

New Kent Wood Preservatives, Inc. Site/L-Wood, Inc. Southern Pine Specialists – Removal Response Action**Submittal Log****DAA No. R1543R-12****July 23, 2018**

Specification/ Drawing	Description	Date Received	Date Returned	Status Returned	Date Approved	Notes
MISC-01	Preliminary Submittal List	N/A	N/A	N/A	N/A	
MISC-02	Road Surface Gravel - Concrete/Asphalt Millings	10/11/2017	11/29/2017	Approved	11/30/2017	
403-01	Corrugated Metal Pipe	10/5/2017	10/13/2017	Approved	10/13/2017	Not used
502-01	PVC Pipe	10/5/2017	10/13/2017	Approved	10/13/2017	Not used
503-01	Safety Fence	10/5/2017	10/13/2017	Approved	10/13/2017	
01330-01	Geotextile Separation Fabric	10/5/2017	10/13/2017	Approved	10/13/2017	
01340-01	Silt Fence	10/5/2017	10/13/2017	Resubmit	10/13/2017	Super Silt Fence not submitted
01370-01	Construction Schedule	11/20/2017	11/20/2017	Submitted	11/20/2017	
02200-01	Backfill Soil	10/11/2017	11/27/2017	Approved	11/27/2017	
02200-02	Engineered Soil Mix	10/11/2017	11/30/2017	Approved	11/30/2017	
02200-03	Topsoil	12/15/2017	1/3/2018	Approved	1/3/2018	
02480-01	Seed and Fertilizer					Not submitted due to seasonal planting schedule

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	11/21/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/11/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Crushed Concrete and Screened Asphalt	Lee Hy Paving	C503	B


*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required

Approval is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents and does not relieve the Contractor of the responsibility to correct all errors, deviations, and omissions related to this submittal. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Comments:

This material is a replacement for VDOT#21B Aggregate to be used for the road surfaces only. The material is a mixture of asphalt millings and recycled concrete.
DAA collected a sample of the millings at the source and tested for Arsenic and Chromium concentrations. See attached laboratory results.
DAA approves the material for use as road surface material. Final approval is pending approval by the USEPA.

	
By:	William A. Salomone, P.E.
Title	Project Coordinator - Draper Aden Associates
Date:	11/21/2017

Distribution:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Contractor | <input type="checkbox"/> Draper Aden - CQA |
| <input checked="" type="checkbox"/> Client | <input checked="" type="checkbox"/> File |
| <input checked="" type="checkbox"/> Regulatory | |

**MATERIAL SAFETY DATA SHEET (MSDS)
FOR HOT MIX ASPHALT**

I - PRODUCT IDENTIFICATION

MANUFACTURER / DISTRIBUTOR: Lee Hy Paving Corporation	PRODUCT NAME: Hot Mix Asphalt SYNONYMS: HMA
ADDRESS: (Number, Street, City, State, and ZIP Code) P.O. Box 5036 Glen Allen, VA 23058-5036	DATE OF PREPARATION: May 30, 2001 (Updated)
TELEPHONE FOR INFORMATION: 804/364-3015	EMERGENCY TELEPHONE: 804/364-3015
DOT IDENTIFICATION NUMBER: Unclassified	

II - PRODUCT AND COMPONENT DATA

			Exposure Limits
Ingredient Name	CAS REGISTRY NO.	% (APPROX.)	
Asphalt Cement	8052-42-4	Petroleum Asphalt =< 10%	5 mg/m ³ 8 hour TWA
Aggregate	14808-60-7	> 90 %	TLV = 10 mg / m ³ (inhalable/ Total Particulate)
Hydrated Lime	14808-60-7	< 1 %	TLV = 70 mg / m ³ OSHA PEL = 15 mg / m ³ (Total Dust)

III - PHYSICAL DATA

BOILING POINT: > 700 DEG F	SPECIFIC GRAVITY (H2O=1): 2-3
VAPOR PRESSURE (mm Hg.): < 0.01 mmHG@300 DEG F	MELTING POINT: N/A
VAPOR DENSITY (Air =1): N/A	EVAPORATION RATE: N/A
SOLUBILITY IN WATER: N/A	% VOLATILE BY VOLUME AT 68° F: NEGLIGIBLE
APPEARANCE AND ODOR: BLACK	

IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >450 DEG F METHOD USED: COC FLAMMABLE LIMITS: LFL: N/A UFL: N/A
NFPA CLASSIFICATION: HEALTH: 1 FIRE: 1 REACTIVITY: 0 OTHER: NONE

EXTINGUISHING MEDIA: CO₂, Dry Chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES: caution is recommended in the use of water in closed containers since the resulting steam pressure may cause violent eruptions. Follow established confined space entry procedures / precautions NAPA 1500/ OSHA 29 CFR 1910.146

UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not heat above Flash Point of Asphalt Cement Component

V- REACTIVITY DATA

STABILITY: Stable X Unstable _____ CONDITIONS TO AVOID AND INCOMPATIBILITY: N/A

VI - HEALTH HAZARD / FIRST AID INFORMATION

PRIMARY ROUTES OF ENTRY: INHALATION X SKIN X INGESTION _____ EYES X

EXPOSURE LIMITS:

A. Time weighted average (TWA) based on an allowable concentration exposure averaged over a normal 8 hour work day or 40 hour work week;

B. Short Term Exposure Limit (STEL) based on the maximum concentration for a continuous 15 minute exposure period (not to exceed four such exposures per day; or

C. Ceiling Exposure Limit (CEL) based on the exposure concentration not to be exceeded under any circumstances

No Exposure Limits have been established for HMA, Petroleum Asphalt Fumes: ACGIH TLV = 5 mg / m³ for 8 hour TWA Exposure.

Petro Asphalt fumes: ACGIH TLV = 5 mg / m³ for 8 hour TWA exposure

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Existing abnormal conditions of the skin and/or respiratory tract may be aggravated by exposure to HMA in some individuals

SHORT-TERM (ACUTE) HEALTH EFFECTS:

HMA is typically handled at temperatures in the range of 280 DEG to 325 DEG F, which can cause severe thermal burns.

Working in close proximity to product has been reported to cause mild irritation of the eyes, skin and respiratory tract of some sensitive individuals (American Journal of Industrial Medicine 20: 737-744 (1991).

A more recent study of acute effects relating to petroleum asphalt fume exposure concluded:

"There were no practically significant findings, from these data to relate any of the symptoms to any of the measured exposures to asphalt fumes with the use of any of the statistical methods."

(Gamble Scand J. Work Environ. Health 1999, Vol. 25, No. 3, P. 202)

EMERGENCY AND FIRST AID PROCEDURES:

EYES: In the event that hot HMA enters eyes, immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get prompt medical attention.

SKIN: DO NOT use solvents or thinners to remove material from skin. Get prompt medical attention.

Note to Physicians - cooled asphalt may adhere so tenaciously to the skin that attempted removal may cause severe distress to patient. Covering the affected area using commercially available preparations containing the emulsifying agent polysorbate, or an antibiotic cream in a polysorbate base is the most effective method to dissolve the solidified asphalt. Asphalt can also be slowly dissolved with vegetable oil, baby oil, or mineral oil.

INHALATION: Remove to fresh air, get prompt medical attention if breathing is difficult.

LONG -TERM (CHRONIC) HEALTH EFFECTS:

HMA should not be confused with "Tar" products, which are derived from coal. HMA is not on the NTP, IARC, or OSHA list of carcinogens.

Recycling processing operations and other destructive operations to HMA pavements may create respirable dust. This dust may contain crystalline silica that has been designated by OSHA as a cause of silicosis. While engineering controls are typically applied at the point of destruction, prudence is called for. For respirable quartz levels that exceed, or are likely to exceed an 8 - hour TWA of 0.1 mg/m^3 , the appropriate NIOSH /Mine Safety and Health Administration (MSHA) approved air-purifying respirator must be worn (NIOSH Guide to Industrial Respiratory Protection, NIOSH [1982a], Pub. No. 87-116). If respirable levels exceed, or are likely to exceed, or are likely to exceed an 8 hour TWA of $5 \text{ mg} / \text{m}^3$, a NIOSH /MSHA approved, positive pressure, full-face respirator is required. Respirator use must comply with applicable OSHA Standards, including 29 CFR 1910.134 and 1926.103.

VII - PERSONAL PROTECTION AND CONTROL MEASURES

RESPIRATORY PROTECTION:

Respiratory protection is not typically required under normal use and working conditions because of low exposures and use of engineering controls.

VENTILATION:

Use general dilution and local exhaust ventilation as required to maintain exposures below appropriate exposure limits.

SKIN PROTECTION:

Non-Synthetic long pants and appropriate boots should be used to prevent thermal burns.

EYE PROTECTION:

Safety glasses with side shields that comply with ANSI standard 287.1 should be worn as minimal protection when eye exposure to airborne particles exist.

HYGIENE:

Washing skin with a specific type of soap or cleaner, etc. Normal hygiene practices are recommended.

OTHER CONTROL MEASURES:

A fresh water supply for emergency first aid and washing facilities should be readily available.

VIII - STORAGE AND HANDLING PRECAUTIONS

The controls identified in section VII of this MSDS should be used as appropriate. Follow confined space regulations for entry into areas qualifying as confined space under OSHA 29 CFR 1910.147

IX - SPILL, LEAK, AND DISPOSAL PRACTICES

The controls identified in section VII of this MSDS should be used as appropriate. Use effective housekeeping to prevent HMA materials from entering streams, drainage or sewers.

MATERIAL DISPOSAL METHOD: Avoid skin contact with heated materials. Recycle materials as appropriate. Materials should be disposed of according to applicable federal, state and local laws.

X - TRANSPORTATION

DOT HAZARD CLASSIFICATION:

NONE

PLACARD REQUIRED:

NONE

LABEL REQUIRED:

None Required by DOT. Follow applicable state / local laws

XI - ADDITIONAL INFORMATION

For additional information please contact Safety Director, 804-364-3015 or
National Asphalt Pavement Association 1-888-468-6499.

XII - USING ADDITIVES IN HMA

N/A



Zannino Engineering, Inc.
9915 Greenwood Road, Glen Allen, Virginia 23060
(804) 262-0299 Fax (804) 262-8479

October 05, 2017

Gillies Creek Industrial Recycling
4200 Masonic Lane
Richmond, Virginia 23223

Attention: Mary Hawthorne

Regarding: Laboratory Test Results – Crushed Concrete and Screened Asphalt
Samples delivered to ZEI – October 3, 2017

Dear: Ms. Hawthorne:

We have completed the testing on the material that was delivered to our laboratory. This letter summarizes the results of this testing. The samples consisted of crushed concrete and screened asphalt and were tested to see if conforms to the VDOT requirements for hydraulic cement stabilization, Supplemental Specification 307. Samples were labeled 6C-TBD, Screened Asphalt 10-2-17, and Screened Asphalt 10-03-17. The table below summarizes these results versus the VDOT requirements per Section 307.02.

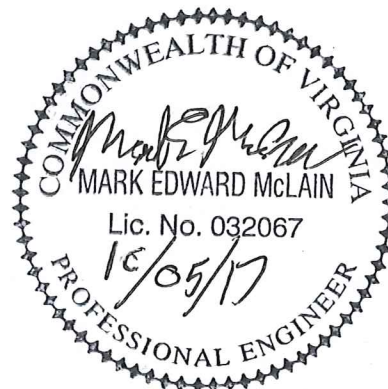
Sieve Target	2" (100% Passing)	3/8" (min 55%)	No. 4 Sieve (Passing)	Deleterious Materials (<0.2%)
808	100%	72.4%	48.9%	0
809	100%	71.9%	51.8%	0
810	100%	67.6%	51.3%	0

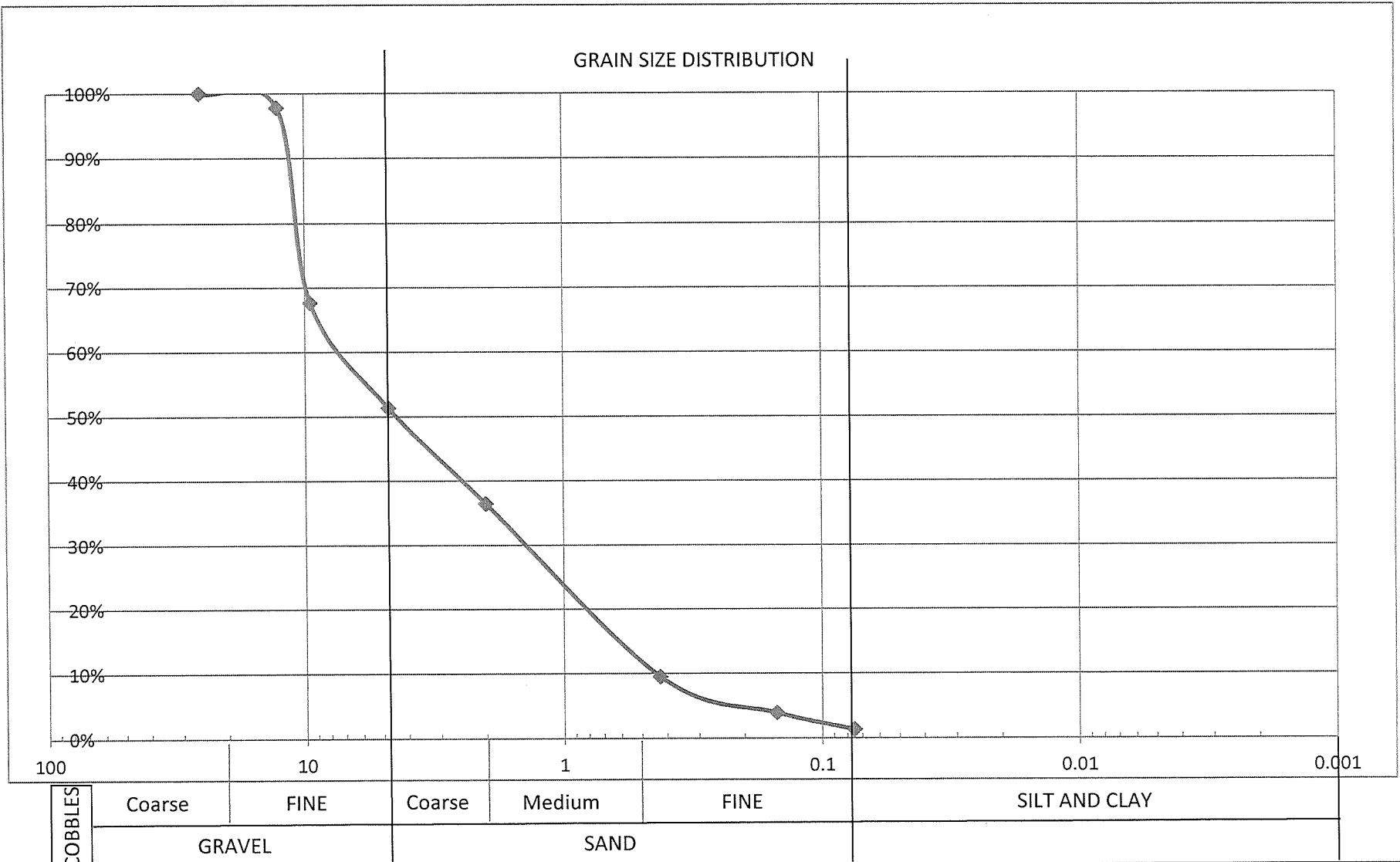
Based on our testing, both samples meet the criteria for crushed concrete and screened asphalt for hydraulic cement stabilization, Supplemental Specification 307.


We have enclosed grain size distribution curves.

Respectively submitted,
ZANNINO ENGINEERING INC.

Mark E. McLain, PE
Senior Engineer





SAMPLE	DEPTH	CLASSIFICATION	%MC	LL	PL	PI	 ZANNINO ENGINEERING, INC. 9915 GREENWOOD ROAD GLEN ALLEN, VIRGINIA 23060 PROJECT: Gillies Creek Crushed Concrete LOCATION: Henrico County, Virginia DATE: 9/7/2017
810	Bulk	Crushed Concrete	12.1%	N.P.	N.P.	N.P.	
		GP					



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Certificate of Analysis

Final Report

Laboratory Order ID 17J0702

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro, GA 30830

Date Received: October 20, 2017 17:17

Date Issued: October 27, 2017 16:13

Project Number: R15434R-12

Submitted To: Thomas Liesfeld

Purchase Order:

Client Site I.D.: New Kent, Virginia

Enclosed are the results of analyses for samples received by the laboratory on 10/20/2017 17:17. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Air Water & Soil Laboratories, Inc.





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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld
Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 17J0702

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Eng. Soil Mix	17J0702-01	Solids	10/20/2017 09:15	10/20/2017 17:17
Backfill Material	17J0702-02	Solids	10/20/2017 09:00	10/20/2017 17:17
Millings	17J0702-03	Solids	10/20/2017 09:45	10/20/2017 17:17

Results have been calculated based on dry weight.



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Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Eng. Soil Mix

Laboratory Sample ID: 17J0702-01

Composite Start-End Date/Time: 10/20/2017 09:15 - 10/20/2017 09:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	6.21 mg/kg dry		1.11	1	10/23/17 10:30	10/25/17 17:06	BG
Chromium	01	SW6010C	6.21 mg/kg dry		0.557	1	10/23/17 10:30	10/25/17 17:06	BG
Copper	01	SW6010C	4.18 mg/kg dry		2.79	1	10/23/17 10:30	10/25/17 17:06	BG
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	86.7 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM



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Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Backfill Material

Laboratory Sample ID: 17J0702-02

Composite Start-End Date/Time: 10/20/2017 09:00 - 10/20/2017 09:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	02	SW6010C	5.77 mg/kg dry		1.08	1	10/23/17 10:30	10/25/17 17:09	BG
Chromium	02	SW6010C	12.7 mg/kg dry		0.539	1	10/23/17 10:30	10/25/17 17:09	BG
Copper	02	SW6010C	5.40 mg/kg dry		2.69	1	10/23/17 10:30	10/25/17 17:08	BG
Wet Chemistry Analysis									
Percent Solids	02	SM18 2540G	90.9 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM



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Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Millings

Laboratory Sample ID: 17J0702-03

Composite Start-End Date/Time: 10/20/2017 09:45 - 10/20/2017 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	03	SW6010C	3.30 mg/kg dry		1.00	1	10/23/17 10:30	10/25/17 17:16	BG
Chromium	03	SW6010C	12.8 mg/kg dry		0.500	1	10/23/17 10:30	10/25/17 17:16	BG
Copper	03	SW6010C	8.73 mg/kg dry		2.50	1	10/23/17 10:30	10/25/17 17:16	BG
Wet Chemistry Analysis									
Percent Solids	03	SM18 2540G	95.2 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis					
		Preparation Method:	No Prep Wet Chem		
17J0702-01	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
17J0702-02	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
17J0702-03	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
		Preparation Method:	SW3050B		
17J0702-01	1.04 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129
17J0702-02	1.02 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129
17J0702-03	1.08 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129



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Client Site I.D.: New Kent, Virginia

Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BAJ0680 - SW3050B

Blank (BAJ0680-BLK1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Copper	<2.50 mg/kg wet	2.50	mg/kg wet
Chromium	<0.500 mg/kg wet	0.500	mg/kg wet
Arsenic	<1.00 mg/kg wet	1.00	mg/kg wet

LCS (BAJ0680-BS1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Arsenic	93.0 mg/kg wet	1.00	mg/kg wet	98.9	mg/kg wet	94.0	80-120
Copper	94.8 mg/kg wet	2.50	mg/kg wet	98.9	mg/kg wet	95.8	80-120
Chromium	94.0 mg/kg wet	0.500	mg/kg wet	98.9	mg/kg wet	95.0	80-120

LCS Dup (BAJ0680-BSD1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Chromium	88.9 mg/kg wet	0.500	mg/kg wet	96.2	mg/kg wet	92.4	80-120	5.51	20
Arsenic	88.5 mg/kg wet	1.00	mg/kg wet	96.2	mg/kg wet	91.9	80-120	4.97	20
Copper	89.8 mg/kg wet	2.50	mg/kg wet	96.2	mg/kg wet	93.3	80-120	5.37	20

Matrix Spike (BAJ0680-MS1)

Source: 17J0701-01

Prepared: 10/23/2017 Analyzed: 10/25/2017

Arsenic	94.0 mg/kg dry	1.00	mg/kg dry	100	1.39 mg/kg dry	92.6	75-125
Chromium	104 mg/kg dry	0.500	mg/kg dry	100	9.69 mg/kg dry	94.1	75-125
Copper	97.6 mg/kg dry	2.50	mg/kg dry	100	6.42 mg/kg dry	91.2	75-125

Matrix Spike Dup (BAJ0680-MSD1)

Source: 17J0701-01

Prepared: 10/23/2017 Analyzed: 10/25/2017

Copper	101 mg/kg dry	2.50	mg/kg dry	99.0	6.42 mg/kg dry	95.1	75-125	2.94	20
Arsenic	99.4 mg/kg dry	1.00	mg/kg dry	99.0	1.39 mg/kg dry	99.0	75-125	5.62	20
Chromium	106 mg/kg dry	0.500	mg/kg dry	99.0	9.69 mg/kg dry	97.7	75-125	2.50	20



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	859 Ben Hatcher Rd		
	Waynesboro GA, 30830		
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BAJ0718 - No Prep Wet Chem

Blank (BAJ0718-BLK1)

Prepared & Analyzed: 10/23/2017

Percent Solids	100 %	0.10	%
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Duplicate (BAJ0718-DUP1)

Source: 17J0701-01

Prepared & Analyzed: 10/23/2017

Percent Solids	99.9 %	0.10	%	99.9 %	0.00650	20
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Waynesboro GA, 30830
Submitted To: Thomas Liesfeld Project Number: R15434R-12
Client Site I.D.: New Kent, Virginia Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW6010C in Solids			
Arsenic		VELAP	
Chromium		VELAP	
Copper		VELAP	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2017
NC	North Carolina DENR	495	12/31/2017
PADEP	NELAC-Pennsylvania	001	10/31/2017
VELAP	NELAC-Virginia Certificate #9439	460021	06/14/2018
WVDEP	West Virginia DEP	350	11/30/2017



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Summary of Data Qualifiers

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library .
A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

[illegible]

DA **17J0702**
New Kent Wood Preservatives (NK
Recd: 10/20/2017 Due: 10/27/2017

y130325002

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Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Sample Conditions Checklist

Samples Received at:	1.70°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C) or received on ice and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes

Per William Liesfeld;

1. This sampling event is for disposal purposes and does not require a Level IV Data Package
2. Proceed with a 10 day TAT
3. Report the data on a dry weight basis
4. Draper Aden should be CC'd on the final COA and Invoice

KLC 10/25/2017 10:51.

Kendall Dunham

From: Scharr, Ruth <Scharr.Ruth@epa.gov>
Sent: Thursday, November 30, 2017 5:47 PM
To: William Salomone
Cc: McCauley, Joanna; Watt, Eric; Devlin Harris (Devlin.Harris@deq.virginia.gov)
Subject: RE: LWOOD/NKWP - Road Surface Material Submittal

Bill, Sorry I missed this before. I see no reason to disapprove the use of the this material as road surface material.

Thanks.

Ruth Scharr

From: William Salomone [mailto:wsalomone@daa.com]
Sent: Wednesday, November 29, 2017 5:20 PM
To: Scharr, Ruth <Scharr.Ruth@epa.gov>
Subject: FW: LWOOD/NKWP - Road Surface Material Submittal

Ruth,

Is this material acceptable or its intended use as road surface material?

Thank you,

Bill

From: William Salomone
Sent: Tuesday, November 21, 2017 1:15 PM
To: Ruth Scharr (scharr.ruth@epa.gov) <scharr.ruth@epa.gov>
Cc: Watt, Eric <Eric.Watt@tetrattech.com>; 'Harris, Devlin (DEQ)' <Devlin.Harris@deq.virginia.gov>; tliesfeld@aol.com; Jon Lamb (jondlamb@gmail.com) <jondlamb@gmail.com>; Kyle Slater (kyledslater@yahoo.com) <kyledslater@yahoo.com>; Kendall Dunham <kdunham@daa.com>
Subject: LWOOD/NKWP - Road Surface Material Submittal

Ruth,

East Coast Athletics (ECA) submitted to DAA the attached documentation for material proposed for use in place of the VDOT #21 B Aggregate as shown on Drawing C503, Gravel Surface Area Backfill. The material is a mixture of recycled concrete and recycled asphalt (a.k.a. millings). DAA collected a sample of the fines (millings) portion of the material for analytical testing and the results are included in the submittal. We have reviewed these documents and believe that the material meets the project specifications.

Please let me know if the EPA approves of use of the material at the New Kent site for the application described above.

Thank you,

Bill

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	10/13/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/5/2017
		Checked by:	WAS


No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Corrugated Metal Pipe Materials- Stormwater Culverts	Contech	Sheet C403	A

*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required

Approval is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents and does not relieve the Contractor of the responsibility to correct all errors, deviations, and omissions related to this submittal. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Comments:

	
By:	William A. Salomone, P.E.
Title	Project Coordinator - Draper Aden Associates
Date:	10/13/2017

Distribution:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Contractor | <input type="checkbox"/> Draper Aden - CQA |
| <input checked="" type="checkbox"/> Client | <input checked="" type="checkbox"/> File |

SPECIFICATION FOR CORRUGATED METAL PIPE

GALVANIZED STEEL

1.0 GENERAL

- 1.1 This specification covers the manufacture and installation of the galvanized corrugated steel pipe or pipe-arch (CSP) detailed in the project plans.

2.0 DESIGN STANDARDS

- 2.1 The CSP meets the design parameters of the American Association of State Highway and Transportation Officials (AASHTO) Standard Specification for Highway Bridges, AASHTO LRFD Bridge Design, and/or the American Iron and Steel Institute (AISI).

3.0 MATERIAL

- 3.1 The galvanized steel coils shall conform to the applicable requirements of AASHTO M 218 or ASTM A929.

4.0 PIPE

- 4.1 The CSP shall be manufactured in accordance with the applicable requirements of AASHTO M 36 or ASTM A760. The pipe sizes, gauges and corrugations shall be as shown on the project plans.
- 4.2 All fabrication of the product shall occur within the United States.

5.0 COUPLING BANDS

- 5.1 Coupling bands for the CSP shall be made of the same base metal and coatings as the CSP to a minimum of 18 gauge.
- 5.2 Ends of the CSP are rerolled with annular corrugations for proper indexing.
- 5.3 Connection fasteners will be provided.

6.0 HANDLING & ASSEMBLY

- 6.1 Refer to the recommendations of the National Corrugated Steel Pipe Association's (NCSPA).

7.0 INSTALLATION

- 7.1 The installation shall be in accordance with AASHTO Standard Specifications for Highway Bridges, LRFD Section 26, Division II, NCSPA, or ASTM A798 and in conformance with the project plans and specifications. If there are any inconsistencies or conflicts, the contractor must bring them to the attention of the project engineer.
- 7.2 It is always the contractor's responsibility to follow OSHA guidelines for safe practices.

8.0 CONSTRUCTION LOADS

- 8.1 Construction loads may be greater than design loads. The contractor shall follow the recommendations for additional compacted material per manufacturer's or NCSPA guidelines.

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	10/13/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/5/2017
		Checked by:	WAS


No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	PVC Pipe - Dry Swale Underdrains	JM Eagle	Sheet C502	A

*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required

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Comments:

	
By:	William A. Salomone, P.E.
Title:	Project Coordinator - Draper Aden Associates
Date:	10/13/2017

Distribution:

- ☒ Contractor
- ☒ Client

- ☐ Draper Aden - CQA
- ☒ File

SOLVENT WELD

SUBMITTAL AND DATA SHEET



PVC SOLVENT WELD - (SCHEDULE SERIES)

Dual marking for both Pressure and Drain, Waste, Vent (DWV) Applications

JM EAGLE™ PVC SCHEDULE 40/DWV PIPE

Specifications: ASTM D1785 & ASTM D2665 : :

Hole pattern : ASTM 758
2 HOLE 1/4" 90 deg 3" on
center

Listed : ANSI/NSF-PW NSF-DWV
Standard 61, Standard 14

NOM. PIPE SIZE (IN)	O.D. (IN)	NOM. I.D. (IN)	MIN. T. (IN)	WATER PRESSURE RATING AT 23°C (73°F)	APPROX. WEIGHT (LBS/FT)
1/2	0.840	0.609	0.109	600	0.164
3/4	1.050	0.810	0.113	480	0.218
1	1.315	1.033	0.133	450	0.324
1-1/4	1.660	1.363	0.140	370	0.439
1-1/2	1.900	1.593	0.145	330	0.525
2	2.375	2.049	0.154	280	0.705
2-1/2	2.875	2.445	0.203	300	1.118
3	3.500	3.042	0.216	260	1.463
4	4.500	3.998	0.237	220	2.083
6	6.625	6.031	0.280	180	3.663
8	8.625	7.942	0.322	160	5.512
10	10.750	9.976	0.365	140	7.815
12	12.750	11.889	0.406	130	10.333
14	14.000	13.073	0.437	130	12.220
16	16.000	14.940	0.500	130	15.980

: : Standard Color: White, Standard Length 10' & 20', Plain End and Belled End

JM EAGLE™ PVC SCHEDULE 80 PIPE

Specifications: ASTM D1785 : :

Listed : ANSI/NSF-PW Standard 61, Standard 14

NOM. PIPE SIZE (IN)	O.D. (IN)	NOM. I.D. (IN)	MIN. T. (IN)	WATER PRESSURE RATING AT 23°C (73°F)	APPROX. WEIGHT (LBS/FT)
1/2	0.840	0.528	0.147	850	0.210
3/4	1.050	0.724	0.154	690	0.285
1	1.315	0.936	0.179	630	0.419
1-1/4	1.660	1.255	0.191	520	0.579
1-1/2	1.900	1.476	0.200	470	0.701
2	2.375	1.913	0.218	400	0.969
2-1/2	2.875	2.290	0.276	420	1.479
3	3.500	2.864	0.300	370	1.979
4	4.500	3.786	0.337	320	2.892
6	6.625	5.709	0.432	280	5.516
8	8.625	7.565	0.500	250	8.336
10	10.750	9.493	0.593	230	12.375
12	12.750	11.294	0.687	230	17.027

: Standard Color: Dark Gray, Standard Length: 20' overall,
Plain End Only

† Available in Western Region Only.

I.D. : Inside Diameter

O.D. : Outside Diameter

T. : Wall Thickness

Product Standard:

ASTM D1785 Pressure Pipe

Pipe Compound:

ASTM D1784 Cell Class 12454

Installation:

JM Eagle™ Installation Guide

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	10/13/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/5/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Orange Safety Fence-	Colonial Construction Materials	Sheet C503, Note 3	A


*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required

Approval is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents and does not relieve the Contractor of the responsibility to correct all errors, deviations, and omissions related to this submittal. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Comments:

The material is approved for use as the indicator at the bottom of excavations with exceedances in the soil below, if required based on testing.

	
By:	William A. Salomone, P.E.
Title	Project Coordinator - Draper Aden Associates
Date:	10/13/2017

Distribution:

- ☒ Contractor
- ☒ Client

- ☐ Draper Aden - CQA
- ☒ File

Colonial Construction Materials
1071 Merchants Lane
Oilville, VA 23129

High Visibility Orange Barrier Fence

Product Specifications

Roll Size	Weight	Tensile Strength
4' x 100'	10 lbs.	600 lbs/ft

Material.....	High Density Polyethylene
Ultraviolet Resistance.....	Fully Stabilized
Effective Temperature.....	-60° F to 180° F
Tensile Yield.....	3400 PSI
Ultimate Tensile Strength.....	2900 PSI
Nominal Mesh Opening.....	3" x 1 1/4"
Colors.....	Various

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	10/13/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/5/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Geotextile Separation Fabric	Thrace-LINQ	01330-01, Sheet C503	A


*Action Designated Above is in Accordance with the Following Legend:

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- D. Rejected
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Comments:

The material is approved for use to construct the road.

	
By:	William A. Salomone, P.E.
Title:	Project Coordinator - Draper Aden Associates
Date:	10/13/2017

Distribution:

- ☒ Contractor
- ☒ Client

- ☐ Draper Aden - CQA
- ☒ File

GTF-200

Thrace-LINQ® GTF-200 is woven in a stable weave pattern; using high-tenacity polypropylene slit film yarns. This geotextile has been UV stabilized and is resistant to commonly encountered chemicals, mildew, and insects, found in soil. Thrace-LINQ® GTF-200 meets AASHTO M288-06 Class 3 standards.

PROPERTY	TEST PROCEDURE	METRIC		ENGLISH	
		MARV		MARV	
Grab Tensile Strength	ASTM-D4632	890	N	200	lbs
Grab Tensile Elongation	ASTM-D4632	15 / 15	%	15 / 15	%
Trapezoid Tear	ASTM-D4533	334 / 334	N	75 / 75	lbs
CBR Puncture	ASTM-D6241	3114	N	700	lbs
Permittivity	ASTM-D4491	0.08	sec ⁻¹	0.08	sec ⁻¹
WaterFlow Rate	ASTM-D4491	244	l/min/m ²	6	gpm/ft ²
Apparent Opening Size (AOS)	ASTM-D4751	0.425	mm	40	USSieve
UV Stability @ 500 hrs	ASTM-D4355	80	%	80	%

Notes:

- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

PACKAGING	METRIC				ENGLISH			
	Area	Width	Length	Est. Weight	Area	Width	Length	Est. Weight
	m2	m	m	kg	yd2	ft	ft	lbs
Roll Sizes	502	3.8	131.7	82	600	12.5	432	180
	502	4.6	109.7	83	600	15	360	182
	502	5.3	94.2	84	600	17.5	309	185

Physical properties reflect industry standards. Roll Data may reflect higher values than those listed above. Roll lengths and widths have a tolerance of +/- 1%.

The property values listed above are effective 09/2012 and are subject to change without notice.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of our knowledge and belief, accurate and reliable as of the date manufactured. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against infringement.

LINQ and the Thrace-LINQ emblem are registered trademarks of Thrace-LINQ, Inc.

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	10/13/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/5/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Silt Fence	Belton Industries	03140	C


*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required

Approval is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents and does not relieve the Contractor of the responsibility to correct all errors, deviations, and omissions related to this submittal. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Comments:

The geotextile fabric is approved for use for the Silt Fence. Please add additital information for the Super Silt Fence.


By: William A. Salomone, P.E.
Title: Project Coordinator - Draper Aden Associates
Date: 10/13/2017

Distribution:

- ☒ Contractor
- ☒ Client

- ☐ Draper Aden - CQA
- ☒ File



BELTON INDUSTRIES INC.

Post Office Box 127
Highway 76 at Hamby Road
Belton, South Carolina, USA 29627
864-338-5711 • 1-800-845-8753
FAX 864-338-5594
www.beltonindustries.com

May 3, 2010

Mr. Tommy Branin
Colonial Construction Materials, Inc.
P. O. Box 333
Oilville, Virginia 23129

Dear Mr. Branin:

36" x 300' Black Silt Fence

We certify that our Style **940** is made in the U.S.A. and will typically meet or exceed the following specifications. We reserve the right to allocate specific lots of material to this certified application. To assure compliance, please reference this letter when ordering material. Material is available in 36" and 42" width.

<u>Physical Property</u>	<u>Test Method</u>	<u>M.A.R.V.</u>
Grab Tensile	ASTM D-4632	125 x 101 lb.
Elongation at Break	ASTM D-4632	10 - 25 %
Tensile	VTM-52	50 lb/inch (minimum) *
Ultimate Elongation	VTM-52	20% (maximum) *
Trapezoid Tear Strength	ASTM D-4533	55 lb.
Puncture Strength	ASTM D-4833	65 lb.
Apparent Opening Size	ASTM D-4751	0.600 mm (maximum)
Permittivity	ASTM D-4491	0.100 sec ⁻¹
Water Flow Rate	ASTM D-4491	7.5 gpm/ft ²
Filtering Efficiency	ASTM D5141	90% *
Slurry Flow Rate	ASTM D5141	0.55 gpm/ft ² *
UV Stability @ 500 hours	ASTM D-4355/G-26	70 %

* Typical values obtained by third party testing.

Sincerely,
**W. David
Galloway**

David Galloway
Technical Supt.

Digitally signed by W. David Galloway
DN: cn=W. David Galloway, c=US, o=Belton
Industries, Inc., ou=Quality Control,
email=dgalloway@beltonindustries.com
Reason: I am the author of this document
Date: 2010.05.03 08:59:08 -04'00'

The foregoing is believed to be an accurate representation of information compiled from inside and/or outside sources, however, because test values, statistical data, and other information presented may be based solely on results of unverified tests made on random samples, information presented may relate only to tested samples and because the conditions in which such information may be used are beyond the control of Belton Industries, Inc., Belton does not guarantee either the accuracy or reliability of the information or the suggestions and recommendations contained herein. Belton assumes no responsibility for the use of information presented herein and hereby disclaims all liabilities which may arise in connection with the use of information herein presented. All specifications, properties, values, statistical data and applications listed herein are provided as information only, without charge or obligation to the recipient or user, and in no way either makes or creates any warranty with respect to any product or modifies, amends or enlarges any warranty made with respect to any product. Final determination of the suitability, reliability and accuracy of the information and suggested uses is solely the responsibility of the user.

GEOCOIR®

GEOJUTE®

ECONO-COIR®

ANTIWASH®

























RESPONSE ACTION CONSTRUCTION SCHEUDLE

New Kent Wood Preservatives, Inc/ L-Wood, Inc. Southern Pine Specialists

EPA Docket No. CERC - 03-2015-0262DC

Contractor: East Coast Athletics, LLC

Updated November 20, 2017

#	Task	Assigned To	Start	End	Dur	2017				2018	
						Sep	Oct	Nov	Dec	Jan	Feb
	Construction Schedule		9/25/17	2/16/18	104.5						
1	Contract Signing		9/25/17	9/26/17	1						
2	Dig Test Holes		10/3/17	10/6/17	3						
3	E & S Measures (silt Fence)		11/6/17	11/10/17	4						
4	Dig Sediment Basin #1, 2 3 and 4		11/7/17	11/14/17	6						
5	Excavation Area 1		11/15/17	11/22/17	6						
6	Testing Area 1		11/15/17	11/29/17	11						
7	Back Fill Area 1		11/27/17	12/1/17	5						
8	Permanent Seed Area 1		12/2/17	12/5/17	2						
9	Excavation Area 3		11/22/17	12/8/17	13						
10	Testing Area 3		11/22/17	12/9/17	13						
11	Backfill Area 3		12/11/17	12/22/17	10						
12	Permanent Seed Area 3		12/22/17	12/22/17	1						
13	Holiday		12/23/17	1/1/18	6						
14	Excavation Area 4		1/2/18	1/12/18	9						
15	Testing Area 4		1/2/18	1/15/18	10						
16	Backfill Area 4		1/15/18	1/26/18	10						
17	Permanent Seed Area 4		1/26/18	1/26/18	1						
18	First Excavation Area 2		1/29/18	2/2/18	5						
19	Testing Area 2		1/29/18	2/3/18	5						
20	Second Excavation Area 2		2/5/18	2/9/18	5						
21	Testing Area 2		2/5/18	2/12/18	6						
22	Backfill Area 2		2/12/18	2/16/18	5						
23	Permanent Seed Area 2		2/16/18	2/16/18	1						

Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	11/27/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/11/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Backfill Soil - CBR & Analytical	Schreiber	02200	B

*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required


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Comments:

DAA sampled material at the borrow source and tested for Arsenic and Chromium concentrations. See attached results.

DAA approves the material for use as general borrow fill under areas to be finished as road only (Gravel Areas). In disturbed areas to be restored as Grassed Areas, an organic topsoil will be used as backfill. The topsoil information will be provided in a separate submittal.

Final approval is pending approval by the USEPA.

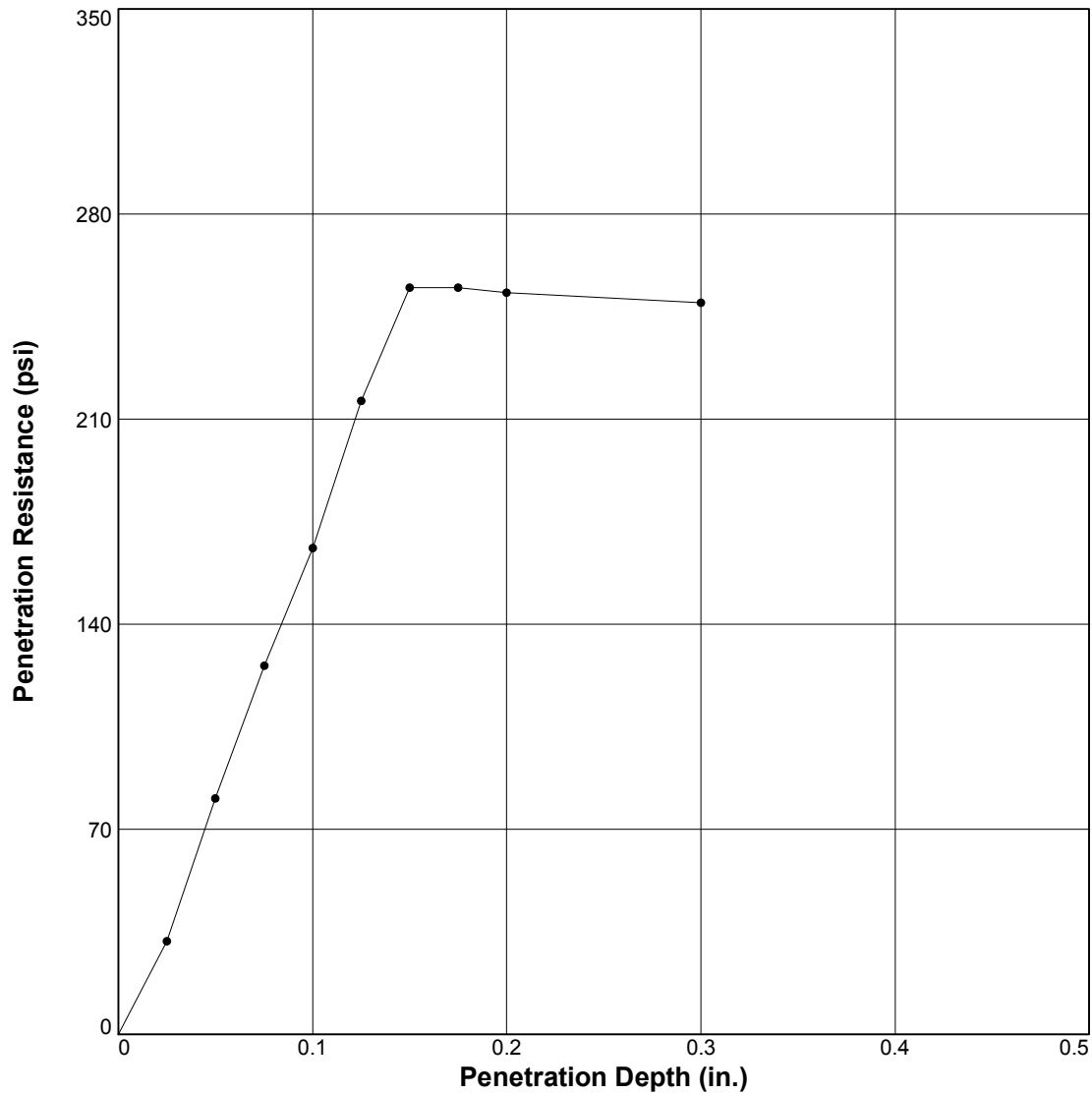
	
By:	William A. Salomone, P.E.
Title	Project Coordinator - Draper Aden Associates
Date:	11/27/2017

Distribution:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Contractor | <input type="checkbox"/> Draper Aden - CQA |
| <input checked="" type="checkbox"/> Client | <input checked="" type="checkbox"/> File |
| <input checked="" type="checkbox"/> Regulatory | |

BEARING RATIO TEST REPORT

VTM-008 (2005)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	124.4	100	10.8	124.2	99.8	12.0	18.2	16.9	0.008	10	0.1
2 ▲											
3 ■											
Material Description							USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Orange-brown, Silty fine to coarse SAND (SM) with little Gravel							SM	124.4	11.3	NP	NP

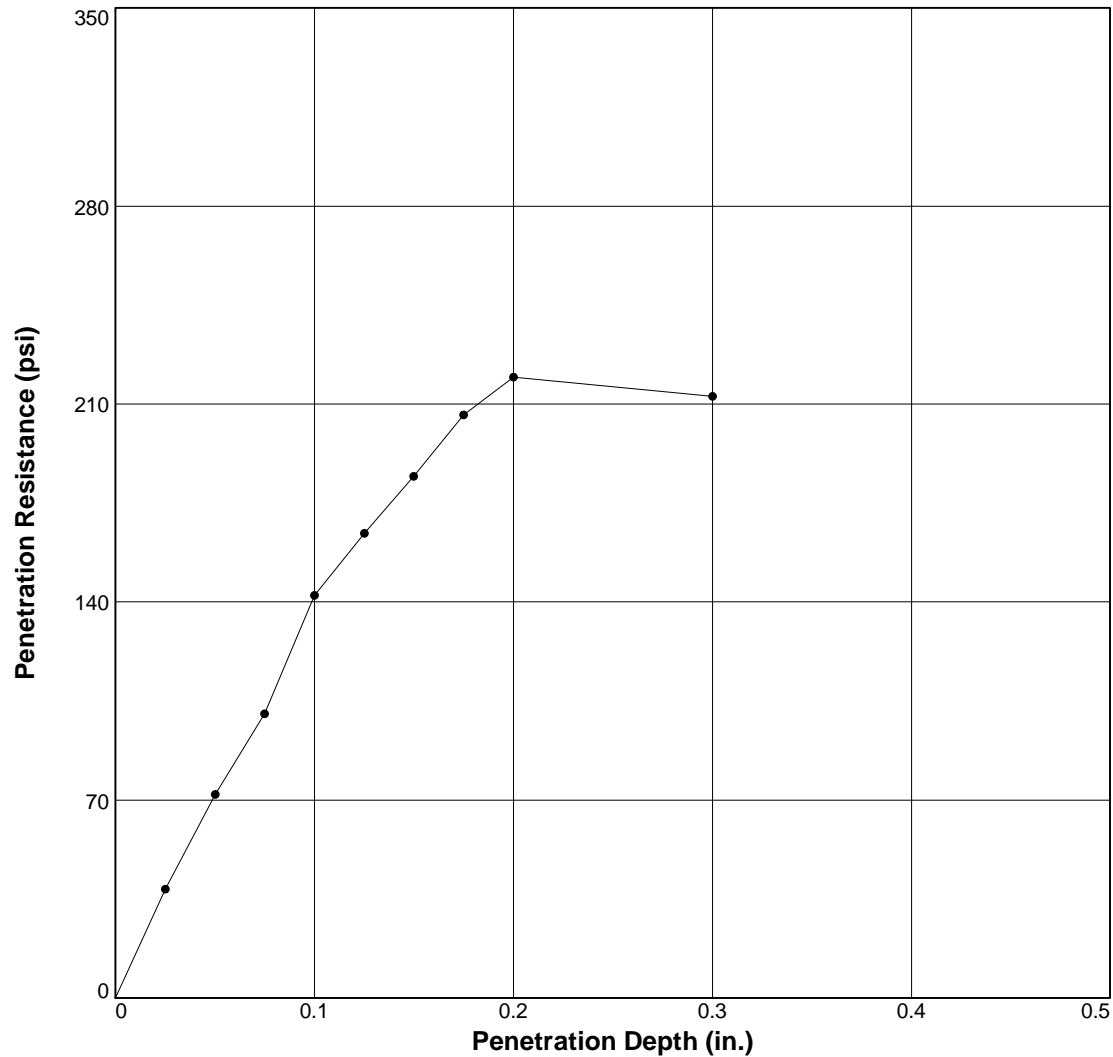
Project No: WM15-136T
Project: Charles City Trail
Location: See Attached Boring Location Plan
Sample Number: CBR #1 **Depth:** 1-2 ft.
Date: 4/2/2015

Test Description/Remarks:

CBR #1
 Sample Received: 4/1/2015
 Sample Tested: 4/2/2015
 Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

ASTM D1883-16



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	119.9	100	11.9	119.7	99.9	13.6	15.6	14.6	0.015	10	0.1
2 ▲											
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Orange-brown, Silty fine to coarse SAND (SM) with trace fine Gravel	SM	119.9	12.4	NV	NP

Project No: W16-129T

Project: Charles City Pit

Location: Imported Fill

Sample Number: CBR #2

Depth: Stock Pile

Date: 1/30/2017

Test Description/Remarks:

CBR #2

Sample Obtained: 1/30/2017

Sample Tested: 1/31/2017

Resiliency Factor = 3.0

BEARING RATIO TEST REPORT
GET Solutions, Inc.

Figure 2a



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Certificate of Analysis

Final Report

Laboratory Order ID 17J0702

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro, GA 30830

Date Received: October 20, 2017 17:17

Date Issued: October 27, 2017 16:13

Project Number: R15434R-12

Submitted To: Thomas Liesfeld

Purchase Order:

Client Site I.D.: New Kent, Virginia

Enclosed are the results of analyses for samples received by the laboratory on 10/20/2017 17:17. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Air Water & Soil Laboratories, Inc.





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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld
Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 17J0702

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Eng. Soil Mix	17J0702-01	Solids	10/20/2017 09:15	10/20/2017 17:17
Backfill Material	17J0702-02	Solids	10/20/2017 09:00	10/20/2017 17:17
Millings	17J0702-03	Solids	10/20/2017 09:45	10/20/2017 17:17

Results have been calculated based on dry weight.



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Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld
Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12
Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Eng. Soil Mix

Laboratory Sample ID: 17J0702-01

Composite Start-End Date/Time: 10/20/2017 09:15 - 10/20/2017 09:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	6.21 mg/kg dry		1.11	1	10/23/17 10:30	10/25/17 17:06	BG
Chromium	01	SW6010C	6.21 mg/kg dry		0.557	1	10/23/17 10:30	10/25/17 17:06	BG
Copper	01	SW6010C	4.18 mg/kg dry		2.79	1	10/23/17 10:30	10/25/17 17:06	BG
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	86.7 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Backfill Material

Laboratory Sample ID: 17J0702-02

Composite Start-End Date/Time: 10/20/2017 09:00 - 10/20/2017 09:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	02	SW6010C	5.77 mg/kg dry		1.08	1	10/23/17 10:30	10/25/17 17:09	BG
Chromium	02	SW6010C	12.7 mg/kg dry		0.539	1	10/23/17 10:30	10/25/17 17:09	BG
Copper	02	SW6010C	5.40 mg/kg dry		2.69	1	10/23/17 10:30	10/25/17 17:08	BG
Wet Chemistry Analysis									
Percent Solids	02	SM18 2540G	90.9 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld
Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Millings

Laboratory Sample ID: 17J0702-03

Composite Start-End Date/Time: 10/20/2017 09:45 - 10/20/2017 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	03	SW6010C	3.30 mg/kg dry		1.00	1	10/23/17 10:30	10/25/17 17:16	BG
Chromium	03	SW6010C	12.8 mg/kg dry		0.500	1	10/23/17 10:30	10/25/17 17:16	BG
Copper	03	SW6010C	8.73 mg/kg dry		2.50	1	10/23/17 10:30	10/25/17 17:16	BG
Wet Chemistry Analysis									
Percent Solids	03	SM18 2540G	95.2 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis					
		Preparation Method:	No Prep Wet Chem		
17J0702-01	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
17J0702-02	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
17J0702-03	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
		Preparation Method:	SW3050B		
17J0702-01	1.04 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129
17J0702-02	1.02 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129
17J0702-03	1.08 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129



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Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------

Batch BAJ0680 - SW3050B

Blank (BAJ0680-BLK1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Copper	<2.50 mg/kg wet	2.50	mg/kg wet
Chromium	<0.500 mg/kg wet	0.500	mg/kg wet
Arsenic	<1.00 mg/kg wet	1.00	mg/kg wet

LCS (BAJ0680-BS1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Arsenic	93.0 mg/kg wet	1.00	mg/kg wet	98.9	mg/kg wet	94.0	80-120
Copper	94.8 mg/kg wet	2.50	mg/kg wet	98.9	mg/kg wet	95.8	80-120
Chromium	94.0 mg/kg wet	0.500	mg/kg wet	98.9	mg/kg wet	95.0	80-120

LCS Dup (BAJ0680-BSD1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Chromium	88.9 mg/kg wet	0.500	mg/kg wet	96.2	mg/kg wet	92.4	80-120	5.51	20
Arsenic	88.5 mg/kg wet	1.00	mg/kg wet	96.2	mg/kg wet	91.9	80-120	4.97	20
Copper	89.8 mg/kg wet	2.50	mg/kg wet	96.2	mg/kg wet	93.3	80-120	5.37	20

Matrix Spike (BAJ0680-MS1)

Source: 17J0701-01

Prepared: 10/23/2017 Analyzed: 10/25/2017

Arsenic	94.0 mg/kg dry	1.00	mg/kg dry	100	1.39 mg/kg dry	92.6	75-125
Chromium	104 mg/kg dry	0.500	mg/kg dry	100	9.69 mg/kg dry	94.1	75-125
Copper	97.6 mg/kg dry	2.50	mg/kg dry	100	6.42 mg/kg dry	91.2	75-125

Matrix Spike Dup (BAJ0680-MSD1)

Source: 17J0701-01

Prepared: 10/23/2017 Analyzed: 10/25/2017

Copper	101 mg/kg dry	2.50	mg/kg dry	99.0	6.42 mg/kg dry	95.1	75-125	2.94	20
Arsenic	99.4 mg/kg dry	1.00	mg/kg dry	99.0	1.39 mg/kg dry	99.0	75-125	5.62	20
Chromium	106 mg/kg dry	0.500	mg/kg dry	99.0	9.69 mg/kg dry	97.7	75-125	2.50	20



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	------

Batch BAJ0718 - No Prep Wet Chem

Blank (BAJ0718-BLK1)

Prepared & Analyzed: 10/23/2017

Percent Solids	100 %	0.10	%
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Duplicate (BAJ0718-DUP1)

Source: 17J0701-01

Prepared & Analyzed: 10/23/2017

Percent Solids	99.9 %	0.10	%	99.9 %	0.00650	20
----------------	--------	------	---	--------	---------	----



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld Date Issued: 10/27/2017 16:13
859 Ben Hatcher Rd
Waynesboro GA, 30830
Submitted To: Thomas Liesfeld Project Number: R15434R-12
Client Site I.D.: New Kent, Virginia Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW6010C in Solids			
Arsenic		VELAP	
Chromium		VELAP	
Copper		VELAP	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2017
NC	North Carolina DENR	495	12/31/2017
PADEP	NELAC-Pennsylvania	001	10/31/2017
VELAP	NELAC-Virginia Certificate #9439	460021	06/14/2018
WVDEP	West Virginia DEP	350	11/30/2017



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Certificate of Analysis

Final Report

Client Name:	Thomas Liesfeld 859 Ben Hatcher Rd Waynesboro GA, 30830	Date Issued:	10/27/2017 16:13
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Summary of Data Qualifiers

RPD Relative Percent Difference
Qual Qualifiers
-RE Denotes sample was re-analyzed
D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library .
A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

[illegible]

DA **17J0702**
New Kent Wood Preservatives (NK
Recd: 10/20/2017 Due: 10/27/2017

y130325002

Page 10 of 11



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Certificate of Analysis

Final Report

Client Name:	Thomas Liesfeld 859 Ben Hatcher Rd Waynesboro GA, 30830	Date Issued:	10/27/2017 16:13
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Sample Conditions Checklist

Samples Received at:	1.70°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C) or received on ice and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes

Per William Liesfeld;

1. This sampling event is for disposal purposes and does not require a Level IV Data Package
2. Proceed with a 10 day TAT
3. Report the data on a dry weight basis
4. Draper Aden should be CC'd on the final COA and Invoice

KLC 10/25/2017 10:51.

From: Scharr, Ruth <Scharr.Ruth@epa.gov>
Sent: Monday, November 27, 2017 2:00 PM
To: William Salomone
Cc: Watt, Eric; Harris, Devlin (DEQ); tliesfeld@aol.com; Jon Lamb (jondlamb@gmail.com); Kyle Slater (kyledslater@yahoo.com); Kendall Dunham
Subject: RE: New Kent Wood Preservatives Inc Site - Soil Backfill Material Submittal

Bill, This material is acceptable for the stated use.
Thanks.

Ruth Scharr
OSC
Eastern Response Branch

From: William Salomone [<mailto:wsalomone@daa.com>]
Sent: Monday, November 27, 2017 1:16 PM
To: Scharr, Ruth <Scharr.Ruth@epa.gov>
Cc: Watt, Eric <Eric.Watt@tetrattech.com>; Harris, Devlin (DEQ) <Devlin.Harris@deq.virginia.gov>; tliesfeld@aol.com; Jon Lamb (jondlamb@gmail.com) <jondlamb@gmail.com>; Kyle Slater (kyledslater@yahoo.com) <kyledslater@yahoo.com>; Kendall Dunham <kdunham@daa.com>
Subject: RE: New Kent Wood Preservatives Inc Site - Soil Backfill Material Submittal
Importance: High

Ruth,

Please see attached revised submittal. For this revision, I have added the following note in the Comments section on the Transmittal:

“DAA approves the material for use as general borrow fill under areas to be finished as road only (Gravel Areas). In disturbed areas to be restored as Grassed Areas, an organic topsoil will be used as backfill. The topsoil information will be provided in a separate submittal.”

Please approved this material for its stated use only.

Thank you,

Bill

From: Scharr, Ruth [<mailto:Scharr.Ruth@epa.gov>]
Sent: Tuesday, November 21, 2017 2:17 PM
To: William Salomone <wsalomone@daa.com>
Cc: Watt, Eric <Eric.Watt@tetrattech.com>; Harris, Devlin (DEQ) <Devlin.Harris@deq.virginia.gov>; tliesfeld@aol.com; Jon Lamb (jondlamb@gmail.com) <jondlamb@gmail.com>; Kyle Slater (kyledslater@yahoo.com) <kyledslater@yahoo.com>; Kendall Dunham <kdunham@daa.com>; Pluta, Bruce <Pluta.Bruce@epa.gov>
Subject: RE: New Kent Wood Preservatives Inc Site - Soil Backfill Material Submittal

Bill, Yes, however in the areas that are not road surfaces, the Order does require the soil be amended with an organic material. Please refer to the Order.

Thank you

Ruth Scharr
On-Scene Coordinator
Eastern Response Branch

From: William Salomone [<mailto:wsalomone@daa.com>]

Sent: Monday, November 20, 2017 4:38 PM

To: Scharr, Ruth <Scharr.Ruth@epa.gov>

Cc: Watt, Eric <Eric.Watt@tetrattech.com>; Harris, Devlin (DEQ) <Devlin.Harris@deq.virginia.gov>; tliesfeld@aol.com; Jon Lamb (jondlamb@gmail.com) <jondlamb@gmail.com>; Kyle Slater (kyledslater@yahoo.com) <kyledslater@yahoo.com>; Kendall Dunham <kdunham@daa.com>

Subject: LWOOD/NKWP - Soil Backfill Material Submittal

Ruth,

East Coast Athletics (ECA) submitted to DAA the attached testing results for material proposed for use as Soil Backfill as shown on Drawing C503, Details for Gravel Surfaces and Grassed Areas. DAA collected a sample of the material for analytical testing and the results are included in the submittal. We have reviewed these results and believe that the material meets the project specifications.

Please let me know if the EPA approves of use of the material at the New Kent site for the application described above.

Thank you,

Bill

William A. Salomone, P.E.

Senior Project Engineer

Draper Aden Associates

Engineering • Surveying • Environmental Services

Lasting Positive Impact™

Phone: 804.264.2228 • Direct: 804.237.1858

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Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	11/30/2017
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	10/11/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Engineered Soil Mix - Sample Results & Analytical	Schreiber	02200	B


*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required

Approval is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents and does not relieve the Contractor of the responsibility to correct all errors, deviations, and omissions related to this submittal. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Comments:

- DAA sampled for Arsenic and Chromium concentrations, see attached laboratory report.
- DAA finds the information shows that the material meets the specifications for Engineered Soil Mix for use in the Dry Swales.
- Final approval is pending approval by the USEPA.

By:	
Title:	Project Coordinator - Draper Aden Associates
Date:	11/30/2017

Distribution:

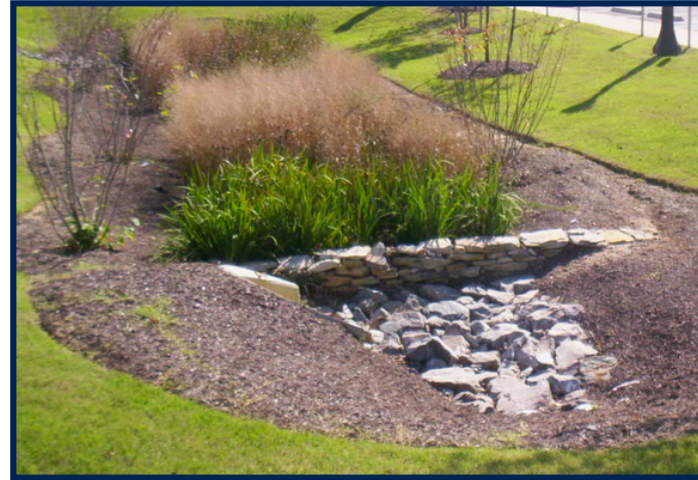
- | | |
|--|--|
| <input checked="" type="checkbox"/> Contractor | <input type="checkbox"/> Draper Aden - CQA |
| <input checked="" type="checkbox"/> Client | <input checked="" type="checkbox"/> File |
| <input checked="" type="checkbox"/> Regulatory | |

SCHREIBER MULCH & MATERIALS

BIOMEDIA

Sand 87%	O.M. 3.5-4%
Silt 3.8%	pH 6.5-6.7%
Clay 9%	Kstat 46 cm/hr

*Internal Hydraulic Conductivity (Kstat)



With over 20 years experience in the sand and gravel business Schreiber Mulch and Materials is proud to announce starting 2016 we will be offering “Biomedial”. An engineered bio-retention soil produced and tested in the labs at Virginia Tech.

Schreiber Mulch and Material’s “Biomedial” has been engineered in the labs at Virginia Tech using VA DEQ clearing house specification for their guidelines. This product has been tested for chemical compositions, particle size distribution, water-holding capacity, bulk density and seedling germination rates. Per VA DEQ guidelines all materials will meet organic matter, pH, CEC, surface infiltration rate and internal saturated hydraulic conductance specifications.

For more information and product study results please contact Schreiber Mulch and Materials at schreibermaterials@gmail.com or 804-966-1251



7621 Whitepine Road, Richmond, VA 23237

Main 804-743-9401 • Fax 804-271-6446

www.waypointanalytical.com

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Carter Evans
5201 Pleasant Ridge Dr
Providence Forge VA 23140

"Every acre...Every year."™

Grower: Schreiber

SOIL ANALYSIS REPORT

Analytical Method(s): SMP Buffer pH Mehlich 3 Loss On Ignition Water pH

Date Received: 03/16/2017

Date Of Analysis: 11/07/2017

Date Of Report: 11/10/2017

Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
Pile Sample	05054	1.7 I		77	21 L			90 M	93 H	652 H		6.6		0.3	4.6
SMBM33	05055	3.0 M		104	17 L			82 M	93 H	602 H		6.8		0.1	4.1
Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
Pile Sample	5.0	16.8	70.9		6.5										
SMBM33	5.1	18.9	73.4		2.4										

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: *Paucie McGeary*

Paucie McGroary



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Certificate of Analysis

Final Report

Laboratory Order ID 17J0702

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro, GA 30830

Date Received: October 20, 2017 17:17

Date Issued: October 27, 2017 16:13

Project Number: R15434R-12

Submitted To: Thomas Liesfeld

Purchase Order:

Client Site I.D.: New Kent, Virginia

Enclosed are the results of analyses for samples received by the laboratory on 10/20/2017 17:17. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld
Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12

Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 17J0702

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Eng. Soil Mix	17J0702-01	Solids	10/20/2017 09:15	10/20/2017 17:17
Backfill Material	17J0702-02	Solids	10/20/2017 09:00	10/20/2017 17:17
Millings	17J0702-03	Solids	10/20/2017 09:45	10/20/2017 17:17

Results have been calculated based on dry weight.



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld
Client Site I.D.: New Kent, Virginia

Project Number: R15434R-12

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Eng. Soil Mix

Laboratory Sample ID: 17J0702-01

Composite Start-End Date/Time: 10/20/2017 09:15 - 10/20/2017 09:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW6010C	6.21 mg/kg dry		1.11	1	10/23/17 10:30	10/25/17 17:06	BG
Chromium	01	SW6010C	6.21 mg/kg dry		0.557	1	10/23/17 10:30	10/25/17 17:06	BG
Copper	01	SW6010C	4.18 mg/kg dry		2.79	1	10/23/17 10:30	10/25/17 17:06	BG
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	86.7 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Backfill Material

Laboratory Sample ID: 17J0702-02

Composite Start-End Date/Time: 10/20/2017 09:00 - 10/20/2017 09:00

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	02	SW6010C	5.77 mg/kg dry		1.08	1	10/23/17 10:30	10/25/17 17:09	BG
Chromium	02	SW6010C	12.7 mg/kg dry		0.539	1	10/23/17 10:30	10/25/17 17:09	BG
Copper	02	SW6010C	5.40 mg/kg dry		2.69	1	10/23/17 10:30	10/25/17 17:08	BG
Wet Chemistry Analysis									
Percent Solids	02	SM18 2540G	90.9 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Laboratory Order ID: 17J0702

Analytical Results

Sample I.D. Millings

Laboratory Sample ID: 17J0702-03

Composite Start-End Date/Time: 10/20/2017 09:45 - 10/20/2017 09:45

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	03	SW6010C	3.30 mg/kg dry		1.00	1	10/23/17 10:30	10/25/17 17:16	BG
Chromium	03	SW6010C	12.8 mg/kg dry		0.500	1	10/23/17 10:30	10/25/17 17:16	BG
Copper	03	SW6010C	8.73 mg/kg dry		2.50	1	10/23/17 10:30	10/25/17 17:16	BG
Wet Chemistry Analysis									
Percent Solids	03	SM18 2540G	95.2 %		0.10	1	10/23/17 18:25	10/23/17 18:25	JCM

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis					
		Preparation Method:	No Prep Wet Chem		
17J0702-01	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
17J0702-02	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
17J0702-03	1.00 g / 1.00 mL	SM18 2540G	BAJ0718	SAJ0623	
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods					
		Preparation Method:	SW3050B		
17J0702-01	1.04 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129
17J0702-02	1.02 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129
17J0702-03	1.08 g / 50.0 mL	SW6010C	BAJ0680	SAJ0709	AJ70129



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 10/27/2017 16:13

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: New Kent, Virginia

Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BAJ0680 - SW3050B

Blank (BAJ0680-BLK1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Copper	<2.50 mg/kg wet	2.50	mg/kg wet
Chromium	<0.500 mg/kg wet	0.500	mg/kg wet
Arsenic	<1.00 mg/kg wet	1.00	mg/kg wet

LCS (BAJ0680-BS1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Arsenic	93.0 mg/kg wet	1.00	mg/kg wet	98.9	mg/kg wet	94.0	80-120
Copper	94.8 mg/kg wet	2.50	mg/kg wet	98.9	mg/kg wet	95.8	80-120
Chromium	94.0 mg/kg wet	0.500	mg/kg wet	98.9	mg/kg wet	95.0	80-120

LCS Dup (BAJ0680-BSD1)

Prepared: 10/23/2017 Analyzed: 10/25/2017

Chromium	88.9 mg/kg wet	0.500	mg/kg wet	96.2	mg/kg wet	92.4	80-120	5.51	20
Arsenic	88.5 mg/kg wet	1.00	mg/kg wet	96.2	mg/kg wet	91.9	80-120	4.97	20
Copper	89.8 mg/kg wet	2.50	mg/kg wet	96.2	mg/kg wet	93.3	80-120	5.37	20

Matrix Spike (BAJ0680-MS1)

Source: 17J0701-01

Prepared: 10/23/2017 Analyzed: 10/25/2017

Arsenic	94.0 mg/kg dry	1.00	mg/kg dry	100	1.39 mg/kg dry	92.6	75-125
Chromium	104 mg/kg dry	0.500	mg/kg dry	100	9.69 mg/kg dry	94.1	75-125
Copper	97.6 mg/kg dry	2.50	mg/kg dry	100	6.42 mg/kg dry	91.2	75-125

Matrix Spike Dup (BAJ0680-MSD1)

Source: 17J0701-01

Prepared: 10/23/2017 Analyzed: 10/25/2017

Copper	101 mg/kg dry	2.50	mg/kg dry	99.0	6.42 mg/kg dry	95.1	75-125	2.94	20
Arsenic	99.4 mg/kg dry	1.00	mg/kg dry	99.0	1.39 mg/kg dry	99.0	75-125	5.62	20
Chromium	106 mg/kg dry	0.500	mg/kg dry	99.0	9.69 mg/kg dry	97.7	75-125	2.50	20



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Certificate of Analysis

Final Report

Client Name:	Thomas Liesfeld	Date Issued:	10/27/2017 16:13
	859 Ben Hatcher Rd		
	Waynesboro GA, 30830		
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BAJ0718 - No Prep Wet Chem

Blank (BAJ0718-BLK1)

Prepared & Analyzed: 10/23/2017

Percent Solids	100 %	0.10	%
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Duplicate (BAJ0718-DUP1)

Source: 17J0701-01

Prepared & Analyzed: 10/23/2017

Percent Solids	99.9 %	0.10	%	99.9 %	0.00650	20
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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld Date Issued: 10/27/2017 16:13
859 Ben Hatcher Rd
Waynesboro GA, 30830
Submitted To: Thomas Liesfeld Project Number: R15434R-12
Client Site I.D.: New Kent, Virginia Purchase Order:

Certified Analyses included in this Report

Analyte		Certifications	
SW6010C in Solids			
Arsenic		VELAP	
Chromium		VELAP	
Copper		VELAP	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2017
NC	North Carolina DENR	495	12/31/2017
PADEP	NELAC-Pennsylvania	001	10/31/2017
VELAP	NELAC-Virginia Certificate #9439	460021	06/14/2018
WVDEP	West Virginia DEP	350	11/30/2017



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Certificate of Analysis

Final Report

Client Name:	Thomas Liesfeld 859 Ben Hatcher Rd Waynesboro GA, 30830	Date Issued:	10/27/2017 16:13
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Summary of Data Qualifiers

RPD Relative Percent Difference
Qual Qualifiers
-RE Denotes sample was re-analyzed
D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library .
A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

[illegible]

DA **17J0702**
New Kent Wood Preservatives (NK
Recd: 10/20/2017 Due: 10/27/2017

y130325002

Page 10 of 11



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Certificate of Analysis

Final Report

Client Name:	Thomas Liesfeld 859 Ben Hatcher Rd Waynesboro GA, 30830	Date Issued:	10/27/2017 16:13
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	New Kent, Virginia	Purchase Order:	

Sample Conditions Checklist

Samples Received at:	1.70°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C) or received on ice and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes

Per William Liesfeld;

1. This sampling event is for disposal purposes and does not require a Level IV Data Package
2. Proceed with a 10 day TAT
3. Report the data on a dry weight basis
4. Draper Aden should be CC'd on the final COA and Invoice

KLC 10/25/2017 10:51.

Kendall Dunham

From: Scharr, Ruth <Scharr.Ruth@epa.gov>
Sent: Thursday, November 30, 2017 5:46 PM
To: William Salomone
Cc: Watt, Eric; Devlin Harris (Devlin.Harris@deq.virginia.gov)
Subject: RE: LWOOD/NKWP - Engineered Fill Material Submittal

Hi Bill, I do not have copies of the drawings saved to my computer. Since you reference Drawing C502 can you send it to me. That being said I would think that I would have no reason to disapprove the use of the material.

Ruth

From: William Salomone [mailto:wsalomone@daa.com]
Sent: Thursday, November 30, 2017 4:06 PM
To: Scharr, Ruth <Scharr.Ruth@epa.gov>
Cc: Watt, Eric <Eric.Watt@tetrattech.com>; Harris, Devlin (DEQ) <Devlin.Harris@deq.virginia.gov>; tliesfeld@aol.com; Jon Lamb (jondlamb@gmail.com) <jondlamb@gmail.com>; Kyle Slater (kyledslater@yahoo.com) <kyledslater@yahoo.com>; Kendall Dunham <kdunham@daa.com>
Subject: LWOOD/NKWP - Engineered Fill Material Submittal
Importance: High

Ruth,

East Coast Athletics (ECA) submitted to DAA the attached information for proposed imported material for use as Engineered Fill at the LWOOD/New Kent Wood Preservatives site as specified on Drawing C502, Dry Swale detail. DAA collected a sample of the material at the borrow source for analytical testing at Air Water & Soil laboratories. The lab test report is attached to the submittal.

We have reviewed these documents and believe that the material meets the project specifications. Please let me know if the EPA approves of use of the material at the New Kent site for the application described above.

Thank you,

Bill

William A. Salomone, P.E.
Senior Project Engineer

Draper Aden Associates
Engineering • Surveying • Environmental Services
Lasting Positive Impact™

Phone: 804.264.2228 • Direct: 804.237.1858

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Project:	New Kent Wood Preservatives - Response Action Construction	Date Transmitted:	1/3/2018
Owner:	Thomas Liesfeld	1st Sub.	Yes
Contractor:	East Coast Athletics, LLC	Re-Sub.	No
		Prev. Trans. Date:	N/A
		Date Received:	12/15/2017
		Checked by:	WAS

No. of Copies	Description	Manufacturer or Supplier	Specification Section or Drawing No.	Action Taken*
1	Topsoil	Schreiber Materials	02200	B

*Action Designated Above is in Accordance with the Following Legend:

- A. Approved as Submitted
- B. Approved as Noted
- C. Revise and Resubmit
- D. Rejected
- E. Engineer's Review Not Required


Approval is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents and does not relieve the Contractor of the responsibility to correct all errors, deviations, and omissions related to this submittal. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and for coordination of the work of all trades.

Comments:

ECA has submitted a soil analysis of the material, and a sample of this was collected from the borrow source and tested for Arsenic and Chromium concentrations. See attached results.

DAA approves the material for use as topsoil for disturbed areas to be finished as Grassed Areas (Sheet C503).

Final approval is pending approval by the USEPA.

By:	
Title:	Project Coordinator - Draper Aden Associates
Date:	1/3/2018

Distribution:

- ☒ Contractor
- ☐ Client
- ☒ Regulatory

- ☐ Draper Aden - CQA
- ☒ File

Report Number: 16-189-0516

Account Number: 07062



7621 Whitepine Road, Richmond, VA 23237

Main 804-743-9401 ° Fax 804-271-6446

www.waypointanalytical.com

Send To: Schreiber Recycling
Carter Evans
5201 Pleasant Ridge Dr
Providence Forge VA 23140

"Every acre...Every year."™

Grower: Schreiber Materials**SOIL ANALYSIS REPORT**

Analytical Method(s): SMP Buffer pH Mehlich 3 Loss On Ignition Water pH

Date Received: 07/07/2016

Date Of Analysis: 07/08/2016

Date Of Report: 07/11/2016

Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
STS1	02441	7.6 VH		150	26 L			252 VH	343 VH	1341 M		7.1		0.0	10.2
STS2	02442	3.8 M		111	20 L			174 H	361 VH	1353 M		7.3		0.0	10.2
STS4	02443	3.6 M		111	10 VL			113 M	216 H	993 M		6.7		0.3	7.4
SBM1	02444	2.4 L		84	35 M			124 M	177 H	1168 M		5.7	6.73	2.0	9.6

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO ₃ N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
STS1	6.3	28.0	65.7		0.0										
STS2	4.4	29.5	66.3		0.0										
STS4	3.9	24.3	67.1		4.1										
SBM1	3.3	15.4	60.8		20.8										

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: *Paucic McGeary*

Paucic McGeary

Client : Schreiber Recycling 5201 Pleasant Ridge Dr Providence Forge , VA 23140	Grower : Schreiber Materials Farm:	Report No : 16-189-0516 Cust No : 07062 Date Printed : 07/11/2016 Page : 1 of 1 Date Received : 07/07/2016
--	--	--

<u>Lab No</u>	<u>Field ID</u>	<u>Sample Identification</u>	<u>Percent Sand</u>	<u>Percent Silt</u>	<u>Percent Clay</u>	<u>Textural Classification</u>
02441		STS1	70.8	23.6	5.6	Sandy Loam
02442		STS2	74.8	13.6	11.6	Sandy Loam
02443		STS4	74.8	15.6	9.6	Sandy Loam
02444		SBM1	84.8	9.6	5.6	Loamy Sand



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Certificate of Analysis

Final Report

Laboratory Order ID 17K0878

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro, GA 30830

Date Received: November 28, 2017 17:20

Date Issued: December 11, 2017 16:52

Project Number: R15434R-12

Submitted To: Thomas Liesfeld

Purchase Order:

Client Site I.D.: NKWP/Confirmatory Sampling

Enclosed are the results of analyses for samples received by the laboratory on 11/28/2017 17:20. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld Date Issued: 12/11/2017 16:52
859 Ben Hatcher Rd
Waynesboro GA, 30830
Submitted To: Thomas Liesfeld Project Number: R15434R-12
Client Site I.D.: NKWP/Confirmatory Sampling Purchase Order:

ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 17K0878

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-1	17K0878-01	Solids	11/28/2017 16:15	11/28/2017 17:20



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld
859 Ben Hatcher Rd
Waynesboro GA, 30830

Date Issued: 12/11/2017 16:52

Submitted To: Thomas Liesfeld

Project Number: R15434R-12

Client Site I.D.: NKWP/Confirmatory Sampling

Purchase Order:

Laboratory Order ID: 17K0878

Analytical Results

Sample I.D. TS-1

Laboratory Sample ID: 17K0878-01

Grab Date/Time: 11/28/2017 16:15

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
Metals (Total) by EPA 6000/7000 Series Methods									
Arsenic	01	SW7010	<5.53 mg/kg dry		5.53	10	12/01/17 10:20	12/05/17 17:14	RCV
Chromium	01	SW7010	6.98 mg/kg dry	E	1.11	20	12/01/17 10:20	12/07/17 13:59	RCV
Copper	01	SW7010	3.41 mg/kg dry		1.11	2	12/01/17 10:20	12/11/17 15:13	RCV
Wet Chemistry Analysis									
Percent Solids	01	SM18 2540G	82.9 %		0.10	1	11/29/17 16:40	11/29/17 16:40	JCM

Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis					
17K0878-01	1.00 g / 1.00 mL	SM18 2540G	BAK0867	SAL0031	
Metals (Total) by EPA 6000/7000 Series Methods					
17K0878-01	1.09 g / 50.0 mL	SW7010	BAL0121	SAL0127	AL70024
17K0878-01	1.09 g / 50.0 mL	SW7010	BAL0121	SAL0195	AL70043
17K0878-01	1.09 g / 50.0 mL	SW7010	BAL0121	SAL0280	AL70058



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld Date Issued: 12/11/2017 16:52
 859 Ben Hatcher Rd
 Waynesboro GA, 30830
 Submitted To: Thomas Liesfeld Project Number: R15434R-12
 Client Site I.D.: NKWP/Confirmatory Sampling Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit	Qual
Batch BAL0121 - SW3050B-AA										
Blank (BAL0121-BLK1)				Prepared: 12/01/2017 Analyzed: 12/05/2017						
Arsenic	<0.500 mg/kg wet	0.500	mg/kg wet							
Blank (BAL0121-BLK2)				Prepared: 12/01/2017 Analyzed: 12/07/2017						
Chromium	<0.050 mg/kg wet	0.050	mg/kg wet							
Blank (BAL0121-BLK3)				Prepared: 12/01/2017 Analyzed: 12/11/2017						
Copper	<0.500 mg/kg wet	0.500	mg/kg wet							
LCS (BAL0121-BS1)				Prepared: 12/01/2017 Analyzed: 12/05/2017						
Arsenic	95.7 mg/kg wet	48.2	mg/kg wet	96.4	mg/kg wet	99.3	80-120			
LCS (BAL0121-BS2)				Prepared: 12/01/2017 Analyzed: 12/07/2017						
Chromium	99.4 mg/kg wet	48.2	mg/kg wet	96.4	mg/kg wet	103	80-120			E
LCS (BAL0121-BS3)				Prepared: 12/01/2017 Analyzed: 12/11/2017						
Copper	102 mg/kg wet	48.2	mg/kg wet	96.4	mg/kg wet	106	80-120			
LCS Dup (BAL0121-BSD1)				Prepared: 12/01/2017 Analyzed: 12/05/2017						
Arsenic	90.1 mg/kg wet	45.6	mg/kg wet	91.2	mg/kg wet	98.8	80-120	6.04	20	
LCS Dup (BAL0121-BSD2)				Prepared: 12/01/2017 Analyzed: 12/07/2017						
Chromium	85.9 mg/kg wet	45.6	mg/kg wet	91.2	mg/kg wet	94.2	80-120	14.5	20	E
LCS Dup (BAL0121-BSD3)				Prepared: 12/01/2017 Analyzed: 12/11/2017						
Copper	89.9 mg/kg wet	45.6	mg/kg wet	91.2	mg/kg wet	98.5	80-120	13.0	20	
Matrix Spike (BAL0121-MS1)				Source: 17K0890-08 Prepared: 12/01/2017 Analyzed: 12/05/2017						
Arsenic	9.23 mg/kg dry	0.504	mg/kg dry	101	2.03 mg/kg dry	7.15	75-125			M, E



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Certificate of Analysis

Final Report

Client Name: Thomas Liesfeld Date Issued: 12/11/2017 16:52
 859 Ben Hatcher Rd
 Waynesboro GA, 30830
 Submitted To: Thomas Liesfeld Project Number: R15434R-12
 Client Site I.D.: NKWP/Confirmatory Sampling Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BAL0121 - SW3050B-AA										
Matrix Spike (BAL0121-MS2) Source: 17K0890-18 Prepared: 12/01/2017 Analyzed: 12/05/2017										
Arsenic	15.3 mg/kg dry	0.522	mg/kg dry	104	0.633 mg/kg dry	14.0	75-125			M, E
Matrix Spike (BAL0121-MS3) Source: 17K0890-08 Prepared: 12/01/2017 Analyzed: 12/07/2017										
Chromium	114 mg/kg dry	50.4	mg/kg dry	101	<50.4 mg/kg dry	113	75-125			E
Matrix Spike (BAL0121-MS4) Source: 17K0890-18 Prepared: 12/01/2017 Analyzed: 12/07/2017										
Chromium	124 mg/kg dry	52.2	mg/kg dry	104	<52.2 mg/kg dry	118	75-125			E
Matrix Spike (BAL0121-MS5) Source: 17K0890-08 Prepared: 12/01/2017 Analyzed: 12/11/2017										
Copper	110 mg/kg dry	50.4	mg/kg dry	101	<50.4 mg/kg dry	109	75-125			
Matrix Spike (BAL0121-MS6) Source: 17K0890-18 Prepared: 12/01/2017 Analyzed: 12/11/2017										
Copper	106 mg/kg dry	52.2	mg/kg dry	104	<52.2 mg/kg dry	101	75-125			
Matrix Spike Dup (BAL0121-MSD1) Source: 17K0890-08 Prepared: 12/01/2017 Analyzed: 12/05/2017										
Arsenic	9.13 mg/kg dry	0.512	mg/kg dry	102	2.03 mg/kg dry	6.94	75-125	1.12	20	M, E
Matrix Spike Dup (BAL0121-MSD2) Source: 17K0890-18 Prepared: 12/01/2017 Analyzed: 12/05/2017										
Arsenic	15.3 mg/kg dry	0.517	mg/kg dry	103	0.633 mg/kg dry	14.2	75-125	0.438	20	M, E
Matrix Spike Dup (BAL0121-MSD3) Source: 17K0890-08 Prepared: 12/01/2017 Analyzed: 12/07/2017										
Chromium	124 mg/kg dry	51.2	mg/kg dry	102	<51.2 mg/kg dry	121	75-125	8.40	20	E
Matrix Spike Dup (BAL0121-MSD4) Source: 17K0890-18 Prepared: 12/01/2017 Analyzed: 12/07/2017										
Chromium	112 mg/kg dry	51.7	mg/kg dry	103	<51.7 mg/kg dry	108	75-125	10.2	20	E
Matrix Spike Dup (BAL0121-MSD5) Source: 17K0890-08 Prepared: 12/01/2017 Analyzed: 12/11/2017										
Copper	108 mg/kg dry	51.2	mg/kg dry	102	<51.2 mg/kg dry	105	75-125	1.92	20	



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Client Site I.D.: NKWP/Confirmatory Sampling Purchase Order:

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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Batch BAL0121 - SW3050B-AA

Matrix Spike Dup (BAL0121-MSD6) Source: 17K0890-18 Prepared: 12/01/2017 Analyzed: 12/11/2017

Copper	103 mg/kg dry	51.7	mg/kg dry	103	<51.7 mg/kg dry	99.7	75-125	2.65	20
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Wet Chemistry Analysis - Quality Control

Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BAK0867 - No Prep Wet Chem

Blank (BAK0867-BLK1)

Prepared & Analyzed: 11/29/2017

Percent Solids 100 % 0.10 %

Duplicate (BAK0867-DUP1)

Source: 17K0849-03

Prepared & Analyzed: 11/29/2017

Percent Solids 88.7 % 0.10 % 89.0 % 0.307 20

Duplicate (BAK0867-DUP2)

Source: 17K0890-10

Prepared & Analyzed: 11/29/2017

Percent Solids 95.5 % 0.10 % 95.3 % 0.213 20



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Certified Analyses included in this Report

Analyte		Certifications	
SW7010 in Solids			
Arsenic		VELAP	
Chromium		VELAP	
Copper		VELAP	
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2018
NC	North Carolina DENR	495	12/31/2017
VELAP	NELAC-Virginia Certificate #9475	460021	06/14/2018
WVDEP	West Virginia DEP	350	11/30/2018



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Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	NKWP/Confirmatory Sampling	Purchase Order:	

Summary of Data Qualifiers

E Estimated concentration, outside calibration range

M Matrix spike recovery is outside established acceptance limits

RPD Relative Percent Difference


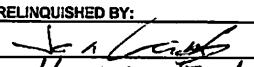

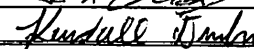

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library .
A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

CHAIN OF CUSTODY											
CLIENT: LIESFELD FARMS				CONSULTANT: DRAPER ADEN ASSOCIATES				COPY COA TO CONSULTANT? YES			
ATTN: THOMAS LIESFELD				ATTN: WILLIAM A SALOMONE (WSALOMONE@DAA.COM)				COPY INVOICE TO CONSULTANT? YES			
STREET: 859 BEN HATCHER ROAD				STREET: 8090 VILLA PARK DRIVE				PROJECT: NKWP / CONFIRMATORY SAMPLING			
CITY: WAYNESBORO, GA 30830				CITY: RICHMOND, VIRGINIA 23228				LOCATION: PROVIDENCE FORGE, VIRGINIA			
PHONE: 804-833-4286				PHONE: 804-264-2228				LABORATORY: AIR, WATER, & SOIL LABORATORIES			
TURN AROUND: 1 2 3 <u>5</u> 10 DAYS				P.O. #: R15434R-12				ANALYSES REQUESTED			
LAB USE ONLY	SAMPLE INFORMATION			COMPOSITE	Grab	NO. OF JARS	MATRIX	Metals (As, Cr) +Cu			COMMENTS (SAMPLING INTERVAL)
LAB ID	SAMPLE ID	DATE	TIME								
	TS-1	11/28	1615		✓	1	S	✓			topsoil
SAMPLED BY: 				PRINTED NAME: Jon Lamb				Level 2 data package. Please report all concentrations in mg/kg (dry weight). All dry weight analyses shall be total analysis.			
RELINQUISHED BY:		DATE	TIME	RECEIVED BY:		DATE					
		11/28	1615			11/28		1615			
		11/28	1720			11/28/17		1720			
TEMP: 17.0		pH:		CONTENTS: A = AIR; S=SOIL; G=GROUNDWATER; WW=WASTEWATER							

No Se
No 1a

Thomas Liesfeld 17K0878
New Kent, Virginia
Recd: 11/28/2017 Due: 12/04/2017



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Certificate of Analysis

Final Report

Client Name:	Thomas Liesfeld 859 Ben Hatcher Rd Waynesboro GA, 30830	Date Issued:	12/11/2017 16:52
Submitted To:	Thomas Liesfeld	Project Number:	R15434R-12
Client Site I.D.:	NKWP/Confirmatory Sampling	Purchase Order:	

Sample Conditions Checklist

Samples Received at:	17.00°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C) or received on ice and recently taken?	No
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes

Work Order Comments

Due to instrument failure; ok per Thomas Liesfeld, As and Cr will be analyzed by GFAA. KLC 12/5/17 13:44.

Kendall Dunham

From: Scharr, Ruth <Scharr.Ruth@epa.gov>
Sent: Wednesday, January 3, 2018 10:28 AM
To: William Salomone
Cc: Harris, Devlin (DEQ); Kendall Dunham
Subject: RE: LWOOD/NKWP- ECA Topsoil submittal (New Kent Wood Preservatives Inc. Site)

Bill, Looks okay to me. Thanks Ruth

From: William Salomone [mailto:wsalomone@daa.com]
Sent: Wednesday, January 03, 2018 8:42 AM
To: Scharr, Ruth <Scharr.Ruth@epa.gov>
Cc: Harris, Devlin (DEQ) <Devlin.Harris@deq.virginia.gov>; Kendall Dunham <kdunham@daa.com>
Subject: LWOOD/NKWP- ECA Topsoil submittal

Ruth,

Please see attached submittal for the topsoil that ECA would like to use at the New Kent site. Please let me know if you have any concerns.

Thank you,

Bill

William A. Salomone, P.E.

Senior Project Engineer

Draper Aden Associates

Engineering • Surveying • Environmental Services

Lasting Positive Impact™

Phone: 804.264.2228 • Direct: 804.237.1858

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