



### SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 96850	4. Contact Name: Micheal J. Gardner	Complete the Attachment Checklist OP OGCC
2. Name of Operator: Williams Production RMT Company	Phone: 970-263-2760	
3. Address: 1058 County Rd 215 City: Parachute State: CO Zip: 81635	Fax: 970-263-5313	
5. API Number: 05-103-10940	OGCC Facility ID Number: 316598	Survey Plat
6. Well/Facility Name: Federal RGL	7. Well/Facility Number: 31-34-198	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Mer): NWNE 34 T15 R98W 6th PM		Surface Eqpt Diagram
9. County: Rio Blanco # 103	10. Field Name: Sulphur Creek - 80090	Technical Info Page
11. Federal, Indian or State Lease Number: COC 62052		Other

### General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface rights is substantive and requires a new permit)							
Change of Surface Footage from Exterior Section Lines:	<table border="1"> <tr> <td>FWL/FSL</td> <td>FWL/FSL</td> <td>FWL/FSL</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	FWL/FSL	FWL/FSL	FWL/FSL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FWL/FSL	FWL/FSL	FWL/FSL					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>						
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>						
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> attach directional survey						
Bottomhole location Qtr/Sec, Twp, Rng, Mer							
Latitude	Distance to nearest property line						
Longitude	Distance to nearest bldg, public rd, utility or RR						
Ground Elevation	Distance to nearest lease line						
	Is location in a High Density Area (rule 603b)? Yes/No						
	Distance to nearest well same formation						
	Surface owner consultation date:						
GPS DATA:							
Date of Measurement	PDOP Reading						
	Instrument Operator's Name						
<input type="checkbox"/> CHANGE SPACING UNIT	<input type="checkbox"/> Remove from surface bond						
Formation	Formation Code						
Spacing order number	Unit Acreage						
	Unit configuration						
Signed surface use agreement attached							
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	<input type="checkbox"/> CHANGE WELL NAME						
Effective Date:	NUMBER						
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	From:						
	To:						
	Effective Date:						
<input type="checkbox"/> ABANDONED LOCATION:	<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS						
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date well shut in or temporarily abandoned:						
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Date Ready for Inspection:	MIT required if shut in longer than two years. Date of last MIT						
<input type="checkbox"/> SPUD DATE:	<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (8 mos from date casing set)						
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK							
Method used	Cementing tool setting/part depth						
Cement volume	Cement top						
Cement bottom	Date						
*submit cbi and cement job summaries							
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.							
Final reclamation will commence on approximately							
<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.							

### Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Report of Work Done
Approximate Start Date:	Date Work Completed:
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)	
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Background
	<input type="checkbox"/> E&P Waste Disposal
	<input type="checkbox"/> Beneficial Reuse of E&P Waste
	<input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Michael J. Gardner Date: 12-17-10 Email: michael.gardner@williams.com  
Print Name: Michael J. Gardner Title: Sr. Environmental Specialist

OGCC Approved: Chris Canfield Title: for Chris Canfield Date: 12/23/2010  
CONDITIONS OF APPROVAL, IF ANY:

EPS NW Region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number:	96850	API Number:	05-103-10940
2. Name of Operator:	Williams Production RMT Company OGCC Facility ID #		
3. Well/Facility Name:	Federal RGU	Well/Facility Number:	31-34-198
4. Location (QtrQtr, Sec, Twp, Rng, Meridian):	NWNE Sec 34 T1S R98W 6th PM		

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

This COGCC Form 4 is being submitted as a request to meet the background concentration levels for arsenic at the Federal RGU 31-34-198 well pad for closure of the pit at the specified facility in accordance with footnote 1 to the COGCC Table 910-1. The Sundry Notice request corresponds to the PT3011 reserve pit closure.

The request is based on the analytical results presented below.

One (1) composite grab sample was collected from within the pit footprint to ascertain the Arsenic concentration at the facility. This sample location is shown on the attached map.

SO\_RGU\_PT3011\_RECLAIM - 4.6 mg/kg

Three (3) grab samples were collected from locations adjacent to the Federal RGU 31-34-198 well pad to ascertain the native arsenic concentration in the vicinity of the facility. These samples were collected from the near surface (0-12 inches below ground surface) locations shown on the attached map. The three grab samples were designated as follows:

SO\_RGU\_31\_34\_198\_BACKGROUND  
SO\_RGU\_41\_34\_198\_BACKGROUND  
SO\_RGU\_32\_34\_198\_BACKGROUND

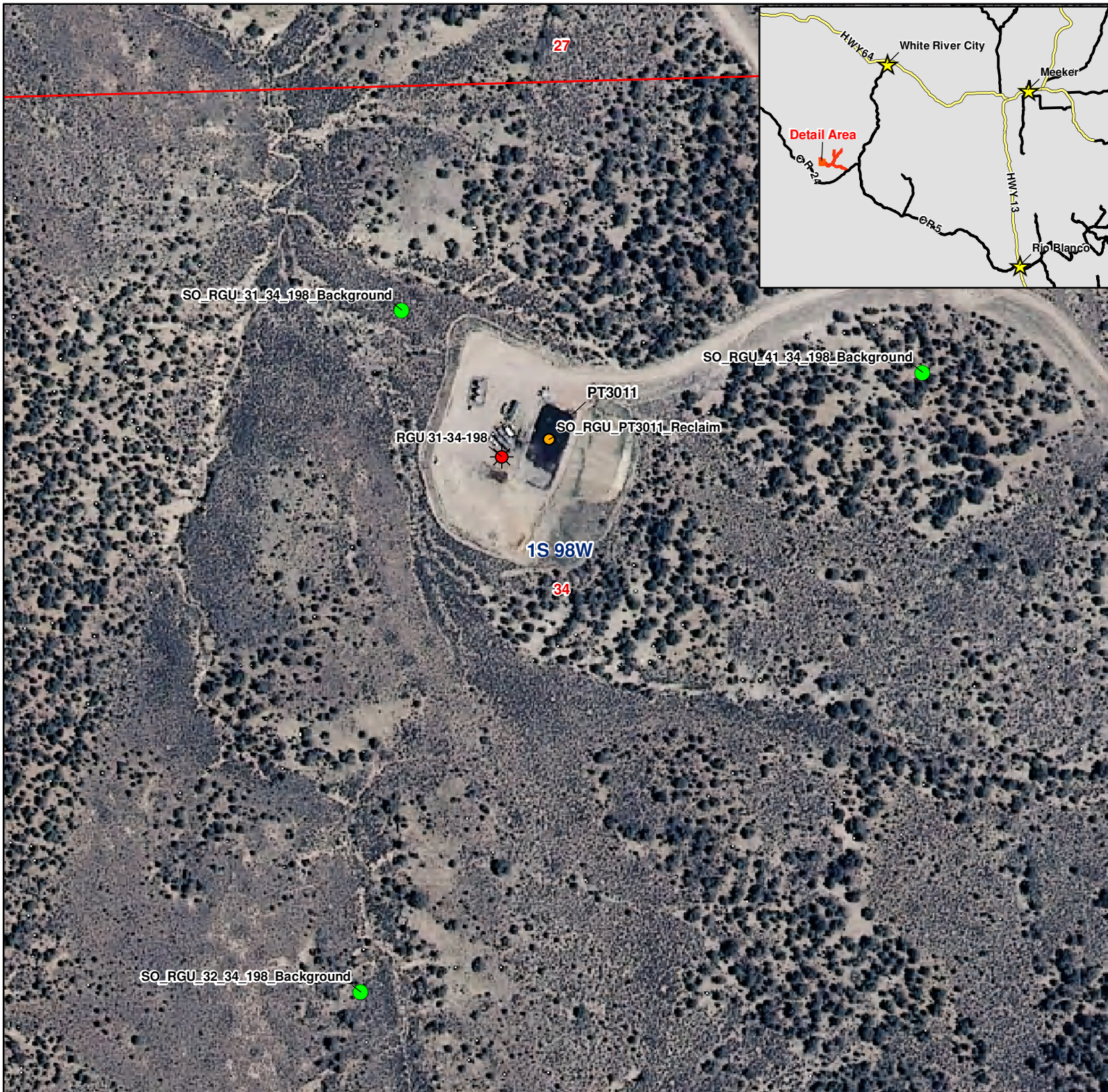
The reported arsenic concentrations for these samples were as follows:

SO\_RGU\_31\_34\_198\_BACKGROUND - 4.3 mg/kg  
SO\_RGU\_41\_34\_198\_BACKGROUND - 2.9 mg/kg  
SO\_RGU\_32\_34\_198\_BACKGROUND - 10.9 mg/kg

Average arsenic concentration - 6.0 mg/kg

Williams has attached a map showing the sample locations with respect to the Federal RGU 31-34-198 well and copies of the laboratory reports.




Williams is requesting this approval in order to proceed with closure and reclamation of the pit located on the Federal RGU 31-34-198 well pad.



**Federal RGU 31-34-198 Well Pad  
Background Sampling Locations  
For COGCC Arsenic  
Variance Request**

December 9, 2010

**Explanation:**

-  Gas Well
-  Background Sample
-  Composite Backfill Sample



0 0.025 0.05  
Miles

1:3,250





12/09/10

## Technical Report for

**Williams Production RMT Company**

**Highlands\_Ryan\_Gulch**

**RGU 31-34-198**

**Accutest Job Number: T62646B**

**Sampling Date: 10/29/10**

### Report to:

InterTech E&E  
3821 Breech Street  
Laramie, WY 82070  
jsouply@cbmainc.com; bgoodnough@cbmainc.com  
ATTN: Jane Souply

**Total number of pages in report: 11**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Paul K Canevaro'.

**Paul Canevaro**  
**Laboratory Director**

**Client Service contact: Sylvia Garza 713-271-4700**

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103)

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

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Sample Summary

Williams Production RMT Company

Job No: T62646B

Highlands\_Ryan\_Gulch  
Project No: RGU 31-34-198

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T62646-1B	10/29/10	09:55	10/30/10	SO	Soil	SO_RGU_PT3011_RECLAIM

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Sample Results

## Report of Analysis

Report of Analysis

<b>Client Sample ID:</b>	SO_RGU_PT3011_RECLAIM			<b>Date Sampled:</b>	10/29/10
<b>Lab Sample ID:</b>	T62646-1B			<b>Date Received:</b>	10/30/10
<b>Matrix:</b>	SO - Soil			<b>Percent Solids:</b>	n/a
<b>Project:</b>	Highlands_Ryan_Gulch				

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic <sup>a</sup>	4.6	0.57	0.13	mg/kg	5	11/09/10	11/11/10 ANJ	SW846 6020A <sup>1</sup>	SW846 3050B <sup>2</sup>

- (1) Instrument QC Batch: N:MA25339  
(2) Prep QC Batch: N:MP55558
- (a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
J = Indicates a result > = MDL but < RL

## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

10165 Harwin Dr, Ste 150 Houston, TX 77036  
TEL: 713-271-4700 FAX: 713-271-4770  
[www.accufest.com](http://www.accufest.com)

[illegible]

3.13

## T62646B: Chain of Custody

Page 1 of 3

# SAMPLE INSPECTION FORM

Accutest Job Number: T62646 Client: Williams Production RMT Date/Time Received: 10/30/10 0925  
 # of Coolers Received: 1 Thermometer #: #110 Temperature Adjustment Factor: -0.5°C

Cooler Temperatures (initial/adjusted): #1: 1.8/1.3°C #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_ #5: \_\_\_\_\_  
 #6: \_\_\_\_\_ #7: \_\_\_\_\_ #8: \_\_\_\_\_ #9: \_\_\_\_\_ #10: \_\_\_\_\_ #11: \_\_\_\_\_ #12: \_\_\_\_\_

Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other

## COOLER INFORMATION

- ☐ Custody seal missing or not intact
- ☐ Temperature criteria not met
- ☐ Wet ice received in cooler

## CHAIN OF CUSTODY

- ☐ Chain of Custody not received
- ☐ Sample D/T unclear or missing
- ☐ Analyses unclear or missing
- ☐ COC not properly executed

## SAMPLE INFORMATION

- ☐ Sample containers received broken
- ☐ VOC vials have headspace
- ☐ Sample labels missing or illegible
- ☐ ID on COC does not match label(s)
- ☐ D/T on COC does not match label(s)
- ☐ Sample/Bottles rcvd but no analysis on COC
- ☐ Sample listed on COC, but not received
- ☐ Bottles missing for requested analysis
- ☐ Insufficient volume for analysis
- ☐ Sample received improperly preserved

## TRIP BLANK INFORMATION

- ☐ Trip Blank on COC but not received
- ☐ Trip Blank received but not on COC
- ☐ Trip Blank not intact
- ☐ Received Water Trip Blank
- ☐ Received Soil TB

Number of Encores? \_\_\_\_\_  
 Number of 5035 kits? \_\_\_\_\_  
 Number of lab-filtered metals? \_\_\_\_\_

Summary of Discrepancies:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TECHNICIAN SIGNATURE/DATE: Daniel Field 10/30/10

INFORMATION AND SAMPLE LABELING VERIFIED BY: G-103212

## CORRECTIVE ACTIONS

Client Representative Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Accutest Representative: \_\_\_\_\_ Via: Phone Email

Client Instructions: \_\_\_\_\_

**SAMPLE RECEIPT LOG**

JOB #:	T62646	DATE/TIME RECEIVED:	10/30/10 0925
CLIENT:	Williams Production RMT	INITIALS:	REA

[illegible]

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewd

Page 3 of 3

## Misc. Forms

### Custody Documents and Other Forms

(Accutest New Jersey)

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Includes the following where applicable:

- Chain of Custody



**10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770**

## 4.1

4

11 of 11  
ACCUTEST®  
T62646B LABORATORIES



10/08/10

## Technical Report for

Williams Production

Highlands\_Ryan\_Gulch

RGU 31-34-198

Accutest Job Number: D16864B

Sampling Date: 08/25/10

Report to:

bgoodnough@cbmainc.com

Total number of pages in report: **19**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'J. Hamilton'.

John Hamilton  
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

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Sample Summary

Williams Production

Job No: D16864B

Highlands\_Ryan\_Gulch  
Project No: RGU 31-34-198

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D16864-1B	08/25/10	11:00	BB	08/27/10	SO	Soil	SO_RGU_31_34_198 BACKGROUND
D16864-2B	08/25/10	11:45	BB	08/27/10	SO	Soil	SO_RGU_41_34_198_BACKGROUND

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Williams Production

**Job No** D16864B

**Site:** Highlands\_Ryan\_Gulch

**Report Dat** 10/8/2010 10:04:11 AM

On 08/27/2010, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D16864B was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Metals By Method SW846 6020

**Matrix** SO

**Batch ID:** MP2764

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Samples D16864-1BMS, D16864-1BMDS, and D16864-1BSDL were used as the QC samples for the metals analysis.
- The serial dilution RPD for Arsenic is outside control limits for sample MP2764-SD1. Probable cause due to sample homogeneity.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

## Sample Results

## Report of Analysis

Report of Analysis

<b>Client Sample ID:</b>	SO_RGU_31_34_198 BACKGROUND			<b>Date Sampled:</b>	08/25/10
<b>Lab Sample ID:</b>	D16864-1B			<b>Date Received:</b>	08/27/10
<b>Matrix:</b>	SO - Soil			<b>Percent Solids:</b>	94.6
<b>Project:</b>	Highlands_Ryan_Gulch				

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.3	0.35	mg/kg	5	09/02/10	09/03/10 GJ	SW846 6020 <sup>1</sup>	SW846 3050B <sup>2</sup>

(1) Instrument QC Batch: MA949  
(2) Prep QC Batch: MP2764

RL = Reporting Limit

Report of Analysis

<b>Client Sample ID:</b>	SO_RGU_41_34_198_BACKGROUND			<b>Date Sampled:</b>	08/25/10
<b>Lab Sample ID:</b>	D16864-2B			<b>Date Received:</b>	08/27/10
<b>Matrix:</b>	SO - Soil			<b>Percent Solids:</b>	95.5
<b>Project:</b>	Highlands_Ryan_Gulch				

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.9	0.33	mg/kg	5	09/02/10	09/03/10 GJ	SW846 6020 <sup>1</sup>	SW846 3050B <sup>2</sup>

(1) Instrument QC Batch: MA949  
(2) Prep QC Batch: MP2764

RL = Reporting Limit

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



Modified Table 910-1

Organic Compounds in Soil

TPH (total volatile and extractable petroleum hydrocarbons)

VOCs

- Benzene
- Toluene
- Ethylbenzene
- Xylenes (Total)

Metals

- Arsenic
- Barium
- Cadmium
- Chromium (III)
- Copper
- Lead (inorganic)
- Mercury
- Nickel (soluble salts)
- Selenium
- Silver
- Zinc

Physical Parameters

- Electrical Conductivity (EC)
- Sodium Adsorption Ratio (SAR)
- pH



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D16864

Client: WILLIAMS PRODUCTION CO RMT.

Immediate Client Services Action Required: No

Date / Time Received: 8/27/2010 8:30:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: HIGHLANDS RYAN GULCH

Airbill #'s: fedex

### Cooler Security

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Cooler Temperature

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun                        |                          |
| 3. Cooler media:             | Ice (bag)                           |                          |

### Quality Control Preservation

Y or N

N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

### Sample Integrity - Documentation

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Condition

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

### Sample Integrity - Instructions

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume rec'd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories  
V:(303) 425-6021

4036 Youngfield Street  
F: (303) 425-6854

Wheat Ridge, CO  
www.accutest.com

D16864B: Chain of Custody

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**Job Change Order: D16864\_10/7/2010**

<b>Requested</b>	10/7/2010	<b>Received Date:</b>	8/27/2010
<b>Account Name:</b>	Williams Production	<b>Due Date:</b>	9/3/2010
<b>Project</b>	Highlands_Ryan_Gulch	<b>Deliverable:</b>	COMMBN
<b>CSR:</b>	RR	<b>TAT (Days):</b>	0
<b>Sample #:</b>	<b>Change:</b> Please split the results for As in to their own report per an email from Brian Goodnough. Thanks.		
D16864--1, -2			

**Above Changes Per:** Client - Brian Goodnough      **Date:** 10/7/2010

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

**Job Change Order: D16864\_10/7/2010**

<b>Requested</b>	10/7/2010	<b>Received Date:</b>	8/27/2010
<b>Account Name:</b>	Williams Production	<b>Due Date:</b>	9/3/2010
<b>Project</b>	Highlands_Ryan_Gulch	<b>Deliverable:</b>	COMMBN
<b>CSR:</b>	RR	<b>TAT (Days):</b>	0
<b>Sample #:</b>	D16864--1, -2		
<b>Change:</b>	Please split the results for As in to their own report per an email from Brian Goodnough. Thanks.		

**Above Changes Per:** Client--Brian Goodnough      **Date:** 10/7/2010

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

**D16864B: Chain of Custody**  
**Page 5 of 5**

## Metals Analysis

5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D16864B  
Account: WILLCOP - Williams Production  
Project: Highlands\_Ryan\_Gulch

QC Batch ID: MP2764  
Matrix Type: SOLID

Methods: SW846 6020  
Units: mg/kg

Prep Date: 09/02/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.14	.89		
Antimony	0.20	.001	.045		
Arsenic	0.40	.049	.26	0.11	<0.40
Barium	1.0	.0035	.17		
Beryllium	0.10	.0075	.014		
Boron	20	.97	2		
Cadmium	0.050	.023	.048		
Calcium	200	1.8	6.1		
Chromium	1.0	.021	.23		
Cobalt	0.10	.0033	.088		
Copper	1.0	.011	.14		
Iron	20	.81	6.1		
Lead	0.25	.0012	.18		
Magnesium	50	.067	1.3		
Manganese	0.50	.007	.089		
Molybdenum	0.50	.0044	.2		
Nickel	1.0	.0029	.074		
Phosphorus	30	1.8	5.6		
Potassium	100	2	9.1		
Selenium	0.20	.075	.14		
Silver	0.050	.0008	.029		
Sodium	250	.8	1.8		
Strontium	10	.004	.047		
Thallium	0.10	.015	.071		
Tin	5.0	.006	.17		
Titanium	1.0	.035	.071		
Uranium	0.25	.00038	.12		
Vanadium	2.0	.052	.99		
Zinc	5.0	.039	.53		

Associated samples MP2764: D16864-1B, D16864-2B

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16864B  
 Account: WILLCOP - Williams Production  
 Project: Highlands\_Ryan\_Gulch

QC Batch ID: MP2764  
 Matrix Type: SOLID

Methods: SW846 6020  
 Units: mg/kg

Prep Date: 09/02/10

Metal	D16864-1B Original MS		Spikelot MPICPALL % Rec		QC Limits
Aluminum					
Antimony					
Arsenic	4.3	70.3	83.9	78.7	60-119
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP2764: D16864-1B, D16864-2B

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D16864B  
Account: WILLCOP - Williams Production  
Project: Highlands\_Ryan\_Gulch

QC Batch ID: MP2764  
Matrix Type: SOLID

Methods: SW846 6020  
Units: mg/kg

Prep Date: 09/02/10

Metal	D16864-1B Original	MSD	Spikelot MPICPAL	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	4.3	76.7	83.2	87.0	8.7	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP2764: D16864-1B, D16864-2B

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D16864B  
Account: WILLCOP - Williams Production  
Project: Highlands\_Ryan\_Gulch

QC Batch ID: MP2764  
Matrix Type: SOLID

Methods: SW846 6020  
Units: mg/kg

Prep Date: 09/02/10

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	97.6	100	97.6	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP2764: D16864-1B, D16864-2B

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

# SERIAL DILUTION RESULTS SUMMARY

Login Number: D16864B  
 Account: WILLCOP - Williams Production  
 Project: Highlands\_Ryan\_Gulch

QC Batch ID: MP2764  
 Matrix Type: SOLID

Methods: SW846 6020  
 Units: ug/l

Prep Date: 09/02/10

Metal	D16864-1B			QC	
	Original	SDL 5:25	%DIF	Limits	
Aluminum					
Antimony					
Arsenic	48.7	54.7	12.4*(a)	0-10	
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP2764: D16864-1B, D16864-2B

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested  
 (a) Serial dilution indicates possible matrix interference.



12/10/10

Technical Report for

Williams Production RMT Company

Highlands\_Ryan\_Gulch

Accutest Job Number: T59927B

Sampling Date: 09/10/10

Report to:

InterTech E&E  
3821 Breech Street  
Laramie, WY 82070  
jsouply@cbmainc.com; bgoodnough@cbmainc.com  
ATTN: Jane Souply

Total number of pages in report: **11**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Paul K Canevaro*

Paul Canevaro  
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

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Test results relate only to samples analyzed.

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Sample Summary

Williams Production RMT Company  
Highlands\_Ryan\_Gulch

Job No: T59927B

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T59927-1B	09/10/10	08:15	09/15/10	SO	Soil	SO_RGU_32_34_198_BACKGROUND

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Sample Results

## Report of Analysis

Report of Analysis

<b>Client Sample ID:</b>	SO_RGU_32_34_198_BACKGROUND	<b>Date Sampled:</b>	09/10/10
<b>Lab Sample ID:</b>	T59927-1B	<b>Date Received:</b>	09/15/10
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Highlands_Ryan_Gulch		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic <sup>a</sup>	10.9	0.50	0.11	mg/kg	5	09/21/10	09/21/10 ANJ	SW846 6020A <sup>1</sup>	SW846 3050B <sup>2</sup>

(1) Instrument QC Batch: N:MA25058  
(2) Prep QC Batch: N:MP54793  
  
(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit  
MDL = Method Detection Limit  
U = Indicates a result < MDL  
J = Indicates a result > = MDL but < RL

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# SAMPLE INSPECTION FORM

Accutest Job Number: T59927 Client: Williams Production RMT Date/Time Received: 9-15-10 1000

# of Coolers Received: 1 Thermometer #: IR Gun 04 Temperature Adjustment Factor: 0

Cooler Temperatures (initial/adjusted): #1: 27°C #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_ #5: \_\_\_\_\_

#6: \_\_\_\_\_ #7: \_\_\_\_\_ #8: \_\_\_\_\_ #9: \_\_\_\_\_ #10: \_\_\_\_\_ #11: \_\_\_\_\_ #12: \_\_\_\_\_

Method of Delivery: ☒ FEDEX ☐ UPS ☐ Accutest Courier ☐ Greyhound ☐ Delivery ☐ Other

## COOLER INFORMATION

- ☐ Custody seal missing or not intact
- ☐ Temperature criteria not met
- ☐ Wet ice received in cooler

## CHAIN OF CUSTODY

- ☐ Chain of Custody not received
- ☐ Sample D/T unclear or missing
- ☐ Analyses unclear or missing
- ☐ COC not properly executed

## SAMPLE INFORMATION

- ☐ Sample containers received broken
- ☐ VOC vials have headspace
- ☐ Sample labels missing or illegible
- ☐ ID on COC does not match label(s)
- ☐ D/T on COC does not match label(s)
- ☐ Sample/Bottles rcvd but no analysis on COC
- ☐ Sample listed on COC, but not received
- ☐ Bottles missing for requested analysis
- ☐ Insufficient volume for analysis
- ☐ Sample received improperly preserved

## TRIP BLANK INFORMATION

- ☐ Trip Blank on COC but not received
- ☐ Trip Blank received but not on COC
- ☐ Trip Blank not intact
- ☐ Received Water Trip Blank
- ☐ Received Soil TB

Number of Encores? \_\_\_\_\_  
Number of 5035 kits? \_\_\_\_\_  
Number of lab-filtered metals? \_\_\_\_\_

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: Danue Heidecker 9-15-10

INFORMATION AND SAMPLE LABELING VERIFIED BY: GC 9151

## CORRECTIVE ACTIONS

Client Representative Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Accutest Representative: \_\_\_\_\_ Via: Phone Email

Client Instructions: \_\_\_\_\_

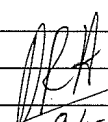
I:\mwalker\form\samplemanagement SM023 Revised 8/11/10

T59927B: Chain of Custody

Page 2 of 3

# SAMPLE RECEIPT LOG

JOB #: T59927 DATE/TIME RECEIVED: 9-15-10 1000  
 CLIENT: Williams Production RMT INITIALS: DRH

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	50, 26u, 32, 34, 198, Background	9-10-10 0815	soil	32oz	1	2-85	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓ ↓ ↓	↓ ↓	↓	8oz	2	↓	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓ ↓ ↓	↓ ↓	↓	4oz	3	↓	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓ ↓ ↓	↓ ↓	↓	↓	4	VR	① 2 3 4 5 6 7 8	<2 >12
↓	↓	↓ ↓ ↓	↓ ↓	↓	↓	5	VR	① 2 3 4 5 6 7 8	<2 >12
<div style="text-align: center;">             9/15/10         </div>								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other  
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer  
 Rev R/13.01 awn

## Misc. Forms

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### Custody Documents and Other Forms

(Accutest New Jersey)

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Includes the following where applicable:

- Chain of Custody

