### **APPENDIX** A

Appendix A, Non-Standard (NS) Roller Integrated Compaction Monitoring (RICM) Specification for the New Iberia Demonstration Project

#### NS Roller Integrated Compaction Monitoring (RICM) (11/11)

**DESCRIPTION.** This specification describes the Contractor's responsibilities for furnishing and operating roller integrated compaction monitoring (RICM) (i.e., intelligent compaction (IC) or continuous compaction control (CCC)) equipped rollers with global positioning system (GPS) mapping, training, testing, acquiring measurement data, and transmitting electronic data files to the Engineer and research team in support of the research study. RICM refers to the compaction of road materials, including subgrade soils, aggregate bases, stabilized materials, and asphalt-paving materials, using modern rollers equipped with an integrated IC or CCC measuring system. The RICM measurement values (IC-MVs) include roller operation parameters (speed, vibration frequency and amplitude, gear, etc.).

a) Measurement Passes on Subgrade and Base layers: Compaction of these layers shall be accomplished with standard rollers or the RICM roller(s). Conduct all measurement passes in the test sections with a smooth single-drum RICM roller. Do not utilize automatic feedback during measurement passes. Measurement passes are defined in Equipment and listed in Table 3.

b) Compaction of Asphalt Layers: At least one double-drum RICM roller(s) shall be utilized in the breakdown position (directly behind the paver) to compact the HMA layers within the test sections; and continuously record IC-MV, time, temperature, and GPS location of the roller at all times and passes. Contractor shall be responsible for setting roller patterns that will provide material that meets standard specifications.

Intelligent Compaction (IC) refers to the compaction of road materials, such as soils, aggregate bases, or asphalt pavement materials, using modern vibratory rollers equipped with an in-situ measurement system and feedback control. Often, Global Positioning System (GPS) based mapping is included, and software that automates documentation of the results. By integrating measurement, documentation, and control systems, the use of IC rollers allow for real-time corrections in the compaction process. IC rollers also maintain a continuous record of color-coded plots that include number of roller passes, roller-generated material stiffness measurements, and precise location of the roller (IntelligentCompaction.com). For this specification, the option of feedback control may be used during the compaction of soils and base course material, but not during measurement passes.

This specification will primarily focus on "Continuous Compaction Control" (CCC). Specifically, the gathering of data from self-propelled roller integrated compaction systems including the measurement and recording of roller position, date/time, speed, vibration frequency, vibration amplitude, surface temperature (for HMA rollers), pass count, travel direction, and an IC-MV. Real Time Kinematic (RTK) based GPS with base station corrections shall be used for determining the position of the roller compactor. Results from the RICM roller shall be displayed to the roller operator on a color-coded computer screen in real-time during roller operations and the data saved for transfer and viewing by the Engineer. Automatic feedback control can be used for soil and aggregate compaction passes, but measurement passes must be conducted at constant operating settings for roller speed, vibration amplitude, and frequency.

Quality acceptance for soils (subgrade and base layers) will be based on the Louisiana Department of Transportation and Development (LADOTD) 2006 Edition of the Louisiana Standard Specifications for Roads and Bridges (LSSRB 2006 Edition). The RICM roller results will not be used for approval or rejection of the project's materials testing but support the Louisiana Transportation Research Center (LTRC) research study.

Quality acceptance for Hot Mix Asphalt (HMA) production will be based on the LADOTD, LSSRB 2006 Edition The RICM roller will be used for the compaction of HMA layers within the test section areas to continuously record the location, time, temperature, and response of compactive effort; but will not be used for approval or rejection of the project's materials testing. The data from RICM equipment will support the LTRC research study.

Definitions:

 a) Automatic Feedback Control: Automatic adjustment of roller Operating Parameters such as vibration frequency and amplitude based on realtime feedback from measurement system.

b) Breakdown Roller: The first roller directly behind the asphalt paver.

c) Compaction Pass: A static or vibratory roller pass performed during subgrade and base compaction, not necessarily employing an Instrumented Roller within the test section. HMA Compaction Passes in contrast, shall utilize an Instrumented Roller within the test section.

d) Continuous Compaction Control (CCC): Continuous monitoring and documentation of compaction using an Instrumented Roller.

e) Double Jumping: Wherein the drum loses contact for more than one cycle of vibration at a time. Some RICM rollers automatically decrease the vertical vibration force when undesirable operating conditions are detected (e.g., jump mode).

f) HMA Compaction Passes: A vibratory roller pass performed during HMA compaction employing an Instrumented Roller in the breakdown position.

g) IC-MV: The parameter used by the roller to assess compaction based on vibration measurements.

h) Instrumented Roller: A roller compactor outfitted with drum vibration instrumentation or other means of compute a Roller Measurement Value, onboard computer, and position monitoring equipment.

 i) Intelligent Compaction: The combined use of an Instrumented Roller and Automatic Feedback Control in an attempt to improve compaction.

j) Measurement Pass: A pass performed by an Instrumented Roller over the full pavement width of a test section, during which all required information, including Roller Measurement Values and machine position, are recorded. Roller Operating Parameters must be held constant, and thus no Automatic Feedback Control is permitted during a Measurement Pass. Maintain Operating Parameters within controlled limits to ensure reliable data collection during the measurement pass.

k) MV Reporting Rate: The time-dependent rate at which new Roller Measurement Values are reported:

 Operating Parameters: Roller machine parameters used during operation, including forward speed, driving direction, vibration frequency, and amplitude setting. Operate the roller per manufacturer guidelines to ensure reliable data collection during the measurement pass (i.e. minimizing double jump, etc.)

m) Pass Sequence: A record of the roller pass history (pass number, Operating Parameters) over a specified area.

n) Roller Integrated Compaction Monitoring (RICM)

 o) Roller Measurement Value (MV): The roller-based parameter used for assessment of soil stiffness during compaction and based on roller vibration measurements.

 p) Rolling Pattern: The path traversed by the roller during a Measurement Pass.

 q) Test Section: The area of the project where this specification is applicable.

MATERIALS. Furnish machinery, tools, and equipment necessary for proper execution of the work in accordance with the plans and applicable specifications of LADOTD. The contractor shall be responsible for providing and transporting the RICM rollers to and from the job site. The contractor will be responsible for onsite transportation and fuel during training, measurement passes, compaction of asphalt layers, and test section assistance.

a) Provide RICM roller equipment as required for measurement passes on the subgrade and base; and compaction of each asphalt layer within the test sections as described in this project.

1) Measurement Passes on Subgrade and Base layers: Compaction of these layers may be accomplished with standard rollers or the RICM roller(s). Conduct all measurement passes in the test section with a smooth-drum RICM roller; and continuously record IC-MV, time, and GPS location of the roller at all times and passes. Do not utilize automatic feedback during measurement passes. Measurement passes are defined in Construction Requirements.

2) Compaction of Asphalt Layers: At least one double-drum RICM roller(s) shall be utilized in the breakdown position (directly behind the paver) to compact the HMA layers within the test sections; and continuously record IC-MV, time, temperature, and GPS location of the roller at all times and passes. Contractor shall be responsible for setting roller patterns that will provide material that meets standard specifications.

b) Instrumented Roller Compactor Requirements. Provide self-propelled RICM rollers in accordance with the approved RICM roller manufacturer list shown in Table 1. Ensure the RICM roller manufacturer provides a knowledgeable representative on the project to ensure proper operation of the equipment. Show published evidence that data from each selected roller correlates to the standard specification of density (or modulus) for the applicable layer (subgrade, stabilized, asphalt).

Manufacturer		
BOMAG America, Inc.	Dynapac, USA, Inc.	
2000 Kentville Rd.	16435 I.H. 35	
Kewanee, IL 61443	North Selma, TX. 78154	
Tel: (309) 853-3571	Tel: (210) 474-5770	
Fax: (309) 852-0350	Fax: (210) 474-5780	
Chris.connolly@bomag.com	Mike.Pritchard@us.atlascopco.com	
Case Construction Equipment	Sakai America, Inc.	
621 State Street	90 International Parkway,	
Racine, WI 53122	Adairsville, GA 30103	
Tel: +1 262 636-4959	Tel: (800) 323-0535	
Fax: +1 262 636-5310	Todd Mansell	
George.whitaker@casece.com	t-mansell@sakaiamerica.com	
Caterpillar, Inc.	Volvo Construction Equipment	
100 North East Adams Street	One Volvo Drive	
Peoria, Illinois 61629	Asheville, NC 28803	
Tel: (612) 209-1230	Telephone: (828) 650-2429	
	Mobile: (828) 337-0586	
Hourscht_Steve_E@cat.com	bob.marcum@volvo.com	

Table 1 RICM Roller Manufacturers

1) RICM General Requirements.

- a) Self propelled, vibratory roller compactor Subgrade: Smooth single-drum Base: Smooth single-drum Asphalt: Smooth Double-drum
- b) Weighs at least 22,000 pounds (10,000 kg)
- c) Instrumented with the following:
  - 1) Accelerometer-based, or Drive-Power based system
  - 2) Global Positioning System
  - Onboard computer display of IC-MV output for each pass, including display of 2-dimensional design files linked to project GPS coordinates.
  - 4) Data acquisition capability, storage software and hardware (data stored for transfer to the Engineer and LTRC for viewing on a laptop computer), including IC-MV, GPS, etc. for each measurement pass.
- d) Capable of controlling and maintaining operating parameters during measurement passes.
- e) Provide evidence that Roller IC-MV correlates to standard specification (density, plate load test, or falling weight deflectometer.

Roller accuracy requirements				
Operating Parameter	Accuracy			
Global Positioning System	± 3 inches (76 mm) in the horizontal and vertical directions (RTK-GPS)			
Rolling Speed	±0.3 mph (0.5 km/h)			
Frequency	± 2 Hz			
Amplitude Setting	±0.0008 in (0.2 mm)			

Table 2

d) GPS Requirements: To ensure accurate and consistent survey grade data collection during the research time period, the following capabilities for the RICM roller GPS systems are required:

- 1. RTK-GPS (Real Time Kinematic-GPS) systems on machines and one hand held "rover" unit.
- 2. System records and reports values as XYZ position in Louisiana State Plane South Zone NAD 83 coordinates for the project site.
- 3. If an offset is necessary between GPS antenna and center of drum, it has been input and validated.
- 4. IC rollers shall meet the accuracy limits described in Table 2.
- 5. Technical assistance by the roller manufacture(s) and GPS equipment manufacturer(s) will be provided at no additional cost to the Department in accordance with the following requirements:
  - a. On-site staff with sufficient technical knowledge to setup roller and roller-mounted GPS equipment and provide input to the research team in equipment operation during training and on the first day of the scheduled field data collection effort.
  - b. Contact information of personnel with sufficient technical knowledge to assist the research team with technical questions during field-testing when on-site technical assistance is not available

e) Provide the roller-mounted GPS receiver/radio and a separate base station. Prior to measurement passes during the training session, validate the GPS setup by using a survey grade hand-held GPS "rover" unit to ensure that the roller-mounted GPS is providing accurate positioning data.

f) Provide both the Engineer and LTRC with a copy of the RICM roller vendor software for viewing results.

g) All RICM rollers shall have the capability to continuously measure and record IC-MV and location parameters in an ASCII (American Standard Code for Information Interchange) format data file. Furnish to the Engineer and LTRC the vendor data file (hardcopy) and the electronic data file with information exported in a comma, colon, or space delimited ASCII file format before each subsequent measurement or compaction pass. As a minimum, the file transfer shall occur immediately following the compaction operations on each working day. The Engineer may request data at any time during RICM roller

operations.

At a minimum, the following data shall be contained in the data files: Machine Model, Type, and Serial/Machine Number Drum Dimensions (Width and Diameter) Roller and Drum Weights File Name Date Stamp Time Stamp RTK Based GPS position: XYZ Coordinates in Louisiana State Plane South Zone NAD 83 Roller Travel Direction (e.g., forward, reverse) Pass Count Rolling Speed Vibration Setting (e.g., On or Off) Vibration Amplitude Vibration Frequency Peak Vertical Amplitude (theoretical) Indicator of Double Jumping IC-MV Automatic Feedback Control (e.g., On or Off) Surface temperature (HMA)

h) Training. For the RICM roller(s) provide one-day classroom training and two working days of field training by the RICM equipment manufacturer and GPS provider to operators, LADOTD personnel, and LTRC. Include training on data and correlation analysis. Make available all personnel responsible for roller operations to attend training. Include training details in the RICM Work Plan. Coordinate the schedule with the Engineer and LTRC at least 1-week prior to training. The training location should be within relatively close proximity to the project as discussed during the preconstruction meeting. The measurement, recording, and GPS systems should be running and effective during training.

#### CONSTRUCTION REQUIREMENTS

a) RICM Work Plan: The Contractor will develop with the RICM vendor/manufacturer a project specific RICM work plan for the roller(s) to be used. Deliver three copies to the Engineer at least two weeks prior to the Pre-Construction Conference. Describe in the work plan the following information for the chosen roller(s):

- 1. Vendor information
- 2. Roller model,
- 3. Roller dimensions and weight,
- 4. Description of the RICM measurement system,
- 5. Description of the IC-MV,
- 6. Near continuous
  - a. GPS capabilities,
    - b. Data Documentation system,
    - c. Temperature measurement system (for HMA)
- 7. Software information and capability
- Operator display description (screen shots, parameters, etc.).

- Roller data collection methods, including sampling rates, intervals, and data file types.
- Data transfer procedures to the LADOTD and LTRC, including method, timing, and personnel responsible. Data transfer shall occur at a minimum of once per day or as directed by LADOTD and LTRC.
- Training plan and schedule for roller operators, LADOTD and LTRC personnel; including both classroom and field training.
- Communication protocol for informing the LTRC's point of contact concerning construction progress and schedule to facilitate research fieldtesting and data collection.
- Evidence of IC-MV correlations with various in-situ point measurements including: density, Plate Load Test, Falling Weight Deflectometer, etc.

b) Operation. Operate the RICM roller according to manufacturer's recommendations and approved RICM Work Plan to provide reliable and repeatable operating settings. Record all data including roller operations forward and reverse directions. Ensure roller track overlap does not exceed 10 percent of the drum width during measurement passes.

1. Measurement Passes on Subgrade and Base layers.

Keep vibration frequency and amplitude constant during roller operations during measurement passes.

The RICM roller may be used for compaction of these layers throughout the project, but must be available for measurement passes.

2. Compaction of Asphalt layers.

Keep vibration frequency and amplitude constant during roller operations for comparing successive passes as approved by LTRC.

The RICM roller shall be utilized to compact the HMA layers in the breakdown position; and continuously record IC-MV, time, temperature, and GPS location of the roller at all times and passes. Contractor shall be responsible for setting roller patterns that will provide material that meets standard specifications.

c) Notification: Provide the Engineer and LTRC 24 hours coordination notice before starting measurement passes or compaction on HMA.

d) Measurement Passes: RICM rollers shall be used and available for all measurement passes within the designated test section area(s). Conduct full coverage (test section length by full pavement width) measurement passes with the RICM roller as specified in Table 3 and on the plans. Contact Engineer if over-compaction is observed.

	Layer	When to Measure	Roller
1	Embankment	Prior to Mixing	Subgrade or Base RICM
2	Cement Treated Subgrade	Day of Acceptance	Subgrade or Base RICM
3	Cement Treated Subgrade	7 days after compaction	Subgrade or Base RICM
4	Soil Cement Base Course	Day of Acceptance	Subgrade or Base RICM
5	Soil Cement Base Course	7 days after compaction	Subgrade or Base RICM
6	Superpave AC Binder Course	During Compaction	HMA RICM
7	Superpave AC Wearing Course	During Compaction	HMA RICM

Table 3 Layers to measure with RICM roller

1) Measurement Passes on Subgrade and Base layers: Measurement passes will shadow the normal acceptance process, and mirror the normal acceptance testing frequency by LADOTD (i.e. when a layer is complete and ready for acceptance). Measurement passes will occur at the top of each lift or layer of the cross section in the test section area(s) as defined in Table 3. Collect data as specified in Section Equipment. Type of roller passes may include:

a) RICM roller display NOT visible to (hidden from) the operator, to gauge normal procedure regarding pass coverage. Test areas are designated as L1 and R1 on the site plan.

b) RICM roller display of pass and IC-MV visible and available to the operator to assist roller operator' movement/pass coverage on layer. Test areas are designated as L2 and R2 on the site plan.

2) Compaction of Asphalt Layers: Measurement passes during HMA compaction in the test section area(s) will record IC-MV, time, temperature, and GPS location of the roller at all times and passes. Contractor shall be responsible for setting roller patterns that will provide material that meets standard specifications. Measurement passes will occur on HMA layers in the test section area(s) as defined in Table 3. Collect data as specified in the Equipment Section. Type of roller passes may include:

a) RICM roller display NOT visible to (hidden from) the operator, to gauge normal procedure regarding pass coverage. Test areas are designated as L1 and R1 on the site plan.

b) RICM roller display of pass and stiffness information visible and available to the operator during layer compaction to assist roller operator's pass coverage and compaction efforts on layer. Test areas are designated as L2 and R2 on the site plan.

e) Shadow Testing: LTRC will shadow the normal acceptance process and conduct

research test when a layer is ready for acceptance. Coordination with the Engineer and LTRC shall include notification 24 hours prior to acceptance testing. LTRC may conduct additional testing using LTRC equipment.

1) Time Frame

Shadow testing by LTRC will occur during normal QA testing timeframe per layer acceptance. LTRC field tests in the test section areas are generally quick and self-sufficient.

Tests and Equipment

LTRC field tests in the test section areas will include but will not be limited to the following at the time of acceptance: DCP, moisture-density tests, light falling weight deflectometer (LFWD), falling weight deflectometer (FWD), Dynaflect, GeoGauge, plate load tests (PLT), and Portable Seismic Property Analyzer (PSPA), and Asphalt Cores. Most tests are quick (several minutes) and will be performed simultaneously by LTRC groups (pavement, geotechnical, LSU).

Certain sensors, such as pressure cells and bender elements, may be installed within subgrade and base layers by LTRC research team. Assist LTRC with the installation of instrumentation (wire trench, dig pressure plate hole, etc.)

LTRC will work in-concert with the contractor to find a suitable location for any sensors or equipment. The contractor shall use caution when performing any work near the instrumentation. The contractor will be responsible for the replacement, repair, and installation of any instrumentation that may be damaged by his equipment.

Research Support

Provide a minimum 15-Ton reaction vehicle for plate load tests (PLT) at the time of acceptance. The plate load (ASTM D1195) is a stationary test that takes about 2 hours. Three to five PLTs will be conducted per layer per test section.

MEASUREMENT. RICM equipment, support, and measurement passes and compaction passes in the test section areas will be paid as a lump sum items.

**PAYMENT.** RICM equipment and support will be paid for at the lump sum contract price for providing assistance for the implementation of the research project as described herein. Payment will be full compensation for materials, equipment, fuel, operators, electricity, and delay during testing program, site preparation, utilization of GPS System, water tank, discing to control moisture, content, or any other services required for progress of the RICM research program.

#### PAYMENT:

 a) Payment for Soil and Base Measurement Passes and HMA Compaction Passes will be the lump sum contract price.

b) Payment is full compensation for all work associated with providing RICM equipped rollers, transmission of electronic data files, two copies of RICM equipment manufacturer software, training, and preparing and maintaining work space for LADOTD/LTRC vehicles. Partial Payments will be made as follows:

 After mobilization of the RICM roller onsite and equipment training, 50 percent of the lump sum bid price. 2) The remaining 50 percent will be paid based on acceptance of the final data.

c) Delays due to GPS satellite reception of signals to operate the RICM equipment or RICM rollers will not be considered justification for contract modifications or contract extensions.

Payment will be made under:

Item No.	Pay Item	Pay Unit
NS-DEV-60304	Roller Intelligent Compaction Monitoring (RICM)	)
	Subgrade and Base	Lump Sum
NS-DEV-60305	Roller Intelligent Compaction Monitoring	
	Asphalt	Lump Sum

## **APPENDIX B**

APPENDIX B, Notes from Meeting with SHRP2 Personnel

### Appendix B

#### SHRP2 R-07 Performance Specification LTRC Demonstration Project: Application of Intelligent Compaction (IC) and Mechanistic-Based Point Measurement Technologies in a New Statistical Acceptance Framework

[Updated 5/18/10]

### **Objectives**

- Demonstrate SHRP2 R-07 performance specifications for rapid renewal using non-destructive IC technology and mechanistic-based in situ point measurements on a new pavement section including subgrade, subbase, and HMA layers.
- Establish the value of using IC and mechanistic-based point measurement technologies for rapid renewal projects by benchmarking against sections built using standard construction techniques. The objectives would be to:
  - Improve value and reduce frequency of traditional sampling required through improved construction process control and resulting uniformity,
  - Real time quality control of compaction operations to accelerate construction and reduce rework, and
  - Evaluate the potential for using IC data for acceptance and linking to properties that relate more directly to design (e.g. modulus) and in-service performance.

Develop field data collection and evaluation expertise in light of a newly proposed statistical framework.

Establish long-term monitoring sections for LTRC to document impact of implementing these technologies and specification approach.

### LTRC Team

Identify Project Scope to include subgrade, subbase, and HMA pavement construction.

- Foundation (Sub-base and Base) and Pavement construction test sections performed in the same construction season.
- Baseline (standard) specifications and test procedures.

Provide LTRC/DOTD Staffing and testing equipment for benchmarking evaluations

Three test sections approximately 1000 to 2000ft/section (each section would contain at least 2 lanes and shoulders). Two sections would use IC technology and various mechanistic-based point measurements. The remaining sections would use standard construction techniques and serve as the control section. All three sections would be constructed using similar materials and layer thickness/properties.

The parallel evaluation testing for Soils, Subbase, and HMA would require the following:

- o Soils/Subbase
  - DCP One per100 ft. minimum on two lines = 40 tests/section.
  - Moisture Same locations as DCP
  - FWD Same locations as DCP
  - LWD Same locations as DCP
  - Other mechanistic (e.g.CPT, GeoGauge, etc.) for comparison
- o HMA
  - Cores Same locations (2 cores/600tons)
  - FWD Same locations/lift
  - Mat and surface temperature

Attend FHWA IC demonstration <u>http://www.intelligentcompaction.com/index.php?q=node/13</u>

# APPENDIX C

APPENDIX C, Screen Shots of Subgrade MDP activity



Figure 71 Subgrade MDP map from Veda – 11/09/2012



Figure 72 Subgrade MDP map from Veda – 11/13/2012



Figure 73 Subgrade MDP map from Veda – 11/14/2012



Figure 74 Subgrade MDP map from Veda – 11/14 to 11/29/2012



Figure 75 Subgrade MDP map from Veda – 12/01 to 12/12/2012



Figure 76 Subgrade MDP map from Veda – 12/20/2012



Figure 77 Subgrade MDP map from Veda – 01/05/2013



Figure 78 Subgrade MDP map from Veda – 01/22 to 01/23/2013



Figure 79 Subgrade MDP map from Veda – 03/02 to 03/06/2013



Figure 80 Subgrade MDP map from Veda – 03/07/2013



Figure 81 Subgrade MDP map from Veda – 03/08 to 03/15/2013



Figure 82 Subgrade MDP map from Veda – 04/02/2013



Figure 83 Subgrade MDP map from Veda – 05/06/2013

## APPENDIX D

APPENDIX D, Screen Shots of Base Course MDP activity



Figure 84 Base MDP map from Veda – 05/18-20/2013



Figure 85 Base MDP map from Veda – 05/20-25/2013



Figure 86 Base MDP map from Veda – 06/3/02 to 06/30/2013



Figure 87 Base MDP map from Veda – 07/31/2013



Figure 88 Base MDP map from Veda – 07/31 to 08/08/2013



Figure 89 Base MDP map from Veda – 08/08/2013

## **APPENDIX E**

APPENDIX E, Screen Shots of Binder activity



Binder CCV and Temperature map from Veda – 6/25/2013-0710



Figure 91 Binder CCV and Temperature map from Veda – 6/26/2013-0706



Figure 92 Binder CCV and Temperature map from Veda – 6/28/2013-0709



Figure 93 Binder CCV and Temperature map from Veda – 6/28/2013-1600



Binder CCV and Temperature map from Veda – 6/29/2013-1031



C The Transfer Group - Map data OpenStreetMap or controlled to 2 Ar 5 A Figure 95 Binder CCV and Temperature map from Veda – 6/29/2013-1050



C The Transfer Group - Map data OpenStreetMapping contributions (C-BY-SA Figure 96 Binder CCV and Temperature map from Veda – 7/2/2013



Figure 97 Binder CCV and Temperature map from Veda – 7/10/2013-0717



Figure 98 Binder CCV and Temperature map from Veda – 7/10/2013-1320


Figure 99 Binder CCV and Temperature map from Veda – 7/12/2013-0810



The Transfer Group - Map data OpenStreetMap conflicted CC-BY-SA Patientle Road Figure 100 Binder CCV and Temperature map from Veda – 7/12/2013-1120



Figure 101 Binder CCV and Temperature map from Veda – 8/27/2013-0654



Figure 102 Binder CCV and Temperature map from Veda – 8/28/2013-0715



Figure 103 Binder CCV and Temperature map from Veda – 8/29/2013-0705



Binder CCV and Temperature map from Veda – 8/29/2013-1429

# **APPENDIX F**

APPENDIX F, Screen Shots of Wearing Course activity



The Tantack Group - Map data OpenStreetMap any contribution CC-RV-SA Figure 105 Figure 105 Wearing CCV and Temperature map from Veda – 12/04/2013-0632



C The Tartiet Group- May data OpenStreetMapping contribution Kild/VSA Figure 106 Figure 106 Wearing CCV and Temperature map from Veda – 12/05/2013-0158



Figure 107 Wearing CCV and Temperature map from Veda – 12/05/2013-0551



Figure 108 Wearing CCV and Temperature map from Veda – 12/17/2013-0250



Figure 109 Wearing CCV and Temperature map from Veda – 12/17/2013-0317



Figure 110 Wearing CCV and Temperature map from Veda – 12/17/2013-2215



Figure 111 Wearing CCV and Temperature map from Veda – 12/18/2013-0355



Figure 112 Wearing CCV and Temperature map from Veda – 12/18/2013-1918



Figure 113 Wearing CCV and Temperature map from Veda – 12/19/2013-1811



© The Transfer Group - Map data Openformentagions collification for start and Figure 114 Figure 114 Wearing CCV and Temperature map from Veda – 12/19/2013-2026



Figure 115 Wearing CCV and Temperature map from Veda – 01/13/2014-1854



Figure 116 Wearing CCV and Temperature map from Veda – 01/13/2014-2334



Figure 117 Wearing CCV and Temperature map from Veda – 01/14/2014-1647



Wearing CCV and Temperature map from Veda – 01/15/2014-1254

# **APPENDIX G**

APPENDIX G, VEDA analysis reports – soil layers

# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-05-18 to 05-20 last State Plane Zone: 1702 - Louisiana South

## File Information

Final Coverage Final Coverage: True

## Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	56
Min	1
Мах	10
Sample Size	106,778
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.4
Standard Deviation (mph)	1.6
CoV (%)	46
Min (mph)	0.6
Max (mph)	43.7
Sample Size	106,778
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	90,141
Target Status	Failed
% of Target Achieved	0.00



## Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	90,141
Target Status	Failed
% of Target Achieved	0.00



### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	147.30
Standard Deviation	18.18
CoV (%)	12
Min	0.10
Max	150.00
Sample Size	90,141
Target Status	Passed
% of Target Achieved	99.73





# Final Coverage: Semivariogram

Veda 2.10.0080

## **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-05-20 to 05-25 LAST State Plane Zone: 1702 - Louisiana South

## File Information

Final Coverage Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	60
Min	1
Мах	14
Sample Size	239,714
Target Status	Passed
% of Target Achieved	100.00



Veda 2.10.0080

## Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.1
Standard Deviation (mph)	1.5
Co∨ (%)	37
Min (mph)	0.6
Max (mph)	43.7
Sample Size	239,714
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
Co∨ (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	76,501
Target Status	Failed
% of Target Achleved	0.00



### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	76,501
Target Status	Failed
% of Target Achieved	0.00



## Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	146.84
Standard Deviation	19.69
CoV (%)	13
Min	0.10
Мах	150.00
Sample Size	76,501
Target Status	Passed
% of Target Achieved	99.68




# Final Coverage: Semivariogram

#### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-06 all State Plane Zone: 1702 - Louisiana South

#### File Information

Final Coverage Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	2
CoV (%)	78
Min	1
Max	19
Sample Size	211,630
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.4
Standard Deviation (mph)	2.2
CoV (%)	42
Min (mph)	0.7
Max (mph)	38.8
Sample Size	211,630
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	35,254
Target Status	Failed
% of Target Achieved	0.00



### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	35,254
Target Status	Failed
% of Target Achieved	0.00



Pass Count 2013-06 Last

#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	148.01
Standard Deviation	7.67
CoV (%)	5
Min	65.40
Max	150.00
Sample Size	35,254
Target Status	Passed
% of Target Achieved	99.99



# Final Coverage: Semivariogram

Range (ft): 19.68 Sill: 29.78 Vertical Scale: 29.78 Nuggets: 0.00



#### Project Information Drum Diameter: 0.00

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-07-31 Last PASS State Plane Zone: 1702 - Louisiana South

#### File Information

Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

#### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	1
Standard Deviation	1
CoV (%)	53
Min	1
Мах	11
Sample Size	38,477
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	2.7
Standard Deviation (mph)	0.8
Co∨ (%)	30
Min (mph)	0.6
Max (mph)	12.8
Sample Size	38,477
Target Status	Passed
% of Target Achieved	99.99



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
Co∨ (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	38,457
Target Status	Passed
% of Target Achieved	99.98



#### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	38,457
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	149.58
Standard Deviation	3.77
CoV (%)	3
Min	61.20
Мах	150.00
Sample Size	38,457
Target Status	Passed
% of Target Achieved	99.99



# Final Coverage: Semivariogram

Range (ft): 9.18 Sill: 6.86 Vertical Scale: 6.86 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-07-31 to 08-08 LAST State Plane Zone: 1702 - Louisiana South

#### File Information

Final Coverage Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Devlation	2
Co∨ (%)	80
Min	1
Max	21
Sample Size	209,771
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.8
Standard Deviation (mph)	1.8
CoV (%)	48
Min (mph)	0.6
Max (mph)	32.9
Sample Size	209,771
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	197,679
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	197,679
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	148.88
Standard Deviation	5.68
CoV (%)	4
Min	61.20
Мах	150.00
Sample Size	197,679
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Semivariogram Range (ft): 15.75 Sill: 27.98

Vertical Scale: 27.98 Nuggets: 0.00



Pass Count 2013-08-08 Final Coverage

#### Project Information Drum Diameter: 0.00

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-08-08 Final Coverage State Plane Zone: 1702 - Louisiana South

#### File Information

Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	2
CoV (%)	70
Min	1
Мах	17
Sample Size	70,167
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.1
Standard Deviation (mph)	1.5
CoV (%)	36
Min (mph)	0.8
Max (mph)	32.9
Sample Size	70,167
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	66,997
Target Status	Failed
% of Target Achieved	0.00



Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	66,997
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	147.04
Standard Deviation	8.97
CoV (%)	6
Min	67.10
Max	150.00
Sample Size	66,997
Target Status	Passed
% of Target Achieved	99.99



# Final Coverage: Semivariogram Range (ft): 14.43 Sill: 62.28

Vertical Scale: 62.28 Nuggets: 0.00



Pass Count 2012-11-09 LAST

#### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2012-11-09 LAST State Plane Zone: 1702 - Louisiana South

#### File Information

# Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	1
Standard Deviation	1
CoV (%)	68
Min	1
Max	19
Sample Size	57,130
Target Status	Passed
% of Target Achieved	100.00



ŧ

#### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.6
Standard Deviation (mph)	2.4
CoV (%)	68
Min (mph)	1.0
Max (mph)	15.3
Sample Size	57,130
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Devlation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	41,225
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	41,225
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	148.82
Standard Deviation	3.81
CoV (%)	3
Min	109.60
Мах	150.00
Sample Size	41,225
Target Status	Passed
% of Target Achieved	99.99



4


# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2012-11-13 Last State Plane Zone: 1702 - Louisiana South

# File Information

### Final Coverage Final Coverage: True

## Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Меал	4
Standard Deviation	4
CoV (%)	85
Min	1
Мах	28
Sample Size	88,808
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	2.9
Standard Deviation (mph)	2.0
Co∨ (%)	68
Min (mph)	0.6
Max (mph)	35.9
Sample Size	88,808
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	79,417
Target Status	Failed
% of Target Achieved	0.00



## Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	79,417
Target Status	Failed
% of Target Achleved	0.00



### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	142.97
Standard Deviation	8.76
CoV (%)	6
Min	11.80
Мах	150.00
Sample Size	79,417
Target Status	Passed
% of Target Achleved	100.00





# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2012-11-14 LAST State Plane Zone: 1702 - Louisiana South

## File Information

# Final Coverage

Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	56
Min	1
Мах	13
Sample Size	26,939
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.7
Standard Deviation (mph)	2.5
Co∨ (%)	67
Min (mph)	0.7
Max (mph)	22.7
Sample Size	26,939
Target Status	Passed
% of Target Achieved	99.99



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	22,652
Target Status	Passed
% of Target Achieved	100.00



## Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	22,652
Target Status	Failed
% of Target Achieved	0.00



## Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	149.68
Standard Deviation	2.84
CoV (%)	2
Min	37.60
Мах	150.00
Sample Size	22,652
Target Status	Passed
% of Target Achieved	100.00





# Final Coverage: Semivariogram

# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2012-11-14 to 11-29 LAST State Plane Zone: 1702 - Louisiana South

## File Information

### Final Coverage Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	2
CoV (%)	78
Min	1
Max	22
Sample Size	192,164
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.5
Standard Deviation (mph)	2.4
CoV (%)	69
Min (mph)	0.7
Max (mph)	37.2
Sample Size	192,164
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	154,847
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	154,847
Target Status	Failed
% of Target Achieved	0.00



## Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	149.14
Standard Deviation	6.03
CoV (%)	4
Min	10.40
Мах	150.00
Sample Size	154,847
Target Status	Passed
% of Target Achieved	100.00



### Pass Count 2012-11-14 to 11-29 LAST



Pass Count 2012-12-01 to 12-12 Last

# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2012-12-01 to 12-12 Last State Plane Zone: 1702 - Louisiana South

## File Information

Final Coverage: True

# Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	57
Min	1
Мах	14
Sample Size	146,680
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	2.8
Standard Deviation (mph)	1.5
CoV (%)	54
Min (mph)	0.6
Max (mph)	34.4
Sample Size	146,680
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	128,962
Target Status	Failed
% of Target Achieved	0.00



Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	128,962
Target Status	Failed
% of Target Achieved	0.00



## Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	149.01
Standard Deviation	5.72
CoV (%)	4
Min	34.70
Мах	150.00
Sample Size	128,962
Target Status	Passed
% of Target Achieved	99.99





Pass Count 2012-12-20 LAST

### Project Information Drum Diameter: 0.00

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2012-12-20 LAST State Plane Zone: 1702 - Louisiana South

# File Information

### Final Coverage

Final Coverage: True

# Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	67
Min	1
Мах	11
Sample Size	9,034
Target Status	Passed
% of Target Achleved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	2.4
Standard Deviation (mph)	1.1
CoV (%)	45
Min (mph)	0.4
Max (mph)	14.6
Sample Size	9,034
Target Status	Passed
% of Target Achieved	99.99



## Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Devlation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	8,918
Target Status	Passed
% of Target Achieved	99.97



### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic Value 0.00 Mean (in) 0.00 Standard Deviation (in) 0 CoV (%) 0.00 MIn (in) Max (in) 0.00 8,918 Sample Size Failed Target Status % of Target Achieved 0.00



### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	147.48
Standard Deviation	5.68
CoV (%)	4
Min	97.80
Мах	150.00
Sample Size	8, <del>9</del> 18
Target Status	Passed
% of Target Achleved	99.99





Pass Count 2013-01-05 Last

# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-01-05 Last State Plane Zone: 1702 - Louisiana South

# File Information

### Final Coverage

Final Coverage: True

# Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69
Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	50
Min	1
Max	7
Sample Size	71,865
Target Status	Passed
% of Target Achleved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.2
Standard Deviation (mph)	2.1
CoV (%)	66
Min (mph)	0.9
Max (mph)	34.0
Sample Size	71,865
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	68,410
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	68,410
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	135.38
Standard Deviation	12.73
CoV (%)	9
Min	13.40
Мах	150.00
Sample Size	68,410
Target Status	Passed
% of Target Achieved	99.99



ę

# Final Coverage: Semivariogram

Range (ft): 19.68 Sill: 93.45 Vertical Scale: 93.45 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-01-22 to 1-23 last State Plane Zone: 1702 - Louisiana South

### File Information

Final Coverage Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	5
Standard Deviation	2
CoV (%)	46
Min	1
Max	17
Sample Size	42,618
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.5
Standard Deviation (mph)	1.7
Co∨ (%)	38
Min (mph)	0.6
Max (mph)	14.9
Sample Size	42,618
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	4,203
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	4,203
Target Status	Failed
% of Target Achieved	0.00



### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Меал	118.82
Standard Deviation	16.87
CoV (%)	14
Min	1.60
Max	150.00
Sample Size	4,203
Target Status	Passed
% of Target Achieved	99.95



Veda 2.10.0080

# Final Coverage: Semivariogram

Range (ft): 14.43 Sill: 234.52 Vertical Scale: 234.52 Nuggets: 0.00



Pass Count 2013-03-02 to 03-06- last

### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-03-02 to 03-06- last State Plane Zone: 1702 - Louisiana South

### File Information

### Final Coverage

Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	1
Standard Deviation	1
CoV (%)	59
Min	1
Max	11
Sample Size	150,301
Target Status	Passed
% of Target Achieved	100.00



Veda 2.10.0080

Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.8
Standard Deviation (mph)	2.3
CoV (%)	60
Min (mph)	0.5
Max (mph)	34.7
Sample Size	150,301
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	57,834
Target Status	Passed
% of Target Achieved	99.99



Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	57,834
Target Status	Failed
% of Target Achieved	0.00



Veda 2.10.0080

### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	148.01
Standard Deviation	8.00
CoV (%)	5
Min	17.10
Max	150.00
Sample Size	57,834
Target Status	Passed
% of Target Achieved	99.98



# Final Coverage: Semivariogram

Range (ft): 22.30 Sill: 30.87 Vertical Scale: 30.87 Nuggets: 0.00



Pass Count 2013-03-07 Last

### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-03-07 Last State Plane Zone: 1702 - Louisiana South

### File Information

# Final Coverage: True

# Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	1
Standard Deviation	1
CoV (%)	51
Min	1
Мах	10
Sample Size	64,594
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.4
Standard Deviation (mph)	2.2
CoV (%)	51
Min (mph)	0.7
Max (mph)	34.2
Sample Size	64,594
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	42,075
Target Status	Failed
% of Target Achleved	0.00



### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	42,075
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	99.63
Standard Deviation	69.33
CoV (%)	70
Min	0.10
Мах	150.00
Sample Size	42,075
Target Status	Passed
% of Target Achieved	69.98





## Final Coverage: Semivariogram

Veda 2.10.0080

Pass Count 2013-03-08 to 03-15- Last

### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-03-08 to 03-15- Last State Plane Zone: 1702 - Louisiana South

### **File Information**

# Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	1
Standard Deviation	1
CoV (%)	56
Min	1
Мах	14
Sample Size	166,622
Target Status	Passed
% of Target Achleved	100.00



Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.3
Standard Deviation (mph)	2.5
CoV (%)	57
Min (mph)	0.7
Max (mph)	67.8
Sample Size	166,622
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	88,105
Target Status	Failed
% of Target Achieved	0.00



Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Devlation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	88,105
Target Status	Failed
% of Target Achieved	0.00



### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	148.68
Standard Deviation	8.90
CoV (%)	6
Min	0.20
Мах	150.00
Sample Size	88,105
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Semivariogram

Range (ft): 18.37 Sill: 50.41 Vertical Scale: 50.41 Nuggets: 0.00



Pass Count 2013-04-02 Last

### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-04-02 Last State Plane Zone: 1702 - Louisiana South

### File Information

### Final Coverage

Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	59
Min	1
Мах	14
Sample Size	83,518
Target Status	Passed
% of Target Achleved	100.00



Veda 2.10.0080
Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.7
Standard Deviation (mph)	2.2
CoV (%)	61
Min (mph)	0.4
Max (mph)	35.5
Sample Size	83,518
Target Status	Passed
% of Target Achieved	100.00



Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
CoV (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	77,195
Target Status	Passed
% of Target Achieved	99.99



#### Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	77,195
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	50.92
Standard Deviation	69.74
CoV (%)	137
Min	0.10
Мах	150.00
Sample Size	77,195
Target Status	Passed
% of Target Achieved	37.90





### Final Coverage: Semivariogram

Veda 2.10.0080

Pass Count 2013-05-06 LAST

#### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Trimble Machine Weight: 0.00 Material Type: Soil UTM Zone: 15 Original File: Pass Count 2013-05-06 LAST State Plane Zone: 1702 - Louisiana South

#### File Information

### Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

#### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	1
Standard Deviation	0
CoV (%)	33
Min	1
Мах	6
Sample Size	36,830
Target Status	Passed
% of Target Achieved	100.00



Veda 2.10.0080

Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.7
Standard Deviation (mph)	1.7
CoV (%)	45
Min (mph)	1.1
Max (mph)	14.4
Sample Size	36,830
Target Status	Passed
% of Target Achieved	99.99



#### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	180,000
Standard Deviation (vpm)	0
Co∨ (%)	0
Min (vpm)	180,000
Max (vpm)	180,000
Sample Size	29,279
Target Status	Failed
% of Target Achieved	0.00



# Final Coverage: Amplitude Target Percentage (%): 0.00 Target Value (in): 0.0

Statistic	Value
Mean (in)	0.00
Standard Deviation (in)	0.00
CoV (%)	0
Min (in)	0.00
Max (in)	0.00
Sample Size	29,279
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: CMV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	148.80
Standard Deviation	10.31
CoV (%)	7
Min	32.00
Мах	150.00
Sample Size	29,279
Target Status	Passed
% of Target Achieved	99.98



.



### Final Coverage: Semivariogram

Veda 2.10.0080

### **APPENDIX H**

APPENDIX H, VEDA analysis reports – asphalt layers

#### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20131217-0250-09 State Plane Zone: 1702 - Louisiana South

#### **File Information**

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

# Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	1
CoV (%)	39
Min	1
Мах	5
Sample Size	27,913
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.7
Standard Deviation (mph)	0.6
CoV (%)	13
Min (mph)	0.0
Max (mph)	5.7
Sample Size	27,913
Target Status	Passed
% of Target Achieved	99.99



### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,814
Standard Deviation (vpm)	444
CoV (%)	16
Min (vpm)	0
Max (vpm)	2,976
Sample Size	27,913
Target Status	Passed
% of Target Achieved	98.01



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	204.2
Standard Deviation (°F)	24.07
CoV (%)	12
Min (°F)	131.2
Max (°F)	269.5
Sample Size	27,913



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	23.08
Standard Deviation	13.80
CoV (%)	60
Min	0.00
Max	100.00
Sample Size	27,913
Target Status	Passed
% of Target Achieved	98.14



#### Final Coverage: Semivariogram Range (ft): 10.50

Range (ft): 10.50 Sill: 167.20 Vertical Scale: 167.20 Nuggets: 0.00



#### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20131217-0317-11 State Plane Zone: 1702 - Louisiana South

#### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Final Coverage: True

Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	60
Min	1
Max	5
Sample Size	5,302
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.9
Standard Deviation (mph)	0.6
CoV (%)	12
Min (mph)	2.6
Max (mph)	5.6
Sample Size	5,302
Target Status	Passed
% of Target Achieved	99.77



# Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,493
Standard Deviation (vpm)	595
CoV (%)	24
Min (vpm)	0
Max (vpm)	3,006
Sample Size	5,302
Target Status	Passed
% of Target Achieved	97.30



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	201.0
Standard Deviation (°F)	24.91
CoV (%)	12
Min (°F)	151.2
Max (°F)	258.4
Sample Size	5,302



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	31.02
Standard Deviation	19.93
CoV (%)	64
Min	0.00
Max	100.00
Sample Size	5,302
Target Status	Passed
% of Target Achieved	97.43



# Final Coverage: Semivariogram Range (ft): 26.24 Sill: 231.20

Vertical Scale: 231.20 Nuggets: 0.00



#### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20131217-2215-11 State Plane Zone: 1702 - Louisiana South

#### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Final Coverage Final Coverage: True

Analysis Radius (ft): 3.28

Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	1
CoV (%)	34
Min	1
Max	6
Sample Size	46,019
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.6
Standard Deviation (mph)	0.6
Co∨ (%)	12
Min (mph)	1.1
Max (mph)	5.7
Sample Size	46,019
Target Status	Passed
% of Target Achieved	99.98



#### Final Coverage: Frequency

Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,787
Standard Deviation (vpm)	500
CoV (%)	18
Min (vpm)	0
Max (vpm)	5,790
Sample Size	46,019
Target Status	Passed
% of Target Achieved	97.36



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	199.5
Standard Deviation (°F)	24.00
CoV (%)	12
Min (°F)	32.0
Max (°F)	271.5
Sample Size	46,019



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	47.19
Standard Deviation	18.70
CoV (%)	40
Min	0.00
Max	100.00
Sample Size	46,019
Target Status	Passed
% of Target Achieved	97.63





Range (ft): 11.81 Sill: 269.09 Vertical Scale: 269.09 Nuggets: 0.00



#### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20131218-0355-20 State Plane Zone: 1702 - Louisiana South

#### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

# Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	1
CoV (%)	50
Min	1
Мах	7
Sample Size	16,377
Target Status	Passed
% of Target Achieved	100.00


## Final Coverage: Roller Speed Target Percentage (%): 0.00

Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.1
Standard Deviation (mph)	0.6
Co∨ (%)	12
Min (mph)	1.8
Max (mph)	5.9
Sample Size	16,377
Target Status	Passed
% of Target Achieved	99.95



### Final Coverage: Frequency

Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,732
Standard Deviation (vpm)	649
CoV (%)	24
Min (vpm)	0
Max (vpm)	5,328
Sample Size	16,377
Target Status	Passed
% of Target Achieved	95.33



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	179.7
Standard Deviation (°F)	31.40
CoV (%)	17
Min (°F)	85.1
Max (°F)	249,4
Sample Size	16,377



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	57.66
Standard Deviation	28.89
CoV (%)	50
Min	0.00
Мах	100.00
Sample Size	16,377
Target Status	Passed
% of Target Achieved	95.71



### Final Coverage: Semivariogram

Range (ft): 14.43 Sill: 624.58 Vertical Scale: 624.58 Nuggets: 0.00



### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20131218-1918-45 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

# Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	1
CoV (%)	47
Min	1
Max	7
Sample Size	89,955
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00

Target Percentage (%): 0.0 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.1
Standard Deviation (mph)	0.5
CoV (%)	9
Min (mph)	0.6
Max (mph)	6.1
Sample Size	89,955
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,802
Standard Deviation (vpm)	514
Co∨ (%)	18
Min (vpm)	0
Max (vpm)	5,994
Sample Size	89,955
Target Status	Passed
% of Target Achieved	97.40



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	174.7
Standard Deviation (°F)	30.26
CoV (%)	17
Min (°F)	32.0
Max (°F)	267.5
Sample Size	89,955



# Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	45.75
Standard Deviation	32.22
CoV (%)	70
Min	0.00
Max	100.00
Sample Size	89,955
Target Status	Passed
% of Target Achieved	97.55



### Final Coverage: Semivariogram

Range (ft): 13.12 Sill: 487.79 Vertical Scale: 487.79 Nuggets: 0.00



### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20131219-1811-43 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Final Coverage: True

Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	46
Min	1
Мах	4
Sample Size	2,527
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	3.0
Standard Deviation (mph)	0.5
CoV (%)	18
Min (mph)	1.6
Max (mph)	4.2
Sample Size	2,527
Target Status	Passed
% of Target Achieved	99.64



### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,295
Standard Deviation (vpm)	920
CoV (%)	40
Min (vpm)	0
Max (vpm)	2,934
Sample Size	2,527
Target Status	Passed
% of Target Achieved	88.17



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	121.2
Standard Deviation (°F)	40.00
CoV (%)	33
Min (°F)	32.0
Max (°F)	209,3
Sample Size	2,527



# Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean 💠	35.16
Standard Deviation	24.14
CoV (%)	69
Min	0.00
Мах	100.00
Sample Size	2,527
Target Status	Passed
% of Target Achieved	88.60



### Final Coverage: Semivariogram

Range (ft): 16.34 Sill: 579.02 Vertical Scale: 579.02 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20140113-1854-23 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	1
CoV (%)	34
Min	1
Max	6
Sample Size	50,137
Target Status	Passed
% of Target Achieved	100.00



## Final Coverage: Roller Speed Target Percentage (%): 0.00

Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.7
Standard Deviation (mph)	0.6
CoV (%)	13
Min (mph)	1.5
Max (mph)	5.9
Sample Size	50,137
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	value
Mean (vpm)	2,811
Standard Deviation (vpm)	465
Co∨ (%)	17
Min (vpm)	0
Max (vpm)	5,994
Sample Size	50,137
Target Status	Passed
% of Target Achieved	97.97



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	201.3
Standard Deviation (°F)	24.47
CoV (%)	12
Min (°F)	73.1
Max (°F)	271.5
Sample Size	50,137



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	42.49
Standard Deviation	19.06
CoV (%)	45
Min	0.00
Мах	100.00
Sample Size	50,137
Target Status	Passed
% of Target Achieved	98.06



## Final Coverage: Semivariogram

Range (ft): 15.75 Sill: 225.77 Vertical Scale: 225.77 Nuggets: 0.00



### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20140113-2334-43 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	44
Min	1
Max	7
Sample Size	17,907
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00

Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.3
Standard Deviation (mph)	0.4
CoV (%)	8
Min (mph)	2.4
Max (mph)	5.9
Sample Size	17,907
Target Status	Passed
% of Target Achieved	99.93



#### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,866
Standard Deviation (vpm)	393
CoV (%)	14
Min (vpm)	0
Max (vpm)	5,994
Sample Size	17,907
Target Status	Passed
% of Target Achieved	98.74



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	171.3
Standard Deviation (°F)	30.69
CoV (%)	18
Min (°F)	75.1
Max (°F)	265.5
Sample Size	17,907



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	23.17
Standard Deviation	13.40
CoV (%)	58
Min	0.00
Мах	100.00
Sample Size	17,907
Target Status	Passed
% of Target Achieved	98.88



### Final Coverage: Semivariogram

Range (ft): 13.12 Sill: 153.81 Vertical Scale: 153.81 Nuggets: 0.00



### Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20140114-1647-56 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

#### Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

### Final Coverage

Final Coverage: True

### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	2
Standard Deviation	1
CoV (%)	38
Min	1
Мах	4
Sample Size	7,913
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.3
Standard Deviation (mph)	0.7
CoV (%)	16
Min (mph)	2.6
Max (mph)	5.4
Sample Size	7,913
Target Status	Passed
% of Target Achieved	99.76


# Final Coverage: Frequency

Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,655
Standard Deviation (vpm)	668
Co∨ (%)	25
Min (vpm)	0
Max (vpm)	3,546
Sample Size	7,913
Target Status	Passed
% of Target Achieved	95.31



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	182.8
Standard Deviation (°F)	27.31
CoV (%)	15
Min (°F)	85.1
Max (°F)	269.5
Sample Size	7,913



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	30.23
Standard Deviation	15.85
CoV (%)	52
Min	0.00
Мах	100.00
Sample Size	7,913
Target Status	Passed
% of Target Achieved	95.63





Range (ft): 9.18 Sill: 226.60 Vertical Scale: 226.60 Nuggets: 0.00



## Project Information

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20140115-1254-41 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

# Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	3
Standard Deviation	1
CoV (%)	39
Min	1
Max	7
Sample Size	75,706
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.0
Standard Deviation (mph)	0.6
CoV (%)	13
Min (mph)	1.1
Max (mph)	11.0
Sample Size	75,706
Target Status	Passed
% of Target Achieved	99.99



#### Final Coverage: Frequency Target Percentage (%): 0.00

Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,781
Standard Deviation (vpm)	522
Co∨ (%)	19
Min (vpm)	0
Max (vpm)	5,994
Sample Size	75,706
Target Status	Passed
% of Target Achieved	97.39



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	185.1
Standard Deviation (°F)	28.36
CoV (%)	15
Min (°F)	73.1
Max (°F)	267.5
Sample Size	75,706



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Меап	37.84
Standard Deviation	19.13
CoV (%)	51
Min	0.00
Мах	100.00
Sample Size	75,706
Target Status	Passed
% of Target Achieved	97.55





Range (ft): 13.12 Sill: 280.80 Vertical Scale: 280.80 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130625-0710-02 State Plane Zone: 1702 - Louisiana South

#### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

#### AREA\_20130625-0710-02

Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Pass 18 Final Coverage: False

Pass 19 Final Coverage: False

Pass 20 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

#### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Меап	6
Standard Deviation	4
CoV (%)	61
Min	1
Мах	20
Sample Size	43,132
Target Status	Passed
% of Target Achieved	100.00



Page 3 of 8

#### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	0.0
Standard Deviation (mph)	0.0
CoV (%)	NaN
Min (mph)	0.0
Max (mph)	0.0
Sample Size	43,132
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,750
Standard Deviation (vpm)	740
CoV (%)	27
Min (vpm)	0
Max (vpm)	4,074
Sample Size	43,132
Target Status	Passed
% of Target Achieved	98.12



Tuesday, March 17, 2015 4:19:33 PM

## Final Coverage: Temperature

Statistic	Value
Mean (°F)	32.0
Standard Deviation (°F)	0.00
CoV (%)	0
Min (°F)	32.0
Max (°F)	32.0
Sample Size	43,132



Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	19.91
Standard Deviation	13.51
CoV (%)	68
Min	0.00
Мах	100.00
Sample Size	43,132
Target Status	Passed
% of Target Achieved	98.48



Page 7 of 8



Range (ft): 10.49 Sill: 160.09 Vertical Scale: 160.09 Nuggets: 0.00



#### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130626-0706-55 State Plane Zone: 1702 - Louisiana South

#### File Information

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Pass 18 Final Coverage: False

Final Coverage Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	6
Standard Deviation	3
CoV (%)	46
Min	1
Мах	18
Sample Size	123,657
Target Status	Passed
% of Target Achieved	100.00



#### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	0.0
Standard Deviation (mph)	0.0
Co∨ (%)	NaN
Min (mph)	0.0
Max (mph)	0.0
Sample Size	123,657
Target Status	Failed
% of Target Achieved	0.00



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,710
Standard Deviation (vpm)	393
CoV (%)	15
Min (vpm)	0
Max (vpm)	5,994
Sample Size	123,657
Target Status	Passed
% of Target Achieved	98.85



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	32.0
Standard Deviation (°F)	0.00
CoV (%)	0
Min (°F)	32.0
Max (°F)	32.0
Sample Size	123,657



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	14.78
Standard Deviation	12.37
CoV (%)	84
Min	0.00
Max	100.00
Sample Size	123,657
Target Status	Passed
% of Target Achieved	98.98



Page 7 of 8



Range (ft): 10.50 Sill: 133.17 Vertical Scale: 133.17 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130628-0709-47 State Plane Zone: 1702 - Louisiana South

#### **File Information**

Pass 01 Final Coverage: False

#### Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

#### AREA\_20130628-0709-47

Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Pass 18 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	4
Standard Deviation	3.
CoV (%)	68
Min	1
Мах	18
Sample Size	124,795
Target Status	Passed
% of Target Achieved	100.00



Veda 2.10.0080

Tuesday, March 17, 2015 4:30:19 PM

#### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	0.0
Standard Devlation (mph)	0.0
CoV (%)	NaN
Min (mph)	0.0
Max (mph)	0.0
Sample Size	124,795
Target Status	Failed
% of Target Achieved	0.00



#### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic Value 2,632 Mean (vpm) Standard Deviation (vpm) 497 CoV (%) 19 0 Min (vpm) 5,922 Max (vpm) Sample Size 124,795 Target Status Passed % of Target Achieved 97.64



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	32.0
Standard Deviation (°F)	0.00
CoV (%)	0
Min (°F)	32.0
Max (°F)	32.0
Sample Size	124,795



#### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	20.93
Standard Deviation	16.09
CoV (%)	77
Min	0.00
Max	100.00
Sample Size	124,795
Target Status	Passed
% of Target Achieved	97.89



# Final Coverage: Semivariogram

Range (ft): 11.81 Sill: 206.22 Vertical Scale: 206.22 Nuggets: 0.00



#### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130628-1600-23 State Plane Zone: 1702 - Louisiana South

#### File Information

Pass 01 Final Coverage: False

Final Coverage Final Coverage: True

#### Analysis

Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69
### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Меал	1
Standard Deviation	0
CoV (%)	0
Min	1
Мах	1
Sample Size	299
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	0.0
Standard Deviation (mph)	0.0
CoV (%)	NaN
Min (mph)	0.0
Max (mph)	0.0
Sample Size	299
Target Status	Failed
% of Target Achieved	0.00



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	1,737
Standard Deviation (vpm)	968
CoV (%)	56
Min (vpm)	0
Max (vpm)	2,994
Sample Size	299
Target Status	Passed
% of Target Achieved	84.95



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	32.0
Standard Deviation (°F)	0.00
CoV (%)	0
Min (°F)	32.0
Max (°F)	32.0
Sample Size	299



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	17.24
Standard Deviation	8.77
CoV (%)	51
Min	0.00
Мах	34.30
Sample Size	299
Target Status	Passed
% of Target Achieved	84.95



# Final Coverage: Semivariogram Range (ft): 6.63 Sill: 48.19

Vertical Scale: 48.19 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130629-1031-41 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

#### Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0

AREA\_20130629-1031-41

Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	4
Standard Deviation	3
CoV (%)	78
Min	1
Мах	11
Sample Size	4,906
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.6
Standard Deviation (mph)	1.2
Co∨ (%)	22
Min (mph)	1.9
Max (mph)	7.7
Sample Size	4,906
Target Status	Passed
% of Target Achieved	99.53



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,799
Standard Deviation (vpm)	557
CoV (%)	20
Min (vpm)	0
Max (vpm)	5,994
Sample Size	4,906
Target Status	Passed
% of Target Achleved	97.25



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	179.5
Standard Deviation (°F)	43.79
CoV (%)	24
Min (°F)	32.0
Max (°F)	233.4
Sample Size	4,906



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	18.99
Standard Deviation	19.92
CoV (%)	105
Min	0.00
Мах	100.00
Sample Size	4,906
Target Status	Passed
% of Target Achleved	97.43



## Final Coverage: Semivariogram Range (ft): 22.30 Sill: 263.78

Vertical Scale: 263.78 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130710-0717-16 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

### Pass 02

Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

#### AREA\_20130710-0717-16

Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	6
Standard Deviation	4
CoV (%)	61
Min	1
Мах	17
Sample Size	46,515
Target Status	Passed
% of Target Achieved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.6
Standard Deviation (mph)	0.4
CoV (%)	8
Min (mph)	0.0
Max (mph)	6.0
Sample Size	46,515
Target Status	Passed
% of Target Achieved	99.97



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,746
Standard Deviation (vpm)	678
CoV (%)	25
Min (vpm)	0
Max (vpm)	5,994
Sample Size	46,515
Target Status	Passed
% of Target Achieved	95.19



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	174.7
Standard Deviation (°F)	30.13
CoV (%)	17
Min (°F)	90.1
Max (°F)	246.4
Sample Size	46,515



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	22.06
Standard Deviation	22.78
CoV (%)	103
Min	0.00
Мах	100.00
Sample Size	46,515
Target Status	Passed
% of Target Achieved	95.60



### AREA\_20130710-0717-16



## Final Coverage: Semivariogram

### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130710-1320-01 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

### Pass 02

Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

#### Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

#### AREA\_20130710-1320-01

### Pass 14

Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Pass 18 Final Coverage: False

Final Coverage Final Coverage: True

### Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	6
Standard Deviation	4
CoV (%)	67
Min	1
Мах	18
Sample Size	78,455
Target Status	Passed
% of Target Achleved	100.00



### Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	5.6
Standard Deviation (mph)	1.0
CoV (%)	18
Min (mph)	0.1
Max (mph)	10.2
Sample Size	78,455
Target Status	Passed
% of Target Achieved	99.99



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,802
Standard Deviation (vpm)	647
CoV (%)	23
Min (vpm)	0
Max (vpm)	5,994
Sample Size	78,455
Target Status	Passed
% of Target Achieved	95.67



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	188.2
Standard Deviation (°F)	26.76
CoV (%)	14
Min (°F)	111.2
Max (°F)	263.5
Sample Size	78,455



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	17.82
Standard Deviation	18.17
CoV (%)	102
Min	0.00
Мах	100.00
Sample Size	78,455
Target Status	Passed
% of Target Achieved	95.99





### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130712-0810-35 State Plane Zone: 1702 - Louisiana South

### File Information

Pass 01 Final Coverage: False

#### Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False AREA\_20130712-0810-35

Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

### Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	6
Standard Deviation	4
CoV (%)	60
Min	1
Мах	16
Sample Size	16,423
Target Status	Passed
% of Target Achieved	100.00



## Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.4
Standard Deviation (mph)	0.7
CoV (%)	16
Min (mph)	1.3
Max (mph)	5.7
Sample Size	16,423
Target Status	Passed
% of Target Achieved	99.95



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,698
Standard Deviation (vpm)	785
CoV (%)	29
Min (vpm)	0
Max (vpm)	5,994
Sample Size	16,423
Target Status	Passed
% of Target Achieved	93.14



### Final Coverage: Temperature

Statistic	Value
Mean (°F)	165.0
Standard Deviation (°F)	19.24
CoV (%)	12
Min (°F)	101.1
Max (°F)	245.4
Sample Size	16,423


### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	13.46
Standard Deviation	21.92
CoV (%)	163
Min	0.00
Мах	100.00
Sample Size	16,423
Target Status	Passed
% of Target Achieved	93.61



#### AREA\_20130712-0810-35



# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130828-0715-40 State Plane Zone: 1702 - Louisiana South

# **File Information**

Pass 01 Final Coverage: False

Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

# Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	5
Standard Deviation	4
CoV (%)	68
Min	1
Max	17
Sample Size	68,553
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	6.0
Standard Deviation (mph)	1.1
CoV (%)	19
Min (mph)	0.8
Max (mph)	13.2
Sample Size	68,553
Target Status	Passed
% of Target Achieved	99.98



Page 4 of 8

### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,739
Standard Deviation (vpm)	772
CoV (%)	28
Min (vpm)	0
Max (vpm)	5,994
Sample Size	68,553
Target Status	Passed
% of Target Achieved	93.56



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	176.9
Standard Deviation (°F)	35.57
CoV (%)	20
Min (°F)	82.1
Max (°F)	248.4
Sample Size	68,553



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	16.01
Standard Deviation	20.61
CoV (%)	129
Min	0.00
Мах	100.00
Sample Size	68,553
Target Status	Passed
% of Target Achieved	94.01



# Final Coverage: Semivariogram

Range (ft): 11.81 Sill: 391.84 Vertical Scale: 391.84 Nuggets: 0.00



### **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130829-0705-30 State Plane Zone: 1702 - Louisiana South

# File Information

Pass 01 Final Coverage: False

#### Pass 02 Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

#### AREA\_20130829-0705-30

Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Pass 16 Final Coverage: False

Pass 17 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69 Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	7
Standard Deviation	4
CoV (%)	62
Min	1
Мах	17
Sample Size	42,366
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	4.9
Standard Deviation (mph)	0.9
CoV (%)	19
Min (mph)	0.2
Max (mph)	8.9
Sample Size	42,366
Target Status	Passed
% of Target Achieved	99.99



# Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,764
Standard Deviation (vpm)	693
CoV (%)	25
Min (vpm)	0
Max (vpm)	5,454
Sample Size	42,366
Target Status	Passed
% of Target Achieved	94.64



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	179.5
Standard Deviation (°F)	20.38
CoV (%)	11
Min (°F)	91.1
Max (°F)	245.4
Sample Size	42,366



### Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	20.98
Standard Deviation	17.60
CoV (%)	84
Min	0.00
Max	100.00
Sample Size	42,366
Target Status	Passed
% of Target Achieved	95.01



# Final Coverage: Semivariogram

Range (ft): 10.49 Sill: 284.74 Vertical Scale: 284.74 Nuggets: 0.00



# **Project Information**

Drum Diameter: 0.00 Drum Width: 0.00 Hemisphere: North Manufacturer: Sakai Machine Weight: 0.00 Material Type: Asphalt UTM Zone: 15 Original File: AREA\_20130829-1429-42 State Plane Zone: 1702 - Louisiana South

# File Information

Pass 01 Final Coverage: False

#### Pass 02

Final Coverage: False

Pass 03 Final Coverage: False

Pass 04 Final Coverage: False

Pass 05 Final Coverage: False

Pass 06 Final Coverage: False

Pass 07 Final Coverage: False

Pass 08 Final Coverage: False

Pass 09 Final Coverage: False

Pass 10 Final Coverage: False

Pass 11 Final Coverage: False

Pass 12 Final Coverage: False

Pass 13 Final Coverage: False

#### Pass 14 Final Coverage: False

Pass 15 Final Coverage: False

Final Coverage: True

Analysis Radius (ft): 3.28 Maximum Pass: 0 Linear Baselength (ft): 19.69

# Final Coverage: Pass Count Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	5
Standard Deviation	4
CoV (%)	69
Min	1
Мах	15
Sample Size	74,955
Target Status	Passed
% of Target Achieved	100.00



# Final Coverage: Roller Speed Target Percentage (%): 0.00 Target Value (mph): 0.0

Statistic	Value
Mean (mph)	6.8
Standard Deviation (mph)	1.1
CoV (%)	16
Min (mph)	1.5
Max (mph)	10.9
Sample Size	74,955
Target Status	Passed
% of Target Achieved	99.99



### Final Coverage: Frequency Target Percentage (%): 0.00 Target Value (vpm): 0

Statistic	Value
Mean (vpm)	2,823
Standard Deviation (vpm)	627
CoV (%)	22
Min (vpm)	0
Max (vpm)	5,994
Sample Size	74,955
Target Status	Passed
% of Target Achieved	96.08



# Final Coverage: Temperature

Statistic	Value
Mean (°F)	192.6
Standard Deviation (°F)	29.17
CoV (%)	15
Min (°F)	104.1
Max (°F)	283.5
Sample Size	74,955



# Final Coverage: CCV Target Percentage (%): 0.00 Target Value: 0.00

Statistic	Value
Mean	19.14
Standard Deviation	17.64
CoV (%)	92
Min	0.00
Мах	100.00
Sample Size	74,955
Target Status	Passed
% of Target Achieved	96.22



# Final Coverage: Semivariogram

Range (ft): 11.81 Sill: 280.24 Vertical Scale: 280.24 Nuggets: 0.00

