

September 19, 2017

CARL AKINS
KC SOUTHERN
427 WEST 12ST STREET
Kansas City, MO 64105

RE: Project: KCS RUSTON
Pace Project No.: 60253215

Dear CARL AKINS:

Enclosed are the analytical results for sample(s) received by the laboratory on September 15, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Angie Brown
Angie.Brown@pacelabs.com
1(913)563-1402
Project Manager

Enclosures

cc: Paul Kuhlmeier, KC Southern



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: KCS RUSTON

Pace Project No.: 60253215

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 15-016-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407

Utah Certification #: KS00021

Kansas Field Laboratory Accreditation: # E-92587

Missouri Certification: 10070

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SAMPLE SUMMARY

Project: KCS RUSTON

Pace Project No.: 60253215

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60253215001	RUSTON-NORTH	Solid	09/14/17 12:15	09/15/17 09:10
60253215002	RUSTON-SOUTH	Solid	09/14/17 12:30	09/15/17 09:10

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SAMPLE ANALYTE COUNT

Project: KCS RUSTON

Pace Project No.: 60253215

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60253215001	RUSTON-NORTH	EPA 6010	JGP	2
		ASTM D2974	DWC	1
60253215002	RUSTON-SOUTH	EPA 6010	JGP	2
		ASTM D2974	DWC	1

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ANALYTICAL RESULTS

Project: KCS RUSTON

Pace Project No.: 60253215

Sample: RUSTON-NORTH **Lab ID: 60253215001** Collected: 09/14/17 12:15 Received: 09/15/17 09:10 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Red. Interference		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Antimony	4.6	mg/kg	0.94	1	09/15/17 16:57	09/18/17 19:14	7440-36-0	
Lead	222	mg/kg	0.47	1	09/15/17 16:57	09/18/17 19:14	7439-92-1	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	13.3	%	0.50	1		09/18/17 00:00		

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ANALYTICAL RESULTS

Project: KCS RUSTON

Pace Project No.: 60253215

Sample: RUSTON-SOUTH **Lab ID: 60253215002** Collected: 09/14/17 12:30 Received: 09/15/17 09:10 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Red. Interference		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Antimony	ND	mg/kg	0.81	1	09/15/17 16:57	09/18/17 19:18	7440-36-0	
Lead	7.0	mg/kg	0.40	1	09/15/17 16:57	09/18/17 19:18	7439-92-1	
Percent Moisture		Analytical Method: ASTM D2974						
Percent Moisture	5.5	%	0.50	1		09/18/17 00:00		

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QUALITY CONTROL DATA

Project: KCS RUSTON

Pace Project No.: 60253215

QC Batch: 494354 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 60253215001, 60253215002

METHOD BLANK: 2022242 Matrix: Solid

Associated Lab Samples: 60253215001, 60253215002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/kg	ND	1.0	09/18/17 18:11	
Lead	mg/kg	ND	0.50	09/18/17 18:11	

LABORATORY CONTROL SAMPLE: 2022243

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg	100	94.8	95	80-120	
Lead	mg/kg	100	98.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2022244 2022245

Parameter	Units	60252967002		2022244		2022245		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Antimony	mg/kg	1.1	99.5	89.2	31.4	26.3	31	28	75-125	18	20 M1
Lead	mg/kg	21.3	99.5	89.2	86.5	94.5	66	82	75-125	9	20 M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: KCS RUSTON

Pace Project No.: 60253215

QC Batch: 494519

Analysis Method: ASTM D2974

QC Batch Method: ASTM D2974

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 60253215001, 60253215002

METHOD BLANK: 2023214

Matrix: Solid

Associated Lab Samples: 60253215001, 60253215002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	09/18/17 00:00	

SAMPLE DUPLICATE: 2023215

Parameter	Units	60253197001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.0	14.3	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: KCS RUSTON

Pace Project No.: 60253215

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: KCS RUSTON

Pace Project No.: 60253215

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60253215001	RUSTON-NORTH	EPA 3050	494354	EPA 6010	494547
60253215002	RUSTON-SOUTH	EPA 3050	494354	EPA 6010	494547
60253215001	RUSTON-NORTH	ASTM D2974	494519		
60253215002	RUSTON-SOUTH	ASTM D2974	494519		

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Sample Condition Upon Receipt

WO#: 60253215
Barcode
60253215

Client Name: KCS

Courier: FedEx [checked] UPS [] VIA [] Clay [] PEX [] ECI [] Pace [] Xroads [] Client [] Other []

Tracking #: 7285 6597 0758 Pace Shipping Label Used? Yes [checked] No []

Custody Seal on Cooler/Box Present: Yes [checked] No [] Seals intact: Yes [checked] No []

Packing Material: Bubble Wrap [] Bubble Bags [checked] Foam [] None [] Other []

Thermometer Used: T-266 / T-239 Type of Ice: Wet [checked] Blue [] None []

Cooler Temperature (°C): As-read 5.9 Corr. Factor CF 0.0 CF +0.3 Corrected 5.9

Date and initials of person examining contents: 8/15/17

Temperature should be above freezing to 6°C

Table with 3 columns: Question, Yes/No/N/A checkboxes, and handwritten notes. Rows include Chain of Custody, Samples arrived, Short Hold Time, Rush Turn Around Time (2 day), Sufficient volume, Correct containers used, Pace containers used, Containers intact, Unpreserved soils, Filtered volume, Sample labels match COC, Samples contain multiple phases (Matrix: SL), Containers requiring pH preservation, Cyanide water sample checks, Lead acetate strip, Potassium iodide test strip, Trip Blank present, Headspace in VOA vials, Samples from USDA Regulated Area (State: LA), Additional labels attached.

USDA Regulated Soil
Dispose of Sample and all Aliquots in Designated Containers

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:



816-983-1343

CARL ANNS

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
Required Client Information:
 Company: KCS
 Address: 427 W. 12th Street
 Kansas City, MO 64105
 Email: CARINS@KCSouthern.COM
 Phone: 816-983-1343
 Fax: []

Section B
Required Project Information:
 Report To: CARL ANNS
 Copy To: CARINS@KCSouthern.COM
 Purchase Order #: []
 Project Name: KCS RUSTON
 Project #: []

Section C
Invoice Information:
 Attention: KCS - JANEY SOMMER
 Company Name: KCS
 Address: 427 W. 12th Street, MO, 64105
 Pace Quote: []
 Pace Project Manager: angie.brown@paracelabs.com
 Pace Profile #: []

Regulatory Agency: ERA
 State / Location: LA

ITEM #	MATRIX CODE <small>Drinking Water: DW Water: WT Wastewater: WW Product: P Solid: SL Oil: OL Air: AR Other: OT Tissue: TS</small>	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on	Sealed	Custody	Cooler	Samples Intact	
		START	END															
1		DATE	TIME	DATE	TIME		9/14/15	9:14										
2		DATE	TIME	DATE	TIME		9/14/15	12:30										
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS:
 email results to
 carins@kcsouthern.com
 carins@kcsouthern.com
 phlmeier@aol.com

Requested Analysis Filtered (Y/N)

Residual Chlorine (Y/N)

Prepaid FedEx return billing

%Moisture/dry wt correct

6010 Sp, Pb

Analyses Test

Preservatives

Unpreserved

H2SO4

HNO3

HCl

NaOH

Na2S2O3

Methanol

Other

OF CONTAINERS

SAMPLE TEMP AT COLLECTION

Y/N

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

TEMP in C

Received on

Sealed

Custody

Cooler

Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: PAUL KUKMEIER

SIGNATURE of SAMPLER: Paul Kukmeier

DATE Signed: 9/14/2015