

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

Received
6/23/2011

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

OGCC Operator Number: _____	Contact Name and Telephone: _____
Name of Operator: _____	_____
Address: _____	No: _____
City: _____ State: _____ Zip: _____	Fax: _____
API Number: _____	County: _____
Facility Name: _____	Facility Number: _____
Well Name: _____	Well Number: _____
Location: (QtrQtr, Sec, Twp, Rng, Meridian): _____ Latitude: _____ Longitude: _____	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): _____

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): _____

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: _____

Potential receptors (water wells within 1/4 mi, surface waters, etc.): _____

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
Soils	_____	_____
Vegetation	_____	_____
Groundwater	_____	_____
Surface Water	_____	_____

REMEDIALTION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Describe how source is to be removed:

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:



REMEDATION WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: 11 V 29-27
Facility Name & No: Pit # 422 643

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Ground water has not been impacted.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

The pit will be reclaimed in accordance with the 1000 series rules.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe:

One grab sample was collected from the middle of the pit.

See attached plat for the grab sample and pit location.

See attached analytical report for the analytical results.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

No E&P waste was generated.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>6/1/2011</u>	Date Site Investigation Completed: <u>6/14/2011</u>	Date Remediation Plan Submitted: <u>6/23/2011</u>
Remediation Start Date: <u>NA</u>	Anticipated Completion Date: <u>NA</u>	Actual Completion Date: <u>6/14/2011</u>

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

Print Name: Karoline Blaney

Signed: Karoline Blaney

Title: Environmental Specialist

Date: 6/23/2011

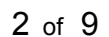
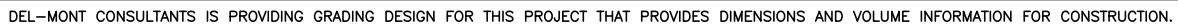
OGCC Approved: Chris Camfield

Title: FOR Chris Camfield

Date: July 15, 2011

ITEM	CUT	FILL	TOPSOIL	EXCESS
PAD	38,002	9,718	1,800	28,284
ROAD		2591		
PIT	5,458			5,458
TOTALS	43,460	12,309	1,800	33,742

CUTTINGS TRENCH :
1:1 SIDE SLOPES; DEPTH: 16'
VOLUME: 5,458 CY (26,247 bbl)





06/14/11

Technical Report for

Williams Production RMT Company

MV 29-27 Flare Pit

Accutest Job Number: T77686

Sampling Date: 06/01/11

Report to:

**Williams Production RMT Company
1058 County Road 215
Parachute, CO 81635
karolina.blaney@williams.com**

ATTN: Karolina Blaney

Total number of pages in report: 18



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
MV 29-27 Flare Pit

Job No: T77686

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
T77686-1	06/01/11	13:15 RW	06/04/11	SO	Soil	MV 29-27 FLARE PIT

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

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID: MV 29-27 FLARE PIT
Lab Sample ID: T77686-1
Matrix: SO - Soil
Method: SW846 8015
Project: MV 29-27 Flare Pit

Date Sampled: 06/01/11
Date Received: 06/04/11
Percent Solids: 87.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB0007718.D	1	06/10/11	AT	n/a	n/a	GBB368
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.84 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	1.79	5.6	0.33	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		46-127%
98-08-8	aaa-Trifluorotoluene	99%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MV 29-27 FLARE PIT	Date Sampled:	06/01/11
Lab Sample ID:	T77686-1	Date Received:	06/04/11
Matrix:	SO - Soil	Percent Solids:	87.8
Method:	SW846 8015 M SW846 3550B		
Project:	MV 29-27 Flare Pit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF207242.D	1	06/13/11	HD	06/06/11	OP18753	GIF1220
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	69.1	3.8	3.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	94%		33-115%		

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

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.accutest.com

Client / Reporting Information		Project Information		Requested Analyses		Matrix Codes	
Agency Name: Williams Production Address: 258 City Rd 215 State: CO Zip: 81635 E-mail: karolina.blaney@williams.com Phone #: 706 832 2295 / 970 285 9573 Project Manager: Karolina Blaney		Project Name: MV 29-27 Flare Pit Street: _____ City: _____ State: _____ Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Attention: Karolina Blaney		Accutest Tracking #: _____ Accutest Quote #: _____ Accutest Job #: T77686		Bottle Order Control #: _____ Matrix Codes: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Field ID / Point of Collection		Date	Time	Sampled By	Matrix	# of bottles	LAB USE ONLY
1 MV 29-27 Flare Pit		6/1/11	1:15	RW	SO	1	
Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input checked="" type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULT1 (Level 3+4) <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> TRRP <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial "C" = Results + QC & Surrogate Summary		Comments / Special Instructions:			
Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by: RW Relinquished by Sampler: Fed Ex Relinquished by: _____	Date Time: 6/13/11 Date Time: 6/4/11 1010 Date Time: _____	Received By: 1 Received By: ALC Received By: Dennis K. [Signature] Received By: 5	Relinquished By: 2 Relinquished By: _____ Relinquished By: _____	Date Time: _____ Date Time: _____ Date Time: _____	Received By: 2 Received By: _____ Received By: _____	Custody Seal # _____ <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact Preserved where applicable: <input type="checkbox"/> On Ice: <input checked="" type="checkbox"/> Cooler Temp: 4.4°C	

T77686: Chain of Custody

Page 1 of 3

Accutest Job Number: T77686 Client: WILLIAMS PRODUCTION Project: MV 29-27 FLARE PIT
 Date / Time Received: 6/4/2011 10:10 Delivery Method: FedEx Airbill #'s: 874632744048
 No. Coolers: 1 Therm ID: IRGUN4 Temp Adjustment Factor: -0.1;
 Cooler Temps (Initial/Adjusted): #1: (4.5/4.4)

Cooler Security Y or N Y or N
 1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
 2. Custody Seals Intact: ☒ ☐ 4. Smp'l Dates/Time OK: ☒ ☐

Cooler Temperature Y or N
 1. Temp criteria achieved: ☒ ☐
 2. Cooler temp verification: IR Gun
 3. Cooler media: Ice (Bag)

Quality Control - Preservation Y or N N/A WTB STB
 1. Trip Blank present / cooler: ☐ ☒ ☐ ☐ ☐
 2. Trip Blank listed on COC: ☐ ☒ ☐
 3. Samples preserved properly: ☒ ☐
 4. VOCs headspace free: ☐ ☐ ☒

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles: ☒ ☐
 2. Container labeling complete: ☒ ☐
 3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition Y or N
 1. Sample recvd within HT: ☒ ☐
 2. All containers accounted for: ☒ ☐
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear: ☒ ☐
 2. Bottles received for unspecified tests: ☐ ☒
 3. Sufficient volume recvd for analysis: ☒ ☐
 4. Compositing instructions clear: ☐ ☐ ☒
 5. Filtering instructions clear: ☐ ☐ ☒

Comments

Danny Huddleston 6/4/11

Sample Receipt Log

Job #: T77686

Date / Time Received: 6/4/2011 10:10:00 AM

Initials: DARRELLH

Client: WILLIAMS PRODUCTION

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T77686-1	16oz	1	VR	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.5	-0.1	4.4

T77686: Chain of Custody

Page 3 of 3

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T77686
Account: WPRMTCOP Williams Production RMT Company
Project: MV 29-27 Flare Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBB368-MB	BB0007707.DI		06/10/11	AT	n/a	n/a	GBB368

The QC reported here applies to the following samples: Method: SW846 8015

T77686-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	90%	46-127%
98-08-8	aaa-Trifluorotoluene	96%	44-120%

Blank Spike Summary

Job Number: T77686
Account: WPRMTCOP Williams Production RMT Company
Project: MV 29-27 Flare Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBB368-BS	BB0007704.DI		06/10/11	AT	n/a	n/a	GBB368

The QC reported here applies to the following samples: Method: SW846 8015

T77686-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.334	84	78-115

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	92%	46-127%
98-08-8	aaa-Trifluorotoluene	104%	44-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T77686
Account: WPRMTCOP Williams Production RMT Company
Project: MV 29-27 Flare Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T77589-3MS	BB0007711.D2		06/10/11	AT	n/a	n/a	GBB368
T77589-3MSD	BB0007712.D2		06/10/11	AT	n/a	n/a	GBB368
T77589-3	BB0007710.D2		06/10/11	AT	n/a	n/a	GBB368

The QC reported here applies to the following samples:

Method: SW846 8015

T77686-1

CAS No.	Compound	T77589-3 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	159		65.8	215	85	215	85	0	78-115/14

CAS No.	Surrogate Recoveries	MS	MSD	T77589-3	Limits
460-00-4	4-Bromofluorobenzene	237% * a	238% * a	259% * a	46-127%
98-08-8	aaa-Trifluorotoluene	116%	117%	108%	44-120%

(a) Outside control limits due to matrix interference. Confirmed by MS/MSD.

GC Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: T77686
Account: WPRMTCOP Williams Production RMT Company
Project: MV 29-27 Flare Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18753-MB	IF206967.D	1	06/07/11	HD	06/06/11	OP18753	GIB1216

The QC reported here applies to the following samples:

Method: SW846 8015 M

T77686-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	3.3	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	76% 33-115%

Blank Spike Summary

Job Number: T77686
Account: WPRMTCOP Williams Production RMT Company
Project: MV 29-27 Flare Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18753-BS	IF206968.D	1	06/07/11	HD	06/06/11	OP18753	GIB1216

The QC reported here applies to the following samples: Method: SW846 8015 M

T77686-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33.2	23.3	70	45-107

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	72%	33-115%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T77686

Account: WPRMTCOP Williams Production RMT Company

Project: MV 29-27 Flare Pit

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP18753-MS	IF207003.D	10	06/08/11	HD	06/06/11	OP18753	GIB1216
OP18753-MSD	IF207004.D	10	06/08/11	HD	06/06/11	OP18753	GIB1216
T77405-16	IF207002.D	10	06/08/11	HD	06/06/11	OP18753	GIB1216

The QC reported here applies to the following samples:

Method: SW846 8015 M

T77686-1

CAS No.	Compound	T77405-16 mg/kg	Spike Q	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	183	39	183	0* a	528	885* a	97*	45-107/34

CAS No.	Surrogate Recoveries	MS	MSD	T77405-16	Limits
84-15-1	o-Terphenyl	0% * b	0% * b	0% * b	33-115%

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Outside control limits due to dilution.