate: Toluene-d8	12.0		"	13.3	90.1	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3	96.3	80.8-120				

LCS Dup (1061302-BSD1)

Prepared: 06/13/11 Analyzed: 06/14/11

Benzene	30.6	1.0	ug/l	33.3	91.9	60.1-131	3.75	10.9		
Toluene	32.6	1.0	"	33.3	97.9	65.9-127	10.6	11.3		
Ethylbenzene	35.8	1.0	"	33.3	107	65.1-129	4.42	20		
m,p-Xylene	69.3	2.0	"	66.7	104	66.8-127	3.96	20		
o-Xylene	35.1	1.0	"	33.3	105	61.2-120	4.19	20		
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3	102	57.9-139				
Surrogate: Toluene-d8	13.9		"	13.3	105	83.1-115				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3	96.1	80.8-120				

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1
Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1061302 - EPA 5030 Water MS

Matrix Spike (1061302-MS1)		Source: R106068-01			Prepared: 06/13/11		Analyzed: 06/14/11			
Benzene	31.1	1.0	ug/l	33.3	ND	93.4	52.7-130		19.3	
Toluene	30.9	1.0	"	33.3	ND	92.7	57-127		18.7	
Ethylbenzene	36.3	1.0	"	33.3	ND	109	59.2-127		20	
m,p-Xylene	69.3	2.0	"	66.7	ND	104	53.2-132		20	
o-Xylene	35.7	1.0	"	33.3	ND	107	56.3-117		20	
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3		101	57.9-139			
Surrogate: Toluene-d8	12.3		"	13.3		92.2	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.0	80.8-120			
Matrix Spike Dup (1061302-MSD1)		Source: R106068-01			Prepared: 06/13/11		Analyzed: 06/14/11			
Benzene	31.3	1.0	ug/l	33.3	ND	94.0	52.7-130	0.672	19.3	
Toluene	28.7	1.0	"	33.3	ND	86.2	57-127	7.28	18.7	
Ethylbenzene	37.6	1.0	"	33.3	ND	113	59.2-127	3.52	20	
m,p-Xylene	72.3	2.0	"	66.7	ND	108	53.2-132	4.25	20	
o-Xylene	36.8	1.0	"	33.3	ND	110	56.3-117	3.12	20	
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3		101	57.9-139			
Surrogate: Toluene-d8	12.0		"	13.3		89.9	83.1-115			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.1	80.8-120			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: PDC - Bunyan No.1

Project Number: PDC00876.01
Project Manager: Brian Dodek

Reported:
06/15/11 18:30

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'JD' or similar, with a long horizontal stroke extending to the right.

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.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 25, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/19/13 18:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW02	R306140-01	Water	06/19/13 16:10	06/19/13 18:15
MW03	R306140-02	Water	06/19/13 16:00	06/19/13 18:15
MW05	R306140-03	Water	06/19/13 15:55	06/19/13 18:15
MW06	R306140-04	Water	06/19/13 15:50	06/19/13 18:15

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
06/25/13 14:47

MW02
R306140-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 16:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 16:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		107 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		61.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
06/25/13 14:47

MW03
R306140-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	30	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	16	1.0	"	"	"	"	"	"	
Xylenes (total)	94	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

MW05
R306140-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 15:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **06/19/13 15:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		106 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		98.1 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %		45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
06/25/13 14:47

MW06
R306140-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/19/13 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.3	1.0	ug/l	1	3062008	06/20/13	06/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/19/13 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3062008 - EPA 5030 Water MS

Blank (3062008-BLK1)

Prepared & Analyzed: 06/21/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.2		97.7	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	45-149			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	45-146			

LCS (3062008-BS1)

Prepared & Analyzed: 06/21/13

Benzene	24.7	1.0	ug/l	33.3		74.0	51-132			
Toluene	24.9	1.0	"	33.3		74.7	51-138			
Ethylbenzene	26.7	1.0	"	33.3		80.1	58-146			
m,p-Xylene	53.7	2.0	"	66.7		80.6	57-144			
o-Xylene	26.1	1.0	"	33.3		78.4	53-146			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.2		99.7	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.0	45-146			

Matrix Spike (3062008-MS1)

Source: R306138-06

Prepared & Analyzed: 06/21/13

Benzene	29.7	1.0	ug/l	33.3	ND	89.1	34-141			
Toluene	39.2	1.0	"	33.3	4.61	104	27-151			
Ethylbenzene	30.3	1.0	"	33.3	ND	90.8	29-160			
m,p-Xylene	65.1	2.0	"	66.7	2.49	93.9	20-166			
o-Xylene	30.2	1.0	"	33.3	ND	90.7	33-159			
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.2		96.7	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.0	45-146			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
06/25/13 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3062008 - EPA 5030 Water MS

Matrix Spike Dup (3062008-MSD1)	Source: R306138-06			Prepared & Analyzed: 06/21/13						
Benzene	30.4	1.0	ug/l	33.3	ND	91.1	34-141	2.20	32	
Toluene	44.3	1.0	"	33.3	4.61	119	27-151	12.4	25	
Ethylbenzene	30.1	1.0	"	33.3	ND	90.3	29-160	0.530	50	
m,p-Xylene	68.5	2.0	"	66.7	2.49	99.0	20-166	5.09	36	
o-Xylene	30.6	1.0	"	33.3	ND	91.9	33-159	1.25	26	
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.2		102	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.4	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9	45-146			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
06/25/13 14:47

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to read 'Daniel A. Bruns IV'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 30, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/24/13 16:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

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Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW03	R309190-01	Water	09/24/13 12:25	09/24/13 16:50
MW05R	R309190-02	Water	09/24/13 12:30	09/24/13 16:50
MW06	R309190-03	Water	09/24/13 12:35	09/24/13 16:50

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

Summit Scientific

R309190

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-374-5933 Fax

Client: PDC/Tasman Page 1 of 1
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Project Manager: Brandon Bruns
E-Mail: _____
Project Name: Bunyan #1
Project Number: _____
Sampler Name: Eric Siegel

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
MW03	9/24/13	1225	3	X	Soil		
MW05R	9/24/13	1230	1	X	Groundwater		
MW06	9/24/13	1235	1	X	Other (Specify)		
				X	Air - Canister Serial #		
				X	Other (Specify)		
				X	Soil		
				X	Groundwater		
				X	Other (Specify)		
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				X	Air - Canister Serial #		



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

MW03
R309190-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/13 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	26	1.0	ug/l	1	3092622	09/27/13	09/27/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	12	1.0	"	"	"	"	"	"	
Xylenes (total)	36	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/13 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		120 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

MW05R
R309190-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/13 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3092622	09/27/13	09/27/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/24/13 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

MW06
R309190-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/24/13 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	3092622	09/27/13	09/27/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/24/13 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		106 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		99.4 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %		45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3092622 - EPA 5030 Water MS

Blank (3092622-BLK1)

Prepared & Analyzed: 09/27/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.2		103	37-154			
Surrogate: Toluene-d8	12.5		"	13.3		93.8	45-149			
Surrogate: 4-Bromofluorobenzene	13.9		"	13.3		104	45-146			

Blank (3092622-BLK2)

Prepared & Analyzed: 09/27/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.6		"	13.2		95.4	37-154			
Surrogate: Toluene-d8	12.4		"	13.3		93.1	45-149			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106	45-146			

LCS (3092622-BS1)

Prepared & Analyzed: 09/27/13

Benzene	29.6	1.0	ug/l	33.3		88.9	51-132			
Toluene	34.8	1.0	"	33.3		104	51-138			
Ethylbenzene	40.0	1.0	"	33.3		120	58-146			
m,p-Xylene	74.7	2.0	"	66.7		112	57-144			
o-Xylene	39.5	1.0	"	33.3		119	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.2		106	37-154			
Surrogate: Toluene-d8	13.5		"	13.3		101	45-149			
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103	45-146			

LCS (3092622-BS2)

Prepared & Analyzed: 09/27/13

Benzene	30.3	1.0	ug/l	33.3		91.0	51-132			
Toluene	35.6	1.0	"	33.3		107	51-138			
Ethylbenzene	40.7	1.0	"	33.3		122	58-146			
m,p-Xylene	76.4	2.0	"	66.7		115	57-144			
o-Xylene	40.3	1.0	"	33.3		121	53-146			
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.2		105	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		100	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3092622 - EPA 5030 Water MS

LCS Dup (3092622-BSD1)

Prepared & Analyzed: 09/27/13

Benzene	30.2	1.0	ug/l	33.3	90.6	51-132	1.87	17	
Toluene	35.6	1.0	"	33.3	107	51-138	2.33	17	
Ethylbenzene	40.9	1.0	"	33.3	123	58-146	2.25	16	
m,p-Xylene	76.3	2.0	"	66.7	114	57-144	2.20	16	
o-Xylene	39.8	1.0	"	33.3	119	53-146	0.706	15	
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2	107	37-154			
Surrogate: Toluene-d8	13.6		"	13.3	102	45-149			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3	101	45-146			

LCS Dup (3092622-BSD2)

Prepared & Analyzed: 09/27/13

Benzene	30.6	1.0	ug/l	33.3	91.7	51-132	0.821	17	
Toluene	35.4	1.0	"	33.3	106	51-138	0.733	17	
Ethylbenzene	41.1	1.0	"	33.3	123	58-146	1.05	16	
m,p-Xylene	77.1	2.0	"	66.7	116	57-144	0.847	16	
o-Xylene	40.4	1.0	"	33.3	121	53-146	0.446	15	
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2	107	37-154			
Surrogate: Toluene-d8	13.5		"	13.3	101	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3	104	45-146			

Matrix Spike (3092622-MS1)

Source: R309190-01

Prepared & Analyzed: 09/27/13

Benzene	55.0	1.0	ug/l	33.3	26.0	87.0	34-141		
Toluene	35.7	1.0	"	33.3	ND	107	27-151		
Ethylbenzene	51.8	1.0	"	33.3	11.8	120	29-160		
m,p-Xylene	99.2	2.0	"	66.7	24.7	112	20-166		
o-Xylene	51.0	1.0	"	33.3	11.4	119	33-159		
Surrogate: 1,2-Dichloroethane-d4	15.7		"	13.2	118	37-154			
Surrogate: Toluene-d8	13.5		"	13.3	101	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3	102	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/30/13 15:12

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3092622 - EPA 5030 Water MS

Matrix Spike (3092622-MS2)		Source: R309190-03			Prepared & Analyzed: 09/27/13					
Benzene	30.5	1.0	ug/l	33.3	ND	91.4	34-141			
Toluene	35.5	1.0	"	33.3	ND	107	27-151			
Ethylbenzene	41.0	1.0	"	33.3	ND	123	29-160			
m,p-Xylene	76.9	2.0	"	66.7	ND	115	20-166			
o-Xylene	40.4	1.0	"	33.3	ND	121	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.2		107	37-154			
Surrogate: Toluene-d8	13.4		"	13.3		100	45-149			
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		102	45-146			

Matrix Spike Dup (3092622-MSD1)		Source: R309190-01			Prepared & Analyzed: 09/27/13					
Benzene	57.0	1.0	ug/l	33.3	26.0	93.2	34-141	3.71	32	
Toluene	36.1	1.0	"	33.3	ND	108	27-151	1.20	25	
Ethylbenzene	51.6	1.0	"	33.3	11.8	120	29-160	0.213	50	
m,p-Xylene	99.4	2.0	"	66.7	24.7	112	20-166	0.211	36	
o-Xylene	50.7	1.0	"	33.3	11.4	118	33-159	0.590	26	
Surrogate: 1,2-Dichloroethane-d4	16.2		"	13.2		122	37-154			
Surrogate: Toluene-d8	13.7		"	13.3		103	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	45-146			

Matrix Spike Dup (3092622-MSD2)		Source: R309190-03			Prepared & Analyzed: 09/27/13					
Benzene	30.6	1.0	ug/l	33.3	ND	91.9	34-141	0.458	32	
Toluene	35.5	1.0	"	33.3	ND	106	27-151	0.0845	25	
Ethylbenzene	40.1	1.0	"	33.3	ND	120	29-160	2.34	50	
m,p-Xylene	75.1	2.0	"	66.7	ND	113	20-166	2.34	36	
o-Xylene	39.4	1.0	"	33.3	ND	118	33-159	2.68	26	
Surrogate: 1,2-Dichloroethane-d4	14.2		"	13.2		108	37-154			
Surrogate: Toluene-d8	13.6		"	13.3		102	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/30/13 15:12

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to read 'Daniel A. Bruns IV'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

October 03, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/30/13 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
10/03/13 13:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R309268-01	Water	09/30/13 15:10	09/30/13 16:15

R309268

Summit Scientific

741 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9510 • 303-374-5933 Fax

Client: PDC Tushman
Address:
City/State/Zip:
Phone:
Sample Name: Eric Sigel
Project Manager: Brandon Bruns
E-Mail:
Project Name: Bunyan #1
Project Number:

Page 1 of 1

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative	Matrix	Analyze For:	Special Instructions
MW01	9/30/13	1510	3	<input checked="" type="checkbox"/> HCl <input checked="" type="checkbox"/> HNO ₃ <input checked="" type="checkbox"/> None <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Groundwater <input type="checkbox"/> Soil <input type="checkbox"/> Air - Canister Serial # _____	<input checked="" type="checkbox"/> 8260 <input checked="" type="checkbox"/> 8175X <input type="checkbox"/> Other (Specify) _____		

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
Eric A. Sigel	9/30/13	Brandon Bruns	9/30/13 1615	<input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	Temperature Upon Receipt:
				<input type="checkbox"/> Yes <input type="checkbox"/> No	3°C

www.s2scientific.com



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
10/03/13 13:49

MW01
R309268-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/30/13 15:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3100116	10/02/13	10/02/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/30/13 15:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		97.0 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
10/03/13 13:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3100116 - EPA 5030 Water MS

Blank (3100116-BLK1)

Prepared & Analyzed: 10/02/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.2	94.1	37-154				
Surrogate: Toluene-d8	14.8		"	13.3	111	45-149				
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3	102	45-146				

LCS (3100116-BS1)

Prepared & Analyzed: 10/02/13

Benzene	33.4	1.0	ug/l	33.3	100	51-132				
Toluene	34.3	1.0	"	33.3	103	51-138				
Ethylbenzene	32.0	1.0	"	33.3	96.2	58-146				
m,p-Xylene	66.3	2.0	"	66.7	99.5	57-144				
o-Xylene	32.7	1.0	"	33.3	98.2	53-146				
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.2	97.9	37-154				
Surrogate: Toluene-d8	13.3		"	13.3	99.9	45-149				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3	101	45-146				

LCS Dup (3100116-BSD1)

Prepared & Analyzed: 10/02/13

Benzene	34.4	1.0	ug/l	33.3	103	51-132	2.92	17		
Toluene	35.2	1.0	"	33.3	106	51-138	2.53	17		
Ethylbenzene	32.6	1.0	"	33.3	98.0	58-146	1.85	16		
m,p-Xylene	67.8	2.0	"	66.7	102	57-144	2.18	16		
o-Xylene	33.6	1.0	"	33.3	101	53-146	2.80	15		
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.2	98.8	37-154				
Surrogate: Toluene-d8	13.2		"	13.3	99.3	45-149				
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3	102	45-146				

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
10/03/13 13:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3100116 - EPA 5030 Water MS

Matrix Spike (3100116-MS1)		Source: R309266-01			Prepared & Analyzed: 10/02/13					
Benzene	34.1	1.0	ug/l	33.3	ND	102	34-141			
Toluene	35.3	1.0	"	33.3	ND	106	27-151			
Ethylbenzene	32.8	1.0	"	33.3	ND	98.5	29-160			
m,p-Xylene	68.4	2.0	"	66.7	ND	103	20-166			
o-Xylene	33.5	1.0	"	33.3	ND	100	33-159			
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.2		96.7	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		99.1	45-149			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	45-146			
<hr/>										
Matrix Spike Dup (3100116-MSD1)		Source: R309266-01			Prepared & Analyzed: 10/02/13					
Benzene	34.4	1.0	ug/l	33.3	ND	103	34-141	0.817	32	
Toluene	35.2	1.0	"	33.3	ND	106	27-151	0.312	25	
Ethylbenzene	32.8	1.0	"	33.3	ND	98.5	29-160	0.0305	50	
m,p-Xylene	67.8	2.0	"	66.7	ND	102	20-166	0.910	36	
o-Xylene	33.4	1.0	"	33.3	ND	100	33-159	0.269	26	
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.2		98.5	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		99.3	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.4	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
10/03/13 13:49

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to read 'Daniel A. Bruns IV'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 26, 2013

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/19/13 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS' with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/26/13 19:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R312132-01	Water	12/19/13 15:00	12/19/13 16:00
MW03	R312132-02	Water	12/19/13 15:00	12/19/13 16:00
MW05R	R312132-03	Water	12/19/13 15:00	12/19/13 16:00
MW06	R312132-04	Water	12/19/13 15:00	12/19/13 16:00

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

MW01
R312132-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

MW03
R312132-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	27	1.0		ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	6.0	1.0		"	"	"	"	"	"	
Xylenes (total)	15	1.0		"	"	"	"	"	"	

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		120 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %		45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

MW05R
R312132-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		109 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		97.2 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %		45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

MW06
R312132-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	3122007	12/23/13	12/23/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 12/19/13 15:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		112 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		97.2 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/26/13 19:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 3122007 - EPA 5030 Water MS

Blank (3122007-BLK1)

Prepared: 12/20/13 Analyzed: 12/21/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.7		"	13.2	111		37-154			
Surrogate: Toluene-d8	13.2		"	13.3	99.1		45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3	102		45-146			

LCS (3122007-BS1)

Prepared: 12/20/13 Analyzed: 12/21/13

Benzene	32.9	1.0	ug/l	33.3	98.6		51-132			
Toluene	33.1	1.0	"	33.3	99.4		51-138			
Ethylbenzene	33.8	1.0	"	33.3	101		58-146			
m,p-Xylene	64.7	2.0	"	66.7	97.1		57-144			
o-Xylene	31.9	1.0	"	33.3	95.8		53-146			
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.2	112		37-154			
Surrogate: Toluene-d8	13.2		"	13.3	98.9		45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3	101		45-146			

LCS (3122007-BS2)

Prepared: 12/20/13 Analyzed: 12/21/13

Benzene	32.2	1.0	ug/l	33.3	96.7		51-132			
Toluene	33.4	1.0	"	33.3	100		51-138			
Ethylbenzene	33.6	1.0	"	33.3	101		58-146			
m,p-Xylene	64.7	2.0	"	66.7	97.0		57-144			
o-Xylene	31.2	1.0	"	33.3	93.6		53-146			
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.2	113		37-154			
Surrogate: Toluene-d8	13.2		"	13.3	98.7		45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3	98.4		45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/26/13 19:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3122007 - EPA 5030 Water MS

Matrix Spike (3122007-MS1)		Source: R312119-01			Prepared: 12/20/13		Analyzed: 12/21/13			
Benzene	32.5	1.0	ug/l	33.3	1.52	92.9	34-141			
Toluene	32.9	1.0	"	33.3	ND	98.7	27-151			
Ethylbenzene	33.3	1.0	"	33.3	ND	99.9	29-160			
m,p-Xylene	64.2	2.0	"	66.7	1.08	94.7	20-166			
o-Xylene	30.8	1.0	"	33.3	ND	92.5	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.2		110	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.6	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			
Matrix Spike (3122007-MS2)		Source: R312119-02			Prepared: 12/20/13		Analyzed: 12/21/13			
Benzene	673	1.0	ug/l	33.3	552	363	34-141			QM-07
Toluene	34.7	1.0	"	33.3	ND	104	27-151			
Ethylbenzene	34.8	1.0	"	33.3	1.42	100	29-160			
m,p-Xylene	124	2.0	"	66.7	102	32.4	20-166			
o-Xylene	37.6	1.0	"	33.3	7.95	88.9	33-159			
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.2		113	37-154			
Surrogate: Toluene-d8	13.6		"	13.3		102	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146			
Matrix Spike Dup (3122007-MSD1)		Source: R312119-01			Prepared: 12/20/13		Analyzed: 12/21/13			
Benzene	32.4	1.0	ug/l	33.3	1.52	92.6	34-141	0.277	32	
Toluene	32.6	1.0	"	33.3	ND	97.7	27-151	1.01	25	
Ethylbenzene	34.0	1.0	"	33.3	ND	102	29-160	1.96	50	
m,p-Xylene	66.1	2.0	"	66.7	1.08	97.6	20-166	2.91	36	
o-Xylene	31.7	1.0	"	33.3	ND	95.2	33-159	2.91	26	
Surrogate: 1,2-Dichloroethane-d4	15.5		"	13.2		117	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		98.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/26/13 19:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 3122007 - EPA 5030 Water MS

Matrix Spike Dup (3122007-MSD2)	Source: R312119-02			Prepared: 12/20/13		Analyzed: 12/21/13				
Benzene	604	1.0	ug/l	33.3	552	157	34-141	10.7	32	QM-07
Toluene	32.9	1.0	"	33.3	ND	98.8	27-151	5.18	25	
Ethylbenzene	34.7	1.0	"	33.3	1.42	99.8	29-160	0.345	50	
m,p-Xylene	124	2.0	"	66.7	102	32.8	20-166	0.194	36	
o-Xylene	36.6	1.0	"	33.3	7.95	85.9	33-159	2.67	26	
Surrogate: 1,2-Dichloroethane-d4	15.5		"	13.2		117	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.7		"	13.3		103	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/26/13 19:51

Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.

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

RPD Relative Percent Difference

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 24, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/14/14 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS' with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1403109-01	Water	03/13/14 15:20	03/14/14 17:15
MW03	1403109-02	Water	03/13/14 15:30	03/14/14 17:15
MW05R	1403109-03	Water	03/13/14 15:40	03/14/14 17:15
MW06	1403109-04	Water	03/13/14 15:50	03/14/14 17:15

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/24/14 12:50

1403109

Summit Scientific

S₂

741 Corporate Circle, Suite J&K • Golden, Colorado 80401
303-277-9510 • 303-374-5933

Client: McLennan Page 1 of 1

Address: _____ Project Manager: Brandon Bruns

City/State/Zip: _____ E-Mail: _____

Phone: _____ Project Name: Bunyan #1

Fax: _____ Project Number: _____

Sampler Name: Eric Siegel

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested	Special Instructions
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air-Canister #		
1	Mud 1	3/13/14	1520	3			X		X				
2	Mud 2		1530										
3	Mud 3		1540										
4	Mud 4		1550										
5													
6													
7													
8													
9													
10													

Relinquished by: Eric Siegel Date/Time: 3/14/14 Received by: MD Date/Time: 3/14/14 175

Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

Turn Around Time (Check): Same Day ☐ 72 hours ☐ 24 hours ☐ 48 hours ☒ Standard

Sample Integrity: Temperature Upon Receipt: 0°C Intact: Yes No ☐

Notes:

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Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

MW01
1403109-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		85.5 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

MW03
1403109-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	9.1	1.0		ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	1.0	1.0		"	"	"	"	"	"	
Xylenes (total)	4.4	1.0		"	"	"	"	"	"	

Date Sampled: **03/13/14 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		88.0 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		97.8 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %		45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

MW05R
1403109-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		87.5 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.1 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.8 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

MW06
1403109-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/13/14 15:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1403163	03/20/14	03/20/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/13/14 15:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		88.9 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/24/14 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1403163 - EPA 5030 Water MS

Blank (1403163-BLK1)

Prepared & Analyzed: 03/20/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.7		"	13.2		88.5	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	45-146			

LCS (1403163-BS1)

Prepared & Analyzed: 03/20/14

Benzene	32.3	1.0	ug/l	33.3		96.9	51-132			
Toluene	34.9	1.0	"	33.3		105	51-138			
Ethylbenzene	34.2	1.0	"	33.3		102	58-146			
m,p-Xylene	69.1	2.0	"	66.7		104	57-144			
o-Xylene	33.7	1.0	"	33.3		101	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.5		"	13.2		86.8	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.6	45-149			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.8	45-146			

LCS (1403163-BS2)

Prepared & Analyzed: 03/20/14

Benzene	31.9	1.0	ug/l	33.3		95.6	51-132			
Toluene	34.6	1.0	"	33.3		104	51-138			
Ethylbenzene	34.5	1.0	"	33.3		104	58-146			
m,p-Xylene	69.6	2.0	"	66.7		104	57-144			
o-Xylene	34.0	1.0	"	33.3		102	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.2		86.1	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.1	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/24/14 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1403163 - EPA 5030 Water MS

Matrix Spike (1403163-MS1)		Source: 1403109-01			Prepared & Analyzed: 03/20/14					
Benzene	31.6	1.0	ug/l	33.3	ND	94.8	34-141			
Toluene	34.8	1.0	"	33.3	ND	104	27-151			
Ethylbenzene	34.7	1.0	"	33.3	ND	104	29-160			
m,p-Xylene	71.0	2.0	"	66.7	ND	106	20-166			
o-Xylene	34.4	1.0	"	33.3	ND	103	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.7	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.3	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.6	45-146			

Matrix Spike (1403163-MS2)		Source: 1403109-03			Prepared & Analyzed: 03/20/14					
Benzene	41.6	1.0	ug/l	33.3	ND	125	34-141			
Toluene	35.2	1.0	"	33.3	ND	106	27-151			
Ethylbenzene	35.9	1.0	"	33.3	ND	108	29-160			
m,p-Xylene	75.2	2.0	"	66.7	ND	113	20-166			
o-Xylene	34.5	1.0	"	33.3	ND	104	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.2		85.4	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.4	45-149			
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.0	45-146			

Matrix Spike Dup (1403163-MSD1)		Source: 1403109-01			Prepared & Analyzed: 03/20/14					
Benzene	32.8	1.0	ug/l	33.3	ND	98.3	34-141	3.57	32	
Toluene	35.8	1.0	"	33.3	ND	107	27-151	2.89	25	
Ethylbenzene	35.4	1.0	"	33.3	ND	106	29-160	2.20	50	
m,p-Xylene	71.0	2.0	"	66.7	ND	106	20-166	0.0141	36	
o-Xylene	34.2	1.0	"	33.3	ND	103	33-159	0.554	26	
Surrogate: 1,2-Dichloroethane-d4	11.6		"	13.2		87.8	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	45-149			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		97.1	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/24/14 12:50

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1403163 - EPA 5030 Water MS

Matrix Spike Dup (1403163-MSD2)		Source: 1403109-03			Prepared & Analyzed: 03/20/14					
Benzene	41.8	1.0	ug/l	33.3	ND	125	34-141	0.599	32	
Toluene	35.4	1.0	"	33.3	ND	106	27-151	0.510	25	
Ethylbenzene	36.0	1.0	"	33.3	ND	108	29-160	0.111	50	
m,p-Xylene	75.5	2.0	"	66.7	ND	113	20-166	0.385	36	
o-Xylene	34.7	1.0	"	33.3	ND	104	33-159	0.491	26	
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.3	37-154			
Surrogate: Toluene-d8	13.2		"	13.3		99.2	45-149			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.6	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/24/14 12:50

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to be 'JMM'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 07, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 06/27/14 09:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to be 'BS' or 'Ben Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1406214-01	Water	06/25/14 14:10	06/27/14 09:00
MW03	1406214-02	Water	06/25/14 14:20	06/27/14 09:00
MW05R	1406214-03	Water	06/25/14 14:25	06/27/14 09:00
MW06	1406214-04	Water	06/25/14 14:30	06/27/14 09:00

Summit Scientific

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.

PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

Summit Scientific

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

PDC/Tasman

Client:

Address:

City/State/

Phone:

Sampler No.

Project Manager: Brandon Bruns

E-Mail: brandon.bruno@ndc.comProject Name: Ruvun 31

Project Number: 07-08-001

[illegible]

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Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

MW01
1406214-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **06/25/14 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		109 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		98.3 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

MW03
1406214-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	3.2	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		107 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

MW05R
1406214-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.6 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

MW06
1406214-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/14 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1406248	07/01/14	07/01/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **06/25/14 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		124 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
07/07/14 12:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1406248 - EPA 5030 Water MS

Blank (1406248-BLK1)

Prepared & Analyzed: 07/01/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.2	111		37-154			
Surrogate: Toluene-d8	13.2		"	13.3	99.2		45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3	103		45-146			

LCS (1406248-BS1)

Prepared & Analyzed: 07/01/14

Benzene	41.1	1.0	ug/l	33.3	123		51-132			
Toluene	39.6	1.0	"	33.3	119		51-138			
Ethylbenzene	41.6	1.0	"	33.1	126		58-146			
m,p-Xylene	81.0	2.0	"	66.5	122		57-144			
o-Xylene	39.7	1.0	"	32.8	121		53-146			
Surrogate: 1,2-Dichloroethane-d4	14.9		"	13.2	113		37-154			
Surrogate: Toluene-d8	13.5		"	13.3	101		45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3	98.3		45-146			

Matrix Spike (1406248-MS1)

Source: 1406214-01

Prepared & Analyzed: 07/01/14

Benzene	40.9	1.0	ug/l	33.3	ND	123	34-141			
Toluene	39.1	1.0	"	33.3	ND	117	27-151			
Ethylbenzene	41.3	1.0	"	33.1	ND	125	29-160			
m,p-Xylene	81.5	2.0	"	66.5	ND	122	20-166			
o-Xylene	39.8	1.0	"	32.8	ND	121	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.2		110	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.2	45-146			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
07/07/14 12:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1406248 - EPA 5030 Water MS

Matrix Spike Dup (1406248-MSD1)	Source: 1406214-01			Prepared & Analyzed: 07/01/14						
Benzene	41.1	1.0	ug/l	33.3	ND	123	34-141	0.561	32	
Toluene	39.1	1.0	"	33.3	ND	117	27-151	0.0767	25	
Ethylbenzene	41.6	1.0	"	33.1	ND	126	29-160	0.699	50	
m,p-Xylene	80.4	2.0	"	66.5	ND	121	20-166	1.40	36	
o-Xylene	40.0	1.0	"	32.8	ND	122	33-159	0.527	26	
Surrogate: 1,2-Dichloroethane-d4	14.9		"	13.2		113	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.7	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
07/07/14 12:43

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
RPD Relative Percent Difference

A handwritten signature in black ink, appearing to be 'JMM'.

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 15, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 09/11/14 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ben Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
President / Laboratory Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1409074-01	Water	09/10/14 12:00	09/11/14 17:00
MW03	1409074-02	Water	09/10/14 12:02	09/11/14 17:00
MW05R	1409074-03	Water	09/10/14 12:04	09/11/14 17:00
MW06	1409074-04	Water	09/10/14 12:06	09/11/14 17:00

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

Summit Scientific 1409074

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: Tasman Geosciences / PDC Project Manager: Brandon Bruns
Address: 6899 Pecos Street E-Mail:
City/State/Zip: Denver, CO 80221
Phone: 303-487-1228 Fax: Project Name: Bunyan #1
Sampler Name: Brad Marguerite Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	8260 GBTEXN	8015 DRO	8260 BTEX		
1	MW01	9/10/14	1200	3	X				X								
2	MW02	9/10/14	1202	3	X				X								
3	MW05R	9/10/14	1204	3	X				X								
4	MW06	9/10/14	1206	3	X				X								
5																	
6																	
7																	
8																	
9																	
10																	

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
	9/11/14		9/11/14 1700	Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours <input type="checkbox"/>	
				Sample Integrity:	
				Temperature Upon Receipt:	3°C
				Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

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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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/15/14 12:32

MW01
1409074-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/10/14 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		118 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		98.3 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %		45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/15/14 12:32

MW03
1409074-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	4.3	1.0	ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/10/14 12:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		119 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/15/14 12:32

MW05R
1409074-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **09/10/14 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		120 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		97.3 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
09/15/14 12:32

MW06
1409074-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/10/14 12:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1409105	09/12/14	09/12/14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **09/10/14 12:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		122 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1409105 - EPA 5030 Water MS

Blank (1409105-BLK1)

Prepared & Analyzed: 09/12/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	16.1		"	13.2		122	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.0	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.1	45-146			

LCS (1409105-BS1)

Prepared & Analyzed: 09/12/14

Benzene	48.1	1.0	ug/l	50.0		96.3	51-132			
Toluene	52.1	1.0	"	50.0		104	51-138			
Ethylbenzene	49.4	1.0	"	50.0		98.7	58-146			
m,p-Xylene	97.2	2.0	"	100		97.2	57-144			
o-Xylene	49.6	1.0	"	50.0		99.3	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.2		108	37-154			
Surrogate: Toluene-d8	14.0		"	13.3		105	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.7	45-146			

Matrix Spike (1409105-MS1)

Source: 1409076-01

Prepared & Analyzed: 09/12/14

Benzene	51.4	1.0	ug/l	50.0	ND	103	34-141			
Toluene	52.6	1.0	"	50.0	ND	105	27-151			
Ethylbenzene	52.0	1.0	"	50.0	ND	104	29-160			
m,p-Xylene	102	2.0	"	100	ND	102	20-166			
o-Xylene	52.7	1.0	"	50.0	ND	105	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.2		105	37-154			
Surrogate: Toluene-d8	13.8		"	13.3		103	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.6	45-146			

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1409105 - EPA 5030 Water MS

Matrix Spike Dup (1409105-MSD1)	Source: 1409076-01			Prepared & Analyzed: 09/12/14						
Benzene	50.6	1.0	ug/l	50.0	ND	101	34-141	1.61	32	
Toluene	64.0	1.0	"	50.0	ND	128	27-151	19.4	25	
Ethylbenzene	50.2	1.0	"	50.0	ND	100	29-160	3.45	50	
m,p-Xylene	98.9	2.0	"	100	ND	98.9	20-166	3.21	36	
o-Xylene	51.1	1.0	"	50.0	ND	102	33-159	2.99	26	
Surrogate: 1,2-Dichloroethane-d4	15.9		"	13.2		120	37-154			
Surrogate: Toluene-d8	17.2		"	13.3		129	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
09/15/14 12:32

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
RPD Relative Percent Difference

Summit Scientific

A handwritten signature in black ink, appearing to be 'B. Bruns'.

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.

Summit Scientific

741 Corporate Circle – Suite J ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.374.5933 - fax

December 13, 2014

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 12/04/14 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph J. Egry IV". The signature is fluid and cursive, with a small "IV" superscripted at the end.

Joseph J Egry IV For Paul Shrewsbury
President

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Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1412035-01	Water	12/04/14 09:45	12/04/14 16:00
MW03	1412035-02	Water	12/04/14 09:40	12/04/14 16:00
MW05R	1412035-03	Water	12/04/14 09:35	12/04/14 16:00
MW06	1412035-04	Water	12/04/14 09:30	12/04/14 16:00

Summit Scientific

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.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Summit Scientific ¹⁴¹²⁰³⁵ S₂

741 Corporate Circle, Suite J&K ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933

Page 1 of 1

Client: PDC/Tasman Project Manager: Brandon Bruns
Address: _____ E-Mail: _____
City/State/Zip: _____
Phone: _____ Fax: _____ Project Name: Bunyan 1
Sampler Name: Eric Siegel Project Number: _____

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	BTEX			
1	MW01	12/4/14	945	2	X				X			X				
2	MW03	↓	940	3	↓				↓			↓				
3	MW05R	↓	935	↓	↓				↓			↓				
4	MW06	↓	930	↓	↓				↓			↓				
5																
6																
7																
8																
9																
10																

Relinquished by: <u>Eric A. Siegel</u>	Date/Time: <u>12/4/14 16:00</u>	Received by: <u>[Signature]</u>	Date/Time: <u>12/4/14 16:00</u>	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>4.2</u> Intact: Yes No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

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Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

Summit Scientific

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.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Sample Receipt Checklist

S2 Work Order: 1412035

Client: POC TASHMAN Client Project ID: BUNYAN 1

Shipped Via: HAND Airbill #:
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: (Describe)

Cooler ID	<u>1</u>				
Temp (°C)	<u>4.2°C</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input checked="" type="checkbox"/>			<u>HCl</u>
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, etc.				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Joseph J Egry IV
Custodian Printed Name

Joseph J Egry IV
Signature or Initials of Custodian

12/13/14
Date/Time

Soil samples reported on a wet-weight basis unless otherwise indicated on results page.

Summit Scientific

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.

Joseph J Egry IV

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

MW01
1412035-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 14:14	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	106 %	37-154			"	"	"	"	
Surrogate: Toluene-d8	93.8 %	45-149			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	96.3 %	45-146			"	"	"	"	

Summit Scientific

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.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
12/13/14 08:18

MW03
1412035-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 14:38	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	108 %	37-154			"	"	"	"	
Surrogate: Toluene-d8	92.2 %	45-149			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	94.7 %	45-146			"	"	"	"	

Summit Scientific

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.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

MW05R
1412035-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 15:03	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	106 %	37-154			"	"	"	"	
Surrogate: Toluene-d8	93.5 %	45-149			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.0 %	45-146			"	"	"	"	

Summit Scientific

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.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

MW06
1412035-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/04/14 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1412058	12/10/14	12/10/14 15:27	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **12/04/14 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	109 %	37-154			"	"	"	"	
Surrogate: Toluene-d8	92.2 %	45-149			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	96.0 %	45-146			"	"	"	"	

Summit Scientific

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.

Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1412058 - EPA 5030 Water MS

Blank (1412058-BLK1)

Prepared & Analyzed: 12/06/14

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.2		105	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.0	45-149			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	45-146			

LCS (1412058-BS1)

Prepared & Analyzed: 12/06/14

Benzene	30.3	1.0	ug/l	33.3		90.8	51-132			
Toluene	29.5	1.0	"	33.3		88.6	51-138			
Ethylbenzene	31.5	1.0	"	33.1		95.2	58-146			
m,p-Xylene	61.4	2.0	"	66.5		92.2	57-144			
o-Xylene	31.8	1.0	"	32.8		97.1	53-146			
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.2		105	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.3	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	45-146			

LCS (1412058-BS2)

Prepared & Analyzed: 12/06/14

Benzene	30.7	1.0	ug/l	33.3		92.2	51-132			
Toluene	30.2	1.0	"	33.3		90.5	51-138			
Ethylbenzene	31.7	1.0	"	33.1		96.0	58-146			
m,p-Xylene	61.8	2.0	"	66.5		92.9	57-144			
o-Xylene	32.3	1.0	"	32.8		98.4	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.2		106	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	45-149			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	45-146			

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1412058 - EPA 5030 Water MS

Matrix Spike (1412058-MS1)		Source: 1412021-01			Prepared & Analyzed: 12/06/14					
Benzene	31.1	1.0	ug/l	33.3	ND	93.2	34-141			
Toluene	29.4	1.0	"	33.3	ND	88.1	27-151			
Ethylbenzene	32.1	1.0	"	33.1	ND	97.2	29-160			
m,p-Xylene	62.7	2.0	"	66.5	ND	94.3	20-166			
o-Xylene	32.7	1.0	"	32.8	ND	99.6	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.2		108	37-154			
Surrogate: Toluene-d8	13.1		"	13.3		98.1	45-149			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		92.9	45-146			

Matrix Spike (1412058-MS2)		Source: 1412021-02			Prepared & Analyzed: 12/06/14					
Benzene	30.2	1.0	ug/l	33.3	ND	90.7	34-141			
Toluene	29.2	1.0	"	33.3	ND	87.5	27-151			
Ethylbenzene	32.4	1.0	"	33.1	ND	98.0	29-160			
m,p-Xylene	63.3	2.0	"	66.5	ND	95.2	20-166			
o-Xylene	32.9	1.0	"	32.8	ND	100	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.2		"	13.2		107	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.0	45-149			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		93.8	45-146			

Matrix Spike Dup (1412058-MSD1)		Source: 1412021-01			Prepared & Analyzed: 12/06/14					
Benzene	31.0	1.0	ug/l	33.3	ND	93.2	34-141	0.0966	32	
Toluene	29.7	1.0	"	33.3	ND	89.2	27-151	1.22	25	
Ethylbenzene	31.9	1.0	"	33.1	ND	96.6	29-160	0.624	50	
m,p-Xylene	62.3	2.0	"	66.5	ND	93.6	20-166	0.704	36	
o-Xylene	32.7	1.0	"	32.8	ND	99.8	33-159	0.184	26	
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.2		109	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	45-149			
Surrogate: 4-Bromofluorobenzene	12.3		"	13.3		92.5	45-146			

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1412058 - EPA 5030 Water MS

Matrix Spike Dup (1412058-MSD2)	Source: 1412021-02			Prepared & Analyzed: 12/06/14						
Benzene	30.1	1.0	ug/l	33.3	ND	90.4	34-141	0.265	32	
Toluene	28.1	1.0	"	33.3	ND	84.3	27-151	3.74	25	
Ethylbenzene	31.7	1.0	"	33.1	ND	95.7	29-160	2.37	50	
m,p-Xylene	62.2	2.0	"	66.5	ND	93.6	20-166	1.70	36	
o-Xylene	32.3	1.0	"	32.8	ND	98.4	33-159	1.96	26	
Surrogate: 1,2-Dichloroethane-d4	14.3		"	13.2		108	37-154			
Surrogate: Toluene-d8	12.6		"	13.3		94.7	45-149			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		93.6	45-146			

Summit Scientific

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Joseph J Egry IV For Paul Shrewsbury, President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
12/13/14 08:18

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
RPD	Relative Percent Difference

Summit Scientific

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A handwritten signature in black ink, appearing to read 'Joseph J Egry IV'.

Joseph J Egry IV For Paul Shrewsbury, President

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 23, 2015

Brandon Bruns
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Bunyan #1

Enclosed are the results of analyses for samples received by Summit Scientific on 03/17/15 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, flowing script.

Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/23/15 16:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	1503149-01	Water	03/17/15 14:10	03/17/15 17:55
MW03	1503149-02	Water	03/17/15 14:12	03/17/15 17:55
MW05R	1503149-03	Water	03/17/15 14:15	03/17/15 17:55
MW06	1503149-04	Water	03/17/15 14:14	03/17/15 17:55

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/23/15 16:36

Sample Receipt Checklist

S2 Work Order: 1503149

Client: PDC

Client Project ID: Bunyan 1

Shipped Via: Pick Up
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: _____
(Describe)

Cooler ID	<u>1</u>				
Temp (°C)	<u>7.1</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input checked="" type="checkbox"/>			<u>HCS</u>
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, etc.				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Joseph J Eary
Custodian Printed Name

[Signature]
Signature or Initials of Custodian

3/18/15
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/23/15 16:36

MW01
1503149-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		85.4 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/23/15 16:36

MW03
1503149-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	2.0	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		85.0 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		94.5 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/23/15 16:36

MW05R
1503149-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		83.9 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		95.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	45-146		"	"	"	"	

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/23/15 16:36

MW06
1503149-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/17/15 14:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1503241	03/20/15	03/20/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/17/15 14:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		92.6 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	45-146		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/23/15 16:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1503241 - EPA 5030 Water MS

Blank (1503241-BLK1)

Prepared & Analyzed: 03/20/15

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.5	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	45-149			
Surrogate: 4-Bromofluorobenzene	14.8		"	13.3		111	45-146			

LCS (1503241-BS1)

Prepared & Analyzed: 03/20/15

Benzene	31.0	1.0	ug/l	33.3		93.0	51-132			
Toluene	29.9	1.0	"	33.3		89.7	51-138			
Ethylbenzene	32.5	1.0	"	33.1		98.3	58-146			
m,p-Xylene	70.8	2.0	"	66.5		106	57-144			
o-Xylene	32.2	1.0	"	32.8		98.1	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.4		"	13.2		86.3	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.3	45-149			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106	45-146			

Matrix Spike (1503241-MS1)

Source: 1503149-01

Prepared & Analyzed: 03/20/15

Benzene	30.8	1.0	ug/l	33.3	ND	92.4	34-141			
Toluene	29.3	1.0	"	33.3	ND	87.9	27-151			
Ethylbenzene	31.7	1.0	"	33.1	ND	95.9	29-160			
m,p-Xylene	67.7	2.0	"	66.5	ND	102	20-166			
o-Xylene	31.0	1.0	"	32.8	ND	94.4	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.5		"	13.2		87.1	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		95.9	45-149			
Surrogate: 4-Bromofluorobenzene	14.2		"	13.3		106	45-146			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Brunns

Reported:
03/23/15 16:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1503241 - EPA 5030 Water MS

Matrix Spike Dup (1503241-MSD1)	Source: 1503149-01			Prepared & Analyzed: 03/20/15						
Benzene	31.6	1.0	ug/l	33.3	ND	94.9	34-141	2.63	32	
Toluene	29.9	1.0	"	33.3	ND	89.7	27-151	2.03	25	
Ethylbenzene	31.6	1.0	"	33.1	ND	95.4	29-160	0.474	50	
m,p-Xylene	68.2	2.0	"	66.5	ND	102	20-166	0.707	36	
o-Xylene	31.7	1.0	"	32.8	ND	96.6	33-159	2.33	26	
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.2		94.1	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.0	45-149			
Surrogate: 4-Bromofluorobenzene	14.3		"	13.3		107	45-146			

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bunyan #1
Project Number: [none]
Project Manager: Brandon Bruns

Reported:
03/23/15 16:36

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
RPD Relative Percent Difference

Summit Scientific

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A handwritten signature in black ink, appearing to be 'MSM'.