

# LEGEND:

- SOIL BORING
  WELL
  METHANE PROBE





December 30, 2015

Brittney Odom SCS Engineers 7700 N Kendall Drive #607 Miami, FL 33156

RE: Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

# Dear Brittney Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on December 22, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Christina Raschke

Monther Darable

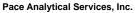
christina.raschke@pacelabs.com

**Project Manager** 

**Enclosures** 

cc: Somshekhar Kundral, SCS Engineers Anthony Pezzotti, SCS ES Consultants







3610 Park Central Blvd N Pompano Beach, FL 33064 954-582-4300

#### **CERTIFICATIONS**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

**Ormond Beach Certification IDs** 

8 East Tower Circle, Ormond Beach, FL 32174

Alabama Certification #: 41320 Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079 Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383 Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007

Maryland Certification: #346 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14 Nevada Certification: FL NELAC Reciprocity New Hampshire Certification #: 2958

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710 North Dakota Certification #: R-216 Oklahoma Certification #: D9947 Pennsylvania Certification #: 68-00547 Puerto Rico Certification #: FL01264 South Carolina Certification: #96042001 Tennessee Certification #: TN02974 Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity



# **SAMPLE SUMMARY**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35222352001	SB-North (0-1')	Solid	12/21/15 14:10	12/22/15 14:15
35222352002	SB-South (0-1')	Solid	12/21/15 15:24	12/22/15 14:15
35222352003	SB-West (0-1')	Solid	12/21/15 13:53	12/22/15 14:15
35222352004	SB-East (0-1')	Solid	12/21/15 14:48	12/22/15 14:15
35222352005	SB-Middle (0-1')	Solid	12/21/15 15:09	12/22/15 14:15



# **SAMPLE ANALYTE COUNT**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35222352001	SB-North (0-1')	EPA 6010	MEW	1	PASI-O
		ASTM D2974-87	MLO	1	PASI-O
35222352002	SB-South (0-1')	EPA 6010	MEW	1	PASI-O
		ASTM D2974-87	MLO	1	PASI-O
35222352003	SB-West (0-1')	EPA 6010	MEW	1	PASI-O
		ASTM D2974-87	MLO	1	PASI-O
35222352004	SB-East (0-1')	EPA 6010	MEW	1	PASI-O
		ASTM D2974-87	MLO	1	PASI-O
35222352005	SB-Middle (0-1')	EPA 6010	MEW	1	PASI-O
		ASTM D2974-87	MLO	1	PASI-O



#### **PROJECT NARRATIVE**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Method: EPA 6010

Description: 6010 MET ICP, TCLP
Client: SCS Engineers
Date: December 30, 2015

#### **General Information:**

5 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

#### **Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

Sample: SB-North (0-1') Lab ID: 35222352001 Collected: 12/21/15 14:10 Received: 12/22/15 14:15 Matrix: Solid

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	•		A 6010 Prepa e: EPA 1311; 1			A 3010			
Lead	0.050 U	mg/L	0.10	0.050	1	12/29/15 15:11	12/30/15 16:13	7439-92-1	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	11.4	%	0.10	0.10	1		12/28/15 15:08		



Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

Sample: SB-South (0-1') Lab ID: 35222352002 Collected: 12/21/15 15:24 Received: 12/22/15 14:15 Matrix: Solid

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual		
6010 MET ICP, TCLP	•	Method: EPA Method/Date:									
Lead	0.050 U	<b>0.050 U</b> mg/L 0.10 0.050		0.050	1	12/29/15 15:11	12/30/15 16:17	7439-92-1			
Percent Moisture	Analytical Method: ASTM D2974-87										
Percent Moisture	6.2	%	0.10	0.10	1		12/28/15 15:08				



Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

Sample: SB-West (0-1') Lab ID: 35222352003 Collected: 12/21/15 13:53 Received: 12/22/15 14:15 Matrix: Solid

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	,		A 6010 Prepa e: EPA 1311; 1:			A 3010			
Lead	0.050 U	mg/L	0.10	0.050	1	12/29/15 15:11	12/30/15 16:21	7439-92-1	
Percent Moisture	Analytical	Method: AS	ΓM D2974-87						
Percent Moisture	6.7	%	0.10	0.10	1		12/28/15 15:08		J(D6)



Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

Sample: SB-East (0-1') Lab ID: 35222352004 Collected: 12/21/15 14:48 Received: 12/22/15 14:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP, TCLP	•		A 6010 Prepa : EPA 1311; 1:			A 3010				
Lead	0.050 U	mg/L	0.10	0.050	1	12/29/15 15:11	12/30/15 16:39	7439-92-1		
Percent Moisture	Analytical Method: ASTM D2974-87									
Percent Moisture	<b>7.3</b> % 0.10 0.10 1 12/28/15 15:08									



Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

Sample: SB-Middle (0-1') Lab ID: 35222352005 Collected: 12/21/15 15:09 Received: 12/22/15 14:15 Matrix: Solid

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	•		A 6010 Prepa e: EPA 1311; 1			A 3010			
Lead	0.050 U	mg/L	0.10	0.050	1	12/29/15 15:11	12/30/15 16:43	7439-92-1	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	8.1	%	0.10	0.10	1		12/28/15 15:09		



#### **QUALITY CONTROL DATA**

09213010.62/Douglas Park Project:

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

QC Batch: MPRP/28020 Analysis Method: EPA 6010 QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP Associated Lab Samples: 35222352001, 35222352002, 35222352003, 35222352004, 35222352005

METHOD BLANK: 1433689 Matrix: Water

Associated Lab Samples: 35222352001, 35222352002, 35222352003, 35222352004, 35222352005

mg/L

Blank Reporting

Limit MDL Qualifiers Parameter Units Result Analyzed Lead 0.050 U 0.10 0.050 12/29/15 16:25

LABORATORY CONTROL SAMPLE: 1433690

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Lead mg/L 2.5 101 80-120

1433692 MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1433691

MS MSD 35222339001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits RPD RPD Qual Lead 0.050 U 2.5 75-125 20 mg/L 2.5 2.5 2.6 103 100 3

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.



#### **QUALITY CONTROL DATA**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Percent Moisture

Date: 12/30/2015 05:54 PM

QC Batch: PMST/4178 Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 35222352001, 35222352002, 35222352003, 35222352004, 35222352005

%

SAMPLE DUPLICATE: 1432967						
		35221973001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Percent Moisture	%	9.3	10.2	10	10	
SAMPLE DUPLICATE: 1432968						
		35221973011	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Percent Moisture	%	4.2	4.0	4	10	
SAMPLE DUPLICATE: 1432969						
		35221973020	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Percent Moisture	%	24.6	24.9	1	10	
SAMPLE DUPLICATE: 1432970						
		35222352003	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers

6.7

5.7

16

10 J(D6)

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.



#### **QUALIFIERS**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

#### **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.

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.

#### **LABORATORIES**

PASI-O Pace Analytical Services - Ormond Beach

#### **ANALYTE QUALIFIERS**

Date: 12/30/2015 05:54 PM

U Compound was analyzed for but not detected.

J(D6) Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory

control limits.



# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 09213010.62/Douglas Park

Pace Project No.: 35222352

Date: 12/30/2015 05:54 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35222352001	SB-North (0-1')	EPA 3010	MPRP/28020	EPA 6010	ICP/16858
35222352002	SB-South (0-1')	EPA 3010	MPRP/28020	EPA 6010	ICP/16858
35222352003	SB-West (0-1')	EPA 3010	MPRP/28020	EPA 6010	ICP/16858
35222352004	SB-East (0-1')	EPA 3010	MPRP/28020	EPA 6010	ICP/16858
35222352005	SB-Middle (0-1')	EPA 3010	MPRP/28020	EPA 6010	ICP/16858
35222352001	SB-North (0-1')	ASTM D2974-87	PMST/4178		
35222352002	SB-South (0-1')	ASTM D2974-87	PMST/4178		
35222352003	SB-West (0-1')	ASTM D2974-87	PMST/4178		
35222352004	SB-East (0-1')	ASTM D2974-87	PMST/4178		
35222352005	SB-Middle (0-1')	ASTM D2974-87	PMST/4178		



# MO#: 35222352

								12	1	10	9	œ	7	6	ъ	4	ω	2	_	ITEM #			Request	Phone:	Email To:		Address:	Company:	Required C		10
							ADDITIONAL COMMENTS								SB-Middle (0-1')	SB-East (0-1')	SB-West (0-1')	SB-South (0-1')	SB-North (0-1')	SAMPLE ID  (A-Z, 0-9 / ,-)  Sample IDs MUST BE UNIQUE  TISSUE  UNIQUE  TISSUE  UNIQUE  TISSUE	Section D Valid Matrix Codes Required Client Information MATRIX CODE		Requested Due Date/TAT: Standard	954-253-4442 Fax:	bodom@scseningeers.com	Miami, FL 33156	7700 North Kendall Drive, Ste 300	SCS Engineers	Required Client Information:	www.pacelabs.com	Pace Analytical
				\	K	11.0	RELINQU								suc	SLC	SLG	216	SL 6	TS	CODE to left)		Project Number: 092	Project Name: Dou	Purchase Order No.:		Copy To: Eddy Smith	Report To: Brittney Odom	Required Project Information.		
	2	SAMPLE		"	K Mi	THE !	RELINQUISHED BY / AFFILIATION									12/21 14:25	F		DA A	COMPOSITE START  START  DATE TIME	COLL	7	09213010.62	Douglas Park	TBD		nith	Odom	гтаноп.	35222352	Σ <b>Σ</b>
SIGNATURE of SAMPLER:	PRINT Name of SAMPLER:	SAMPLER NAME AND SIGNATURE			le whi	12/22/1	ON DATE							3		12/21	1221 13:53	-	1961 INV	POSIT	COLLECTED									52	
LER: TO	Lougde	TURE			13/451	5/130										-	-	7		SAMPLE TEMP AT COLLECTION  # OF CONTAINERS  Unpreserved  H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub>			Pace Profile #:	1000	Pace Quote Reference:	Address: 7	Company Name:	Attention: B	Invoice Information:		200
	s Baralles			•	100	HM	ACCEPTED													HCI NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol Other	Preservatives	20	1252-	Christina Raschke		700 N. Kendall Dri	SCS Engineers	Brittney Odom	n.	,	ical I
DATE Signed (MM/DD/YY):	De /515	,			XXX	MACE	CCEPTED BY I AFFICIATION	4							×	×	×	×	×	<b>↓Analysis Test↓</b> TCLP Lead	Y/ N.	Requested	3			7700 N. Kendall Drive, MIA, FL 33156					ical Request Document rant fields must be completed accurately.
12/22/10				1 1	Markey"	While	<b>р</b> ате,															Analysis Filtered	STATE:	Site Location	UST	NPDES	REGULATORY AGENCY				cument accurately.
Tei	mp in	°C	h.S		1418	1237	TIME													Residual Chlorine (Y/N)		d (Y/N)			RCRA	GROUND WATER	AGENCY		Page:	]	
lc Custo	ceived e (Y/N ody Se oler (Y	N) ealed					SAMPLE CONDITIONS													Pace Project No./ Lab I.D					OTHER	٦			of		
	ples li (Y/N)						TIONS													٧٥./ Lab I.D						DRINKING WATER			F	Page 15	5 of 16

Pace Analytical

Document Name: Sample Condition Upon Receipt Form Document No.: F-FL-C-007 rev. 05

Document Revised: October 9, 2013 Issuing Authorities: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name:C	PM: CTR Due Date: 12/29/15
Tracking #	11 12 7 400
	Date and Initials of person examining
Packing Material: Bubble Wrap Bubble Bags None	Other contents:
Thermometer Used Type of Ice: We	
$r = \sqrt{1 - r}$	(Temp should be above freezing to 6°C). If below 0°C, then wa
(Visual) (Correction	n Factor)(Actual) sample frozen?
Receipt of samples satisfactory:	/
If yes, then all conditions below were met:	I requested on 600.
Chain of Custody Present	If no, then mark box & describe issue (use comments area if necessary):
Chain of Custody Filled Out	
Relinquished Signature & Sampler Name COC	
Samples Arrived within Hold Time	
1	
Sufficient Volume	
Correct Containers Used	
Containers Intact	
Sample Labels match COC (sample IDs & date/time of collection)	
cample table materials (sample 155 a date/time of collection)	
All containers and in a constainer of the last	No Labels: No Time/Date on Labels:
All containers needing preservation are found to be in compliance with EPA recommendation.	
No Headspace in VOA Vials ( >6mm):	
Client Notification/ Resolution:	
Person Contacted:Date Comments/ Resolution (use back for additional comments):	e/Time:
Project Manager Review:	Date:
	Duici.
200 9 3 7 100 100 100	
Finished Product I	nformation Only
F.P. Sample ID:	Size & Qty of Bottles Received
	x 5 Gal
Production Code:	x 2.5 Gal x 1 Gal
Date/Time Opened:	x 1 Liter
Number of Unopened Bottles Remaining:	x 500 mL x 250 mL x Other:
Extra Sample in Shed: Yes No.	A Oulei