BROADBENT
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broadbentinc.com

March 23, 2017

Job No. 16-07-101-17007

New Mexico EMNRD
Oil Conservation District I
1625 North French Drive
Hobbs, New Mexico 88240

NOT APPROVED

Attn: Ms. Olivia Yu,

Re: Final C-141 Report, Estimated 10 Barrel Crude Oil Spill, Holly Transportation, LLC Hobbs Station #571, 413 West Arco Road, Hobbs, New Mexico 88240, Remediation Case no. 1RP-4539.

Broadbent & Associates, Inc. (Broadbent) is pleased to present this Final C-141 Report for the estimated 10 barrel surface spill of crude oil at the Holly Transportation, LLC Hobbs Station #571, located at 413 West Arco Road in Hobbs, New Mexico (Site) as depicted in Drawing 1, attached. The New Mexico Energy, Minerals, and Natural Resources Division (EMNRD) Oil Conservation Division (OCD) C-141 form, photographs, laboratory analytical report, and disposal documentation are attached.

On December 11, 2016, approximately 10 barrels of crude oil were spilled due to the overfilling of an above ground storage tank (AST). G1 Safety and Oilfield Services (G1) responded to abate the spill. The New Mexico One-call, NM811, was notified of proposed excavation activities. Excavation was postponed until the utilities at the Site were identified.

G1 returned to the Site on December 19 through December 21, 2016 to abate the spill. The outside wall of the overfilled AST was cleaned using a power washer. The crude impacted soil was excavated by hand using shovels, in order to protect the integrity of the containment wall from heavy machinery. The excavated soil was stored at the Site in a roll off bin.

A Broadbent representative was at the Site to observe excavation activities and collected confirmation soil samples from December 19 through December 21, 2016. The soil samples were submitted chilled, under chain-of-custody procedures to SGS Accutest Laboratories (Accutest) in Houston and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8021B, total petroleum hydrocarbons (TPH) by EPA method 8015C, and chlorides by EPA method 300. On January 7, 2017 the impacted area was backfilled with clean soil subsequent to receipt of analytical results.

TPH concentrations were detected in exceedance of laboratory method detection limits (MDL) but below the New Mexico OCD remediation levels of 1,000 mg/kg in the confirmation soil samples submitted for analysis. Additional constituents analyzed for were not detected in exceedance of their respective laboratory method detection limits.

20 cubic yards of impacted material was taken to the Republic Services landfill in Odessa, TX on March 16, 2017 for disposal. Disposal documentation is attached.

Based on the abatement performed, and COC concentrations detected in confirmation soil samples being below New Mexico OCD remediation levels, Broadbent, on behalf of Pilot Travel Centers LLC, requests that no further action status be granted at this time. If you have any questions or require additional information, please do not hesitate to contact us at (830) 816-5434.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Christopher R. Haugstad, PG
Senior Geologist

Attachments:
New Mexico EMNRD OCD C-141 Form
Drawing 1: Site Location Map
Drawing 2: Sample Location Map
Photographs
SGS Accutest *Technical Reports*
Waste Disposal Documentation

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Holly Transportation LLC	Contact: Robert Blevins
Address: 413 West Arco Road, Hobbs, NM	Telephone No. : (575) 513-1734
Facility Name: Hobbs Station #571	Facility Type: Tank Battery

Surface Owner: Holly Transportation LLC	Mineral Owner: N/A	API No.: N/A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	22	19S	38E					Lea

Latitude 32.652639 **Longitude:** -103.13967

NATURE OF RELEASE

Type of Release: Surface	Volume of Release: 10 bbl.	Volume Recovered: 10 bbl.
Source of Release: Overfilled above ground storage tank	Date and Hour of Occurrence: 12/11/16 at 1000	Date and Hour of Discovery: 12/11/16 at 1000
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
The driver overfilled the above ground storage tank (AST), spilling approximately 10 bbl. of crude onto the soil surface, inside the containment wall. The crude impacted material was excavated from the spill area for disposal, and the AST was cleaned of the crude residue.

Describe Area Affected and Cleanup Action Taken.*
In order to protect the integrity of the containment wall from heavy machinery, the crude impacted soil was excavated by hand using shovels. Two confirmation soil samples were collected from the excavated area, and one background sample was collected for laboratory analyses. The excavated area was backfilled with clean soil on January 7, 2017. Excavated soil was stored on site in a roll off container until being disposed of at the Republic Services landfill in Odessa, Texas on March 16, 2017.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Christopher R. Haugstad	Approved by Environmental Specialist:	
Title: Senior Geologist	Approval Date:	Expiration Date:
E-mail Address: chaugstad@broadbentinc.com	Conditions of Approval:	Attached ☐
Date: March 23, 2017 Phone: (830) 816-5434		

* Attach Additional Sheets If Necessary

N

0 300'
150'
Approximate Scale: 1" = 300'

DESCRIPTION

SITE LOCATION

SITE LOCATION MAP
DRAWING NO. 1

HOLLY TRANSPORTATION LLC
HOBBS STATION #571
413 WEST ARCO ROAD
HOBBS, NEW MEXICO

PROJECT NO. 16-07-101-17007

Prepared by: LG Appoved by: CH Date: 12/27/16

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DESCRIPTION

SPILL/EXCAVATION AREA

CONFIRMATION SOIL SAMPLE LOCATION 2@1.5'

BACKGROUND SOIL SAMPLE LOCATION 1@1.5'

N

0 10' 20'

Approximate Scale: 1" = 20'

HOLLY TRANSPORTATION LLC
HOBBS STATION #571
413 WEST ARCO ROAD
HOBBS, NEW MEXICO

SAMPLE LOCATION MAP
DRAWING NO. 2

PROJECT NO. 16-07-101-17007

Prepared by: LG Appoved by: CH Date: 12/27/16

BROADBENT

View of the spill area

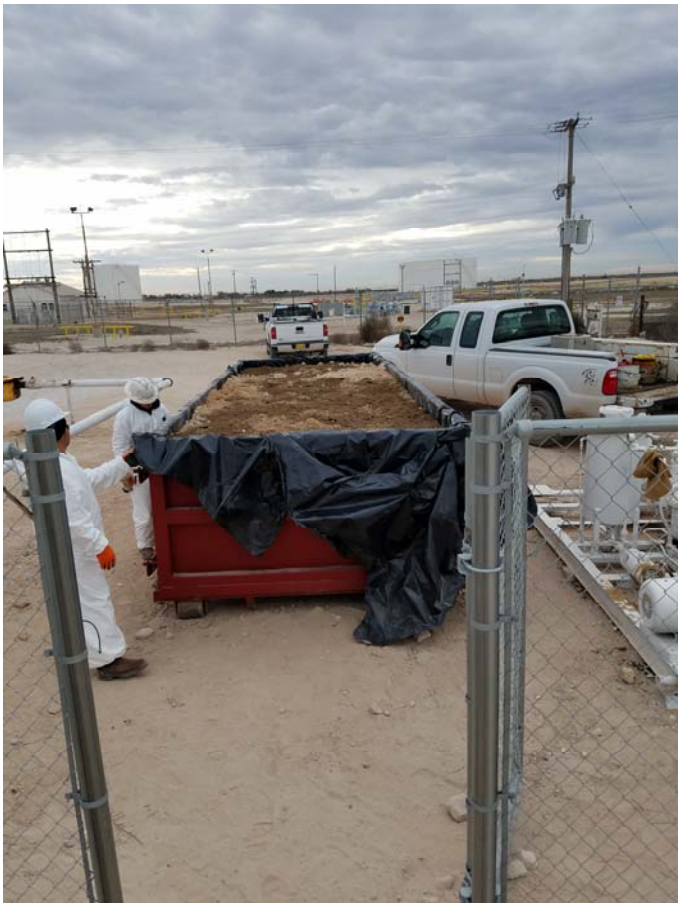
View of the spill area

ASTs prior to cleanup

ASTs subsequent to cleaning

Excavation of the crude impact soil

Excavation of the crude impact soil



Excavated soil stored in the roll-off box, pending disposal

Facility location sign

View of the excavated area

View of the excavated area

e-Hardcopy 2.0
Automated Report

Technical Report for

Pilot Travel Centers LLC

Hobbs Station 571 16-07-101-17007

SGS Accutest Job Number: TC96587

Sampling Date: 12/21/16

Report to:

Broadbent & Associates
113 Falls Court Suite 700
Boerne, TX 78006
chaugstad@broadbentinc.com; asilvas@broadbentinc.com

ATTN: Chris Haugstad

Total number of pages in report: 45

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

Richard Rodriguez
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-16-25) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-172) VA (7654)

Sections: 1 2 3 4 5 6 7 8

Table of Contents

Sample Summary

Pilot Travel Centers LLC

Job No: TC96587

Hobbs Station 571 16-07-101-17007

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC96587-1	12/21/16	11:24		12/22/16	SO	Soil	1@1.5'
TC96587-2	12/21/16	11:35		12/22/16	SO	Soil	2@1.5'
TC96587-3	12/21/16	11:40		12/22/16	SO	Soil	3@1.5'

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

Summary of Hits

Job Number: TC96587
Account: Pilot Travel Centers LLC
Project: Hobbs Station 571 16-07-101-17007
Collected: 12/21/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TC96587-1	**1@1.5'**					
TPH-DRO (C10-C28) [a]		168	6.2	1.6	mg/kg	SW846 8015C
TPH-ORO (C28-C35) [a]		124	6.2	0.56	mg/kg	SW846 8015C
TC96587-2	**2@1.5'**					
TPH-DRO (C10-C28) [a]		11.7	5.9	1.5	mg/kg	SW846 8015C
TPH-ORO (C28-C35) [a]		4.03 J	5.9	0.53	mg/kg	SW846 8015C
TC96587-3	**3@1.5'**					
TPH-DRO (C10-C28) [a]		1.66 J	6.3	1.6	mg/kg	SW846 8015C
TPH-ORO (C28-C35) [a]		0.797 J	6.3	0.57	mg/kg	SW846 8015C

(a) Analysis performed at SGS Accutest, Lafayette, LA.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	1@1.5'		
Lab Sample ID:	TC96587-1	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8015C	**Percent Solids:**	79.9
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	LC026633.D	1	12/29/16	ALA	n/a	n/a	L:GLC918
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.80 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	7.8	7.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		63-139%
540-36-3	1,4-Difluorobenzene	97%		52-140%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	1@1.5'		
Lab Sample ID:	TC96587-1	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8021B	**Percent Solids:**	79.9
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	LC026619.D	1	12/28/16	ALA	n/a	n/a	L:GLC917
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.80 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.078	0.015	mg/kg	
108-88-3	Toluene	ND	0.078	0.048	mg/kg	
100-41-4	Ethylbenzene	ND	0.078	0.012	mg/kg	
1330-20-7	Xylenes (total)	ND	0.23	0.0086	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.62	0.043	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
540-36-3	1,4-Difluorobenzene	96%		80-115%
460-00-4	4-Bromofluorobenzene	110%		79-135%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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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

Client Sample ID:	1@1.5'		
Lab Sample ID:	TC96587-1	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8015C SW846 3546	**Percent Solids:**	79.9
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	S0025861.D	1	12/27/16	ALA	12/27/16	L:OP7165	L:GLG424
Run #2							

	Initial Weight	Final Volume
Run #1	20.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	168	6.2	1.6	mg/kg	
	TPH-ORO (C28-C35)	124	6.2	0.56	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		31-130%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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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

Client Sample ID:	1@1.5'		
Lab Sample ID:	TC96587-1	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	79.9
Project:	Hobbs Station 571 16-07-101-17007		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 20	20	mg/kg	2	01/04/17 13:00	CV	EPA 300
Solids, Percent [a]	79.9		%	1	01/04/17	ALA	SM2540 G-97

(a) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	2@1.5'		
Lab Sample ID:	TC96587-2	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8015C	**Percent Solids:**	85.4
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	LC026634.D	1	12/29/16	ALA	n/a	n/a	L:GLC918
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.40 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	7.5	7.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		63-139%
540-36-3	1,4-Difluorobenzene	95%		52-140%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	2@1.5'		
Lab Sample ID:	TC96587-2	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8021B	**Percent Solids:**	85.4
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	LC026621.D	1	12/28/16	ALA	n/a	n/a	L:GLC917
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.40 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.075	0.015	mg/kg	
108-88-3	Toluene	ND	0.075	0.046	mg/kg	
100-41-4	Ethylbenzene	ND	0.075	0.011	mg/kg	
1330-20-7	Xylenes (total)	ND	0.23	0.0083	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.60	0.042	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
540-36-3	1,4-Difluorobenzene	97%		80-115%
460-00-4	4-Bromofluorobenzene	100%		79-135%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	2@1.5'		
Lab Sample ID:	TC96587-2	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8015C SW846 3546	**Percent Solids:**	85.4
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	S0025863.D	1	12/27/16	ALA	12/27/16	L:OP7165	L:GLG424
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	11.7	5.9	1.5	mg/kg	
	TPH-ORO (C28-C35)	4.03	5.9	0.53	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		31-130%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	2@1.5'		
Lab Sample ID:	TC96587-2	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	85.4
Project:	Hobbs Station 571 16-07-101-17007		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 10	10	mg/kg	1	01/04/17 13:00	CV	EPA 300
Solids, Percent [a]	85.4		%	1	01/04/17	ALA	SM2540 G-97

(a) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	3@1.5'		
Lab Sample ID:	TC96587-3	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8015C	**Percent Solids:**	78.8
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	LC026635.D	1	12/29/16	ALA	n/a	n/a	L:GLC918
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.40 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	8.6	8.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	112%		63-139%
540-36-3	1,4-Difluorobenzene	102%		52-140%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	3@1.5'		
Lab Sample ID:	TC96587-3	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8021B	**Percent Solids:**	78.8
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	LC026623.D	1	12/28/16	ALA	n/a	n/a	L:GLC917
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.40 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.086	0.017	mg/kg	
108-88-3	Toluene	ND	0.086	0.053	mg/kg	
100-41-4	Ethylbenzene	ND	0.086	0.013	mg/kg	
1330-20-7	Xylenes (total)	ND	0.26	0.0094	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.68	0.047	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
540-36-3	1,4-Difluorobenzene	95%		80-115%
460-00-4	4-Bromofluorobenzene	101%		79-135%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	3@1.5'		
Lab Sample ID:	TC96587-3	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8015C SW846 3546	**Percent Solids:**	78.8
Project:	Hobbs Station 571 16-07-101-17007		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	S0025869.D	1	12/27/16	ALA	12/27/16	L:OP7165	L:GLG424
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1.66	6.3	1.6	mg/kg	J
	TPH-ORO (C28-C35)	0.797	6.3	0.57	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		31-130%

(a) Analysis performed at SGS Accutest, Lafayette, LA.

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

Client Sample ID:	3@1.5'		
Lab Sample ID:	TC96587-3	**Date Sampled:**	12/21/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	78.8
Project:	Hobbs Station 571 16-07-101-17007		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 10	10	mg/kg	1	01/04/17 13:00	CV	EPA 300
Solids, Percent [a]	78.8		%	1	01/04/17	ALA	SM2540 G-97

(a) Analysis performed at SGS Accutest, Lafayette, LA.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY RECORD 16-07-101-17007

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
LAS VEGAS • RENO • PHOENIX • CHICO • SAN ANTONIO
www.broadbentinc.com

Project No./Name: Hobbs station 571 Project Manager: Chris Haugstad

Sampler Name: Andrew Silvas Laboratory Name: SGS Accutest TC96587

Page 1 of 1

ONLY RUN PAH on the sample with the HIGHEST TPH concentration per MATRIX

	Sample I.D.	Collection: Date	Collection: Time	Collection: No. of Containers	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air/Vapor	Preservation: Unpreserved (Ice Only)	Preservation: DI Water	Preservation: Methanol	Preservation: HCL	Preservation: Other	Requested Analyses: BTXE/MTBE EPA 8021/ 8260	Requested Analyses: Full Range TPH EPA 8015 / TX 1005	Requested Analyses: PAH - EPA 8270	Requested Analyses: IF TPH in DRO as ORO	Requested Analyses: Chlorides SM 4500 CL-B	Lab. No.	Comments
1	1@1.5'	12/21/16	1124	6	X			X	X	X			X	X			X		email results to:
2	2@1.5'	↓	1135	↓	↓			↓	↓	↓			↓	↓			↓		chaugstad@broadbentinc.com
3	3@1.5'		1140																asilvas@ "
4	Trip Blank																		

TAGGED BY:

VERIFIED BY:

☐ Bill To: Broadbent
☒ Bill To: Pilot Flying J
☐ Bill To:

	Relinquished by Sampler:	Date:	Time:	Received by:	Date:	Time:
	a. Silvas	12/21/16	1531	X		
	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	X				12/22/16	1035
	Relinquished by:	Date:	Time:	Received for Laboratory by:	Date:	Time:

White Copy - Laboratory. Yellow Copy - Consultant.

Turnaround Time
☐ 24 hours
☒ Standard

Use Detection Limits
☒ New Mexico
☐ Oklahoma
☐ Texas
☐ Other:

Submit/Fax Results to:
☐ Broadbent & Associates, Inc.
113 Falls Court, STE 700
Boerne, TX 78006
Phone (830) 816-5434
☐ Fax (830) 516-5436
☒ Email:
☐ Other:

TC96587: Chain of Custody
Page 1 of 4

ACCUTEST

COOLER TEMP FORM

TC# 96587

Delivered by (circle one): FedEx/UPS ALGC Driver Client

Date: 12/22/16

Client: PVOST

Cooler Number: 1

Thermometer ID: IR6 CF, °C 0 Corrected Temp, °C 4.7

SAMPLES CONTAINED IN COOLER

ORIGIN ID:SGRA (830) 816-5434
NATHAN DUNN ASSOCIATES, INC.
113 FALLS COURT, SUITE 700,
BOERNE, TX 78006
UNITED STATES US

SHIP DAT 12.22
ACTWGT: 1.0 LB
CAD: 0

BILL

TO SAMPLE MANAGEMENT
SGS ACCUTEST
10165 HARWIN DRIVE
SUITE 150
HOUSTON TX 77036
(713) 271-4700
REF: 45194 / COOLERS

FedEx Express

THU - 22 DEC 10:30A
PRIORITY OVERNIGHT

FedEx
TRK# 0221 6746 8793 1570

AB SGRA

77036
TX-US IAH

SGS ACCUTEST
ME SEALED 12/

GULF COAST CUSTODY SEAL
INITIALS AS
12/22/16 15:34

Form: SM027-0 12/4/2016

4.1

4

SGS Accutest Sample Receipt Summary

Job Number: TC96587 **Client:** PILOT FLYING J **Project:**

Date / Time Received: **Delivery Method:** **Airbill #'s:** 674687931570

No. Coolers: 1 **Therm ID:** IR9; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (1.7/1.7);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
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

Sample Receipt Log

Job #: TC96587 **Date / Time Received:** 12/22/2016 10:35:00 AM **Initials:** BG

Client: PILOT FLYING J

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TC96587-1	2oz	1	SUB	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-1	40ml	2	VR	MeOH		IR9	1.7	0	1.7
1	TC96587-1	40ml	3	VR	DI H2O	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-1	40ml	4	VR	DI H2O	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-1	40ml	5	2-57	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-1	40ml	6	2-57	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-2	2oz	1	SUB	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-2	40ml	2	VR	MeOH		IR9	1.7	0	1.7
1	TC96587-2	40ml	3	VR	DI H2O	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-2	40ml	4	VR	DI H2O	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-2	40ml	5	2-57	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-2	40ml	6	2-57	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-3	2oz	1	SUB	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-3	40ml	2	VR	MeOH		IR9	1.7	0	1.7
1	TC96587-3	40ml	3	VR	DI H2O	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-3	40ml	4	VR	DI H2O	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-3	40ml	5	2-57	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
1	TC96587-3	40ml	6	2-57	N/P	Note #2 - Preservative check not applicable.	IR9	1.7	0	1.7
	TC96587-4	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TC96587-4	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

5

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC96587
Account: PILOTSS - Pilot Travel Centers LLC
Project: Hobbs Station 571 16-07-101-17007

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP40092/GN78617	10	0.0	mg/kg	10000	10000	100.0	80-120%

Associated Samples:
Batch GP40092: TC96587-1, TC96587-2, TC96587-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC96587
Account: PILOTSS - Pilot Travel Centers LLC
Project: Hobbs Station 571 16-07-101-17007

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP40092/GN78617	TC96587-1	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP40092: TC96587-1, TC96587-2, TC96587-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC96587
Account: PILOTSS - Pilot Travel Centers LLC
Project: Hobbs Station 571 16-07-101-17007

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP40092/GN78617	TC96587-1	mg/kg	0.0	200	200	100.0	75-125%

Associated Samples:
Batch GP40092: TC96587-1, TC96587-2, TC96587-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Misc. Forms

Custody Documents and Other Forms

(SGS Accutest Lafayette)

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

SGS ACCUTEST

10165 Harwin Drive, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com

FED-EX Tracking #: | Bottle Order Control #:
SGS Accutest Quote #: | SGS Accutest Job #: TC96587

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: SGS Accutest	Project Name: Hobbs Station 571 16-07-101-17007	B8015DROORO, V8015GRO, V8021BTXM, V8260SPM, V8015PM	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 10165 Harwin Drive	Street:	Billing Information (if different from Report to)	
City: Houston State: TX Zip: 77036	City: State:	Company Name:	
Project Contact: Trameshia.Brown@sgs.com E-mail:	Project #:	Street Address:	
Phone #: 713-271-4700 Fax #:	Client Purchase Order #:	City: State: Zip:	
Sampler(s) Name(s): Phone:	Project Manager:	Attention:	

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
1	1@1.5'		12/21/16	11:24:00 AM		SO	5					x	x	x		4
2	2@1.5'		12/21/16	11:35:00 AM		SO	5					x	x	x		4
3	3@1.5'		12/21/16	11:40:00 AM		SO	5					x	x	x		4

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 1/4/2017

Emergency & Rush T/A data available VIA Labink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [X] Other COMMB

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

RS342 VSF
6537 7A2

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished By Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		12/22 6:45	TX Driver Initials	2 TX Driver Initials	12-23-16	2 LA Driver Initials SH
3	LA Driver Initials SH	10:30 12-23-16	3	4		4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # CS/CC	[X] Intact [ ] Not Intact	Preserved where applicable: [X] On Ice: [X] Cooler Temp. 2.6

Date / Time: 12/22/2016 5:35:10 PM
CSR: TRAMESHB
Job #: TC96587
Client Project: Hobbs Station 571 16-07-101-17007
Deliverable: COMMB
TAT: Due 1/4/2017

Sub Lab: Accutest Gulf Coast Louisiana
Address: 500 Ambassador Caffery Prkway
City: Scott
State: LA Zip: 70583
Contact: Sample Receiving
Phone: 800-304-5227

SGS Accutest Sample #	Client Sample Description	Analysis	Location	Sampled By	Date Sampled	Time Sampled	Aliquot
TC96587-1	1@1.5'	B8015DROORO ,V5035SPM ,V8015GRO ,V8021BTXM ,	2-57 ,SUB ,VR ,		12/21/2016	11:24:00 AM	
TC96587-2	2@1.5'	B8015DROORO ,V5035SPM ,V8015GRO ,V8021BTXM ,	2-57 ,SUB ,VR ,		12/21/2016	11:35:00 AM	
TC96587-3	3@1.5'	B8015DROORO ,V5035SPM ,V8015GRO ,V8021BTXM ,	2-57 ,SUB ,VR ,		12/21/2016	11:40:00 AM	

Comments:

3
4
1

Sample Management Receipt: _____ Date: _____

4= 2-40 ml sod bisulfate (04) } BS352
1-40 ml meth } ISF

1 - 2oz n/p BS37 7A2

CHAIN OF CUSTODY RECORD 16-07-101-17007

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
LAS VEGAS • RENO • PHOENIX
CHICO • SAN ANTONIO
www.broadbentinc.com

Project No./Name: Hobbs Station 571 Project Manager: Chris Haugstad

Sampler Name: Andrew Silvas Laboratory Name: SGS Accutest

T296587

	Sample I.D.	Collection: Date	Collection: Time	Collection: No. of Containers	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air/Vapor	Preservation: Unpreserved (Ice Only)	Preservation: DI Water	Preservation: Methanol	Preservation: HCL	Preservation: Other	Requested Analyses: BTXE/MTBE EPA 8021 / 8260	Requested Analyses: Full Range TPH EPA 8015 / TX 1005	Requested Analyses: PAH - EPA 8270	Requested Analyses: IF TPH in DRO as ORO	Requested Analyses: Chlorides SM 4500 CL-B	Lab. No.
1	1@1.5'	12/21/16	1124	6	X			X	X	X			X	X			X	
2	2@1.5'		1135															
3	3@1.5'		1140															
4	Trip Blank																	

Page 1 of 1

ONLY RUN PAH on the sample with the HIGHEST TPH concentration per MATRIX

Comments:

email results to:
chaugstad@broadbentinc.com
asilvas@broadbentinc.com

TAGGED BY:

VERIFIED BY:

- ☐ Bill To: Broadbent
- ☒ Bill To: Pilot Flying J
- ☐ Bill To:

Relinquished by Sampler:	Date:	Time:	Received by:	Date:	Time:
A. Silvas	12/21/16	1531	IX		
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
IX				12/22/16	1035
Relinquished by:	Date:	Time:	Received for Laboratory by:	Date:	Time:

Turnaround Time
- ☐ 24 hours
- ☒ Standard

Use Detection Limits
- ☒ New Mexico
- ☐ Oklahoma
- ☐ Texas
- ☐ Other:

Submit/Fax Results to:
- ☐ Broadbent & Associates, Inc.
  113 Falls Court, STE 700
  Boerne, TX 78006
  Phone (830) 816-5434
- ☐ Fax (830) 516-5436
- ☒ Email:
- ☐ Other:

White Copy - Laboratory. Yellow Copy - Consultant.

SGS Accutest Sample Receipt Summary

Job Number: TC96587 **Client:** SGS ACCUTEST **Project:** HOBBS STATION 571

Date / Time Received: 12/23/2016 10:30:00 AM **Delivery Method:** Accutest Courier **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (2/2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	;		
3. Cooler media:	Ice (direct contact)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
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

Job Change Order: TC96587

Requested Date:	1/3/2017	**Received Date:**	12/22/2016
Account Name:	Pilot Travel Centers LLC	**Due Date:**	1/4/2017
Project Description:	Hobbs Station 571 16-07-101-17007	**Deliverable:**	COMMB
CSR:	SylviaG	**TAT (Days):**	1

==========

Sample #: TC96587-1 thru 3

Dept:

TAT: 1

Change:
Please login %SOL to run in LAF

==========

Above Changes Per:

Date/Time: 1/3/2017 9:36:10 AM

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

Page 1 of 1

6.1

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TC96587: Chain of Custody
Page 5 of 5

GC Volatiles

QC Data Summaries

(SGS Accutest Lafayette)

Includes the following where applicable:

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

Method Blank Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLC918-MB1	LC026631.D	1	12/29/16	SV	n/a	n/a	GLC918

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	4.9	mg/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	104%	63-139%
540-36-3	1,4-Difluorobenzene	96%	52-140%

Method Blank Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLC917-MB3	LC026618.D	1	12/28/16	SV	n/a	n/a	GLC917

The QC reported here applies to the following samples: **Method:** SW846 8021B

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	9.7	ug/kg	
100-41-4	Ethylbenzene	ND	50	7.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	400	28	ug/kg	
108-88-3	Toluene	ND	50	31	ug/kg	
1330-20-7	Xylenes (total)	ND	150	5.5	ug/kg	

CAS No.	Surrogate Recoveries		Limits
540-36-3	1,4-Difluorobenzene	97%	80-115%
460-00-4	4-Bromofluorobenzene	100%	79-135%

Blank Spike Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLC918-BS1	LC026630.D	1	12/29/16	SV	n/a	n/a	GLC918

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	50	50.4	101	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	104%	63-139%
540-36-3	1,4-Difluorobenzene	105%	52-140%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLC917-BS3	LC026617.D	1	12/28/16	SV	n/a	n/a	GLC917

The QC reported here applies to the following samples: **Method:** SW846 8021B

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2650	106	80-120
100-41-4	Ethylbenzene	2500	2630	105	84-121
1634-04-4	Methyl Tert Butyl Ether	2500	2590	104	52-146
108-88-3	Toluene	2500	2660	106	83-122
1330-20-7	Xylenes (total)	7500	7800	104	85-120

CAS No.	Surrogate Recoveries	BSP	Limits
540-36-3	1,4-Difluorobenzene	97%	80-115%
460-00-4	4-Bromofluorobenzene	101%	79-135%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
LA28962-1AMS	LC026636.D	1	12/29/16	SV	n/a	n/a	GLC918
LA28962-1AMSD	LC026637.D	1	12/29/16	SV	n/a	n/a	GLC918
LA28962-1A	LC026632.D	1	12/29/16	SV	n/a	n/a	GLC918

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	LA28962-1A mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		98	93.9	96	98	96.3	98	3	79-121/6

CAS No.	Surrogate Recoveries	MS	MSD	LA28962-1A	Limits
460-00-4	4-Bromofluorobenzene	104%	101%	104%	63-139%
540-36-3	1,4-Difluorobenzene	102%	104%	97%	52-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC96587-3MS	LC026624.D	1	12/28/16	SV	n/a	n/a	GLC917
TC96587-3MSD	LC026625.D	1	12/28/16	SV	n/a	n/a	GLC917
TC96587-3	LC026623.D	1	12/28/16	SV	n/a	n/a	GLC917

The QC reported here applies to the following samples: **Method:** SW846 8021B

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	TC96587-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		17100	17300	101	17100	17800	104	3	80-120/8
100-41-4	Ethylbenzene	ND		17100	17400	102	17100	17800	104	2	84-121/8
1634-04-4	Methyl Tert Butyl Ether	ND		17100	17400	102	17100	17700	103	2	52-146/29
108-88-3	Toluene	ND		17100	17400	102	17100	17900	105	3	83-122/8
1330-20-7	Xylenes (total)	ND		51300	52000	101	51300	52700	103	1	85-120/7

CAS No.	Surrogate Recoveries	MS	MSD	TC96587-3	Limits
540-36-3	1,4-Difluorobenzene	98%	97%	95%	80-115%
460-00-4	4-Bromofluorobenzene	104%	102%	101%	79-135%

* = Outside of Control Limits.

GC Semi-volatiles

QC Data Summaries

(SGS Accutest Lafayette)

Includes the following where applicable:

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

Method Blank Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7165-MB	S0025847B.D	1	12/27/16	JT	12/27/16	OP7165	GLG424

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	5.0	1.2	mg/kg	
	TPH-ORO (C28-C35)	ND	5.0	0.45	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	96%	31-130%

Blank Spike Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7165-BS1	S0025848B.D	1	12/27/16	JT	12/27/16	OP7165	GLG424

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	150	147	98	60-115

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	100%	31-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7165-BS2	S0025854B.D	1	12/27/16	JT	12/27/16	OP7165	GLG424

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-ORO (C28-C35)	60	55.1	92	25-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	99%	31-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7165-MS1	S0025856.D	1	12/27/16	JT	12/27/16	OP7165	GLG424
OP7165-MSD1	S0025857.D	1	12/27/16	JT	12/27/16	OP7165	GLG424
TC96587-1	S0025861.D	1	12/27/16	JT	12/27/16	OP7165	GLG424

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	TC96587-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	168		187	348	96	188	349	96	0	60-115/46

CAS No.	Surrogate Recoveries	MS	MSD	TC96587-1	Limits
84-15-1	o-Terphenyl	88%	96%	85%	31-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC96587
Account: ALGC SGS Accutest Gulf Coast
Project: PILOTSS: Hobbs Station 571 16-07-101-17007

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7165-MS2	S0025858.D	1	12/27/16	JT	12/27/16	OP7165	GLG424
OP7165-MSD2	S0025859.D	1	12/27/16	JT	12/27/16	OP7165	GLG424
TC96587-1	S0025861.D	1	12/27/16	JT	12/27/16	OP7165	GLG424

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

TC96587-1, TC96587-2, TC96587-3

CAS No.	Compound	TC96587-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-ORO (C28-C35)	124		74	245	164* [a]	73.6	186	84	27	25-120/34

CAS No.	Surrogate Recoveries	MS	MSD	TC96587-1	Limits
84-15-1	o-Terphenyl	101%	95%	85%	31-130%

(a) Outside control limits due to matrix interference or possible sample nonhomogeneity.

* = Outside of Control Limits.

REPUBLIC SERVICES

No. 036434

WASTE MANIFEST

1. GENERATOR INFORMATION

Generator (Company):				Bill Generator:	☐
Address:	Street				
	City/Town	State	Zip Code	Phone Number:	
Waste Description:				Waste Approval Code:	
Generating Location:	Lease/Field/Well # Hatley Frontier			Shipping Date:	
	Rig Name/Rig #			Est. Quantity Shipped:	
	City/Town	State	Zip Code	Waste Code (EXP or PROD):	

I hereby certify that the aforementioned waste material contains NO FREE LIQUIDS and it has been classified and packaged for shipping as per federal, state and local laws and regulatory criteria. I further certify that this waste material is an acceptable waste for the receiving facility below. I understand that it is the sole responsibility of the generator to classify their waste properly.

Certified By: (print name)		Date (mm/dd/yy)	Signature:	
Company Name:			Phone Number:	

2. TRANSPORTER INFORMATION

Trucking Company:		Bill Transporter:	☐
Address:		Trailer Number:	
Driver Name:		Permit No.	
License Plate Number:		Truck Number:	

I hereby certify that the waste in quantity above was received by me for shipment to the below destination.

Certified By: (print name)		Date (mm/dd/yy) 3-16-17	Signature:	

3. WASTE INFORMATION

☐ Oil Base Mud	☐ Drill Cuttings	☐ Oil Spill Waste/Solids	☐ Equipment Assist
☐ Water Base Mud	☐ Production Pit Sludges	☐ Produced Sands/Solids	☐ Liner
☐ Produced Water (SW)	☐ Storage Tank Bottoms	☐ Produced Water (SW)	☐
☐ Oil Base Cuttings	☒ Contaminated Soil	☐ Completion Fluids	☐
☐ Water Base Cuttings	☐ Gas Plant Waste Solids	☐ Washout Time	☐

4. REPUBLIC SERVICES LANDFILL INFORMATION

Waste Destined For: ☐ Landfill Disposal ☐ TRD Disposal Mustang #66

Waste Discrepancy:	☐ Yes	☐ No	Rejected:	☐ Yes	☐ No	
Reason Rejected:					Scale Ticket No.	
Gross Weight:		Tare Weight:		Net Weight:		
Waste Location:	Cell:		Grid:		Elevation:	

I hereby certify that to the best of my knowledge, all information in this document is correct and accurate and said material has been received in good order

Certified By: (print name) Gabrielle Ogden	Date (mm/dd/yy) 3-16-17	Signature:	

White (Original) Yellow (Head Office) Pink (Generator) Gold (Transporter) Green (Generator Retains at Site)