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#### CARLSON ENVIRONMENTAL CONSULTANTS, PC

LANDFILL GAS, AIR PERMITTING, AND REGULATOR COMPLIANCE SERVICES

November 16, 2012

Mr. F. Thomas Lubozynski, P.E. Waste Program Administrator FDEP – Central District 3319 Maguire Blvd, Suite 232 Orlando, FL 32803-3767



...

Subject:

Vista Class III Landfill – Apopka, Florida

DEP Permit Application No. SO48-0165969-019

Certification of Completion

Cell 3 Liner System and Leachate collection System

Dear Mr. Lubozynski:

On behalf of Vista Landfill, LLC (VLF), Carlson Environmental Consultants, PC (CEC) is please to submit the enclosed construction certification documents to the Florida Department of Environmental Protection (FDEP) for the above referenced project. These documents include the FDEP Certificate of Construction Completion Form 62-701.900(2)2 and CEC's Final Construction Quality Certification report and associated As-Built Drawings.

If you have any questions regarding the submittal please contact me via email <a href="mailto:snunes@cecenv.com">snunes@cecenv.com</a> or telephone at (863) 634-7185.

Respectfully Submitted,

Seth A. Nunes, P.E.

Principal

Carlson Environmental Consultants, PC

Copies To: Sheree Grant, Site Engineer, VLF

Deborah Perez, District Manager, VLF

Jay Davoll, P.E., City of Apopka

John Ladner, P.E. CDM Peter J. Walls, P.E., CEC





# Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 DEP Form # 62-701.900(2)
Form Title Certification of Construction Completion of a Solid Waste Management Facility
Effective Date May 19, 1994

## Certification of Construction Completion of a Solid Waste Management Facility

DEP Construction Permit No: SC48-0	165969-019 County: Orange
Name of Project: Cell 3 Construction	
Name of Owner: Vista Landfill, LLC	
Name of Engineer: Seth A. Nunes, Pl	<u> </u>
Type of Project: Class III Landfill Ce	ell Construction
Cost: Estimate \$ <u>960,000</u>	Actual \$ <u>960,000</u>
Site Design Quantity: 2500	ton/day Site Acreage: 150 (total site)/ 7.6 (Cell 3) Acres
Deviations from Plans and Application  No substantial deviations from the Plan	on Approved by DEP (attach additional pages as needed): ns, see attached as-built drawings.
Address and Telephone No. of Site: 2	242 West Keene Road, Apopka, Florida 32703 Telephone: (407) 886-2920
Name(s) of Site Supervisor: Sheree G	rant Cell Phone: (407) 902-1469
Date Site inspection is requested:A	
	ion of any deviation noted above, the construction of the antial accordance with the plans authorized by
Permit No.: SC48-0165969-019	Dated: Winter 30 2017
Date: November 16, 2012	Stanature of Profession of Engineer STATE OF OR

#### 6.0 CONSTRUCTION CERTIFICATION

CEC was retained by WMI to provide CQA monitoring services during the construction of the Cell 3 at VLF in Apopka, Florida. Construction activities were observed and documented by qualified CQA technicians. The installation of structural fill, subbase layer, protective cover sand and aggregate materials were observed during installation and were tested as required to confirm/verify the material suitability and proper installation. The installation of the geosynthetic composite liner materials were observed, documented, and tested; as required, to confirm/verify material suitability and proper installation with construction documents. The leachate collection and transmitting pipes were installed according to the cell construction drawings and specifications and the CQA Plan.

Based on our professional opinion, and the information obtained through on-site observation of installation/construction, from laboratory test results, and from design and record drawings; the construction of the Cell 3 is considered to have been constructed in general accordance with the approved permit, construction drawings and specifications, CQA Plan, FDEP Solid Waste Rules, and accepted industry engineering best practices.

069457

Peter J. Walls, P.E.

Project Manager

## CONSTRUCTION QUALITY ASSURANCE CERTIFICATION REPORT

For the:

#### **CELL 3 CONSTRUCTION PROJECT**

At the:

## VISTA LANDFILL - APOPKA, FLORIDA

SC48-0165969-019 Prepared for:



#### VISTA LANDFILL, LLC

Vista Landfill 242 W. Keene Road Apopka, Florida 32703

Prepared by:



#### CARLSON ENVIRONMENTAL CONSULTANTS, PC

305 South Main Street Monroe, NC 28112 (704) 283-9765

November 2012



#### CARLSON ENVIRONMENTAL CONSULTANTS, PC

LANDFILL GAS, AIR PERMITTING, AND REGULATORY COMPLIANCE SERVICES

November 16, 2012

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Name of Owner: Vista Landfill, LLC		
Name of Engineer: Seth A. Nunes, PE		
Type of Project: Class III Landfill Cell Construction		
Cost: Estimate \$960,000	Actual \$ 960,000	
Site Design Quantity: 2500 ton/day Site		
Deviations from Plans and Application Approved by  No substantial deviations from the Plans, see attached a	. 3	
Address and Telephone No. of Site <u>: 242 West Keene R</u>	oad, Apopka, Florida 32703	
Telephone: (407)		
Name(s) of Site Supervisor: Sheree Grant Cell Phone: (	407) 902-1469	
Date Site inspection is requested: <u>As soon as possible</u>	9	
This is to certify that, with the exception of any devia project has been completed in substantial accordanc Construction		
Permit No.: SC48-0165969-019 Dated  Date: _November 16, 2012	9: October 30, 2012	
	nature of Professional Engineer	
	11-16-12	

## **TABLE OF CONTENTS**

Page
1
1
1
4
4
5
6
6
<b>NG</b> 7
9
9
9
10
11
11
11
12
12
17
17
19

#### **LIST OF APPENDICES**

#### A. SOIL CONSTRUCTION DATA

- A.1 STRUCTURAL FILL CONFORMANCE TESTS
- A.2 STRUCTURAL FILL AND SUBBASE FIELD DENSITY TESTS
- A.3 PROTECTIVE COVER CONFORMANCE TESTS
- A.4 STONE AGGREGATE CONFORMANCE TESTS
- A.5 SUBGRADE ACCEPTANCE FORMS

#### B. GEOSYNTHETIC PRECONSTRUCTION DATA

- B.1 GEOMEMBRANE TEXTURED
  - Inventory/Manufacturer's Certifications/Conformance Tests
- B.2 GEOTEXTILE 8 Ounce
  - Inventory/Manufacturer's Certifications/Conformance Tests
- B.3 GEOTEXTILE 6 Ounce
  - Inventory/Manufacturer's Certifications/Conformance Tests
- B.4 GEOSYNTHETIC CLAY LINER
  - Inventory/Manufacturer's Certifications/Conformance Tests
- B.5 GEOCOMPOSITE TN300
  - Inventory/Manufacturer's Certifications/Conformance Tests
- B.6 INTERFACE FRICTION TESTING

#### C. GEOMEMBRANE CONSTRUCTION DATA

- C.1 TENSIOMETER CALIBRATION
- C.2 TRIAL WELD
- C.3 PANEL PLACEMENT LOGS
- C.4 PANEL SEAMING LOGS
- C.5 NONDESTRUCTIVE TEST LOGS
- C.6 DESTRUCTIVE TEST DATA
- C.7 REPAIR LOGS

#### D. SUPPORTIVE DATA

- D.1 CERTIFICATE OF COMPLETION
- D.2 LEACHATE FORCE MAIN TESTING
- D.3 DAILY FIELD LOGS
- D.4 MEETING MINUTES

#### E. PHOTOGRAPHIC RECORD

#### F. RECORD DRAWINGS

#### 1.0 INTRODUCTION

This report documents the construction, testing, and observations performed for the construction of the Cell 3 at Vista Landfill, LLC (VLF), which is a subsidiary of Waste Management of Florida, Inc. (WMIF), in Apopka, Florida. Cell 3 has a total area of 7.6 acres and ties into the adjacent Cell 2. WMIF retained Carlson Environmental Consultants, PC (CEC) of Monroe, North Carolina to perform CQA duties with regards to this construction project. These CQA duties included field observations, field testing, review of field testing reports, laboratory results and record drawings prepared in accordance with the project design and permit requirements.

#### 2.0 REFERENCE DOCUMENTS

- Technical Specifications for Vista Landfill Class III Facility, prepared by Geosyntec, dated July 2012.
- Construction Quality Assurance Plan for Vista Landfill Class III Facility, prepared by Geosyntec, dated July 2012.
- Cell 3 Construction Drawings for Vista Class III Landfill, prepared by Geosyntec, dated July 2012.

#### 3.0 PERSONNEL

The key personnel and companies involved with the construction of Cell 3 of VCHLF are:

#### 1. OPERATOR & CONSTRUCTION MANAGER:

Vista Landfill, LLC. (407) 553-4939

242 West Keene Road

Apopka, Florida 32703

Name Title

Sheree Grant Market Area Engineer

#### 2. DESIGN ENGINEER:

Geosyntec Consultants (813) 379-4394

13101 Telecom Drive, Suite 120

Temple Terrace, Florida 33637

<u>Name</u> <u>Title</u>

Victor M. Damasceno, P.E. Design Engineer

Victor M. Damasceno, P.E. Project Manager

#### 3. CONSTRUCTION QUALITY ASSURANCE (CQA):

Carlson Environmental Consultants, PC (704) 283-9765

305 S Main Street

Monroe, North Carolina 28112

<u>Name</u> <u>Title</u>

Seth A, Nunes, P.E. Certifying Engineer

Peter J. Walls, P.E. Project Manager

Tommy Bradford CQA Site Manager

#### 4. GENERAL CONTRACTOR:

ERC General Contracting Services, Inc. (407) 656-3900

890 Carter Road, Suite 170

Winter Garden, Florida 34787

<u>Name</u> <u>Title</u>

Jerry L. Pinder Project Manager

Jack Wiggins Superintendent

#### 5. GEOMEMBRANE MANUFACTURER:

ARGU/America, Inc. (843) 546-0600

500 Garrison Road

Georgetown, South Carolina 29440

<u>Name</u> <u>Title</u>

Danny Newton Project Manager

Grant Palmer Plant and Shipping Manager

#### 6. GEOSYNTHETIC CLAY LINER MANUFACTURER:

CETCO, Inc. (770) 387-7700

218 Industrial Park

Cartersville, GA 30121

<u>Name</u> <u>Title</u>

Gary Ezell Project Manager

Maria Martinez Quality Manager

#### 7. GEOCOMPOSITE AND GEOTEXTILE MANUFACTURER:

SKAPS Industries, Inc. (706) 354-3700

335 Athena Drive

Athens, Georgia 30601

<u>Name</u> <u>Title</u>

Brent Beckham Project Manager
Anurag Shah Quality Manager

#### 8. GEOSYNTHETICS INSTALLER:

Environmental Specialties International, Inc. (225) 291-2700

7943 Pecue Lane, Suite A

Baton Rouge, LA 70809

Name Title

Robert Gant Project Manager Soullgna Phinthisene (Arizona) Superintendent

#### 9. SOILS TESTING LABORATORY:

Genesis Testing Services, Inc. (678) 413-9332

1070 Iris Drive, Suite C

Conyers, Georgia 30094

<u>Name</u> <u>Title</u>

Jeff Akandu Laboratory Manager

#### 10. GEOSYNTHETICS TESTING LABORATORY:

TRI Environmental, Inc. (512) 263-6201

9063 Bee Caves Road

Austin, Texas 78733

<u>Name</u> <u>Title</u>

Jennifer Tenney Project Manager

#### 11. PROJECT SURVEYOR:

Peavey and Associates Surveying & Mapping, PA (863) 738-4960

690 Alice Place

Bartow, Florida 33830

<u>Name</u> <u>Title</u>

Deborah Peavey Registered Land Surveyor

#### 4.0 SCOPE OF SERVICES

The scope of services for the CQA work is summarized below. Work was performed in conformance with the project design and permit requirements.

#### 4.1 PROJECT MANAGEMENT/CERTIFYING ENGINEERING

#### A. Project management activities consisted of:

- 1. Reviewing project plans, specifications and permit requirements.
- 2. Scheduling field staff and site visits to ensure work has progressed in a satisfactory manner.
- 3. Attending the preconstruction meetings, which identified roles and responsibilities of parties, involved and established lines of communication.
- 4. Reviewing quality control data, conformance test data and daily field reports.
- 5. Assisting in the preparation of the construction documentation report.

#### B. Certifying Engineer activities included:

- 1. Reviewing documentation, plans, specifications, test procedures, and test data.
- 2. Performing site visits to ensure the construction and CQA are progressing as per the design and specification.
- 3. Assuring documentation compliance with design and permit requirements.
- 4. Observing field activities on a periodic basis and at critical design points.
- 5. Assisting the preparation of the construction documentation report.
- 6. Signing and sealing the certification report for Cell 3 construction as a Professional Engineer registered in the State of Florida.

#### 4.2 FIELD CQA SERVICES

This project is constructing the 7.6-acre cell construction project. The construction project included this cell construction as well as the construction of the forcemain for Cell 3. This cell construction consisted of: 1) excavating, placing and preparing the subgrade surface for the cell area, the perimeter berm for this cell, and sediment control structures; 2) placing and preparing structural fill and the subbase layer for the cell; 3) installing geosynthetic clay liner (GCL) on top of the subbase in the areas of the sump and along the leachate trench; 4) installing textured 60-mil high density polyethylene (HDPE) liner over the cell (covering the GCL where designed immediately after it was placed); 5) installing the geocomposite drainage layer over the geomembrane; 6) placing the 2-foot minimum thickness of protective cover sand; 7) installing leachate riser and leachate pipes with aggregate and wrapping with geotextile in the sump and along the design leachate trench alignment.

Field CQA services were generally subdivided into two activities, preconstruction and construction.

#### 4.2.1 PRECONSTRUCTION ACTIVITIES

Preconstruction activities included the following:

- 1. Conformance sampling and testing of the soils and drainage media utilized for the project.
- 2. Review of all contractor submittals for materials and structures that will be used for construction.
- 3. Taking inventory and review of sampling and test results for conformance testing of geosynthetic components utilized for this project.
- 4. Review of the geosynthetic manufacturers' QC submittals.

#### 4.2.2 CONSTRUCTION ACTIVITIES

Construction activities included the following:

- 1. Observation of the excavation required to achieve the landfill cell's subgrade.
- 2. Observation and documentation of all fill placement to bring the subgrade up to subbase elevations with structural fill.
- 3. Observation, documentation and testing of all geosynthetic materials being installed: Geosynthetic Clay Liner (GCL), geomembrane, geocomposite, and geotextile. This included the geomembrane documentation for trial welds, panel placement, panel seaming, seam nondestructive testing, seam destructive testing, repairs and retests for the HDPE geomembrane liner installation.
- 4. Observation and documentation of the placement of the protective cover sand layer.
- 5. Observation of the HDPE pipe for Cell 3 leachate collection with the stone aggregate. The pipe and stone was then wrapped with geotextile.
- 6. Observation, testing and installation of the forcemain for this cell.

#### 4.3 GEOTECHNICAL/GEOSYNTHETIC LABORATORY TESTING

The Genesis Testing Services (GTS) and TRI Environmental (TRI) laboratories listed in Section 3.0 provided geotechnical and geosynthetic laboratory testing services, respectively. Test results were provided to the Senior Site Quality Assurance Manager and the Certifying Engineer to ensure the results were in compliance with the project specifications. The tests and test methods associated with the geotechnical and geosynthetics portion of the project are listed below:

|--|

1.	Soil Classification	ASTM D 2487
2.	Particle Size	ASTM D 422
3.	Atterberg Limits	ASTM D 4318
4.	Moisture-Density Relationship (Standard Proctor)	ASTM D 698

#### Protective Cover Sand Layer

1.	1. Particle Size (sieve only)	ASTM C 136	
2.	Hydraulic Conductivity	ASTM D 2434	
3.	Calcium Carbonate	ASTM D 4373	

#### Stone Aggregate

1.	Particle Size (sieve only)	ASTM C 136
2.	Hydraulic Conductivity	ASTM D 2434
3.	Calcium Carbonate	ASTM D 3042

#### 60-mil HDPE Geomembrane

1.	Thickness	ASTM D 5994
2.	Density	ASTM D 1505
3.	Tensile Properties	ASTM D 6693
4.	Carbon Black Content	ASTM D 1603
5.	Carbon Black Dispersion	ASTM D 5596
6.	Interface Shear Strength	ASTM D 5321

#### 8-ounce Non-woven Geotextile

1.	Mass/Unit Area	ASTM D 5261
2.	Grab Tensile Strength	ASTM D 4632

3.	Static Puncture Strength	ASTM D 6241
4.	Puncture Resistance	ASTM D 4833
5.	Trapezoidal Tear	ASTM D 4533
6.	AOS	ASTM D 4751
7.	Permittivity	ASTM D 4491

#### 6-ounce Woven Geotextile

1.	Mass/Unit Area	ASTM D 5261
2.	Grab Tensile Strength	ASTM D 4632
3.	Static Puncture Strength	ASTM D 6241
4.	Puncture Resistance	ASTM D 4833
5.	Trapezoidal Tear	ASTM D 4533

#### Geosynthetic Clay Liner

1.	Hydraulic Conductivity	ASTM D 5887
2.	Internal Shear Strength	ASTM D 5321

## Geocomposite TN-300

#### Geotextile:

1.	Mass/Unit Area	ASTM D 5261
2.	Grab Tensile Strength	ASTM D 4632
3.	Trapezoidal Tear	ASTM D 4533
4.	AOS	ASTM D 4751
5.	Permittivity	ASTM D 4491
Geo	composite:	
1.	Transmissivity	ASTM D 4716

1.	Transmissivity	ASTM D 4716
2.	Ply Adhesion	ASTM D 7005
3.	Interface Shear Strength	ASTM D 5321

The tests and test methods shown conform to the requirements of the site permit and the Construction Quality Assurance Plan.

#### 4.4 SOILS & GEOSYNTHETICS DOCUMENTATION REPORT

This documentation report contains the following sections:

- 1. A narrative describing the construction sequence, certification and testing programs utilized on the project. A statement certifying that construction was in accordance with the permit drawings and the quality assurance plan.
- 2 A series of appendices documenting the following:
  - Soil laboratory test results for structural fill and low permeable soil liner
  - Field test results for structural fill and low permeable soil liner
  - Subgrade acceptance of low permeable soil liner surface before geomembrane liner placement
  - Manufacturer's geosynthetic quality control documentation
  - Geosynthetic conformance testing results
  - Geomembrane installation documentation data
  - Soils laboratory test results for the protective cover sand and leachate collection stone
  - Construction photographs
- 3. A set of record drawings containing the following:
  - Top of subbase and protective cover elevations
  - Location of HDPE leachate pipes within the cell
  - Location of HDPE liner panels, seams, destructive samples, repairs and anchor trench alignment.

#### 5.0 CONSTRUCTION ACTIVITIES

#### 5.1 INITIAL CELL CONSTRUCTION

ERC General Contracting Services, Inc. (ERC) started construction during mid-

August 2012. ERC started stripping the Cell 3 construction area and began excavating areas of the cell to achieve sub-base grades. Conformance testing on this source and alternate materials were performed by GTS and are presented in Appendix A.1. Structural fill was placed in the fill areas to bring up the cell, the sediment pond and the surrounding berms up to the design subgrade. Prior to placing any structural fill all areas were proof rolled with a loaded hauling truck and any loose or overly wet areas were removed. Each lift of structural fill was moisture conditioned as required and then mixed with a bulldozer. The one foot lift of structural fill was then compacted with the Ingersoll Rand SD100 smooth drum roller. Soil compaction of each lift was checked and verified to have at least the minimum compaction required in the CQA Plan. Density/moisture readings were determined in the field by our CQA site manager using a drive cylinder density apparatus. Results of these density tests are included in Appendix A.2. In addition to the construction discussed above, structural fill was being placed as needed for road access required for this construction.

Placing and compacting structural fill progressed in 12-inch lifts, and was moisture conditioned as required and then mixed with a bulldozer. The lift of structural fill was then compacted with the Ingersoll Rand SD100 smooth drum roller. These activities were continued until the cell was brought up to design subgrade elevation.

#### 5.2 CELL SUBBASE CONSTRUCTION

The subbase soil material was the same material used for structural fill. Conformance samples for subbase material were the same samples for structural fill and results are included in Appendix A.1. ERC placed, conditioned and compacted the 6-inch subbase soil lift over the area requiring subbase for this Cell 3 construction. Results of the density moisture tests are presented in Appendix A.2. Once ERC constructed the cell to design subbase elevations, they fine-graded the surface with a GPS dozer and a smooth drum roller. The top of subgrade elevations were then certified by a survey crew from Peavey and Associates Surveying & Mapping, PA (Peavey) prior to installing any geosynthetics (see the drawings in the Appendix F). The surface of the liner had to be maintained by moisture conditioning and rolling until the geosynthetic materials were installed over it. This was performed so that the sand would not dry out and become

powdery. Once the subbase surface had been certified, then ESI was able to begin installing the geosynthetic clay liner (GCL) and the geomembrane liner.

#### 5.3 GEOSYNTHETIC PRECONSTRUCTION ACTIVITIES

#### 5.3.1 GEOSYNTHETIC MATERIAL AND QUALITY CONTROL

The geosynthetic manufacturers provided quality control certificates for all material used on this project. This information was reviewed and found to be in compliance with the approved Quality Assurance Plan found in the site's operating permit. The geosynthetic system consisted of four types of materials. The components of the geosynthetic system included the following:

- 1. 60-mil textured high-density polyethylene (HDPE) geomembrane, Agru
- 2. Geotextile, SKAPS (two different weights)
- 3. Bentomat (GCL), CETCO
- 4. Geocomposite, SKAPS

A geotextile product was installed as a filter material between the leachate sump and trench stone and the protective cover sand. Another geotextile product (woven) was used as a separation component for the stone and soil and as an added strength component for the road. Textured geomembrane liner was installed for the cell and was placed over a geosynthetic clay liner (GCL) which was installed under the leachate trench and sump as part of the geosynthetic liner system for Cell 3. The geosynthetic materials were delivered, stockpiled and inventoried prior to or during the installation of the liner system.

#### 5.3.2 GEOSYNTHETIC CONFORMANCE TESTING

Prior to shipment of the geosynthetics, the materials were sampled in the plant by TRI and sent to the laboratory for conformance testing. Conformance testing was conducted in accordance with industry standards and the Quality Assurance Plan and project specifications. All test results met or exceeded the project requirements for all four different materials. In addition to these tests interface shear testing was also run on a layered liner sequence with both the GCL and

without the GCL. The testing results were also greater than the minimum required results. These results are all shown in Appendix B.

#### 5.3.3 SUBGRADE ACCEPTANCE

Prior to the deployment of the geomembrane and GCL, CEC's CQA Site Manager and the ESI's Superintendent conducted a final walkover of the subbase surface. The walkover was to identify any unacceptable areas to be addressed prior to its coverage with the GCL and the geomembrane. Once the area was deemed acceptable, both the ESI's Superintendent and CEC's representative would complete the subgrade acceptance form. These forms are included in Appendix A.5.

#### 5.3.4 GEOSYNTHETIC INSTALLATION AND DOCUMENTATION

Upon arrival to the site, ESI supplied a current tensiometer calibration record for the tensiometer used. This document is included in the Appendix C.1.

Geosynthetic installation began at the west end of the north slope of Cell 3. ESI's deployment consisted of pulling HDPE liner (geomembrane) panels down the north slope. A GCL panel was laid down the center of the leachate trench along the floor from the north slope down to the sump. GCL panels were placed within the sump and at least 5 feet beyond its boundary. Another panel width of GCL was brought up the leachate riser trench on the south slope. The GCL panels were overlapped according to the specifications for this material which included the placing of bentonite powder between all butt seams. The GCL panels were only placed as far as they could be covered with geomembrane liner that day and prior to any possible precipitation. The GCL material was always protected from being hydrated. For this reason, the placement and sequencing of GCL for the leachate collection system was completed as the panels could be covered with geomembrane panels.

The geomembrane rolls were 23 feet wide by about 500 feet long. The geomembrane was a 60-mil textured HDPE liner. Each geomembrane panel was pulled from the roll which was supported by a spreader bar attached to a skid-steer. The skid-steer was also used to bring the

rolls around from their storage area up to the staging area. The panels were pulled into place by ESI technicians using both a LGP rubber-tired four-wheeler (ATV) and their hands. Additional ESI staff would help position the panels for seaming. This activity was closely monitored to ensure that no damage occurred to the geomembrane or any underlying GCL. Panels were generally positioned to minimize the quantity of seams in the cell and leachate trench. Seams were shingled with at least a 4 inch overlap down the cell grade.

Prior to the deployment of the geomembrane, the anchor trench was excavated with a track-hoe on the north and south berms. The anchor trench was cut to a minimum of two feet deep and approximately two feet wide. The anchor trench was verified to be clear of any debris prior to deployment. Once the installation of all geosynthetic materials and testing was completed, the anchor trench was then backfilled and compacted. The backfill material consisted of on-site soils which would not damage the geosynthetic materials.

CEC's CQA technician was responsible for documenting panel placement, trial weld testing, seam welding, testing (destructive and nondestructive) of completed seams and repairs, as well as visual inspection of the geomembrane installation. Field activities and observations were recorded on daily field reports and field logs. The data associated with the installation of the geosynthetics are presented in Appendix C. The CQA technician included the daily activities in the Daily Field Reports which are presented in Appendix D.3 of this report.

Panel placement information included documenting the date of placement, the time of placement, panel number, panel location (slope or floor), source roll number, panel length, observer's identification and any pertinent comments. Once panels had been pulled into place, they were manually adjusted so that there was a minimum 4-inch overlap for adjoining panels.

Panel seaming information included the date of seaming, time the seam was started, seam's ID number, seam location, operator's ID number, seaming unit ID number, seam length, observer's ID and any pertinent comments. ESI utilized a double-wedge type fusion welder to perform most seaming. The double-wedge type fusion welder creates two fused welds split by an air

channel. Extrusion welding was also performed using an extrusion gun and HDPE welding rod. The extrusion welding process was only used on some tie-in seams and all repairs.

Trial weld information included date of test, time of test, sample ID number, seamer's ID number, seaming unit ID number, seaming unit settings, test values, sample pass or fail, observer's ID number and any pertinent comments. Trial welds were conducted at a minimum of one for every five hours of machine/welder use, which is usually at the beginning of each morning and then after lunch. Occasionally, another trial weld would be carried out later in the evening if the seaming was to be continued beyond the five hour period designated in the CQA Plan. Additional trial welds were conducted if machine operators changed, if machine settings changed, if the power supply was interrupted or if personnel on site determined that the seam quality had degraded to an unacceptable level. Trial weld specimens were tested on a calibrated field tensiometer. Each trial weld sample test series consisted of testing two one-inch wide specimens for peel adhesion and two one-inch wide specimens for shear strength.

Nondestructive testing information included date of test, seam ID number, seam location, seam station, tester's ID number, air test times and pressures, air test pass or fail, vacuum test pass or fail, test observer ID and any pertinent comments. Nondestructive testing was conducted to verify seam continuity and integrity.

Air pressure testing was conducted on fusion-welded seams. The testing involved sealing both ends of the air channel, inserting a hollow needle attached to a pressure gauge into the air channel, and pressurizing the seam to 25 to 30 psi. A seam was accepted if it exhibited a pressure loss of not more than 3 psi over a 5 minute period after allowing the pressure to stabilize and if total pressure loss was observed when the air channel was cut at the end of the seam opposite the test gauge. Seams exhibiting acceptable pressure loss were recorded as passing, and seams exhibiting unacceptable pressure loss were tested in segments until there was acceptable pressure loss and the flawed seam was marked for repair.

Vacuum testing was conducted on all extrusion welds in the module (repairs and extruded seams). Vacuum testing consisted of wetting the seam segment to be tested with a soapy solution then applying a vacuum to the surface of the seam segment with a venturi-jet vacuum

box powered by an external air compressor. While under vacuum, the area was observed for approximately 20 seconds to see if any bubbling occurred which would indicate a leak in the seam. If no bubbling was found the area was marked approved and the testing moved to the next segment. If a leak was found, it was marked for repair and a subsequent vacuum box test was conducted on the repaired area to clear the failure.

Destructive seam sample information included sample ID number, date sample was designated, date sample was tested, sample location (seam ID number and station), seamer ID number, machine ID number, field test pass/fail, laboratory test pass/fail and any pertinent comments. Destructive seam samples were designated and sampled from welded seams at a minimum rate of one per 500 linear feet seamed over this project. The goal of this testing program was two-fold: first, to obtain samples representative of the overall quality of the installation; and second, to test suspect areas.

Each destructive sample measured approximately 42 inches along the seam by 12 inches wide across the seam and was cut into three sections. ESI selected 10 samples from one section to conduct field testing prior to submittal of another section to TRI for laboratory testing. The third section was kept on site for the duration of the project as an archive sample. If the specimens passed the field test, the sample was submitted to the geosynthetic laboratory for testing. If the specimens had failed the field test, then additional samples welded by the same machine and operator on that day, would be tracked on either side of the failed seam sample until passing results were achieved. The same process would be repeated if a seam failed during a laboratory test. The seam would be tracked on either side until there were passing results for both field and laboratory samples. These tracked samples would be called bounding samples and they would define the limits of the unacceptable seam. The seams between these passing bounding samples would be repaired in accordance with the project design requirements.

For Cell 3 construction, 34 destructive seam samples were selected on wedge (fusion) welds and 4 destructive seam samples were selected on extrusion welds. Out of these destructive tests there were no failing tests. Since there were no failing tests there were no bounding samples or tests. No seams had to be capped between because of failing destructive samples. All test data, including data from TRI, is included in Appendix C.5.

Repair information included the repair number, date of repair, repair location, description of damage, size and type of repair, repair crew ID, date repair was tested, tester ID, observer ID and any pertinent comments. Typical repairs of the geomembrane included:

- 1. Patching locations of destructive seam samples and nondestructive air-testing holes.
- 2. Patching damage to the liner created during the transportation and installation process,
- 3. Repairing of any seams or segments of seams rejected due to nondestructive and destructive testing,
- 4. Repairing of any seams or segments of seams rejected by ESI's QC.
- 5. Patching of all "T" seam locations.

The CEC CQA Site Manager and ESI Geosynthetic Superintendent conducted a final walkthrough prior to acceptance of each segment of geomembrane. The final walkthroughs were conducted to assure that necessary repairs and testing had been completed and that no additional damage had occurred during installation. Any areas requiring attention were noted and repaired and tested as appropriate prior to the certification of completion. A geomembrane panel layout drawing showing the panels and seams, all repairs and destructive sample locations is included in Appendix F.

After the walkthrough of each geomembrane segment, geocomposite panels were deployed over the exposed geomembrane liner. The geotextile panels were overlapped by 6 inches for adjacent panels and then by 12 inches for butt seams. All geocomposite repairs were overlapped by 12 inches. The geocomposite seams had the geonet portions tied with plastic ties and the upper geotextile portions were sewn. Another walkthrough was done on the finished geocomposite prior to placing protective cover sand so that both CEC and ESI assures that all necessary repairs and testing had been completed and that no additional damage had occurred during installation. Any areas requiring additional attention were noted, repaired, and tested as appropriate prior to the certification of completion.

#### 5.4 PROTECTIVE COVER SAND

The protective cover sand was from soil that was already on site. Conformance samples were submitted to GTS for the testing of its particle size gradation, hydraulic conductivity, hydraulic conductivity and calcium carbonate content. These tests passed all requirements for this material prior to its installation into the cell (Refer to results in Appendix A.3). Off-road haul trucks were loaded with sand and the sand was hauled to the southwest corner of the cell where a 3 to 4 foot thick access road was established so that sand could be pushed out across the cell and up the slopes. Areas for the leachate trench were initially left uncovered. The minimum 3-foot thick haul roads were established within the cell using protective cover sand so that the off-road haul trucks could travel in the cell without damaging the geosynthetic liner system underneath. A LGP GPS bulldozer was then used for spreading the 2-foot protective cover sand layer. Once the leachate trench and sump areas have been completed, then the protective cover sand was then placed over the trench as designed. An additional sand layer of 6 to 12 inches was placed over the geotextile wrap of the sump to protect it from UV degradation.

When this was complete, the top of protective cover elevations, from the established grid points, were then certified by a survey crew from Peavey (See the drawings in the Appendix F). The certification was verified that a layer thickness of at least two feet of protective cover was established over the geosynthetic liner system.

#### 5.5 LEACHATE COLLECTION SYSTEM INSTALLATION

ERC also began construction of the leachate collection system during the installation of the protective cover sand. A panel of 8-ounce per square yard nonwoven geotextile was laid down the middle of the proposed trench as a filter medium between the sand and the No. 57 stone. The perforated leachate pipe and No. 57 stone was then welded and placed on the 8-ounce fabric in the proposed trench area. Samples of the leachate stone were sent to the GTS laboratory for conformance testing. The stone was not carbonaceous and complied with the permeability and gradation requirements for this project. The stone was hauled from the on-site stock pile to the

leachate trench area being constructed. The stone was placed on the geotextile around the perforated pipe. This was continued across the floor to the base of the north slope. The top of pipe was surveyed by a survey crew from Peavey at 50-foot intervals (the as-built drawing is included in Appendix F). The geotextile seam was sewn together using an industrial grade sewing machine and a polypropylene fiber.

At the south end of the cell, the sump and the riser trench had to have the geotextile, pipes and stone aggregate installed. Panels of 8-ounce per square yard nonwoven geotextile were laid down to cover the sump area and to be able to enclose the stone. The panel seams were sewn together using an industrial grad sewing machine and a polypropylene fiber. The perforated/solid leachate riser (18" diam. SDR 11) and collection (6" diam. SDR 11) pipe for the sump was welded and then No. 4 stone placed in the sump and up the riser trench. Samples of the leachate stone were sent to the GTS laboratory for conformance testing. The stone was not carbonaceous and complied with the permeability and with a slightly coarser gradation to the requirements for this project. The stone was hauled from the on-site stock pile to the sump during construction. The stone was placed on the geotextile around the piping. The geotextile was then wrapped and sewn once the stone had been brought up to the top of the designed protective cover. A layer of protective cover sand was then pushed over the sump area to protect the geotextile from UV degradation.

The force main for Cell 3 was constructed. The existing permanent force main was extended from behind Cell 2 across the north end of Cell 3. A temporary forcemain is 'T'ed into the permanent force main at the northeast corner and extends down the east side of Cell 3 where it is 'T'ed again into a new permanent force main that extends from the southeast corner to the Cell 3 riser. The permanent force main is made up of a 6 inch SDR 11 carrier pipe with a 10 inch SDR 17 containment pipe. The temporary force main is made up of a 3 inch SDR 11 carrier pipe with a 6 inch SDR 17 containment pipe. These HDPE pipes were all welded together with appropriate reducers and then placed in their trenches where both carrier and containment pipes were leaked tested prior to the force main being connected. The pipe testing passed and the paper work is included in Appendix D.2

#### 6.0 CONSTRUCTION CERTIFICATION

CEC was retained by WMI to provide CQA monitoring services during the construction of the Cell 3 at VLF in Apopka, Florida. Construction activities were observed and documented by qualified CQA technicians. The installation of structural fill, subbase layer, protective cover sand and aggregate materials were observed during installation and were tested as required to confirm/verify the material suitability and proper installation. The installation of the geosynthetic composite liner materials were observed, documented, and tested; as required, to confirm/verify material suitability and proper installation with construction documents. The leachate collection and transmitting pipes were installed according to the cell construction drawings and specifications and the CQA Plan.

Based on our professional opinion, and the information obtained through on-site observation of installation/construction, from laboratory test results, and from design and record drawings; the construction of the Cell 3 is considered to have been constructed in general accordance with the approved permit, construction drawings and specifications, CQA Plan, FDEP Solid Waste Rules, and accepted industry engineering best practices.

Seth A. Nunes, P.E.

Certifying Engineer

Florida Registration No. 069457

Peter J. Walls, P.E.

Project Manager

## A.1 STRUCTURAL FILL CONFORMANCE TESTS

#### VISTA CLASS III LANDFILL - CELL 3 SUMMARY OF SOIL DATA

					Atterb	oerg L	imits	Grain S	Size Distri	bution	Standard	Proctor		Unit W	/eight		
			Soil	In-Situ				% Finer	% Finer	% Finer	Maximum	Optimum		Dry	Moisture		Additiona
Sample	Sample	Sample	Classi-	Moisture				No. 4	No. 200	.005 mm	Dry Density	Moisture		Density	Content	Permeability	Test
ID	Туре	Depth	fication	(%)	L.L.	P.L.	P.I.	Sieve	Sieve	Sieve	(lb/cu.ft)	Content (%)	Gs	(lb/cu.ft)	(%)	(cm/sec)	(see notes
SF-2	Bulk	-	SP	1.1	NP	NP	NP	100.0	4.5	-	109.5	10.0	-	-	_	- /	
SF-3	Bulk	-	SP-SM	10.0	NP	NP	NP	100.0	7.7	-	111.5	15.9	-	-	-	-	-
SF-4	Bulk	*	SP	5.6	NP	NP	NP	100.0	1.3		107.9	8.2	-	-		-	-
SF-5	Bag	**	SP	4.9	NP	NP	NP	100.0	4.7	-	-	-	-	-	-	-	
SF-6	Bag		SP-SM	5	NP	NP	NP	100.0	7.9	-	in the state of th	-	-	-		-	-
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ABBREVIATIONS: LIQUID LIMIT (L.L.)

PLASTIC LIMIT (P.L.)

PLASTICITY INDEX (P.I.)
NON-PLASTIC (N/P)
SPECIFIC GRAVITY (Gs)
MOISTURE CONTENT (Mc)

NOTES: T = TRIAXIAL TEST

U = UNCONFINED COMPRESSION TEST

DS = DIRECT SHEAR TEST O = ORGANIC CONTENT

P = pH

CC = CARBONATE CONTENT

#### MOISTURE DENSITY CURVE PM-2 MOLD NUMBER: ASTM D698 & D1557 MOLD WEIGHT: 2040.8 gm ASTM D698 PROJECT TITLE: VISTA CLASS III LANDFILL TEST TYPE: METHOD A PROCEDURE: PROJECT NUMBER: 2012-26 VOLUME MOLD: 0.0332 cu. ft. SAMPLE NUMBER: SF-2 DESCRIPTION: LIGHT BROWN SAND POINT RESULTS 2 5 3800.90 3865.70 Wet Wt. Soil & Mold (gm) 3699.10 3810.60 2040.80 2040.80 2040.80 2040.80 Wt. Mold (gm) 1658.30 1760.10 1824.90 1769.80 Wet Wt. Soil (gm) 110.12 116.88 121.18 117.52 Wet Density (pcf) WATER CONTENTS 216.50 274.00 240.50 350.20 Wet Wt. Soil + Tare (gm) Dry Wt. Soil + Tare (gm) 227.60 325.40 195.80 242.80 6.80 8.50 6.90 Weight of Tare (gm) 8.40 12.90 24.80 20.70 31.20 Weight of Water (gm) Wt. Dry Soil (gm) 219.20 318.60 187.30 235.90 Moisture Content (%) 5.89 7.78 11.05 13.23 Dry Density (pcf) 104.00 108.44 109.12 103.79 143.04 137.07 127.89 122.43 Zero Air Void Den. (pcf) SG=2.65 Liquid Limit: NP MAXIMUM DRY DENSITY (pcf): 109.5 Plastic Limit NP Plasticity Index: NP **OPTIMUM MOISTURE CONTENT (%):** 10.0 Corrected Maximum Dry Density (pcf): In-Situ Moisture: 1.1% USCS Classification: SP Corrected Optimum Moisture Content (%): 145 143 141 139 137 135 133 Dry Density (pcf) 131 129 127 125 123 121 119 117 115 113 111 109 107 105 103 12 13 14 5 6 7 9 10 **Moisture Content (%)**

Genesis Testing Services, Inc.

DATE: 8/31/12 REVIEW: AAG

## PARTICLE SIZE ANALYSIS (ASTM D 422)

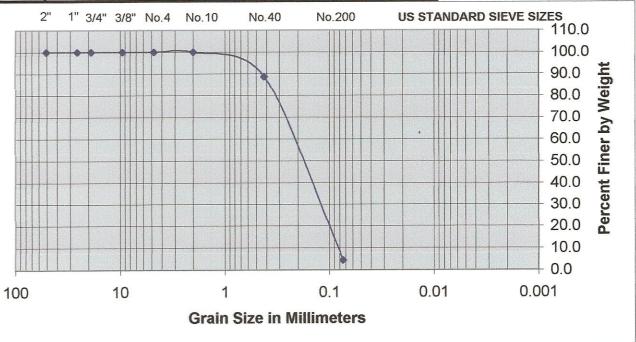
PROJECT TITLE: VISTA CLASS III LANDFILL SAMPLE NUMBER: SF-2
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	1037.7
Dry Wt. Soil + Tare (gm)	1029.9
Weight of Tare (gm)	304.4
Weight of Water (gm)	7.8
Weight of Dry Soil (gm)	725.5
Moisture Content (%)	1.1

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	1029.9
Weight of Tare (gm)	304.4
Weight of Sample (gm)	725.5

DESCRIPTION: LIGHT BROWN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	82.9	11.43	11.43	88.6
No. 200	0.074	610.2	84.11	95.53	4.5
Pan	-	32.1	4.42	99.96	-



#### MOISTURE DENSITY CURVE MOLD NUMBER: PM-2 **ASTM D698 & D1557** MOLD WEIGHT: 2040.8 gm PROJECT TITLE: VISTA CLASS III LANDFILL TEST TYPE: ASTM D698 PROCEDURE: METHOD A PROJECT NUMBER: 2012-26 VOLUME MOLD: 0.0332 cu. ft. SAMPLE NUMBER: SF-3 DESCRIPTION: TAN SAND WITH SILT POINT RESULTS 2 1 5 Wet Wt. Soil & Mold (gm) 3787.60 3899.60 3991.80 3940.80 2040.80 2040.80 2040.80 2040.80 Wt. Mold (gm) 1746.80 1858.80 1951.00 Wet Wt. Soil (gm) 1900.00 Wet Density (pcf) 115.99 123.43 129.55 126.17 WATER CONTENTS Wet Wt. Soil + Tare (gm) 228.80 272.70 248.50 287.50 Dry Wt. Soil + Tare (gm) 207.20 242.50 214.90 244.10 Weight of Tare (gm) 8.40 6.80 8.50 6.90 33.60 Weight of Water (gm) 21.60 30.20 43.40 Wt. Dry Soil (gm) 198.80 235.70 206.40 237.20 Moisture Content (%) 12.81 16.28 18.30 10.87 109.41 Dry Density (pcf) 104.63 111.42 106.65 Zero Air Void Den. (pcf) SG=2.65 128.38 123.44 115.51 111.36 Liquid Limit: NP MAXIMUM DRY DENSITY (pcf): 111.5 Plastic Limit NP **OPTIMUM MOISTURE CONTENT (%):** 15.9 Plasticity Index: NP Corrected Maximum Dry Density (pcf): In-Situ Moisture: 10.0% USCS Classification: Corrected Optimum Moisture Content (%): SP-SM 129 127 125 123 Dry Density (bcf) 119 115 113 111 121 109 107 105 103 11 10 12 13 14 15 16 17 18 19 **Moisture Content (%)**

Genesis Testing Services, Inc.

DATE: \$131/12

REVIEW:

## PARTICLE SIZE ANALYSIS (ASTM D 422)

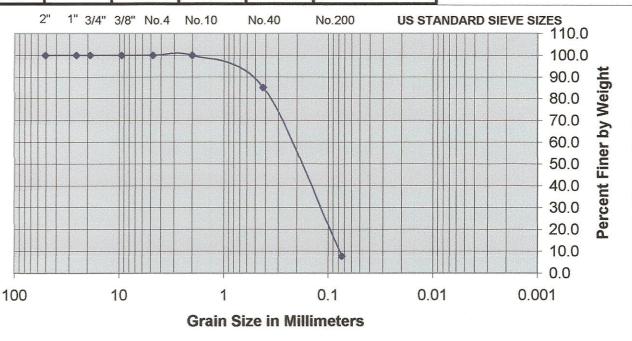
PROJECT TITLE: VISTA CLASS III LANDFILL SAMPLE NUMBER: SF-3
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	787.6
Dry Wt. Soil + Tare (gm)	732.6
Weight of Tare (gm)	180.4
Weight of Water (gm)	55.0
Weight of Dry Soil (gm)	552.2
Moisture Content (%)	10.0

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	732.6
Weight of Tare (gm)	180.4
Weight of Sample (gm)	552.2

DESCRIPTION: TAN SAND WITH SILT

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	81.6	14.78	14.78	85.2
No. 200	0.074	428.3	77.56	92.34	7.7
Pan	-	42.2	7.64	99.98	-



Genesis Testing Services, Inc.

DATE: 8/31/12
REVIEW: AAG

MOISTURE DENSIT	Y CURVE			MOLD NUMBE	R: PM-2
ASTM D698 & D155	7			MOLD WEIGH	Γ: 2040.8 (
	A O O III I ANDEII I			TECT TYPE:	ASTM D698
PROJECT TITLE: VISTA CL				TEST TYPE: PROCEDURE:	METHOD A
PROJECT NUMBER: 2012-2	26				
SAMPLE NUMBER: SF-4				VOLUME MOLI	D: 0.0332 cu. π.
DESCRIPTION: TAN SAND					
POINT RESULTS	1 1	2	3	4	5
Wet Wt. Soil & Mold (gm)	3634.10	3764.10	3810.30	3786.50	
Vt. Mold (gm)	2040.80	2040.80	2040.80	The second secon	
Vet Wt. Soil (gm)	1593.30	1723.30	1769.50		
Vet Density (pcf)	105.80	114.43	117.50		
VATER CONTENTS	100.00				
Vet Wt. Soil + Tare (gm)	281.30	322.50	250.40	234.00	
Ory Wt. Soil + Tare (gm)	268.80	302.20	229.60	And the second second second second	
Veight of Tare (gm)	8.50	6.80	6.80		
Veight of Vater (gm)	12.50	20.30	20.80		
Vt. Dry Soil (gm)	260.30	295.40	222.80		
Moisture Content (%)	4.80	6.87	9.34		
Dry Density (pcf)	100.95	107.07	107.47	1 1	
Zero Air Void Den. (pcf) SG=	100000000000000000000000000000000000000	139.87	132.55		
Corrected Maximum Dry Do Corrected Optimum Moistu				In-Situ Moisture USCS Classific	
148 146 144 142 140 138 136 134 132 130 132 130 132 130 130 131 130 130 130 130 130 130 130	6 7	8	9 1	0 11	12 13
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	Mois	sture Con	itent (%)	DA-	TE: 9/5/2016

## PARTICLE SIZE ANALYSIS (ASTM D 422)

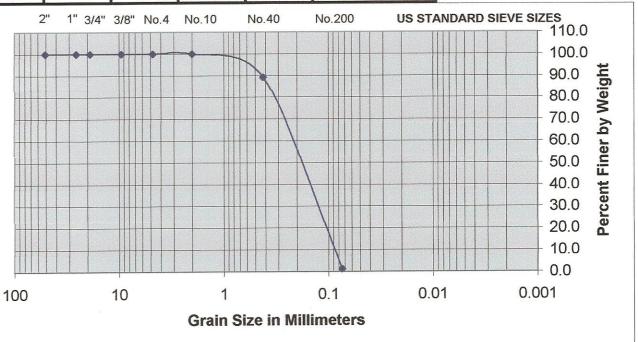
PROJECT TITLE: VISTA CLASS III LANDFILL SAMPLE NUMBER: SF-4
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	1265.7
Dry Wt. Soil + Tare (gm)	1215.0
Weight of Tare (gm)	309.1
Weight of Water (gm)	50.7
Weight of Dry Soil (gm)	905.9
Moisture Content (%)	5.6

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	1215.0
Weight of Tare (gm)	309.1
Weight of Sample (gm)	905.9

DESCRIPTION: TAN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	97.8	10.80	10.80	89.2
No. 200	0.074	796.7	87.95	98.74	1.3
Pan	-	10.8	1.19	99.93	-



I Coarse | Fine | Cor. | Medium | Fine | Silt | Clay |

I GRAVEL | SAND | FINES |

DATE: 9/5/2012

REVIEW: AAGT

#### PARTICLE SIZE ANALYSIS (ASTM D 422)

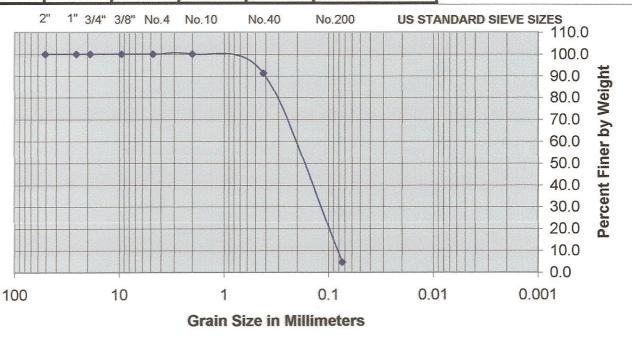
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3	SAMPLE NUMBER:	SF-5
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	Bag

IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	909.8
Dry Wt. Soil + Tare (gm)	875.8
Weight of Tare (gm)	181.5
Weight of Water (gm)	34.0
Weight of Dry Soil (gm)	694.3
Moisture Content (%)	4.9

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	875.8
Weight of Tare (gm)	181.5
Weight of Sample (gm)	694.3

DESCRIPTION: BROWN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	61.0	8.79	8.79	91.2
No. 200	0.074	600.9	86.55	95.33	4.7
Pan	-	32.1	4.62	99.96	



I Coarse | Fine | Cor. | Medium | Fine | Silt | Clay |

I GRAVEL | SAND | FINES |

DATE: 9/28/12

REVIEW: ATG

#### PARTICLE SIZE ANALYSIS (ASTM D 422)

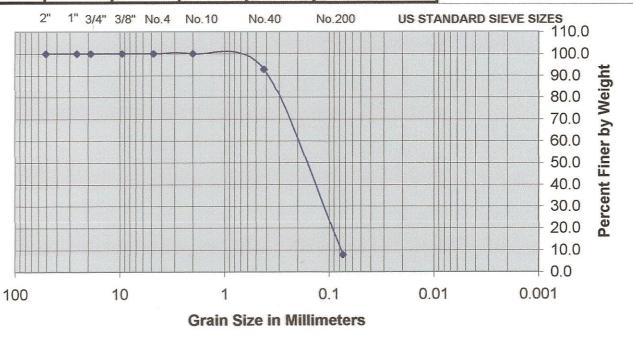
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3	SAMPLE NUMBER:	SF-6
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	Bag

IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	913.1
Dry Wt. Soil + Tare (gm)	878.3
Weight of Tare (gm)	180.6
Weight of Water (gm)	34.8
Weight of Dry Soil (gm)	697.7
Moisture Content (%)	5.0

TOTAL WEIGHT OF SAMPLE USED	)
Weight of Sample + Tare gm)	878.3
Weight of Tare (gm)	180.6
Weight of Sample (gm)	697.7

DESCRIPTION: TAN SAND WITH SILT

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	50.0	7.17	7.17	92.8
No. 200	0.074	592.5	84.92	92.09	7.9
Pan	_	51.9	7.44	99.53	



I Coarse | Fine | Cor. | Medium | Fine | Silt | Clay |

I GRAVEL | SAND | FINES |

DATE: 9/28/12

REVIEW: AAG

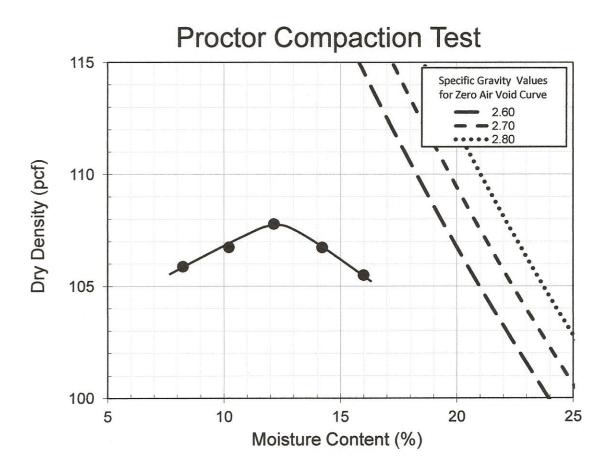


#### TRI/ENVIRONMENTAL, INC.

A Texas Research International Company

Client	WMI
Project	Vista Landfill, Cell 3
TRI Log No.	E2365-73-09
Sample Number	SF-1
Test Method	ASTM D698 - Method A
Rammer Type	Automatic

Maximum Dry Density (pcf)	107.8
Optimum Water Content (%)	12.1

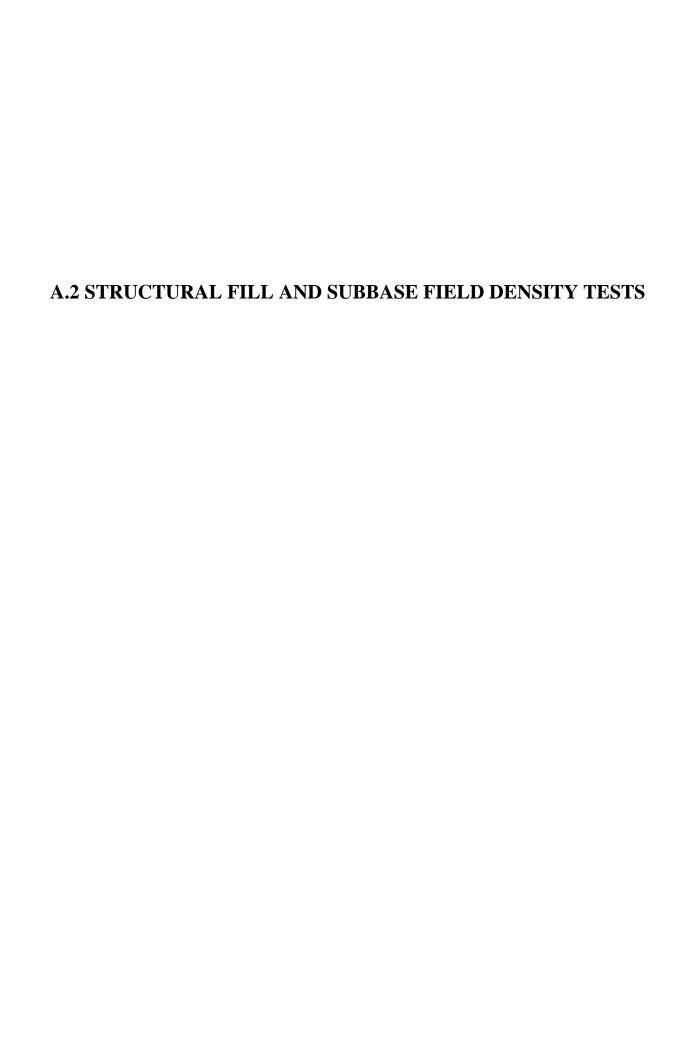


Jeffrey A. Kuhn, E.I.T., Ph.D. 08/17/2012

Quality Review/Date

Tested By:Joe Vasquez

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.



Site: Vista LANDFill

Page  $\underline{/}$  of  $\underline{26}$ 

Daily Report No.: \_\_

Technician: T. Brid ford

Project No.: 101, 07, 08

				Mass			Moi	sture			Density				
Tost	Dotont		а	ь	С.	d	е	f	g	h	i	j	k	1	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
3-1		E. Bern	5,35	1.16	4.19	361.3	342-8	18.5	10,2	.0341	122-9	111.5	139.5	10,0	101.8
3-2	3-5	E Bear	5.29	1,1 40	4.13	360,2	<i>335</i> , 3	24.9	14,2	,03H	121,1	10610	109.5	100	96,8
3-3		E Berm	5.11	1,1/6	3,95	361.3	342.2	19, 1	10,6	10341	11518	1047	109.5	10,0	95.6
3-4		& Berm	5, 31	1,16	4.15	359.9		16.9	9,2	-9341	121,7	111.4	109.5	10,0	101.7
3-5	3-2	E Bem	5,49	1116	4,33	359.4	338,0	21,9	12.3	,0341	127,0	112,4	10915	10,0	1020
3-6		E Bern	5.13	11/5	3,97	360.2		17.9	9.8	10341	116.4	106.0	109.5	10,0	96,8
3-7		E Bern	5.11	1,16	3,95	361.3	342,5	18.8	10,4	,0341	115,8	104.9	109.5	10,3	95,8
3-8		E Bern	5.18	11/6	4,02	361.3	339.2	22.1	12.5	10341	117.9	104,8	139.5	1010	95,7
3-9		E Bern	5.29	1.16	4.13	360,2	344.3	15.5	8,6	10341	121.1	111.5	109.5	10,0	1018
												)			
					:										

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b

f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_

# CFC

Date:	08	116/2012	

Site: Visto LANSfill

Page \_\_\_\_\_ of \_26

Daily Report No.: 4

Technician: T, Brackor

Project: <u>611-3</u>

Project No.: 101, 07, 68

				Mass			Moi	sture			Density				
Test	Detect		а	b	С	đ	е	f	8	h	i	j	k	1	m
No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
4-1		E. Bern	5.14	1,16	3,98	361.3	340,9	20.4	11.4	,034/	116.7	104.8	10,0	109,5	95.1
4-2		E. Bern	5.47	11/50	4.31	361.3	339.7	21.6	12.1	,0341	126.4	112,8	10/0	1095	103,0
4-3		E. Bern	5.17	1.16	4.01	360,2	340.7	1915	10,8	n341	117.6	106.1	10,0	10915	
4-4		E. Ben	5-11	1.16	3.95	359,9	344.8	18,1	10,0	10341	115,8	105,3	10,0	109.5	9612
4-5		F- Bern	5,27	1.16	4.11	361.3	347.4	13,9	7,7	10341	12015	111.9	10,0	109.5	102.2
4-6		EBern	5.22	11/6	4.06	360,2	341.9	18.3	10,1	10341	119.1	108,2	10,0	199,5	98,8
4-7	,	E Bem	5,12	11/6	3.96	360,2	342.4	17.8	9.8	.0341	116,1	105.7	10,0	109.5	96.5
4-8		EBer	5,21	1.16	4.05	360,2	341.4	18,8	10,4	,0341	11818	1026	1010	199.5	98.3
4.9		E Bern	5,25	1./6	4.09	359,9	340,6	19,3	10,7	,0341	119.9	10817	10,0	108.5	98.9
4-10		E Ben	5.28	1.16	4.12	360,2	33815	21,7	12.2	.0341	12018	107.7	10,0	109.5	98,4
4-11		E Bem	5,30	1.16	4.14	340,2	339.9	2013	11.3	,034/	121.4	109,1	10,0	109.5	99.6
4-12		E Bern	5.23	1,16		3589	338.1	21.8	12,2	12341	119.4	106,4	10,0	199,5	972

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Daily Report No.:

Site: Vista Landfill
Project: Coll-3

Page 3 of 26

Technician:

				Mass			Moi	sture			Density				
Test	Dotost		а	ь	С	d	е	f	g	h	i	j	k	I	m
No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
5-1		G. Bern	5.18	1.16	4.02	360-2	343.9	16.3	8,9	,0341	117.9	108.3	10,0	109.5	98,9
5.2		E Bern	5.23	1.16	4,07	359,9	<i>33</i> 8 · 3	21,6	12.1	1034/	119.4	106.5	10,1	109.5	97.3
5-3		E Ben	5,14	1.16	3.98	361.3	340,4	20.9	11.1	,0341	116.7	104,5	10,0	109,5	95,4
5-4		E Ban	5./6	1.16	4.0	360,2	341.8	18,4	10,1	10341	117.3	106.5	1010	109.5	9-23
5-5		E De-	5.29	1,16	4.13	359,9	345,6	14,3	7.7	,0341	121.1	112.4	10,0	109.5	102.6
5-6		6 Bem	5.36	1.16	4.20	359.9	337.8	22.1	12.4	10341	123.2	1996	10,0	109.5	1001
5-7		E Bern	5.33	1.16	4.17	359.9	341.4	18,5	10,2	10341	122.3	111.8	10,0	109-5	102.1
5-8		E Bon	5.31	1.16	4.5	361,3	340,8	2015	11.4	10341	121,7	109,2	1000	109,5	99:7
5-9		I Ben	5 19	1.16	4,03	360,2	338.2	22.0	12.+	13341	1/8/2	105,2	10,0	109.5	96-1
5-10		Floor	5.62	1.16	4,46	359.9	334.9	25,0	14.3	1034/	130,8	114.4	15.9	111.5	10216
5-14		Floor 5B	5.53	1.16	4.37	361.3	337.1	24.2	13.8	,034/	128.2	112-7	15-9	111.5	1010
5-12		5/200 5B	5,26	1.16	4.1	358,9	340.2	19.7	10.9	.0341	12012	108.4	10.0	109.5	
														,	
											,				
								,							

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{gm}$   $pan_2 = \underline{gm}$   $pan_3 = \underline{gm}$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Page \_\_\_\_\_\_ of \_\_26

Technician: To Boad Love

Project No.: 10/10708

				Mass			Moi	sture			Density				
Test	Retest		а	ь	С	d	e	f	g	h	i	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
6-1		E Bein	5.39	1.15	4.23	360,2	341.4	18.8	10.4	,0341	1240	112.3	10,0	1095	102,6
6-2		G Ben	5.42	1.15	4.26	360,2	336 g	23.3	13.2	10341	124-9	110,3	15.9	111.5	98.9
6-3		E Ben	5.29	1115	4.13	361.3	339, 9	21.4	12.0	.0341	121.1	108.1	100	109.5	98.7
6-4		E Ben	5.18	1. /2	4,02	35929	34011	19.8	1110	10341	117.9	106,2	10,0	1095	9700
65	6-7	E Bean	5,24	1.16	4,08	360,2	332-2	28.0	16.3	,0341	119.6	102.8	10,0	109.5	93.9 \$
6-6		E Bern	5.17	10/6	4.01	3613	341.8	19.5	10.8	10341	1176	106.	10,0	109.5	96.9
6-7	6-5	C Ber	5/21	1.16	4.05	359.9	338.2	21.7	12-2	,0341	118.8	125,9	1010	1995	96.7
6-8		Floor 5B	5.32	1.16	4.14	360,2	339.5	2007	11-5	-0341	122e0	199.4	10.0	1085	99.9
6-9		F6- 5B	5.33	116	4.17	310,2	339-8	20.4	11.4	0341	122.3	11918	10-0	109.5	100.3
670		112 ° V 56	5.25	1.10	4.09	359.9	378.2	21.7	12.2	0.341	119.9	18609	10,0	1995	97.6
6-11		F/c = SB	5.22	1.16	4.06	36/.3	340.6	20,7	11.5	10341	119, 1	1068	100	1095	97.5
6-12		F/2 - 5B	5.18	1.16	4.02	34.3	342.1	19.2	10,6	10341	117.9	106a S	1000	109.5	97.4
6-13		F-10- 58	5-42	1./6	4.26	361.3	331.1	30.2	11,2	-03F-1	1249	112-3	10.0	109.5	10216
									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					ų.	
											-				

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = gm$   $pan_2 = gm$   $pan_3 = gm$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Date:	08	1211	201	2	
	,				

Site: VITTA LANDFIII ...
Project: Cell 3

Page <u>5</u> of <u>26</u>

Daily Report No.:

Technician:

Project No.:

				Mass			Moi	sture			Density				
Test	Retest		а	ь	С	d	e	f	g	h	i	j	k	I	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
7-1	7-5	N. Bon 5B	4.95	1.16	3.79	360-2	344.5	15.7	8.5	-0341	(11.1	102.4	10.0	109.5	93.5 X
7-2		N. Born SB	5.19	1./0	4003	359.9	3364	235	13.3	,034-1	118,2	104.3	12.5	1078	96-8
7-3		N. Berry SB	5,36	11/6	4.2	36/,3	341.4	19,9	11,0	10341	123,2	111,0	10,0	109.5	10114
7-4		N. Ben 5B	5,20	11/6	4.54	359.9	340,6	19.3	10,1	10341	1/85	107,0	12.1	1078	59.3
7-5	7-1	N. Dern 5B	5.16	1116	4.0	361,3	340,5	20,8	11.6	1034/	117,3	105, 1	10/3	1995	96-0
7-6		Flore 53	5,31	1,15	4.15	360,2	340,6	19.6	10.9	10341	12117	109,7	10,0	109-5	100,2
7-1		Dlos, 53	5,30	1116	4,4	360,2	339.3	20,9	11.7	0341	121.4	1887	10,0	1015	99.3
7-8	-	F1000 5B	5.29	1:16	4313	361.3	339.9	21.4	12.0	10341	1201	108:1	10,0	1095	98,7
7-9		Floor SB	5.22	10/6	4,06	359.9	342.1	17,8	9.8	10341	119.1	108.5	1010	109.5	99,1
7-10		E Bein	5.14	1.16	3.98	359,9	339, (	20,8	11,6	,0341	116.7	1046	12,1	107.8	97.0
7-11		E Bern	5,20	1,16	4,04	361.3	338.8	32,5	12.7	,0341	118.5	10511	12.1	107,8	97,5
7-12		E Bern	5,26	1116	4,1	360,2	339.9	2013	11.3	,0341	120.2	108,0	10.0	109,5	98.50
									·						
						·									

 $h_1 =$ \_\_\_ cu.ft.  $h_2 =$ \_\_\_ cu.ft.  $h_3 =$ \_\_\_ cu.ft.

 $pan_1 = gm$   $pan_2 = gm$   $pan_3 = gm$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Date: 08/22/20/2

Site: Vista LAND Fill Project: CP1, 3

Page 6 of 26

Daily Report No.: 8

Technician: \_\_\_\_\_\_

Br4 d fo10

Project No.: 101, 01, 09

				Mass			Moi	sture			Density				
Test	Retest		а	ь	С	d	е	f	g	h	i	j	k	I	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
8-1		Floor SB	5.33	1,16	4.17	359.9	335,2	24.7	14.1	,0341	122.3	107,2	15.9	111.5	96,1
8-2		F/00/ 5B	5.49	1,16	4,33	360,2	337,4	22.8	12.9	,9341	127,0	11215	15.9	111.5	10018
8-3		F1001 53	5,21	1.16	4.05	30.3	335,2	26.1	15:0	10341	118.8	103,3	12.1	197,8	95,8
8-4		Floor SB	5:21	11/50	4,05	3613	336,8	24.5	14.0	,0341	118,8	104,2	12.1	107.8	96,7
8-5		E Bear	5.22	11/6	4,06	359.9	341.2	18.7	10,3	,0341	119,1	108,0	10,0	109.5	98,6
8-6		G Bem	5,54	1.16	4.38	360,2	336,9	23,3	13,2	,0341	128.4	1/3,4	15,9	111.5	101,7
8-7		E Bem	5.36	1.16	4,2	361.3	335,7	25,6	14.7	10341	123.2	107.4	15,9	111.5	96.3
8-8		E Ben	5.28	1,16	4.12	3599	337.4	225	12.7	10341	120,8	107.2	10,0	109.5	97.9
8-9		E Ber	5,17	1.16	4,01	3673	340,7	20,6	11.5	,0341	117,6	105,5	10,0	1955	96.3
8-10		E Bern	5,19	1,16	4103	361.3	341,3	20.0	11.1	,934/	118.2	106.4	10.0	169.5	97,2
								-				,			

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b

f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_

Site: Vista LAND Fill  Page 7 of 26

Technician: F Bradfork

Project No.: \_/©1, 07, 08

				Mass			Moi	sture			Density				
Test	Retest		а	ь	С	đ	е	f	g	h	i	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
9-1		Pipe Removar	5.16	1.16	4.0	359.8	339.2	20.7	11.5	10341	117.3	105,2	12.1	197.8	97,6
9-2		Pige Remodel	5.22	1,16	4,06	361.3	34).2	20,1	11,2	,0341	119, 1	107.1	10,0	1095	97.8
9-3		Pipi Removar	5,27	1.16	4.11	36012	341,0	19,2	10,6	10341	120,5	109,0	10,0	109.5	99.5
9-4		Pipe Removae	5,15	1.16	3,99	360,2	3424	17.8	9,8	,0341	1170	106.6	10,0	109,5	97,4
9-5		Pipe Removae	5,14	1,16	3,98	359,9	341.8	18,1	10,0	10371	116.7	106,1	10,0	109,5	91.9
9-6		Pipe Remo	5.18	1.16	4.02	360,2	3429	17.3	9.5	10341	1179	10747	10,0	109.5	984
9-7		Floor SB	5.14	1.16	3.98	361.3	3429	18.4	10.1	10341	116.7	106.0	10,0	104.5	not
9-8		F/00- 53	5.15	1.16	3.99	359.9	342-1	17.8	9.8	.0341	1170	106.6	1000	109.5	8714
9-9		Floor 53	5.17	1,16	4.01	36012	341.8	18.4	1011	. 0341	117,6	106-8	10,0		97.5
9-10		Floor SB	5.31	11/6	4,15	361.3	340.1	21,2	1	100341	121.7	108,8	10.0	1095	99,4
															/

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b

f = d-e

g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_

Date:	08/24/20/2

Site: VITA LANDEIII

Page  $\frac{\mathcal{G}}{}$  of  $\frac{\mathcal{A}}{}$ 

Daily Report No.: 10
Technician: 17. Brad ford

Project: <u>611 - 3</u>

				Mass			Moi	sture			Density				
Test	Retest		а	b	С	d	е	f	g	h	i	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
10-1		Floor SB	5.22	1,16	4,06	359.9	339.8	201	11.7	,0341	119.1	106.6	10,0	109,5	97.4
10-2		Floor B	5.20	1.16	4,04	360,2	342.2	18,0	9.9	10341	1185	107.8	10:0	1090	98.4
10-3		Floor SB	5.19	1,16	4103	361.3	34.8		10.8	,0341	118.2	106.7	1010	10955	97,4
10-4		Floor	5.29	1.16	4.13	359.9	338,+	21.5	12.0	1034	12/1)	168,1	1010	1095	9877
10-5		Floor	5.27	1.16	4.11	360.2	339, 6	2016		10341	1205	198.1	1010	1095	987
10-6		Pipe Romera	5.18	1.16	4,02	361.3	34010	21.3	11.9	, 9341	117.9	105,4	10.0	1095	96-3
10-7		Pipe Remosa	5,16	1.16.	4.0	359- 8	342.8	17. 1	9.3	1934/	117.3	1073	2030	1095	98 VC
10-8		Pipe Reman	5.44	7./5	4.28	360,2	335.8	24.4	13.9	10341	125,5	110,2	15,9	111.5	98.8
10-9		S. Ber	5.25	1.16	4,09	360,2	340.8	19.4	10.7	10341	119.9	108.3	10%	109.5	98,9
										<u> </u>		7081)	10,00	/ -/	731 /
															<del></del>
															<del></del>
,															
L			L												***************************************

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{gm}$   $pan_2 = \underline{gm}$   $pan_3 = \underline{gm}$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Date:	08/25/2012

Site: Vista Landfill

Page 9 of 26

Daily Report No.: //

Technician: Tr. Bradford

Project No.: 101, 07.08

				Mass			Moi	sture			Density				
Test	Retest		а	b	С	d	е	f	g	h	i	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
11-1		S. Bern	5.44	1,6	428	359.9	330,2	29.7	17.4	,034/	1255	106,9	15,9	111.5	95.
11-2		5. Bein-	5.22	1.16	4.06	361.3	335, 2	26.1	15.0	,0341	119.1	103.6	12-(	1078	96
-		,									<u> </u>				
															<del></del>
		***************************************													
															<del></del>

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = gm$   $pan_2 = gm$   $pan_3 = gm$ 

c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Date:	08	128	/2012
		2 000	

Site: Vista Landfill -3 Project: Cell - 3

Page <u>10</u> of <u>26</u>

Daily Report No.: 13 Technician: T. Brydlovi

Project No.: 101.07108

				Mass			Moi	sture			Density				
Tost	Datast		а	ь	с	d	е	f	g	h	i	j	k	1	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
13-1		5. Bern	5.14	1:16	3,99	330,0	315.5	15,0	8,1	,0341	117.0	108,2	10,0	109.5	98.8
13-2		S. Ben	5,22	1.16	4.06	335.7	316.4	19-3	10.7	,0341	119,)	107.6	10,0	1085	983
13-3		s. Ben	5.11	1.15	3.95	332.5	311,6	20.9	11.7	,0341	115,8	103.7	12.1	107.8	96-2
13-4		S. Born	5.08	11/6	3.92	330,0	310-9	19.1	10.6	10341	115:0	1840	12:1	107-8	96.5
13.5		5. Ber	5.20	1.16		335.7	315,2	205	11,4	.934/	118-5	106,4	1000		97.2
13-6		s. Bern	5.17	1.16	4.01	3325	399.6	229	129	,034-1	117.6	194.2	10-0	1095	95.2
					<u> </u>										
															-

 $h_I = \underline{\hspace{1cm}}$  cu.ft.

 $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b

f = d - eg = f/(e-pan) i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_

Date: 08/29/2012

Site: Vista Landfill

Page 11 of 26

Daily Report No.: \_ Technician: \_\_\_

Project: <u>Cal. 3</u> Project No.: 10/607.08

				Mass			Moi	sture			Density				
m ,	<b>5</b>		а	ь	С	đ	e	f	8	h	i	j	k	1	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
14-1		5. Bevar	5.16	1.16	4.0	335,7	320.7	15:0	8. (	.0341	117,3	108.5	10,0	109.5	99.1
14-2		5-Bem	5.04	11/6	3,88	330,0	3/0,7	19.3	10,7	10341	113.8	102.8	12,1	1028	95-4
14-3		51 Bear	5.48	1,16	4.32	3325	304.1	28.4	16.6	.0341	126.7	108,7	15.9	1115	97.5
14-4		5 Ben	5.12	1.16	3,96	330,0	308.6	21.4	12,0	10341	116.1	103:7	12.1	1078	96.2
14-5		S. Bern	5.05	Id 6	3.89	332.5	313.0	19.5	1018	,0341	114,1	/9 <i>3</i> c O	12.1	107.8	95,5
14-6	14-8	s, Bern	4,91	1,16	3,75	332.5	312.9	19.6	10.9	,0341	110,0	9912	12.1	107,8	920
14-7		5. Be-	5.99	1.16	3.93	330.0	314.1	15.9	8.6	,0341	115,2	106.1	10,0		97.4
14-8	14-6	Si Bean	5,02	1,1 %	3,86	330,0	311.8	18,2	1010	,0341	113,2	1929	1211	107.8	955
	:														

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.

 $h_3$ = cu.ft.

 $pan_1 = gm$   $pan_2 = gm$   $pan_3 = gm$ 

c = a-b

f = d-e

g = f/(e-pan) i = c/h

j = i/(1 + g/100)

m = j/l

Date: 08/30/2012

Site: <u>Vista</u> landful

Page 12 of 26

Daily Report No.: 15

Technician: To Brad for

Project No.: 10/107.08

Project: <u>Cell - 3</u>

				Mass			Moi	sture			Density				
Test	Retest		a XX + XX +	b	C	d	e	f	g	h	i	j	k	ı	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
15-1		S, Bern	522	1,16	4,06	33010	313.2	16.8	9,2	10341	1191	199.1-	10,0	189.5	99,6
5-2		S. Brown	5.02	1.16	3,86	33000	314.8	15.2	8,2	.034/	113.2	1046	10,0	199.5	95,5
15-3		S. Ben	5.17	1,16	4,01	332.5	310.8	21,7	12.2	,0341	117.6	104.8	10,0	199.5	95.7
15-4		3. Bern	5110	1.16	3.94	335.7	316.0	19.7	10,9	19341	115.5	104,1	10,0	1095	9500
15-5		S. Bern	5,98	1,16	3,93	330.0	316.8	13,2	7,1	,0341	115.2	107.6	10.0	109.5	98.3
15-6		S. Dem	5.27	1.16	4,10	332.5	3/3/0	19.5	10.8	1034-1	1205	198.8	10,0	199.5	99.4
15-7		S. Bern	5.13	1,16	3.97	330,0	310,1	19.9	11.0	10341	116,4	104.9	10.0	109-5	95.8
	*														

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm \quad c = a-b$ 

f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Date: 08/31/2012

Daily Report No.: 16

Technician: T. Bradford

Site: Vista Landfill

Project: Cerr3

Project No.: 101.07.08

Page	13	of	26
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				Mass			Moi	sture			Density				
Test	Detect		а	b	c	d	е	f	g	h	i	j	k	1	m
No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
16-1		E Bean	5.37	1:16	4.21	335,7	312.2	23.5	13.3	10341	123,5	109.0	15.9	111.5	97.8
16-2		E Bern	5.22	11/6	4.06	332.5	310,4	22.1	12.4	,0341	119.1	1060	10.0	109.5	96-8
16-3	16-4	E Bom	5.33	1.16	4.17	335.7	323.8	11-9	6.3	, 0341	122.3	1151	15.9	111.5	103,0
16-4	16-3	& Bern	5.34	1.16	4.18	35%0	336,3	227	12.9	,9341	122.6	198,6	15,5	17/55	97:4
16-5		E Ben	5.19	1115	4.03	33010	3-08-8	21,2	11-9	10341	118,2	165,6	10,0	199.5	96,4
16-6		E Ben	5,24	1.16	4.08	3325	312.1	20,4	11.4	1941	119.6	197,4	15-9	111.5	\$6.3
16-7		E Ben	5-33	1116	4.17	.335,7	3/1/6	24,1	13.7	,0341	122.3	107.6	159	111.5	96-5
16-8		E Bein	5.35	116	4.19	33000	305,0	25,0	14.3	,9341	12279	107.5	15.9	111.5	96.4
16-9		E Bern	5.19	1.16	4,03	3315	308,4	23,1	13.1	,0341	118.2	104.5	12,1	197.8	26,-9
1640		S. Ber	5.44	1115	4,28	335,7	30919	25,8	14.8	1934)	125.5	199.3	15,9	111.5	980
16-11		S. Born	5.06	1.16	3.9	332.5	3/6.3	16.2	8,8	,034-1	114,4	105,1	10,0	1095-	96.0
1672		S. Bem	5,26	1116	4.1	332 S	317.4	15.1	8,2	19341	12012	111.1	10,0	109.5	101.5
1613		5. Bem	5,44	1.16	428	335,7	305,9	29.8	17.5	10341	1255	106.8	15.9	1115	95.8
															4263

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{gm}$   $pan_2 = \underline{gm}$   $pan_3 = \underline{gm}$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Date:	09/04	1/20/2
		/

Site: Vista Land fill

Page \_\_\_\_\_\_ of \_\_\_\_\_\_ \_\_\_\_\_\_\_\_

Technician: T. BradCorb Project: CLL 3

Project No.: 101,07 08

				Mass			Moi	sture			Density				
Test No.	Retest Ref. No.	Location/Description	a Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder	c Wet Wgt. of Soil (lb)		Dry Wgt. w/Pan	f Water Content	Moisture Content	h Vol. of Cyl.	Wet Density	Dry Density	k Opt. Moisture	l Proctor	m %
				(lb)		(gm)	(gm)	(gm)	(%)	(cu. ft.)	of Soil (lb/cu. ft.)	of Soil (lb/cu.ft.)	Req. (%)	Density (Pcf)	Com pactic
17-1		I- Bin	5.02	1,16	3,86	3325	314.2	18.3	1011	,0341	113.2	102.8	12.1	107.8	95,4
17-2		E Bern	5,01	126	3.85	335,7	318,4	17.3	9.5	1934/	1/2.9	103,1	8.2	19729	25.6
17-3		E Bern	5,29	1.16	4.13	335,7	3 Q -8	229	12.9	1034/	121.1	107.3	10.0	1895	98.0
17-4		F Bern	5.01	71/6	3,85	330,5	3176	12-9	6-9	60341	112-9	105,6	8,2	107.9	97-9
H-5		E Bem	5,45	11/6	4,29	3325	303,0	29-5	1.7.3	10341	12518		15.9	111.5	96.1
17-6		E Bern	5,50	1,16	1	3325	30811	24.4	13:9	10341	127.3	111.8	15,9	1115	100,3
						÷									
		***************************************													

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{gm}$   $pan_2 = \underline{gm}$   $pan_3 = \underline{gm}$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_

Date: 89/65/20/2Daily Report No.: 18

Technician: Ti But d Govd

Site: wista Landling

Project No.: 101.07.08

Page 15 of 26

				Mass			Moi	sture			Density				
Test	Retest		а	ь	С	d	е	f	g	h	i	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
18-1	18-3	S. Bern	5.0	1.16	3.84	3325	303.9	2816	16.7	1034/	112.6	96,5	121	1078	89.5 X
18-2		S. Bern	5,06	1.16	3,5	335,7	323.4	123	6.6	10341	114.4	107,3	8,2	15729	99.4
18-3	18-1	S. Berm	5,19	1.16	4,03	335.7	311,4	24.3	13.8	19341	118.2	103.9	12.1	107,8	96.4
18-4		5 Ber	5.17	1.16	4,01	335,7	314.3	21.4	120	19341	117.6	105,0	10-0	1995	9519
18-5		5. Bein	5.24	/.) (=	4.08	335.7	36.4	20.3	11.3	10341	119.6	107,5	10,0	199.5	98,2
18-6		S. Beim	5.56	1116	4,4	3325	306,6	25.9	14.9	,0341	129,0	1123	15.9	111.5	100,7
18-7		5. Bon	4.96	1,16	3.80	330,0	316,8	13.2	76.1	10341	111.4	1040	8,2	107,9	96.4
18-8		S. Bem	5.12	1,16	3,96	335.7	316,8	18,9	10,4	10341	116.1	105.2	10,0	109.5	9.6.1
18-9		S. Ben	5.15	1,16	3.99	330,0	314.3	15,7	8,5	10341	117,0	107.8	10,0	10905	98.4
18-10		5. Bein	5.45	1.16	4.29	330,0	306,7	23.3	13,2	,0341	125.8	111.1	15.9	111.5	29.6
18-11		S. Ben	5,06	10/6	3.9	332.5	316.4	16.1	8.8	,0341	114.4	105,1	10,0	109.5	96,0
18-12		5. Ben	5,29	6176	4.13	332,5	304.7	27,8	16.1	,0341	121,1	194.3	12-1	197.8	96.8
18-13		Si Beau	5.22	1.16	4,06	335.7	31014	25.3	14.5	,0341	119.1	124.0	12.1	1078	96,5
18-14		S. Ber	5.50	1,16	4.34	330, 0	391,8	2812	16.4	10341	127.3	98,2	15,9	m:5	98.2

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_

Site: Vista Landfill
Project: Gul - 3

Page 1/6 of 2/6

Technician: T. Brydford

Project No.: 101, 27, 08

				Mass			Moi	sture			Density				
Test	Retest		а	ь	C	d	е	f	8	h	i	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
19-1		5-Bern	5,41	11/6	4,25	335.7	31012	25,5	146	,0341	12416	108,7	15.9	111.5	97.5
19-2		5. Berns	5.11	1016	3,95	332.5	3/2.3	2012	11.2	,0341	11.5.8	1041	8,2	1029	96,5
19-3		5, Ben	5131	416	4.15	330,0	309,3	20.7	11.5	,034	12117	109.1	10,0	109.5	9916
19-4		5 Bein	5,49	1,/6	4,33	332.5	304.8	27,7	16.1	,9341	1270	189,4	15,9	111.5	98.1
19-5		S. Ben	507	1.16	4,01	330,0	311.5	1815	1012	10341	117,6	10607	10.0	1098	97,4
19-6		S. Ben	5.43	1.16	4,27	330,0	289,9	3011	17,7	10341	125,2		15,9	111-5	95,4
19-7		S. Bein	5.53	11/6	4.37	332.5	30216	29.9	17.6	10341	128.2	199,0	15,9	111,5	97.8
19-8		S. Bern	5,49	11/6	4,33	339,0	301,1	28,9	16,9	10341	127,0	108,6	15.9	111-5	95.8
19-9		S, Bern	5,19	1.16	4,03	332.5	3/1/3	21.2	11,9	10341	118,2	185,6	10,0	199,5	96-4
19-10		S, Beau	5,47	1,16	4.31	335,7	308.1	27,6	16.0	10341	126.4	139,0	15.9	111.5	97-8
19-11		S. Bein	5,06	1,16	3.9	335,7	320,4	15.3	8.3	19341	114.4	195, 5	10,0	1995	96,4
19-12		S. Ben	5,45	7.16	4,29	330,0	301.7	28.3	16.5	.9341	125,8	108.1	15.9	111.5	96-9
19-13		S. Bern	5,41	1.16	4-25-	335,7	311,2	24.5	14.0	1034	124.6	69	15.9	111.5	98.0
						-									

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{gm}$   $pan_2 = \underline{gm}$   $pan_3 = \underline{gm}$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_ Min. % Moisture Req.

Rev. 08/03

Date:	107/2012	
Daily Report No.:	20	
Technician:	Bradford	

Project: <u>Co// - 3</u>

Project No.: 101,09,08

	12012	Site:	Vista Landfill	Page	of <u>26</u>
P		DIC.	11-12 Fan alive		

				Mass			Moi	sture			Density				
Test	Datast		વ	ь	С	d	е	f	8	h	i	j	k	I	m
No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
20-1		5 Ben	5.07	1.15	3,91	330.0	3-59.6	20,4	17.4	. 0341	114.7	103,0	12.1	127.8	955
20-2		5 Belm	5.30	1.15	4.14	3325	3140	18.5	10,2	19341	121.4	1/0,2	10,3	189,5	1000
20-3		S, Ben	5,0	1.16	3,84	335:7	319.7	16.0	827	,0341	11216	10316	8,2	107.9	96
20-4		S. Bean	5,08	1.16	3.52	335/7	316,9	18.8	1014	N34)	11500	1042	8,2	107.5	26.6
20-5		S. Berr	5.18	1,16	4,02	332 S	313.9	18,5	10.3	10341	117-9	106.9	10,0	1985	9726
20-6		S. Bern	5,28	1,16	4.12		304.3	25.7	14.7	.0341	120.8	18,3	12.1	1078	97.7
20-7		S. Bern	4.99	1.16	3.83	330.0	316.8	13.2	7.1	10341	1/2.3	104.8	8.2	107.9	7702
20.8		S. Beau	5,09	616	3.93	332.5	315.6	16-9	9.2	10341	115.2	105.5	812	107.9	97.8
20-9		S. Derm	5.16	1.16	4.0	335.7	311.4	243	13.8	1934(	117.3	103.	12.1	1078	95.6
20-10		S, Bern	5.41	1.16	4,25	335.7	3/3.2	265	15.3	0341	1246	108.1	15.9		96, 6
20-11		S. Bem	5.33	1.16	4.17	332 S	311.7	2018	11.6	,034/	122-3	19916	19.0	1290	100
20-12		S. Ben	5.38	1.16	4.22	330,0	3041	25.9	14.9	. 0341	123.8	197,7	15.9	1115	96-9
														, . ,	/

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm \quad c = a-b$ 

f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_ Min. % Compaction \_\_\_\_

Site: Vista Landfill

Page 18 of 26

Daily Report No.: 22

Technician: T. Brad ford

Project: Cell-3

Project No.: 101, 27, 3

				Mass			Moi	sture			Density				
, ,	D		а	ь	c	d	e	f	g	h	i	j	k	1	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
22-1		S. Bem	5.12	1116	3,96	332 5	335.9	22.6	12.7	10341	116.1	103,0	12.1	107.8	95.5
22-2		S. Ben	5.19	1,//0	4,03	335.7	316.5	19.2	1016	·0341	118.2	106.9	10,0	1985	97.6
22-3		SiDom	5.11	1, / &	3.95	330,0	314,0	16.0	8,7	0341	115.8	1065	1000	109.5	97.3
22-4		S. Ber	527	1.16	4.11	3345	399.8	22.7	12.8	,0341	120.5	19668	12.1	197.8	99.1
22-5		S. Den	5.42	1./6	4,26	335.7	310,0	25.7	14.7		124.9	199.4	15.9	111.5	9811
22-6		5. Ben	5.01	1.6	3,85	330.0	313,9	16.2	8.8	,0341	112.9	103.8	87	107.4	96-2
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													,		
		White the second													
												-			

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b f = d-e g = f/(e-pan)

i = c/h j = i/(1 + g/100)

m = j/l

#### GEG

Site: Vista Latualill

Page 19 of 25

Daily Report No.: 23 Technician: Tobrad fort

Project: <u>C//-3</u>

Project No.: 101.07.08

				Mass			Moi	sture			Density				
	_		а	b	С	d	e	f	g	h	i	j	k	I	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com- paction
23-1		5. Ac-	5,07	1,/6	3,91	335,7	3145	21.2	11.9	,0341	114.7	102.5	12-1	1078	95,0
23-2		S. Bern	5,45	1.16	4.29	330,0	301.1	28.9	16.9	10341		1076	15,9	111.0	965
23-3		S. Ben	5,41	1.16	4.31	3325	300.9	31.6	18.8	10341	126.4	101.4	15,9	111.5	95,4
23-4		5. Ben (58)	4.99	1,16	3,83	335.7	321.3	14.1	7,6	,0341	112.3	1044	8,2	107.9	968
23-5		S. Ben 53	4,98	16/6	3,82	3300	317.8	12.2	6.5	10341	1/2.0	105.2	8,2	107.9	97.5
23-6		S. Bern (53)	5,08	1116	3,92	3325	316.6	15.9	8.8	.0341	115,0	105,7	8.2	107.9	98,0
23-7		S. Bern	5,03	1,16	3,87	335,1	319.0	16.7	9.1	0341	113.5	104,0	8.2	107.9	96.4
23-8		S. Ben	5.38	1,16	4,22	332.5		25.7	14.7	10341	23.8	107.9	15.9	111.5	96.8
														,	

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm \quad c = a-b \quad f = d-e \quad g = f/(e-pan)$ 

i = c/h

j = i/(1 + g/100)

m = j/l

#### GEG

Daily Report No.: 24

Technician: 7. Bradfold

Site: Victa Landfill

Project: <u>Ce11 - 3</u>

Project No.: <u>/0/. 0 7.</u> 08

Page	20	of	26
Page	2	of	<u> 26</u>

				Mass			Moi	sture			Density				
Test	Datast		а	b	С	d	е	f	g	lı	i	j	k	I	m
No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com- paction
24-1		S. Bem	5.47	1.16	4.31	3390 O	298,6	31.4	18.5	,0341	126,4	106.7	15.9	111.5	95.7
24-2		5, Ben	5.50	1./6	4.34	335.7	304.1	31.6	18.8	,0341	127.3	107.2	15.9	1115	96.1
24-3		5. Bem	5,51	1,16	4,41	335.7	306.9	28.8	16.8	10341	129.3	110.7	159	111.5	99.3
24-4		5. Bem	5.62	1.16	4.46	332-5	30414	28.1	16.3	10341	130.8	1125	15.9	111.5	100,9
24-5		S, Ben	5.53	1.16	4.37	335.7	304.5	31.2	18.5	,0341	128.2	108.2	15,9	111.5	97.0
24-6		S. Bern	5,51	116	4.35	330,0	306.5	23.5	13.3	10341	127.6	112,6	15.9	11/5	101,0
									-						

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{gm}$   $pan_2 = \underline{gm}$   $pan_3 = \underline{gm}$  c = a-b f = d-e g = f/(e-pan) i = c/h

j = i/(1 + g/100)

m = j/l

Date:	09/13	12012

Site: Vista LANOfill

Page  $\frac{2}{}$  of  $\frac{26}{}$ 

Daily Report No.: 25
Technician: 7. Bradford

Project: <u>@ /1 - 3</u>

Project No.: 10/, 07 08

				Mass			Moi	sture			Density				
T4	Datast		а	ь	С	d	е	f	g	h	i	j	k	1	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
25-1		5. Berry	5,54	1,16	4.38	332.5	308,6	23-9	13.6	,034/	128.4	1/3,0	15,9	111.5	101,3
25-2		S. Bem	5.53	4/6	4.37	335,7	304.5	3/.2	18,5	.0341	128,2	108,2	15.9	111,5	97,0
25.3	25-4	S. Bern	5,0	1,16	3,84	330,0	303,3	26.7	15.4	, =341	112.6	97,6	8.2	107,9	90,5
25-4	25-3	S. Born	5,14	1.16	3.98	332.5	313,7	18:8	10,4	,034/	11617	135,7	8,2	107.9	98.0
25.5		Si Ben	5,44	1.16	4.28	332-5	306,9	25.6	14.1	10341	12515	139.4	15.9	111.5	98,1
25-6		5 Bem	5,03	1.16	3.87	335.7	322.0	13,7	7,4	10341	113,5	105.7	8,2	107,9	98,0
25-7		S, Born	5,29	11/6	4,13	335.7	311,1	24,6	14,0	10341	121.1	106,2	15,9	111.5	95,2
25-8		S. Bern	5,22	1.16			305,5	24.5	14,0	.6341		105,5		107.8	97.9
		The second control of													

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm \quad c = a-b \quad f = d-e \quad g = f/(e-pan)$ 

i = c/h

j = i/(1 + g/100)

m = j/l

Date:	09/14/	20/2

Site: <u>Vista land fill</u>
Project: <u>Coll-3</u>

Page 27 of 26

Daily Report No.: 26 Technician: T. Bradford

Project No.: 101 07.08

				Mass			Moi	sture			Density				
T+	Dotoot		а	ь	С	d	е	f	g	h	i	j	k	1	m
Test No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
26-1		S. Berm	5.19	1,16	4,03	330,0	305,1	24-9	14.2	,0341	118,2	10315	12.1	107.8	96 0
26-2		S.Berr	5,17	11/6	4,01	332.5	3028	24.7	14.1	034/	117,6	103,1	12,1	137.8	95.6
26-3		5 Ben (\$ B)	5.15	1.16	3.99	335.7	322.2	13,5	7,2	,0341	1170	109,1	10,0	109.5	99,6
26.4		5 Bern	5,36	1.16	4,2	330,0	305.9	24.1	13,7	10341	123,2	108,4	10,0	109,5	99.0
															<del></del>

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b

f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_\_\_\_\_



Date:	. 09/1,	17/2012	
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Site: Vista LANdfill

Page 23 of 26

Daily Report No.: 29

Technician: T. Bradford

Project: 611-3 Project No.: 101.07.08

					Mass			Moi	sture	,		Density				
Test	D-44			а	ь	С	d	е	f	8	h	1	j	k	1	m
No.	Retest Ref. No.	Location/Desc	eription	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
29-1		Flour	5B	5,09	1.16	3.93	330,0	39,8	20,2	11,2	,0341	115,2	103,6	12.1	107.8	96,1
28-2		Floor	53	5,86	1.16	3,90	332.5	313.4	19.1	10,6	10341	114.4		12.1	107,8	95.9
29.3		Floor	SB	5,03	1.16	3.87	335,7	319.8	15.9	8,6	10341		104.5	8,2	137.9	96.8
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																<b></b>
	·															

 $h_1 =$  \_\_\_ cu.ft.  $h_2 =$  \_\_\_ cu.ft.  $h_3 =$  \_\_\_ cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

\* Project Requirements: \_\_\_\_\_ Min. % Compaction \_



Site: Visto Landfill

Page <u>24</u> of <u>26</u>

Technician: \_\_\_\_\_\_\_BrAdford

Project: <u>Coll-3</u> Project No.: 101, 07, 08

				Mass			Moi	sture			Density				
Test	Dotont		а	ь	С	đ	е	f	g	h	i	j	k	ı	т
No.	Retest Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
30-1		RUN out	5,0	1,16	3,84	330,0	316.4	13.6	7.3	0341	112,6	1049	8,2	127.9	97,2
33-2		E Berm S/3	5,2	1110	4,04	33517	320,2	155	8.4	10341	118.5	109.3	10.0	109.5	99.8
30-3		Run out	5.0	11/6	3.84	332.5	321,0	11.5	6.1	a 0341	112.6	106.1	8.2	107.9	98.3
30-4		EBen SB	5.04	1,16	3,88	332,5	316.8	15.7	8,5	10341	113.8	104.9	13,0	139.5	95.8
30-5		Run out	5,0	1.7%	3,84	330,0	315.8	14,2	7.6	341	112.6	1046	8,2	107.9	96.9
30-6		Rin 04 5B	4.99	1,16	3.83	335.7	321, 3	14.7	7,9	,0341	112.3	104.1	8,2	137,9	96.5
30-7		EBen SB	5.71	1. Ho	3,95	335.7	320,6	15:1	8,2	13341	115.8	107,0	10,0	109,5	97.7
30-8		EBen 5B	5,22	1,16	406	335,7	317,5	18.2	10,0	13394	119.1	108.3	10,0	139.5	98,9
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															<del></del>
										<u> </u>					

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b f = d-e g = f/(e-pan) i = c/h

j = i/(1 + g/100)

m = j/l



Page <u>25</u> of <u>26</u>

Daily Report No.:

Technician: T. Bradford

Project: <u>Cell - 3</u> Project No.: 101.07-08

Site: Vista Landfill

				Mass			Moi	sture	7		Density				
Test	Retest	Location/Description	a Wet Wgt.	b Wgt. of	c Wet Wgt.	d Wet Wgt.	e Dry Wgt.	f Water	8	h	i	J	k	ı	m
No.	Ref. No.	Location/Description	w/Cyl. (lb)	Cylinder (lb)	of Soil (lb)	wet wgt. w/Pan (gm)	w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
42-1		ANCHOS Trenda	5.15	1.16	3.99	332.5	309.2	23.3	13.2	,0341	1170	103.4	12.1	107-8	95.9
42-2		Anchor Treach	5.24	1.16	4.08	335.7	320,0	15.7	8,5	,0341	119.6	110-2	10.0	139.5	100,6
42-3		Aucher Treach	5.26	1.16	4.1	330,0	306.5	23.5	13.3	10341	120.2	106.1	15.9	111.5	95.2
42-4	·	Ancher Treach	5.30	1.16	4.14	332.5	308.9	2316	13.4	10341	121.4	10711	15.9	111.5	96.4
42-5		Andrew Trend	5.18	1116	4.02	335.7	316.1	19.6	10.9	,0341	117.9	106.3	10,0	1395	97.1
44-6		Ancho Trevels	5,20	1.16	4.04	330.0	307.1	22.9	12-9	,0341	118,5	105,0	12.1	107.8	97.4
42-7		Ancho-Trench	5.33	J11 So	4107	332.5	306.7	25.8	14.8	, 0341	122.3	1065	15,9	.111.5	95.5
42-8		Ancher Treach	5.16	1.16	4.0	335,7	32214	13.3	7.1	,0341		109.5	10,0	109.5	1800 C
									<u> </u>						
	-										·				
														1	i

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = \underline{\hspace{1cm}} gm \quad pan_2 = \underline{\hspace{1cm}} gm \quad pan_3 = \underline{\hspace{1cm}} gm$ 

c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l



Date:	10/02	2/2012
	7	/

Site: Vista Landfill

Page 26 of 26

Daily Report No.: 43

Technician: T. Bradford

Project: Cell - 3 Project No.: 101.07.08

				Mass			Moi	sture			Density				
Test	Retest		а	ь	С	d	е	f	8	h	1	j	k	1	m
No.	Ref. No.	Location/Description	Wet Wgt. w/Cyl. (lb)	Wgt. of Cylinder (lb)	Wet Wgt. of Soil (lb)	Wet Wgt. w/Pan (gm)	Dry Wgt. w/Pan (gm)	Water Content (gm)	Moisture Content (%)	Vol. of Cyl. (cu. ft.)	Wet Density of Soil (lb/cu. ft.)	Dry Density of Soil (lb/cu.ft.)	Opt. Moisture Req. (%)	Proctor Density (Pcf)	% Com pactic
43-1	ļ	Anche- Trevel	5.39	1.16	4.23	335.7	311.1	246	14.0	,0341	124.0	108,8	15.9	111.5	97.6
43-2		Asolo- Toerch	5,27	1.16	4.11	330,0	303.8	26.2	15.1	.10341	120.5	104.7	Q.1	107.8	97,1
	^		·												
		·													
										<del></del>					
															<del></del>
															<del></del>
											·	-			
					1	i				•			1		

 $h_1 =$  cu.ft.  $h_2 =$  cu.ft.  $h_3 =$  cu.ft.

 $pan_1 = gm$   $pan_2 = gm$   $pan_3 = gm$  c = a-b f = d-e g = f/(e-pan)

i = c/h

j = i/(1 + g/100)

m = j/l

Drive Cylinder Test Report

1. of 221

Project:  $V_{13}$  th  $U_{14}U_{14}U_{14}U_{14}U_{14}U_{15}U$ 

 Date:
 08 | 15 | 2312

 Soil Type:
 5 | Proctor Value (0):
 109.5 pcf

 ✓ Standard ASTM D698
 Modified ASTM 1557

 Optimum Moisture Content:
 20, 20 %

 Sampled By:
 T. Grad Land

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) / 6/-3 g lbs
	Weight of Pan and Wet Soil (D) 34/,3 gibs
Cylinder Volume (F) 40341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 31/2 8 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & \ell & \ell & \ell & \ell \\ (E) & 3 & \ell & \ell & \ell & \ell \end{pmatrix} - (E) & - (E) & - (E) & \ell & E \\ (E) & 3 & \ell & \ell & \ell & \ell \end{pmatrix} x 100 $	(G) 1012 %	%
Wet Density		
(B) 535 -(A) 4, 19 ((F) , 9341 )	(H) <u>/229</u> pcf	pcf
Dry Density		
$\frac{[H]  [J + J - I]}{\left[1 + \left(\frac{(G)  I - U - J -}{100'}\right)\right]}$	(I)///.5 pcf	pcf
Compaction		
$\left(\frac{(I) - I/I \cdot 5}{(J) - I \cdot 0^2 I \cdot 5}\right) \times 100$	1018 %	%

#### CEC

Drive Cylinder Test Report

\_\_\_\_pcf \_Modified ASTM 1557

Page 3 of 22)

Project: Cell - 3	Date: 08/15/.2A
Project No.: 10/, 07, 08	Soil Type: _SF
Test No.: 3-3 L-1	Proctor Value (J): 109
Location: KI-1, 564, 775 E492275 E. Beim	Standard ASTM D698
Nuclear Density Test No.: _ ^ ^	Optimum Moisture Content:
Report No.: 3	Sampled By: T. Brad

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ L lbs	Drying Pan Tare (C) /// g g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 311.3 glbs
Cylinder Volume (F) 1034/ ft3	Weight of Pan and Dry Soil (E) 342.2 g lbs

	Drive Cylinder	Nuclear Gauge
	Drive Cylinder	ivuciear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & (l \cdot 3) & -(E) &   & f & 1 \\ (E) & 3 & (4 \cdot 2) & 2 & -(C) &   & f & 0 & 9 \end{pmatrix} x 100 $	(G) <u>/w,6</u> %	%
Wet Density		
(B) 5.11 -(A) 3.95 ((F) ,0341)	(H) //5.8 pcf	pcf
Dry Density		
$\frac{(H) \qquad / / \mathcal{E} \cdot \mathcal{S}}{\left[1 + \left(\frac{(G) \qquad / \mathcal{E} \cdot \mathcal{E}}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I)\cancel{10}\cancel{4}\cancel{.7}}{(J)\cancel{2}\cancel{.7}\cancel{.7}\cancel{.7}}\right) \times 100$	95.6 %	%

Pass	Fail: PASS	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

#### CEC.

Drive Cylinder Test Report

	Page	of dat
roject: Vista Landfill G11-3	Date: 08/18/2014	
roject No.: 101-07.58	Soil Type: SF	
est No.: 3-2 (L-1)	Proctor Value (J):/09.5	pci
ocation: N.1. 564, 950 E 492,270 E Bern	Standard ASTM D698	Modified ASTM 1557
uclear Density Test No.: 1/A	Optimum Moisture Content: 10.	
eport No.:3	Sampled By: T. Bradford	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 160.2-g lbs
Weight of Cylinder and Soil (B) g 527 lbs	Weight of Pan and Wet Soil (D) 360, 2glbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 335.3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 6 & 2 & -(E) & 2 & 4 & 5 \\ (E) & 3 & 3 & 5 & 3 & -(C) & 1 & 7 & 5 & 1 \end{pmatrix} x 100 $	(G) [14.2 %	%
Wet Density		
(B) 5.28 -(A) 4.13 ((F) 0341)	(H) <u>/21./</u> pcf	pcf
Dry Density		
$ \frac{(H) \qquad / \circlearrowleft / \cdot /}{\left[1 + \left(\frac{(G) \qquad / \ 4 \cdot 2^{-}}{100'}\right)\right]} $	(I) <u>/06.℃</u> pcf	pcf
Compaction	_	
$\left(\frac{(I) / 0 i \cdot O}{(J) / O^{\frac{\alpha}{2}} \cdot S}\right) \times 100$	96-8 %	%

Pass/Fall F-A-1 Reviewed By:  Rev.1098 CF23/CF8 Moistru  **Refeat = 3-5	Date:
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Drive Cylinder Test Report

	Page 4 of 22	L
troject:	Date: _08-15-2012	
roject No.:	Soil Type: 50	
est No.: 3-4 L-2	Proctor Value (J):	ocf
ocation: N.565 075 E492-295 E Ben	Standard ASTM D698Modified ASTM 155	57
Juclear Density Test No.: ^	Optimum Moisture Content:(0, 0	
eport No.:3	Sampled By: T. Brateford	-
Drive Cylinder Information	Moisture Content Sample	201

Drive Cylinder Information	Moisture Content Sample
B .	Drying Pan Tare (C) 15969 g lbs
	Weight of Pan and Wet Soil (D) 359,19 lbs
Cylinder Volume (F) .0541 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>743.0 g</u> lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		THE PARTY OF THE P
$ \left( \frac{(D) \ 359 \ 9}{(E) \ 343 \ 0} - (E) \ / \ 6 \ 9}{(E) \ 343 \ 0} \right) \times 100 $	(G) 9,2 %	%
Wet Density		
(B) 5.31 -(A) 4.15 ((F) 0341)	(H)	pcf
Dry Density		
$\frac{(H) \qquad /2 / \cdot 7}{\left[1 + \left(\frac{(G) \qquad \widehat{7} \cdot 2}{100}\right)\right]}$	(I) _///. 4 pcf	pcf
Compaction		
$\left(\frac{(I) - I/I \cdot I}{(J) - I \cdot I \cdot I}\right) \times 100$	101.7 %	%

Pass/Fail: PASS Reviewed By	:	Date:	
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Rev.10/98 CF223/CPS

Date: 08/15/29/U

Soil Type: 5F

Proctor Value (7): 69:5 pcf

Standard ASTM D698 Modified ASTM 1557

Optimum Moisture Content: 10:0 99

Sampled By: 7. Bradderd

	,
Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 15 92 g lbs
Weight of Cylinder and Soil (B) g S_149 lbs	Weight of Pan and Wet Soil (D) 359, 9 glbs
Cylinder Volume (F) <u>.034</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 338.0 g lbs

•	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 357.9 & -(E) & 21.9 \\ (E) & 338.0 & -(C) & 178.1 \end{pmatrix} \times 100$	(G) <u>12.3</u> %	%
Wet Density		
(B) 5,49 -(A) 4.33 (F) 034	(H) 127.0 pcf	pcf
Dry Density		
$ \frac{(H) \qquad /27.0}{\left[1+\left(\frac{(G) \qquad /2.3}{100^{\circ}}\right)\right]} $	(I) _//-2,~-/_ pcf	pcf
Compaction		
$\left(\frac{(I) / / 2 \cdot 4'}{(I) / 2 \cdot 7 \cdot 5'}\right) \times 100$	102.6 %	%

#### CEC

Drive Cylinder Test Report

Page 7\_ of 221

Project: \$\sist4 \text{ LANGEN | Coll-3 \\
Project No.: \( \sigma 1.0 \text{ To S. No.: } \) \( \sigma 1.7 \) \( \sigma 1.3 \) \( \sigma 7.7 \) \( \sigma 1.3 \) \( \sigma 7.7 \) \( \sigma 1.3 \) \( \sigma 1.5 \

Date: 8 / 15 / 2012

Soil Type: 5 / Proctor Value (1): △57.5 pcf

\_ Standard ASTM D698

\_ Modified ASTM 1557

Optimum Moisture Content: △0.0 %

Sampled By: — End of ord

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g/_/6_ lbs	Drying Pan Tare (C) / 61, 3 g lbs
Weight of Cylinder and Soil (B) g _5,//_ lbs	Weight of Pan and Wet Soil (D) 36/.3 glbs
Cylinder Volume (F) 103+1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 342.5 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 4 & 4 & 5 \\ (E) & 3 & 4 & 4 & 5 \\ \end{pmatrix} \begin{pmatrix} (E) & 4 & 4 & 4 & 4 \\ \end{pmatrix} \begin{pmatrix} (E) & 4 & 4 & 4 & 4 \\ \end{pmatrix} \begin{pmatrix} (E) & 4 & 4 & 4 & 4 \\ \end{pmatrix} \begin{pmatrix} (E) & 4 & 4 & 4 & 4 \\ \end{pmatrix} \begin{pmatrix} (E) & 4 & 4 & 4 & 4 \\ \end{pmatrix} \begin{pmatrix} (E) & 4 & 4 &$	(G) <u>J6.4</u> %	%
Wet Density		
$\frac{(B)  5 \cdot 11  -(A)  3 \cdot 95}{((F)  03 \cdot 41)}$	(H) //5,8 pcf	pcf
Dry Density		
$\frac{(H) \qquad //5, \ \%}{\left[1 + \left(\frac{(G)}{100^{\circ}}\right)\right]}$	(I) / 04.9 pcf	pcf
Compaction		
$\left(\frac{(I) / \theta + \hat{\gamma}}{(I) / 2 \hat{\gamma} \cdot \hat{\gamma}}\right) \times 100$	95,8 %	. %

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Pass/Fail: /AS	Reviewed By:	 Date:	

#### CEC

Drive Cylinder Test Report

That House Vines	Page 6 of 221
Project: Vista Landil 411-3	Date: 08   15   2012
Project No.: 101.07.97  Test No.: 3-6 4-2	Soil Type: 5F
	Proctor Value (J): /49_5 pcf
Location: 41,564,775 E, 492,275 E Bon	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content:
Report No.: 3	Sampled By: T. Brasson d

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1:16 lbs	Drying Pan Tare (C) /60.2 g lbs
Weight of Cylinder and Soil (B) g 5, 13 lbs	Weight of Pan and Wet Soil (D) 360, 2- g lbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 342.3 g lbs

	Drive Cylinder Nuclear Gauge
Moisture Content	
$ \begin{pmatrix} \underline{(D) \cdot 3 \cdot \ell \circ .2  -(E)  /7 \cdot f} \\ \underline{(E) \cdot 3 \cdot \ell 2 \cdot 3  -(C)  /82 \cdot \ell} \end{pmatrix} \times 100 $	(G) 9,8 %
Wet Density	
(B) 5.13 -(A) 3.97 ((F), 0341)	(H) pcf pcf
Dry Density	
$\frac{(H) \qquad // \xi \cdot \zeta'}{\left[1 + \left(\frac{(G) - \tilde{\gamma}, \chi}{100}\right)\right]}$	(I) 106.0 perpc
Compaction	
$\left(\frac{(I) / O (I \circ O)}{(J) / O (I \circ O)}\right) \times 100$	96,8 %%

Pass/	Fail: PASS	Reviewed By:	Date:	
lev.10/98	CF223/CPS			

#### CEC

Drive Cylinder Test Report

	Page_	8	of _	22/
Date:	08/15/201 ST	٤.		

Project: Vista Hudfill G11-3

Soil Type: S#

Proctor Value (I): \( \sigma\_{0.7.5}\) pcf

\( \subseteq \) Standard ASTM D698

Optimum Molisture Content: \( \subseteq 0.\)

Sampled By: \( \tag{B1} A \displays \dinploys \displays \dinploys \displays \displays \displays \displays \displays \displays

Drive Cylinder Information	Moisture Content Sample
R .	Drying Pan Tare (C) 161.3 g lbs
	Weight of Pan and Wet Soil (D) 36/.3 g lbs
Cylinder Volume (F) <u>1934</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 339. 2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & (1 & 3 & -(E) & 22 & (1) \\ (E) & 3 & 5 & 7 & 2 & -(C) & 17 & 7 & 5 \end{pmatrix} \times 100 $	(G) <u>12.5</u> %	%
Wet Density		
(B) 5,18 -(A) 4,02- ((F) 10341)	(H) pcf	pcf
Dry Density		
$ \frac{(H) \qquad J/7.9}{\left[1+\left(\frac{(G)}{100}\right)\right]} $	(I) <u>104.8</u> pcf	pcf
Compaction		
$\left(\frac{(I)  / \circ q \cdot \S}{(J)  / \circ q \cdot S}\right) \times 100$	95.7%	%

Pass/Fail: PASS	Reviewed By:	Date:

C			
 ***************************************	Page	9 0	221

Project: Vict4 14ndfil Coll-3 Project No.: 151-01,08	Date: 0 × /17/20/2. Soil Type: 5/-
Test No.: 3-9 L-4	Proctor Value (J): _/5 9.5 pcf
Location: N1, 568,075 6492 295 E Ber	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Optimum Moisture Content: _ / 0, 0
Report No.: 3	Sampled By: T. Brade 12

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g j lbs	Drying Pan Tare (C) 100.2 g lbs
	Weight of Pan and Wet Soil (D) 1/0, 2 glbs
Cylinder Volume (F) <u>10341</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 344.3 g lbs

	Drive Cylinder	
Moisture Content		
$\begin{pmatrix} (D) - 7 \cdot (0 \cdot 2 - (E) - 15 \cdot 9 \\ (E) - 3 + 4 \cdot 3 - (C) - 18 + 1 \end{pmatrix} \times 100$	(G)8.6%	%
Wet Density		
(B) 5,29 -(A) 4,13 ((F) 0341)	(H) /21, 1 pcf	pcf
Dry Density		
$\frac{(H) \qquad /2 l \cdot l}{\left[1 + \left(\frac{(G)  \S \cdot \omega}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left( \frac{(I)}{(J)} \frac{JJJ \cdot S^{-}}{J \cdot \partial J \cdot S^{-}} \right) \times 100$	181.8 %	%

Pass/Fail; PASS	Reviewed By:	Date:	
Day 10/08 CE223/CBS			

#### Drive Cylinder Test Report

Con Con	Drive Cylinder Test Repor
White of Street Charact	. Page // of 22 /
Project: Vis+A 14Ndfill G11-3	Date: 08/16/2012
Project No.: /3/, 07, 03	Soil Type: SF
Test No.: 4-2 L-4	Proctor Value (J): 109.5 pcf
Location: N1,565,030 E 492, 250 E.B	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: A	Optimum Moisture Content: 10.0 %
Report No.: 4	Sampled By: T. Bradhel

Topote von	
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) 67 8 H lbs /./	Drying Pan Tare (C) / 2// 3 g lbs
Weight of Cylinder and Soil (B) g _5.4-7 lbs	Weight of Pan and Wet Soil (D) 36/. 3 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 33477 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \ 361, 3}{(E) \ 339, 7} - (E) \ 211, 6}{(E) \ 178, 4} \right) \times 100 $	(G) <u>/2、]</u> %	%
Wet Density		
(B) 5.47 -(A) 4,31. (F) 0341	(H) 126, 4 pcf	pcf
Dry Density		
$\frac{(H) \frac{/2 \cdot C \cdot C}{1 + \left(\frac{(G)  /2 \cdot C}{100^{\circ}}\right)}$	(1) _//2-8 pcf	pof
Compaction		
$\left(\frac{(I) / \lambda \cdot 9}{(I) / 2 \cdot 9 \cdot 5}\right) \times 100$		%

Pass/Fail: Pa-55	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### CEC

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Page /0 of 22/

	* ne-	01
Project: V1.54 /AVGFI (41-3) Project No.: /0/. 07, 08 Test No.: 4-1 Location: 1-1505/280, C 4472, 150 E & A Report No.: 4	Date: 8//6/20/2 Soil Type: 5 Proctor Value (J): 20/5  Y Standard ASTM D698 Optimum Moisture Content: 22. Sampled By: T. B. C. J. J.	_Modified ASTM 1557

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/, /(, 1bs	Drying Pan Tare (C) / 6 /, 3 g lbs
•	Weight of Pan and Wet Soil (D) 36/3 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 340.9g lbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 361.2 & -(E) & 20.4 \\ (E) & 340.9 & -(C) & 179.4 \end{pmatrix} \times 100 $	(G)	%
Wet Density		
(B) 5.14 -(A) 3.98 ((F) ,0341)	(H)	pcf
Dry Density	-	
$\frac{(H) \qquad // \cup 7}{\left[1 + \left(\frac{(G)}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I)\cancel{104.8}}{\cancel{(J)\cancel{109.5}}}\right) \times 100$	95.7 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

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Drive Cylinder Test Report

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Project: VISTA Lowefull CH-3	Date:
Project No.: 101.07.08	10 1) po.
Test No.: 4-3 L-4	Proctor Value (J): 10 9, 5 pcf
Location: N.1.514,860, E492,280 E 2.1	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: A	Optimum Moisture Content:
The second No. of the second No. of the second No.	Committed Days arrange (2.1.1.1.1.1

	Optimum Moisture Content: 10,0	
Drive Cylinder Information	Moisture Content Sample	
Weight of Cylinder (A)g /./ L lbs	Drying Pan Tare (C) 140.2 g lbs	
Weight of Cylinder and Soil (B) g _51/7 lbs	Weight of Pan and Wet Soil (D) 360.1 glbs	
Cylinder Volume (F) vo341 ft3	Weight of Pan and Dry Soil (E) 34d. 7 g   lbs	

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 360 \cdot 2 & -(E) & 19.5 \\ (E) 340.7 & -(C) & 180.5 \end{pmatrix} x 100 $	(G) <u>/0,8</u> %	%
Wet Density		
(B) 5.17 -(A) 4.01 ((F) .0341)	(H)	pcf
Dry Density		
$\frac{(H) \qquad //7.6}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) /06· 1 pcf	pcf
Compaction		
$\left(\frac{(I) / \circ \langle \cdot \rangle}{(J) / \circ \circ \cdot \circ}\right) \times 100$	96.9 %	.%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Drying Pan Tare (C) 16/.3 g

Weight of Pan and Wet Soil (D) 3613 g
Weight of Pan and Dry Soil (E) 347.4g

Street Beary Vitarit	Page 13 of 22]
Project: Vista 14 Ndf1) (611-3) Project No.: 101.07.08	Date: 08//6/2012 Soil Type: 57
Test No.: 4-4 L-2	Proctor Value (J): /09-5 pcf
Location: 11 1515,200, E 472,250 E Ben-	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:/^_  Report No.:/	Optimum Moisture Content: 12.0 % Sampled By: 7.8 (Add 14.4)

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g /// lbs	Drying Pan Tare (C) 159.9 g lbs
	Weight of Pan and Wet Soil (D) 357-9 g lbs
Cylinder Volume (F) . 03 41 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 341.8 g lbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & \underline{\mathscr{S}} & \underline{\mathscr{S}} & \underline{\mathscr{S}} & \underline{\mathscr{S}} & -(E) & \underline{\mathscr{S}} & \underline{\mathscr{S}} & \underline{\mathscr{S}} \\ (E) & \underline{\mathscr{S}} & \underline{\mathscr{S}} & \underline{\mathscr{S}} & -(C) & \underline{\mathscr{S}} & \underline{\mathscr{S}} & \underline{\mathscr{S}} \end{pmatrix} \cdot \mathbf{x} \cdot 100 $	(G) <u>/0,0</u> %	%
Wet Density		
$\frac{(B) \ \mathcal{S}, 11 \ -(A) \ \mathcal{3}, 95}{((F) \ , 0341)}$	(H)/15.8 pcf	pcf
Dry Density		
$\frac{(H) \qquad //5.8}{\left[1+\left(\frac{(G) \qquad /\circ.\circ}{100'}\right)\right]}$	(I) 105,13 pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{\cancel{05}\cdot\cancel{3}}}{(J)\cancel{\cancel{09}.5}}\right) \times 100$	96.2 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### Drive Cylinder Test Report

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Nuclear Density Test No.: MA! Optimum Moisture Content: 10-0  Report No.: 4  Sampled By: 77 Bookley		
Report No.: 4 Sampled By: 11 13 callow	Report No.: 4	Sampled By: BradlowC

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /-/ 6 lbs	Drying Pan Tare (C) 10.2 g lbs
Weight of Cylinder and Soil (B)g 5.:	2.1. lbs Weight of Pan and Wet Soil (D) 360.0glbs

	Drive Colinder	Nuclear Gauge
	Drive Cylinder	Nuclear Gainge
Moisture Content		
$ \left( \frac{(D) \ 3 ! c_{1} 2 - (E) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	(G)/ <i>O</i> ,/%	%
Wet Density		
(B) 5,22 -(A) 4,04 ((F) 10341	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad  I/? ,  I }{\left[1 + \left(\frac{(G) - I \partial_x I}{100^{\circ}}\right)\right]}$	(I)/ <u>\(\delta\delta\delta\cdot\)</u>	pcf
Compaction		
$\left(\frac{(I) - 1 \vartheta \mathcal{E}_i \nu}{(J) - \rho \nu q \cdot 5}\right) \times 100$	98,8 %	%

Pass/Fail: Pass Reviewed By: Date:	
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Weight of Cylinder (A) \_\_\_\_\_ g /-/ L lbs

Cylinder Volume (F) \_ 1 03 4 1 ft3

Weight of Cylinder and Soil (B) g 5,27 lbs

Page 14 of 22

oject: Vista LAN Still Gue-3	Date: 08/16/20/2
oject No.: _/0 / 07. 08	Soil Type: SF
st No.: 4-5 L-5	Proctor Value (J): 1.99-5 pcf
cation: 11/2565,000 E 412,280 E Bran	Standard ASTM D698 Modified ASTM 1557
clear Density Test No.: 📈 🖰	Optimum Moisture Content: 10.0
port No.: <u>44</u>	Sampled By: To Bradwal
Drive Cylinder Information	Moisture Content Sample

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \ 31/.3 - (E) \ /3.9}{(E) \ 347.4 - (C) \ /86//} \right) \times 100 $	(G) 7,7 %	%
Wet Density		
(B) 5.27 -(A) 4.11 ((F), 0341)	(H) <u>/20,5</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /20.5}{\left[1+\left(\frac{(G)}{100}, \frac{7.7}{100}\right)\right]}$	(I) _///, 9 pcf	pci
Compaction		

Pass/Fail: PASS	Reviewed By:	Date:	
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Drive Cylinder Test Report

Blassif Educate Willered	Page / L of 221
Project: Vist 4 LAND fill Cell 3	Date: 98/16/2012 Soil Type: 8F
Test No.: 4-7 L-6	Proctor Value (J): /D 9.5 pcf
Location: N.1, 515, 075, E 492 295 E Bon	✓ Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: A	Optimum Moisture Content: 10.2
Report No.:	Sampled By: T. Brad Coval

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g / lbs	Drying Pan Tare (C) 160.2 g lbs
Weight of Cylinder and Soil (B) g _5/2 lbs	Weight of Pan and Wet Soil (D) 3Cor2 glbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 1/2 1/4 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 360.2 - (E) \ 17.8}{(E) \ 342.4 - (C) \ 782.2}\right) x \ 100 $	(G)	%
Wet Density		
$\frac{(B)  5_{x}/2  -(A)  3.96}{((F)  0.34)}$	(H)	pcf
Dry Density		
$\frac{(H) \qquad // \ell \cdot \ell}{\left[1 + \left(\frac{(G) \qquad \hat{\mathcal{Y}} \cdot \mathcal{S}}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) + 1 \leq 17}{(I) + 9 \leq 5}\right) \times 100$	96,5%	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Page 17 of 221

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Page	18	of 221
Page_	, ,	UI

Project No:	Date:0.3   (6,   >∞   / ν   Soil Type:   5   Proctor Value (β):   ( > 0,   ×

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g ///_ lbs	Drying Pan Tare (C) 160. 2 g lbs
Weight of Cylinder and Soil (B) g5.2.] lbs	Weight of Pan and Wet Soil (D) 300. L g lbs
Cylinder Volume (F) _, 0.34/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 34/4 g lbs

·	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 31 & 0.2 & -(E) & 18.8 \\ (E) & 341.4 & -(C) & 181.2 \end{pmatrix} \times 100$	(G)	%
Wet Density		
(B) 5,21 -(A) 4,05 ((F) .034	(H)	pcf
Dry Density		
$\frac{(H) \qquad //\& \&}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\begin{pmatrix} (I) & / \circ 7. & \zeta \\ (I) & / \circ \hat{q}. & \zeta \end{pmatrix} x  100$	98,3%	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Drive Cylinder Test Rep	ort
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# CEC Project: \( \frac{1}{15} \) \( \frac{1}{16} \) \( \

Page	19 of 221
Date: 8//6/2012 Soil Type: 52	<u> </u>
Proctor Value (J):/0 9.5	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:	100 %

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./ lbs	Drying Pan Tare (C) / Go. L g lbs
Weight of Cylinder and Soil (B) g \$\mathcal{S}_1 \mathcal{28}_2\$ lbs	Weight of Pan and Wet Soil (D) 300, 2 g lbs
Cylinder Volume (F) ft³	Weight of Pan and Dry Soil (E) 338.5 g lbs

	Drive Cylinder	F19612.69330.2945.00000.0000
Moisture Content		
$ \begin{pmatrix} (D) & 326 \cdot 2 & -(E) & 2/7 \\ (E) & 338 \cdot 5 & -(C) & /78 \cdot 3 \end{pmatrix} \times 100 $	(G) 12,2 %	%
Wet Density		
(B) 5.28 -(A) 4-12 ((F) 10341)	(H) <u>/20,8</u> pcf	pcf
Dry Density		
$ \frac{(H)  /2 \circ, \%}{\left[1 + \left(\frac{(G) /2 \cdot 2}{100'}\right)\right]} $	(I) 107.7 pcf	pcf
Compaction		
$\left(\frac{(I) - 107, 7}{(I) - 109, 5}\right) \times 100$	98.4 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

	Page of ot
Project: 1/15 to 1/4/20 full 641-3 Project No.: 101.07.08	Date:0 δ / / 6 / 2 ο / C Soil Type: SF
Test No. 4-9 L-/	Proctor Value (D: 109. 5 ncf
Location: N1, 565, 075 E 492, 295 E 2	✓ Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: K	Optimum Moisture Content: 10 0 %
Report No.: 4	Sampled By: T. Brieford
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) /59.9 g lbs
Weight of Cylinder and Soil (B) g 5.2) lbs	Weight of Pan and Wet Soil (D) 359.7 glbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) 3ナウ・し gIbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3S9, 9 - (E) & /9, 3 \\ (E) & 340, 4 - (C) & /90, 7 \end{pmatrix} \times 100$	(G) · /0, 7 %	%
Wet Density		
(B) 5,25 -(A) 4,09 ((F) 03+1)	(H)	pcf
Dry Density		
$\frac{(H) \qquad // \circ \cdot \circ}{\left[1 + \left(\frac{(G) \qquad / \circ \cdot 7}{100'}\right)\right]}$	(I) 108,3 pcf	pc
Compaction		
$\left(\frac{(I) / \circ \%, 7}{(J) / \circ \%, 5}\right) \times 100$	<u>98.9</u> %	%

Pass/Fail: PASS	Reviewed By:	 Date:	
Rev.10/98 CF223/CPS			

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Drive Cylinder Test Report

Mant Serre Mount	Page 23 of 22]
Project: Vista LANShi Coll-3 Project No.: 101.07.08	Date: O8/16/2-17 Soil Type: SF
Test No.: 4-1/ 4-8	Proctor Value (I): / 0 9.5 pcf

Location: 4/1565,000 E, 492,280 F Bir Standard ASTM D698 Nuclear Density Test No.: 

Report No.:

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /. j L lbs	Drying Pan Tare (C) _/60, 2_ g lbs
	Weight of Pan and Wet Soil (D) 360.2 glbs
Cylinder Volume (F) 10 34 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 337. 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 32 \circ .2 & -(E) & 23 \cdot 3 \\ (E) & 339.9 & -(C) & 779.7 \end{pmatrix} x 100 $	(G)//, 3%	%
Wet Density		
(B) 5,3 > -(A) 4.14 ((F) , 0341)	(H) <u>/21,4</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad / 2\ell H}{\left[1+\left(\frac{(G) - \ell / \ell^{-3}}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) / 2^{n} / I}{(J) / 2^{n} / I}\right) \times 100$	99.6 %	%

Pass/Fail: PASS	Reviewed By:	Date: _	
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Page	21	of _	22	

Project: Vista / Judfill	Q11-3
Project No.: 101. 07. 08	
Test No.: 4/ ~ /2_	1-4
Location: N.1565,280 E.	442,280 E-Br.
Nuclear Density Test No.: MA	

Date: 08/16/20	0/2
Soil Type:	
Proctor Value (J): 109.5	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: //4	
Sampled By: 7. B	14 dfa1/1

Drive Cylinder Information	Molsture Content Sample
	Drying Pan Tare (C) 159.9 g lbs
1	Weight of Pan and Wet Soil (D) 357.7 glbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 33 8/1 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) \underline{357.9} & -(E) \underline{21.8} \\ (E) \underline{338.!} & -(C) \underline{/78.2} \end{pmatrix} \times 100$	(G) <u>/2.2.</u> %	%
Wet Density		
(B) 5,23 -(A) 4,07 ((F) ,0341)	(H)/	pcf
Dry Density		
$ \frac{(H)  //9, 4}{\left[1+\left(\frac{(G)  /2 \cdot 2}{100'}\right)\right]} $	(I)	pcf
Compaction		
$\left(\frac{(I) / 2 + A}{(J) / 3 + A}\right) \times 100$	57.2 %	%

Pass/Fail: PAS(	Reviewed By:	Date:	
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Drive Cylinder Test Report

hard Short Short	Page 23 of 221
Project: Vista Landfill G11-3	Date: 98 17 /2-012
Project No.: _ 10 1 0 7. OS	Soil Type: 5 A
Test No.: 5-2- 1.51. 8	Proctor Value (I): /09.5 pcf
Location: N 1, 565, 025 E 492 300 K.D.	Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: A	Optimum Moisture Content: 10.0 %
Report No.:	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 159.9 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 359.7 glbs
Cylinder Volume (F) _1034/_ ft3	Weight of Pan and Dry Soil (E) 338, 3 g lbs

Drive Cylinder	
(G)/2,1%	%
(H)	pcf
(I)	pcf
97,3 %	%
	(G) <u>/2.1</u> %  (H) <u>//2.5</u> pcf

Pass/Fail: Pass	Reviewed By:	Date:
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Page 22 of 221

roject: <u>1/1544 LANJAN CU173</u> roject No.: <u>181.07.05</u>	Date:
est No.:	Proctor Value (J):/\$9.( pcf
ocation: 11,564,400, E 492,310 .	Standard ASTM D698 Modified ASTM 1557
uclear Density Test No.: 📈 A	Optimum Moisture Content: 9/
eport No.:5	Sampled By: To Bradland

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g i. 16 Ibs	Drying Pan Tare (C) 160, 2 g lbs
Weight of Cylinder and Soil (B) g g lbs	Weight of Pan and Wet Soil (D) 370.2 glbs
Cylinder Volume (F)ff³	Weight of Pan and Dry Soil (E) 343, 9 glbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3/2 & -2 & -(E) & -1/6 & 3 \\ (E) & 34/3 & 9 & -(C) & -1/8 & 3 & 7 \end{pmatrix} \times 100$	(G) _ 8, 9 _ %	%
Wet Density		
(B) 5.18 -(A) 4.02 ((F) 10341)	(H)/_ 7. 9 pcf	pcf
Dry Density		
$ \frac{(H) \qquad // \ 7.9}{\left[1+\left(\frac{(G) \qquad \Im. 9}{100^{\circ}}\right)\right]} $	(l)/08,3_ pcf	pcf
Compaction		
$\left(\frac{(I) / \Im 3 \cdot 3}{(J) / \Im 9 \cdot 5}\right) \times 100$	<u>98.9</u> %	%

Pass/Fail: Pass	Reviewed By:	Date:
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Drive Cylinder Test Report

4 441 6-5 4 5 4 4 4 6 6		Page 24 of 22/
	roject No.: 101, 07, 08  est No.: 5-3 1-5  ocation: 14,1,565,310 E 442,3300 E,Born  uclear Density Test No.: 12 A	Soil Type: / 5 /-  Proctor Value (J): _ / 1/2 /5

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /.16_ lbs	Drying Pan Tare (C)/6/ <sub>4</sub> 3 g lbs
Weight of Cylinder and Soil (B) g 5,14 lbs	Weight of Pan and Wet Soil (D) 36/12 glbs
Cylinder Volume (F) <u>, 0.341</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 340,4 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 361,3 & -(E) & 20.9 \\ (E) 340,4 & -(C) & 179.1 \end{pmatrix} x 100 $	(G)//, 7 %	%
Wet Density		
$\frac{(B) 5.74 - (A) 3.98}{((F) .0347)}$	(H) _1/6.7 pcf	pcf
Dry Density		
$\frac{(H) \qquad // \zeta \cdot 7}{\left[1 + \left(\frac{(G)}{100'}\right)\right]}$	(I)/ <i>O4</i> . 5 <sup>-</sup> pcf	pcf
Compaction		
$\left(\frac{(I) - 104.5'}{(J) - 100}\right) \times 100$	95.4 %	%

Pass/	Fail: PASS	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

Page 25 of 221

Drive Cylinder Information	Moisture Conlent Sample
	Drying Pan Tare (C) /L0 · 2 g lbs
	Weight of Pan and Wet Soil (D) 310, 2 g lbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 341.8 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 & 4 & 2 & -(E) & 13 & 4 \\ (E) & 3 & 4 & 7 & -(C) & 18 & 6 \end{pmatrix} x 100$	(G)	%
Wet Density		
(B) 5./6 -(A) 4,0 ((F) ,0741)	(H) <u>117.3</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad //7.3}{\left[1+\left(\frac{(G) \qquad /\varpi \ /}{100'}\right)\right]}$	(I) _/06.5 pcf	pcf
Compaction		
$\left(\frac{(I) - 10 \text{ for } 5}{(I) - 10 \text{ for } 5}\right) \times 100$	97.3 %	%

Pass/Fail: Las	Reviewed By:	Date:
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#### CEC

Drive Cylinder Test Report

Page 27 of 221

Project:	Vista Landtll	G11.3
Project No	101,07.08	
Test No.:	5-6	1-5
Location:	NI, 565, 300, E492	,300 E Bm
	ensity Test No.: HA	
Danort No		

Soil Type: SI=
Proctor Value (I): 135.5 Standard ASTM D698 Modified ASTM 1557
Optimum Moisture Content: 10-7 %
Sampled By: T. Bradford.

Report No.:	Bampied By. 77 877787 C.
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 159.9 g lbs
Weight of Cylinder and Soil (B) g _5,34 lbs	Weight of Pan and Wet Soil (D) 359-8 glbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) 377. Yg lbs

	Drive Cylinder	The state of the s
Moisture Content		
$ \left( \frac{(D) \ 359.9 - (E) \ 22.1}{(E) \ 33.25 - (C) \ /77.9} \right) \times 100 $	(G) <u>/2.4</u> %	%
Wet Density		
(B) 5.34 -(A) 4,20 ((F) ,034/ )	(H) <u>123.1</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /27.2}{\left[1+\left(\frac{(G) \qquad /2.4}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(f) / \circ f, 6}{(J) / \circ f \circ f}\right) x  100$	100,1%	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### CEC

Drive Cylinder Test Report

does these Court	Page 26 of 22
Project: Vista Landlill Coll-3 Project No.: 101 07.07	Date:
Test No.: 5-5 L-9	Proctor Value (J): 129,5 pcf
ocation: MS64,800 E, 492,300 E B.A.	Standard ASTM D698 Modified ASTM 1557
Vuclear Density Test No.: A A	Optimum Moisture Content: 1810
Report No.: 5	Sampled By: T. Bradford
Absolution with the manufacture of the second	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/. / 6 _ lbs	Drying Pan Tare (C) 1.59 g lbs
Weight of Cylinder and Soil (B) g _ <u>529</u> lbs	Weight of Pan and Wet Soil (D).359.7 glbs
Cylinder Volume (F) <u>. 634/</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 345.6 g lbs

-	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 357.7 - (E) \ \cancel{/4/.3}}{(E) \ 345.6 - (C) \ \cancel{/85.7}}\right) \times 100 $	(G) <u>7.7</u> %	%
Wet Density		
(B) 5.29 -(A) 4.13 (F) 0.391	(H)/2/./_ pcf	pcf
Dry Density		
$\frac{(H) \qquad / 2 / , /}{\left[1 + \left(\frac{(G) \qquad 7 \cdot 7}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) / \lambda \cdot \psi}{(J) / 3 \cdot 5}\right) \times 100$	/02.6 %	%

Pass/Fail:	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

#### CEC

best State Court	Page 28 of 22
roject: Vista Livell, 1 611 3	Date:
'est No.: 5 - 7 L-10	Proctor Value (J): /o 9 . 5 pcf
ocation: N.1564, 800 E 492, 300 E. Bern	✓ Standard ASTM D698 Modified ASTM 1557
luclear Density Test No.: NA	Optimum Moisture Content: 10,0
eport No.:5	Sampled By: T. Bradlord
Drive Cylinder Information	Moisture Content Sample

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 154.5 g lbs
Weight of Cylinder and Soil (B) gS, 33_ lbs	Weight of Pan and Wet Soil (D) 357.5 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3414 g lbs

	•		
	Drive Cylinder	Nuclear Gauge	
Moisture Content			
$ \left( \frac{(D) \ 355.9}{(E) \ 344.4} - (E) \ 18.5 \right) \times 100 $	(G) <u>/0.2</u> %	%	
Wet Density			
(B) <u>5.33</u> -(A) <u>4.17</u> ((F) , 0.341 )	(H) /22.3 pcf	pcf	
Dry Density			
$\frac{(H) \qquad \cancel{123.2}}{\left[1+\left(\frac{(G) \qquad \cancel{100'}}{100'}\right)\right]}$	(I)///.8 pcf	pcf	
Compaction			
$\left(\frac{(I) - // I \cdot \sqrt{3}}{(J) - \sqrt{5} \sqrt{5} \cdot \sqrt{5}}\right) \times 100$	102.1 %	%	

Pass/Fail: Ph53	Reviewed By:	Date:	-
Rev 10/98 CF223/CPS			

Cylinder Volume (F) \_\_\_\_341 ft<sup>3</sup>

Weight of Pan and Dry Soil (E) 338.2 g \_\_\_\_\_lbs

anes Energy Canad	Page 24 of 22
Project: Vista Landfill C(1-3) Project No.: 101, 67/08 TEST No.: 5-8 Location: 4156,025 C:492,500 E Brand Report No.: 5	Date:

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) _/ / (g lbs	Drying Pan Tare (C) / 4 / 3 g lbs
	Weight of Pan and Wet Soil (D) 36/, 3 g lbs
Cylinder Volume (F) , 0 34 l ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 340, 8 g lbs

	. Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} \underline{(D) \mathcal{S} \mathcal{E} / \cdot 3} & -(E) & \mathcal{Z} \mathcal{O} \cdot 5 \\ \underline{(E) \mathcal{J} \mathcal{A}_0, \mathcal{E}} & -(C) & \underline{/79, 5} \end{pmatrix} \times 100 $	(G)//. *	%
Wet Density		
(B) 5,31 -(A) 4,15" ((F) . 9341)	(H) /21,7 pcf	pcf
Dry Density		
$\frac{(H) \qquad /2 / \cdot 7}{\left[1 + \left(\frac{(G) \qquad // \cdot 4}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) / 0 \stackrel{\circ}{q}, 2_{-}}{(J) / o \stackrel{\circ}{q}, 5^{-}}\right) \times 100$	99.7 %	%

Pass/Fail: P455	Reviewed By:	 Date:	
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Drive Cylinder Test Report

Page_	31	of _	22	
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Project: Wilfa Landell Q11-3 Project No.: /o/. 07. 0 8

Test No.: 5-10 

Report Pro.:	Sampled By. 7. Strate C
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // U 1bs	Drying Pan Tare (C) 159.9 g Ibs
Weight of Cylinder and Soil (B) g S.62 lbs	Weight of Pan and Wet Soil (D) 357-9 g lbs
Cylinder Volume (F) <u>034</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 337-9 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) .35 ?. ? & -(E) .25 .5 \\ (E) .23 ?. ? & -(C) /75 .0 \end{pmatrix} x 100$	(G) <u>/4.3</u> %	%
Wet Density		
(B) _5,1,2(A) _4,46 ((F) ,0341 _)	(H) /30,8 pcf	pcf .
Dry Density	***************************************	
$ \frac{(H) \qquad /30 \cdot \ell}{\left[1 + \left(\frac{(G) \qquad /24.3}{100}\right)\right]} $	(I)	pcf
Compaction		
$\left(\frac{(I) - \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}}{(I) - \frac{1}{2} \frac{1}{2} \frac{1}{2}}\right) \times 100$	/02.6 %	%

Pass/Fail: PASS	Reviewed By:	Date;
Rev.10/98 CF223/CPS		

boot Bust Mant	Page 30 of 221
Project: <u>Victor Land Lill C11:3</u> Project No.: <u>Lal.OZ</u> o K	Date: 05/17/2014 Soil Type: 55
Test No.: 5-9 L-6	Proctor Value (J):pcf
ocation: NI, 515, 300 E 452. 300 E 8020	
Juclear Density Test No.: NA	Optimum Moisture Content: 10, 2 %
Report No.:	Sampled By: By ad ford
- Drive Cylinder Information.	Moisture Content Sample
Weight of Cylinder (A) g/_/_ lbs	Drying Pan Tare (C) 16 0, 2 g lbs

Weight of Cylinder and Soil (B) g 5./ 9 lbs Weight of Pan and Wet Soil (D) 36.0.2 g lbs

	Drive Cylinder	
Moisture Content		Parameter State of the Control of th
$ \begin{pmatrix} (\underline{D}) & 3 \underline{L}_{\theta}, \underline{\lambda} & -(\underline{E}) & 2 \underline{Q}, \underline{\Delta} \\ (\underline{E}) & \underline{X} & \underline{X} & \underline{X}, \underline{\lambda} & -(\underline{C}) & \underline{/} & \underline{X}, \underline{\emptyset} \end{pmatrix} \times 100 $	(G) <u>12.4</u> %	%
Wet Density		
$\frac{(B)  \mathcal{S}, I \stackrel{\frown}{\gamma}  -(A)  \mathcal{U}_{\gamma, \Omega} \stackrel{\frown}{3}}{((F)  , \circ 3 \mathcal{U}_{1})}$	(H)	pcf
Dry Density	•	
$\frac{(H) \qquad //\mathscr{S}, 2}{\left[1 + \left(\frac{(G) - /\mathscr{A} \cdot \psi}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		,
$\left(\frac{(I) - f \circ f_{s}^{2}}{(I) - f \circ g_{s}^{2}}\right) \times 100$	91.1 %	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Drive Cylinder Test Report

State Land Cont	Page 32 of 22
Project: Vista (Antici) C// 3  Project No.: 101.07.08  Test No.: 5-11  Location: V1,564, 950 E492, 200 F150V  Nuclear Density Test No.: 1/h  Report No.: 5	Date:

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g/ lbs	Drying Pan Tare (C) 16/. 3 g lbs
Weight of Cylinder and Soil (B) g 5,53 lbs	Weight of Pan and Wet Soil (D) 36/13 glbs
Cylinder Volume (F), <u>0341</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 337. / g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 1 & 1 & 2 & 4 & 2 & 2 & 4 & 2 & 4 & 2 & 4 & 2 & 4 & 4$	(G) <u>/3,8′</u> %	%
Wet Density		
(B) 5.53 -(A) 4.37 ((F) , 0.341_)	(H)	pcf
Dry Density		
$\frac{(H) \qquad /2 \cdot ? \cdot 2}{\left[1 + \left(\frac{(G)  /3 \cdot 8}{100'}\right)\right]}$	(I) 1/2,7 pcf	pcf
Compaction		
$\left(\frac{(I)  //2.7}{(J)  //1/.5}\right) \times 100$	<u></u> %	%

Pass/Fail: PASS	Reviewed By:	Date:	
D. Inha grassiana			

ed Marie Thea	Page 33 of 22.
oject: <u>Vista Landfill</u> <u>ON-3</u> oject No.: 101.07.08 st No.: <u>5-12</u> <u>L-1 5B</u> cation: <u>41545050 F-1572</u>	Date:0% / 17/20/2
port No.:	Optimum Moisture Content: 10.0 % Sampled By: T. Br42-lo11

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g /1/6 lbs	Drying Pan Tare (C) 159.9 g lbs
Weight of Cylinder and Soil (B) g 5,24 lbs	Weight of Pan and Wet Soil (D) 357.7 glbs
Cylinder Volume (F) <u>, 034</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3+0.2 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 359.9 & -(E) & /9.7 \\ (E) & 340.2 & -(C) & /80.3 \end{pmatrix} \times 100$	(G) <u>/0,9</u> %	%
Wet Density		
(B) 5,26 -(A) 4,/ ((F) ,034/)	(H) /2012 pcf	pcf
Dry Density		
$ \frac{(H) \qquad /2 \circ /2}{\left[1+\left(\frac{(G) \qquad /\circ , \circ}{100'}\right)\right]} $	(I)	pcf
Compaction		
$ \left( \frac{(I) / \circ \S \cdot U}{(J) / \circ \S, \S} \right) \times 100 $	99,0 %	%

Pass/Fail: 8055	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Drive Cylinder Test Report

	Page	35 of 2	21
Date: 8/20		۷	
Soil Type:S	=		
Proctor Value (J):	1/1.5		pcf
Standard ASTM	D698	Modified ASTM	1 1557
Optimum Moisture C	ontent:	15.9	%
Sampled By:			

	Page 35 of 22
Project: Vista Landfill Col-3	Date: 8/20/20/2
Project No.: 101.07, 28	Soil Type: SF
Test No.: 6-2 L11	Proctor Value (J): ///. 5 pcf
Location: 11,1,565,000 E 472,300 EB.m.	✓ Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: No.:	Optimum Moisture Content: 15.9 %
Report No.:	Sampled By: To Bradbid
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _// L lbs	Drying Pan Tare (C) 110.2 g lbs
Weight of Cylinder and Soil (B)g _5,42_ lbs	Weight of Pan and Wet Soil (D) 360, 2 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 336 - 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 360 \cdot 2 & -(E) & 23 \cdot 3 \\ (E) & 336 \cdot 9 & -(C) & /76 \cdot 7 \end{pmatrix} \times 100$	(G)	%
Wet Density		
(B) 5,42 -(A) 4,26 ((F) , 034	(H) 124,9 pcf	pcf
Dry Density		
$ \frac{(H) \qquad / \cancel{2} \cancel{4} \cancel{9}}{\left[1 + \left(\frac{(G)  /\cancel{3}, 2}{100^{\circ}}\right)\right]} $	(I)//0,3_ pcf	pcf
Compaction		
$\left(\frac{(I) - 1/0.3}{(J) - I)I.3}\right) \times 100$	98,5 %	%

Pass/Fail:	Reviewed By:	Date:	
Part 10/09 CE222/CD9			

Project: Kista La.	Ndf.ll	C-11-3	Date: のな / る
Project No.: _/0/. 07	. 08		Soil Type;
Test No.: 6 -/		4-6	Proctor Value (J):
Location: 11-1, 545,35	DE, 492	300 I Be-	

221	_ of _	34	Page	
			20/2012	1/0
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nof			1015	D.

Project No.: _/ø/. \alpha 7. \alpha 8	Soil Type:
Test No.: 6 -/ L-6	Proctor Value (J): /o 1,5
Location: 11-1, 565, 300 E, 492, 300 E Be-	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: No.: No.:	Optimum Moisture Content: 10.0
Report No.: 6	Sampled By: T. Brad Lack
Drive Cylinder Information	Moisture Content Sample

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./ Ulbs	Drying Pan Tare (C) 16 0, 2 g lbs
Weight of Cylinder and Soil (B)g5',39 lbs	Weight of Pan and Wet Soil (D) 360, 2 g lbs
Cylinder Volume (F) 1034-1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 34/. 4 glbs

•	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 60, 2 & -(E) & 1 & 6 & 7 \\ (E) & 3 & 41, 4 & -(C) & 7 & 7 & 7 \end{pmatrix} \times 100 $	(G) <u>10,4</u> %	%
Wet Density		
(B) 5,39 -(A) 4,23 ((F) ,0341)	(H) <u>/24.0</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2 + 2}{\left[1 + \left(\frac{(G) - /0 \cdot \Psi}{100'}\right)\right]}$	(I)//2.3 pcf	pcf
Compaction		
$\left(\frac{(I) - J/2 \cdot 3}{(J) - J \cdot 0^{G}/5}\right) \times 100$	<u>/02.L</u> %	%

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

### CEC

Drive Cylinder Test Report

Ener Brand Band	Page 3 4 of 22/
Project: Vista hwaf, 11 C:11-3	Date: 08/20/20/2

Project No.: 101.
Test No.: 6-3 4-11 

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1./6 lbs	Drying Pan Tare (C) /6/, 3 g lbs
Weight of Cylinder and Soil (B) g _5.29 lbs	Weight of Pan and Wet Soil (D) 36/, 3 glbs
Cylinder Volume (F)f ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 339.4 g lbs

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 2 & 1 & 3 & 3 & 3 & 7 & 7 & 7 & 7 & 7 & 7 & 7$	(G) 12.0 %	%
Wet Density		
(B) 5,29 -(A) 4,13 ((F) ,0341)	(H) /2// pcf	pcf
Dry Density		
$\frac{(H) / 2 / 1}{\left[1 + \left(\frac{(G) / 2 / 2}{100}\right)\right]}$	(I)/08,/_ pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0}}{(J) \cancel{0} \cancel{0} \cancel{0} \cancel{0}}\right) x  100$	98,7%	%

Pass/	Fail: <u>fbss</u>	Reviewed By:	 Date:	
Barr 10809	OF222/ORE			

Cylinder Volume (F) \_\_\_\_\_\_\_ f ft<sup>3</sup>

Real Blaces Witness	Page 37 of 02/
roject: V15f1 /ANLfill Ce/1-3	Date:
est No.: 6-4 L-7	Proctor Value (J): 10 9.5 pcf
ocation: NI, S.S. 500 E, 492, 300 E3-	Standard ASTM D698Modified ASTM 1557
fuclear Density Test No.:/A	Optimum Moisture Content: 10.0 %
eport No.: <u>6</u>	Sampled By: T. Br4dlovd
Drive Cylinder Information	/Moisture Content Sample
Weight of Cylinder (A) g /1/ L 1bs	Drying Pan Tare (C) _/59-9 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 359, 4 g ibs
Cylinder Volume (F) <u>1034</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 340.   g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 & 9 & 9 & -(E) & /9 & 8 \\ (E) & 3 & 40 & 1 & -(C) & /80 & 2 \end{pmatrix} \times 100$	(G)%	%
Wet Density _		
(B) 5.18 -(A) 4.02 ((F) 10381	(H) pcf	pcf
Dry Density		
$\frac{(H) / 7.7}{\left[1+\left(\frac{(G) / 7.0}{100}\right)\right]}$	(I) 106.2 pcf	pcf
Compaction		
$\left(\frac{(I) / 6 \cdot I \cdot 2}{(J) / 6 \cdot 5 \cdot 5}\right) \times 100$	97,0 %	%

Pass/Fail: Pass	Reviewed By:	Date:	
nv 10/09 CE222/CDS			

CFC	Drive Cylinder Test Rep
Project: \( \tiny \) \( \tiny	Date: 08/04/2012  Soil Type: 5/  Proctor Value (1): 197, 5  Standard ASTM D698 Modified ASTM 155  Optimum Moisture Content: 10.0  Sampled By: 7:874 LB-2
Drive Cylinder Information	Moisture Content Sample  Drying Pan Tare (C) / 6/. 3 g lbs
Weight of Cylinder and Soil (B) g 5',17  Cylinder Volume (F) 103'4-1 ft <sup>3</sup>	Ibs Weight of Pan and Wet Soil (D) 341.3 g lbs  Weight of Pan and Dry Soil (E) 341.8 g lbs

	Drive Cylinder	
Moisture Content	3 (13.1 (13.4 (13.1	
$\begin{pmatrix} (D) & 361 & 3 & -(E) & 19.5 \\ (E) & 341 & 8 & -(C) & 180.5 \end{pmatrix} \times 100$	(G) <u>/0.7</u> %	%
Wet Density		
(B) 5.17 -(A) 4 A   ((F) .0341)	(H)pcf	pcf
Dry Density		
$\frac{(H) - \frac{1}{7 \cdot 6}}{\left[1 + \left(\frac{(G) - \frac{1}{2} \cdot 2}{100^{\circ}}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\begin{array}{c c} (I) & /0 & 6 & 1 \\ (J) & /99, 5 \end{array}\right) x  100$	96,9 %	%

Pass/Fail: Poss	Reviewed By:	Date:
D 10/DD CPMAN/CDD		

CEC	Drive Cylinder Test Report  Page 38 of 22/
Project: Vista (4) 411 C(1.3  Project No.: 101.07.08	Date: <u>08/20/20/2</u> Soil Type: <u>5j^2</u>
Test No.: 6-5 4-12	Proctor Value (J): / 69.5 pcf
Location: N1, 565,000 E492, 300 EB-	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: _ ~ ^	Optimum Moisture Content: 10 0 %
Report No.:	Sampled By: T. Bradford
Drive Cylinder Information	- Moisture Content Sample
Weight of Cylinder (A) g	Drying Pan Tare (C)/60.2g lbs
Weight of Cylinder and Soil (B) g 5.24 lbs	Weight of Pan and Wet Soil (D) 3, CO, 2 glbs
Cylinder Volume (F) <u>, クン・ト</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 33 2. 2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} \frac{(D)3! \circ \cdot 1}{(E)3322} - \frac{(E)23! \circ O}{(E)122! \circ O} \end{pmatrix} \times 100 $	(G) (16.33 %	%
Wet Density		
(B) 5.24 -(A) 4.08 ((F) ,0341)	(H) _//9/ b pcf	pcf
Dry Density		
$ \frac{(H) \qquad // \ 9 . 6}{\left[1 + \left(\frac{(G) \qquad /6 . 5}{100'}\right)\right]} $	(I) <u>/02/8</u> pcf	pcf
Compaction		
$ \begin{pmatrix} (I) & / o & 2 & / \delta \\ (I) & & & \\ \end{pmatrix} x 100 $	93.9/%	%

Fail Fail			
Pass/Fail: FAIL	Reviewed By:	Date:	_
Rev.10/98 CF223/CPS	Refest 6-7		

CCC Refest	Drive Cylinder Test Report  Page <u>40</u> of 22 }
Project: Vista Land till Coll-3	Date: 08/20/24/L Soil Type: SF-
Project No.: 101,07,08	Soil Type:
Test No.: 6-7 L-12  Location: 11,515 600 E491,300 E Derry	Proctor Value (J): /0 9-5 pcf Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Standard ASTM D698 Modified ASTM 1557 Optimum Moisture Content: _/0 . 0 %
Report No.: 6	Sampled By: 7. Bradler
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1.//_ lbs	Drying Pan Tare (C) _/57. 7 g lbs
Weight of Cylinder and Soil (B) g5,21 lt	os Weight of Pan and Wet Soil (D) 359. 9 glbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) .3 59. & -(E) 2 / 7 \\ (E) .323.2(C) / 78.3 \end{pmatrix} \times 100$	(G) <u>12.2</u> %	%
Wet Density		
(B) 5.2 (-(A) 4.05 ((F) 034/)	(H)	pcf
Dry Density		
$\frac{(H) \qquad //3 \cdot \delta'}{\left[1 + \left(\frac{(G) \qquad /2 \cdot /2}{100'}\right)\right]}$	(I)/ S.F. 4 pcf	pcf
Compaction		
$\left(\frac{(I) - 105\%}{(J) - 109\%}\right) \times 100$	9(.7%	%

Pass/Fail: PA5)	Reviewed By:	Date:
Rev.10/98 CF223/CPS	Rotest Sov 6-5	

Cylinder Volume (F) \_12341 ft3

Project: Vista landfill	911-3
Project No.: 101.01.08	
Test No.: 6-8	L-1 SB
Location: N-1,565,150 E 49	2,200 =100
Nuclear Density Test No.:	
Report No.: 6	

Date: 08/30/2012	
Date: 08 / 30 /2012	
Soil Type:SB	
Proctor Value (J):/39. J	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: 10	, 0 %
Sampled By: T. Brade	ford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g _/./ bs	Drying Pan Tare (C) /60.2 g lbs
Weight of Cylinder and Soil (B) gS132_ lbs	Weight of Pan and Wet Soil (D) 260.2 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) _339.5 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 366.2 & -(E) & 20.7 \\ (E) & 339.5 & -(C) & 179.3 \end{pmatrix} x 100 $	(G) _//, \\\ %	%
Wet Density		
(B) 5.32(A) 4./6 ((F) 10341)	(H) <u>/ えぇ. つ</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /22 \cdot \circ}{\left[1 + \left(\frac{(G)  //.5}{100'}\right)\right]}$	(I)/89.4_ pcf	pcf
Compaction		
$\left(\frac{(I) / \circ Q, \checkmark}{(J) / \circ Q, \checkmark}\right) \times 100$	99.9 %	%

Pass/Fail: Pias 5	Reviewed By:	Date:	
10/00 OE333/CDC			

#### Drive Cylinder Test Report

## CEC

Page 43 of 221

Project: VISTA LANDON G/1-3 Project No.: 101-07.08	Date: 58/ 40/20/1 Soil Type: 53
Test No.: 6-10 L-1 5/5	Proctor Value (J): 109-5
Location: MIS65/100 E492-100 Floor	✓ Standard ASTM D698 Modified ASTM 15
Nuclear Density Test No.: MA	Optimum Moisture Content: 10,0
Report No.:	Sampled By: T. Brickland

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g // € lbs	Drying Pan Tare (C)/59-9 g lbs
Weight of Cylinder and Soil (B) g5.25 lbs	Weight of Pan and Wet Soil (D) 359-9 g lbs
Cylinder Volume (F) (OG+1) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 38/12 glbs

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) & 35\% & -(E) & 2 & 1 & 7 \\ (E) & 33\% & -(C) & 17\% & 3 \end{pmatrix} \times 100 $	(G) /2,2 %	%
Wet Density		
$\frac{(B)  5 \cdot \partial \cdot 5  -(A)  4 \cdot \circ \circ}{((F)  \circ \circ 3 + 1)}$	(H) // 9 . 9 pcf	pcf
Dry Density		
$\frac{(H) \qquad //??}{\left[1+\left(\frac{(G)  / 2}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) - /96.5}{(J) - 109.5}\right) \times 100$	97.6 %	<u> </u>

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Court Brown Charts	Page 42 of 221
Project: Vista LANAFA ( GH. 3	Date: 08/20/20/1-
Test No.: 6-9 L-1 5b Location: N1,564,900 E443., 150	Proctor Value (J): /04.5 pcf  Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: $ hline A $ Report No.: $ hline A $	Optimum Moisture Content: 10,0 % Sampled By: 7, 3,444,4
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g ///- lbs	Drying Pan Tare (C) /LO.2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 & \ell & \ell & 2 & -(E) & 2 & \ell & \ell \\ (E) & 3 & 3 & \ell & 8 & -(C) & 1 & 7 & 7 & \ell & \ell \end{pmatrix} x  100$	(G) _//.4_ %	ļ,
Wet Density		
(B) 5,33-(A) H.17 ((F) 10341)	(H) _/22.3 pcf	pcf
Dry Density		
$\frac{(H) \qquad /22.3}{\left[1+\left(\frac{(G)}{100}\right)\right]}$	(I)	pc

Weight of Cylinder and Soil (B) \_\_\_\_\_ g \_\_\_5.27 lbs Weight of Pan and Wet Soil (D) 360.2 g \_\_\_\_ lbs

Weight of Pan and Dry Soil (E) 339 . 8 g

100.3 %

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CP8		

#### CEC

SEATH COLUMN COLUMN	Page 44 of 22)
Project No.: 181107.08  Test No.: 6-11 1-1 5B  Location: N. 365, 160 E 453.190 Flore	Date:08 / 20 / 2.012
Nuclear Density Test No.: N/A	
Report No.:	Sampled By: T. Bralland

Report No.;	Sampled By:
Drivé Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _///. lbs	Drying Pan Tare (C)/6/16 3 g Ibs
Weight of Cylinder and Soil (B) g _5. 22 lbs	Weight of Pan and Wet Soil (D) 361, 2 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 40 . 6 glbs

:	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3c / \cdot 3 & -(E) & 2D \cdot 7 \\ (E) & 3 \cdot 6 \cdot 6 & -(C) & 179 \cdot 3 \end{pmatrix} \times 100 $	(G)//, 5 %	<u> </u>
Wet Density		
(B) 5,22-(A) 4.06 ((F) ,034/)	(H)/4.   pcf	pcf
Dry Density		
$\frac{(H) \qquad // ?, \qquad  }{\left[1 + \left(\frac{(G)}{100'}\right)\right]}$	(I)/0.6 % pcf	pcf
Compaction	·	
$\left(\frac{(I) - / \circ \ell \cdot \delta}{(J) - / \circ 5 \cdot 5}\right) \times 100$	97.5 %	%

Pass/Fail: PASS	Reviewed By:	Date:
1000 00000000		

Weight of Cylinder and Soil (B)

Cylinder Volume (F) 10341 ft3

nat Blead Viland	Page 45 of 22 /
oject: V/5+A LANDA)1 G/1-3  oject No.: 6-10-07,08  st No.: 6-10-07-08  st No.: 6-10-08  st	Date:   08/23 /20/17
Drive Cylinder Information	Moisture Content Sample
Joight of Culinday (A) g ///- the	Drying Pan Tare (C) 1/4/8 g lbs

g 5.18 lbs Weight of Pan and Wet Soil (D) 311.3 g

Weight of Pan and Dry Soil (E) 342.1 g

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & \ell & \ell & -\ell & \ell & \ell & \ell \\ (E) & 3 & \ell & 2 & \ell & -\ell & \ell & \ell & \ell \end{pmatrix} x 100 $	(G) 10,1 %	%
Wet Density		
(B) 5, 18 -(A) 4, CD ((F) 0341 )	(H)	pcf
Dry Density		
$ \frac{(H) \qquad //7.5}{\left[1+\left(\frac{(G) \cancel{o}, \cancel{b}}{100'}\right)\right]} $	(I)/o & · & pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{\circ}\cancel{\circ}\cancel{\circ}\cancel{\circ}\cancel{\circ}\cancel{\circ}}{(J)\cancel{\circ}\cancel{\circ}\cancel{\circ}\cancel{\circ}\cancel{\circ}}\right) \times 100$	97.4 %	%

Pass/Fail: Pass/	Reviewed By:	Date:
10MB 07222/OBG		

ne has ter	Drive Cylinder Test Report
	Page 47 of 22]

ge <u>47</u> of <u>22</u>] Project: V/STA LANDfill Coll 7

Project No.: Zol, 07.08

Test No.: Zol, 07.08

Test No.: Y-1

Location: ½1.565/250 5 442.250 L- [56]

Nuclear Density Test No.: M/A

Report No.: 7 8/21/2012 58 Date: 

1.0001110,1	
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/.  L lbs	Drying Pan Tare (C) /60, 2 g lbs
Weight of Cylinder and Soil (B) g 4.fi lbs	Weight of Pan and Wet Soil (D) 360.2 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 34+.5 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 360, 2 & -(E) & 16.7 \\ (E) 344.5 & -(C) & 184.3 \end{pmatrix} \times 100 $	(G) <u>8, 5</u> %	%
Wet Density		
(B) 4.95 -(A) 3.79 ((F) , 034-1)	(H) // / pcf	pcf
Dry Density		
$\frac{(H) \qquad ///. \ /}{\left[1 + \left(\frac{(G)  \mathscr{L},  \mathcal{S}}{100'}\right)\right]}$	(I) 102,4 pcf	pcf
Compaction		
$\left(\frac{(I) - 1 \circ I \cdot I}{(I) - 1 \circ I \cdot I}\right) \times 100$	93.5 /%	%

(FALL)		
Pass/Fail: ( //) I L )	Reviewed By:	Date:
Rev.10/98 CF223/CPS	AK Rodest in 75	

Love Cons.	Page 44 of 221
Project No.:	Date: <u>UR</u> 20/20/2- Soil Type: <u>5B</u> Proctor Value (1): /05.5 pcf
	Standard ASTM D698 Modified ASTM 1557 Optimum Moisture Content: / 0, 0 %
Report No.: _ &	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g _ /.   6   lbs	Drying Pan Tare (C) /4), 3 g lbs
Weight of Cylinder and Soil (B) g5.4 L lbs	Weight of Pan and Wet Soil (D) 361, 3 glbs
Cylinder Volume (F) . 0341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 33/, / g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \underbrace{361.3}_{(E)} - (E) \underbrace{30.2}_{(E)}}{(E) \underbrace{331.1}_{(E)} - (C) \underbrace{/(\widehat{I};\widehat{I})}_{(\widehat{I};\widehat{I})}} \right) \times 100 $	(G)%	%
Wet Density		
(B) 5,42 -(A) 4,26 ((F) ,0341)	(H) <u>/24.9</u> pcf	pef
Dry Density		
$\frac{(H) \qquad / \lambda \not + \cdot 9}{\left[1 + \left(\frac{(G) - // \cdot \beta^2}{100^{\circ}}\right)\right]}$	(I)//_2 pcf	pcf
Compaction		
$ \left(\frac{(I) / 2 \cdot 3}{(J) / 2 \cdot 5}\right) \times 100 $	/02.6 %	%

Pass/Fail: Piss	Reviewed By:	Date;
10/00 CE222/CBS		

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Project: Vista Laulfill Cell -3	Date: 08/21/2012
Project No.: 10(. o1. o)	Soil Type:
Test No.: 7 - 2 5 B	Proctor Value (J): 107.8 pef
Location: -N-1, 565, 350 = 492, 150 1-1	Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: N/A	Optimum Moisture Content:/2 . \%
Report No.: 7-2	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample

Report No.:	bandica by:
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g _/_ lbs	Drying Pan Tare (C) 159.9 g lbs
Weight of Cylinder and Soil (B)g _5.14 lbs	Weight of Pan and Wet Soil (D) 359 9 glbs
Cylinder Volume (F) _10341 ft	Weight of Pan and Dry Soil (E) 336.年 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (\underline{D}), \underline{359.9}, -(\underline{E}), \underline{23.5}, \\ (\underline{E}), \underline{336}, \underline{4}, -(\underline{C}), \underline{776.5} \end{pmatrix} \times 100 $	(G) %	%
Wet Density		
(B) S, 19 -(A) 4, 03 ((F) 03 4-1)	(H)	pcf
Dry Density		
$\frac{(H) \frac{1/8 \cdot 2}{100'}}{\left[1 + \left(\frac{(G) - 13 \cdot 3}{100'}\right)\right]}$	(I) <u>104-3</u> pcf	pcf
Compaction		
$\left(\frac{(I) - 1/2 \cdot 9 \cdot 7}{(I) - 1/2 \cdot 7 \cdot 8}\right) \times 100$	96.8 %	%

Pass/	Fail:	Reviewed By:	Date:
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Project: Nista Landi	11 64-3
Project No.: 101.07.08	
Test No.: _ 7-3-	4-1 56
Location: N1, 501, 350 E	192 - 050 N.B.
** * * * * * * * * * * * *	

Date: 08/21/2012	
Soil Type: 5B	
Proctor Value (J): 109.5	pcf
Standard ASTM D698 Modifi	ed ASTM 1557
Optimum Moisture Content: /Q. O	%

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g _/,/ \subseteq lbs	Drying Pan Tare (C) 161.3 g lbs
Weight of Cylinder and Soil (B) g 5.36 lbs	Weight of Pan and Wet Soil (D) 361.3 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 44. 4 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & (1 \cdot 3) & -(E) & (1 \cdot 9) & (2 \cdot 9) \\ (E) & 3 & (1 \cdot 9) & (2 \cdot 9) & (2 \cdot 9) & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) & (2 \cdot 9) & (2 \cdot 9) & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 3 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) \\ (E) & 4 & (2 \cdot 9) & (2 \cdot$	(G)//. Ø %	%
Wet Density		
(B) 5/36 -(A) 4-2 ((F) -0341 )	(H) /23.2 pcf	pcf
Dry Density		
$\frac{(H) \frac{/23.2}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) / I / 2}{(J) / 6 9.5}\right) \times 100$	101,4 %	%

Pass/Fail: P455	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Drive Cylinder Test Report

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	Page
oject: <u>Vista Landfill</u> Gu-3	Date: 08/31/2012 Soil Type: 5B
st No.: 7-5 Refer A 1.7-1 4-1	Proctor Value (J): /ef. \ pcf
cation: N.1565, 350 E 491 250 6-15h	Standard ASTM D698 Modified ASTM 1557
iclear Density Test No.: N/P	Optimum Moisture Content: /0.0 %
port No.:	Sampled By: T. Bradford

Drive Cylinder Information	-Moisture Content Sample
I.	Drying Pan Tare (C) 16/6 g lbs
Weight of Cylinder and Soil (B)g 5.11 lbs	Weight of Pan and Wet Soil (D) 36/1/3 glbs
Cylinder Volume (F) 10314 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 34615 glbs

Moisture Content	Drive Cylinder	Nuclear Gauge
$ \begin{pmatrix} (D) & 3 & C & C & C & 2 & C & 8 \\ (E) & 3 & 4 & 5 & C & 7 & 9 & 2 \end{pmatrix} x 100 $	(G)//, <u>6</u> _ %	%
Wet Density  (B) 5/6 -(A) 4, 5  ((F) 1034/	(H) _//7,7 pcf	pcf
Dry Density $ \frac{(H) \qquad 1/7 \cdot \cancel{3}}{\left[1 + \left(\frac{(G) \qquad 1/3 \cdot \cancel{4}}{100^{\circ}}\right)\right]} $	(I)/5.5./_ pcf	pcf
Compaction $ \begin{pmatrix} (I) & 1 \otimes 5 & 1 \\ (J) & 1 \otimes 5 & 5 \end{pmatrix} \times 100 $	96.0 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS	Redest for 7-1	_

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Page 50 of 221

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Project: Vista Andfal 411-3	Date: 08/31/2012
Project No.: /0/, 07.08	Soil Type: 5B
Test No.: 7-4 /-/ 55	Proctor Value (J): 107,8 pcf
ocation: 6555-350 F-491-950 N. hem	Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: N 4	Optimum Moisture Content: /2 ·/
Report No.:	Sampled By: T. Bradfort
Drive Cylinder Information	Moisture Content Sample

Weight of Cylinder (A) g /./ bs	Drying Pan Tare (C) 159. 9 g lbs
Weight of Cylinder and Soil (B) g 5:20 lbs	Weight of Pan and Wet Soil (D) 357.7 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3440. (glbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 359, 9 & -(E) & 19, 3 \\ (E) & 390, 6 & -(C) & 180, 7 \end{pmatrix} \times 100$	(G) <u>/0,7</u> %	%
Wet Density		
(B) 5,20, -(A) 4,04 ((F) 1034/_)	(H)	pcf
Dry Density		
$ \frac{(H) \qquad 1/8.5^{\circ}}{\left[1+\left(\frac{(G)}{100}\right)\right]} $	(I) <u>/0 7.0</u> pcf	pcf
Compaction		
$\left(\frac{(I) / 07.0}{(J) / 07, 8}\right) \times 100$	99.3 %	%

Pass/Fail: PASS	Reviewed By:	Date:
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Weight of Cylinder and Soil (B) \_\_\_

Cylinder Volume (F) \_ c 034 | ft3

	Page 52 of 22]
Project: V: \$\frac{1}{2} \land \frac{1}{2} \land \frac{1} \land \frac{1}{2} \land \frac{1}{2} \land \frac{1}{2} \land \f	Date:
Drive Cylinder Information	Moisture Content Sample

g 5.31 lbs Weight of Pan and Wet Soil (D) 360 2 g

Weight of Pan and Dry Soil (E) 340.6 g

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 & b & b & 2 & -(E) & -/5 & 6 \\ (E) & 3 & +0 & b & -/6 & -/6 & -/6 \end{pmatrix} \times 100$	(G) <u>10.9</u> %	%
Wet Density		
(B) 5,3/ -(A) 4,15 ((F),03+1)	(H) /21.7 pcf	pcf
Dry Density		
$\frac{(H) \qquad / \mathcal{Q} \cdot I \cdot \mathcal{I}}{\left[1 + \left(\frac{(G) - I \cdot \mathcal{I}}{100'}\right)\right]}$	(I) <u>/ 99. 7</u> pcf	pcf.
Compaction		
$\left(\frac{(I) \cancel{J} \triangle \cancel{9}, 7}{(J) \cancel{J} \bigcirc \cancel{9}, 5}\right) \times 100$	100,2 %	%

Pass/Fail: PAJ	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Cylinder Volume (F) 10341 ft

Cylinder Volume (F) 10311 ft3

	Page 53 of 221
Project: Vista LANDAIII COU 3	Date: 08/2-1/2012-
Project No.: 101.07.50	Soil Type:SB
Test No.: 7-7 /-1	Proctor Value (J): / 64. \ pc
Location: N1 565, 250, F 492, 800 50	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content: 10
Report No.:	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample
Weight of Culinder (A) g / / ( the	Drying Pan Toro (C) Man 1 a the

Weight of Pan and Dry Soil (E) 339.3 g

Weight of Cylinder and Soil (B) g 5.30 lbs Weight of Pan and Wet Soil (D) 360.1 g

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} \underline{(D) 3^{C_0} \cdot 2} & -(E) & \underline{\mathcal{R}} \circ \cdot \underline{\gamma} \\ \underline{(E) 3^{C_0} \cdot 7} & -(C) & \underline{/77.1} \end{pmatrix} x 100 $	(G)	%
Wet Density		
(B) 5.30 -(A) 4.14 ((F) , b341)	(H) <u>121.4</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad j, 2j \cdot 4}{\left[1 + \left(\frac{(G)}{100} - j \cdot 7 - j\right)\right]}$	(I) <u>/03,フ</u> pcf	pcf
Compaction	-	
$\left(\frac{(I) \int 0 \hat{\mathcal{S}} \cdot \overline{I}}{(J) \int 0 \hat{\mathcal{S}} \cdot \overline{I}}\right) \times 100$	99.3 %	%

Pass/Fail: PAST	Reviewed By:	 Date:	
Rev 10/98 CF223/CPS			

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	Page 55 of 221
Project: Virta Linetill 611.3	Date: 08/21/2012
Project No.: 10 / 07 08	Date: 08/21/2012 Soil Type: 513
Test No.: 7-9 4.1	Proctor Value (J): / 5.5 nof
Location: N1,545, 200 E 481,900 56	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: ~ ^	Optimum Moisture Content; / 0 9/
Report No.: _ 7	Sampled By: Jasna Bro

	Jampier Dj
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g//b_ lbs	Drying Pan Tare (C) 15.9.9 g lbs
Weight of Cylinder and Soil (B)g _5.み2_ lbs	Weight of Pan and Wet Soil (D) 358.9 glbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 3 12 / glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 3 \ 5 \ 7 \ 9}{(E) \ 3 \ 4 \ 3 \ 1} - (E) \ \frac{1}{3} \ \frac{3}{3} \ \frac{1}{3} \ 100\right) $	(G) <u>7.8</u> %	%
Wet Density		
(B) 5.22 -(A) 404 ((F) .0341	(H) _//9./_ pcf	pcf pcf
Dry Density	<del> </del>	
$\frac{(H) \qquad \int  f  \cdot f \cdot f}{\left[1 + \left(\frac{(G) - g \cdot g}{100}\right)\right]}$	(I) 19815 pcf	pcf
Compaction		
( <u>(1) / 2 8.5 </u> ) x 100	99.1 %	%

Pass/Fail: PASS	Reviewed By:	Date:
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Color Color Color		Page <u>54</u> of _	221
Project: Vista Janda,  Project No.: 101.07,08	2-1	Date: <u>68/2-1/2012</u> Soil Type: <u>SB</u>	
Test No.: 7- \$-		Proctor Value (J):/ \$ 9. 5	pcf
Location: N 1,545,300 F. 9		✓ Standard ASTM D698 Modified AS	TM 1557
Nuclear Density Test No.: N A		Optimum Moisture Content:	%
Report No.:		Sampled By: T. Bradford	
Drive Cylinder Info		Moisture Content Sample	
Weight of Cylinder (A)g		Drying Pan Tare (C) 161.3 g	lbs
Weight of Cylinder and Soil (B)	g 5-24 lbs	Weight of Pan and Wet Soil (D) 36/. 3 g	lbs

Weight of Pan and Dry Soil (E) 329-9 g

	Drive Cylinder	, Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 36 & 1, 3 & -(E) & 2 & 1, 4 \\ (E) & 339, 9 & -(C) & 178, 4 \end{pmatrix} \times 100 $	(G) <u>/2, O</u> %	%
Wet Density .		
(B) 5.29 -(A) 4.13 (F) 8341	(H) /2/1 pcf	pcf
Dry Density		
$\frac{(H) \qquad /\partial \cdot (\cdot \mid )}{\left[1+\left(\frac{(G)  /2 , \mathcal{O}}{100'}\right)\right]}$	(I) /// X/ pcf	pcf
Compaction		
$\left(\frac{(I) / \Delta \mathfrak{J}./}{(J) / 2 \tilde{T}. \tilde{J}}\right) \times 100$	98,7 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
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Drive Cylinder Test Report

	Page 56 of 22/	_
.3	Date: 08/21/2012	_
- 6/	Soil Type: SP	-

Tupott 10.	January 2).
Drivé Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) /59.4 g lbs
Weight of Cylinder and Soil (B) g 5./4 lbs	Weight of Pan and Wet Soil (D) 359. 7 glbs
Cylinder Volume (F) _1 234 [ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 334, 1 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) .3 59.9 & -(E) & 2.0.8 \\ (E) .339.7 & -(C) & 79.2 \end{pmatrix} \times 100 $	(G)%	%
Wet Density		
(B) 51/4 -(A) 3.98 ((F) 10341)	(H)	pcf
Dry Density		
$ \frac{(H) \qquad \qquad // \downarrow_{b}, 7}{\left[1 + \left(\frac{(G) \qquad // \downarrow_{b}}{100'}\right)\right]} $	(I) <u>/04.6</u> pcf	pcf
Compaction		
$\left(\frac{(I) \int 0 \frac{1}{4} \cdot \frac{I}{6}}{(J) \int 0.7 \cdot \frac{V}{5}}\right) \times 100$	97,0%	%

Pass/Fail: Pass	Reviewed By:	Date:	
*** 10/09 CE222/CBS			

Report No.:

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _// le lbs	Drying Pan Tare (C) // 1/3 g lbs
ı	Weight of Pan and Wet Soil (D) 36/13 glbs
Cylinder Volume (F) / 03 4/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 338. 8 gIbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 36/3 & -(E) & 22.5 \\ (E) & 338/8 & -(C) & /77.5 \end{pmatrix} \times 100$	(G) <u>/2·7</u> %	%
Wet Density		
(B) 5,20 -(A) 4,04 (F) ,0341)	(H) 1/8,5 pcf	pcf
Dry Density		
$ \frac{(H) \qquad 1/8.5}{\left[1+\left(\frac{(G)  12.7}{100'}\right)\right]} $	(1) <u>/05, /</u> pcf	pcf
Compaction		
$\left(\frac{(I) \ / \circ 5.\ /}{(J) \ / \circ 7.\ \%}\right) \ x \ 100$	97.5 %	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## Drive Cylinder Test Report

Project: V/S+0 L4xd4.11 Q//-3 Date: 05/32/20/2

Project No: /0 1.07.05 Soil Type: 5B

Test No: 8-/-/ 4-/-/ Proctor Value (1): ///-5

Project No.: 10 1. 07. 08

Test No.: 8-1

Location: 10-15 65 200 5 492 050 58

Report No.: 8

Date: 08/9.1./20/2.

Soli Type: 5B

Proctor Value (J): 1/1.5

□ Standard ASTM D698

Optimum Moisture Content: 15:9

Sampled By: 7. 3/24 d. 4. 4

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /./ bs	Drying Pan Tare (C) 157 7 g lbs
	Weight of Pan and Wet Soil (D) 359.5 g lbs
Cylinder Volume (F) . 0341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 335,2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) .359.9 & -(E) .24.7 \\ (E) .335.2 & -(C) .175.3 \end{pmatrix} x 100 $	(G) <u>/4. /</u> %	%
Wet Density		
(B) 5,33 -(A) 4.17 ((F) ,0341)	(H) _/22,3 pcf	pcf
Dry Density		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
$\frac{(H)  /2.2.3}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) _/07.2_pcf	pcf
Compaction		
$\left(\frac{(I)  J_0 \cdot 7.2}{(J)  III.5}\right)  x  100$	9411 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CP8		

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Page 58 of 221

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Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/.(L lbs	Drying Pan Tare (C) /60, 2 g lbs
Weight of Cylinder and Soil (B) g 5.26 lbs	Weight of Pan and Wet Soil (D) 310,1 g lbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 339, 7 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 3\&c \ 2 - (E) \ 2c \ 3}{(E) \ 33q \ 9 - (C) \ 179.7}\right) \times 100 $	(G)//, 3%	%
Wet Density .		
(B) 5.2.5 -(A) 4. / ((F) , 0.34/_)	(H)	pcf
Dry Density		
$\frac{(H) \qquad /20.2}{\left[1+\left(\frac{(G)-11.3}{100}\right)\right]}$	(I) / 0 8/10 pcf	pcf
Compaction		
$\left(\frac{(I) / 0.5 \cdot 0}{(I) / 0.5 \cdot 0}\right) \times 100$	98,6_%	%

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

#### CEC

Report No.: 8

Drive Cylinder Test Report

Page 60 of 221

Project: Vista Landfil	1 611-3
Project No.: 101,07,08	
Test No.: 8-2	2-1
Location: NHCS, 000 E 49	2,050 50
Nuclear Density Test No : BA	

Date: 08/22/2012	-
Soil Type:	
Proctor Value (J): ///, 5	pcf
✓ Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:15	,9%
Sampled By: T Reads	vd.

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// lbs	Drying Pan Tare (C) /60.2 g lbs
Weight of Cylinder and Soil (B) g 5.49 lbs	Weight of Pan and Wet Soil (D) <u>またいと</u> glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 337.4 g lbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 340 \cdot 2 & -(E) & 22 \cdot 8 \\ (E) & 337 \cdot 4 & -(C) & 177 \cdot 2 \end{pmatrix} \times 100$	(G) <u>/2.9</u> %	%
Wet Density		
(B) 5.4-9 -(A) 4.33 ((F) 0341)	(H) <u>/ 2 7.0</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad / 2 \cdot 7 \cdot 2}{\left[1 + \left(\frac{(G)  / 2 \cdot 5}{100}\right)\right]}$	(I) 1/2.5 pcf	pcf
Compaction		
$\left(\frac{(I) - I}{(J) - I} + \frac{J}{J}\right) \times 100$	100.9 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Page	61	of	22	1

Project: Wista Land	EII G11	-3
Project No.: 101, 07. 08		
Test No.: 8-3	53	1-1
Location: 1.1,565, 150 E	472,100	Floor
Nuclear Density Test No.:		
Report No.;		

Date: 08/22/2012	
Soil Type: 5B	
Proctor Value (I): 107.8	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:/	'J./%
Sampled By: T. Brad	ford.

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) /6 1. 3 g lbs
Weight of Cylinder and Soil (B) g S.21 lbs	Weight of Pan and Wet Soil (D) 34/17 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 335. 2 gIbs

_	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 36/, 2 & -(E) & 26/, \\ (E) & 336, 2 & -(C) & 173, 9 \end{pmatrix} \times 100$	(G)%	%
Wet Density		
(B) 5,21 -(A) 4,05 ((F) ,0241)	(H)	pcf
Dry Density		
$\frac{(H) / \delta \cdot \delta}{\left[1 + \left(\frac{(G) - J \cdot 5 \cdot \delta}{100'}\right)\right]}$	(I)/03.3 pcf	pcf
Compaction		
$\left(\frac{(I) - \frac{\sqrt{2\sqrt{2}}}{2}}{(J) - \frac{\sqrt{2\sqrt{2}}}{2}}\right) \times 100$	95.8 %	%

Drive Cylinder Test Report

Page 65 of 2
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Project:	Vista	Landfill	Cell.	3
Project N	To.: 201	07,08		
Test No.	8-5	-		-9
Location	: 10-1,5	65,250 E4	92,300	E Ber
		it No.: HA		
D	0			

Date: 8/21/2	0 12_
Soil Type: 5F	
Proctor Value (J): 109.	5 pc
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:	10,0
	0 10 1

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) <u>157.</u> 7 g lbs
Weight of Cylinder and Soil (B) g 5.32 lbs	Weight of Pan and Wet Soil (D) 369.9 glbs
Cylinder Volume (F) 1034-1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 34.2-g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) \underbrace{359.9}_{(E)} - (E) & /\$.7 \\ (E) \underbrace{341.2}_{(E)} - (C) & /\$/.3 \end{pmatrix} \times 100$	(G)/0,3_ %	%
Wet Density		
(B) 5,22 -(A) 4,05 ((F) ,034/)	(H)/ f, pcf	pcf
Dry Density		
$\frac{(H) \qquad J/\widehat{\gamma}, /}{\left[1 + \left(\frac{(G) \qquad /\circ, 3}{100^{\circ}}\right)\right]}$	(I)/08,Opcf	pcf
Compaction		
$\left(\frac{(I) - 10\%, \Im}{(J) - 10\%, \Im}\right) \times 100$	98,6 %	%

Pass/Fail: Pr) 55	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Page 62 of 221

Project: VISTA LANCHII CIH-3	Date:08/22/20/2 Soil Typo:SB
Project No.: /0/.07-08	Soil Type:SB'
Test No.: 8-4 58 4-1	Proctor Value (J): 10-7.8 pc
Location: 1565,150 E492,000 Fh	
Nuclear Density Test No.: 📈 🛧	Optimum Moisture Content:
Report No.: 8	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g ノーレ lbs	Drying Pan Tare (C) /61.3 g lbs
Weight of Cylinder and Soil (B)gS, lbs	Weight of Pan and Wet Soil (D) 36/. 3 g lbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 236.8 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		The state of the s
$ \begin{pmatrix} (D)36/3 - (E) & 24.5 \\ (E)336/8 - (C) & 175.5 \end{pmatrix} \times 100 $	(G) 14. 2 %	%
Wet Density		
(B) 5.21 -(A) 4.05 ((F) , 0341)	(H) // \$, 8 pcf	pcf
Dry Density		
$\frac{(H) / f \vartheta, \vartheta}{\left[1 + \left(\frac{(G) / f \vartheta_{-} \varphi}{100'}\right)\right]}$	(I) 104.2 pcf	pcf
Compaction		
$\left(\frac{(I)  / \circ \cancel{4} \cancel{2}}{(J)  / \circ 7, \cancel{8}}\right) \times 100$	96.7 %	%

Pass/	Fail: PASS	Reviewed By: _	Date:	A
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#### CEC

Drive Cylinder Test Report

	Page _	64	_of221_	
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| Project | Vi \$\frac{1}{2} | \frac{1}{2} |

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/, / G lbs	Drying Pan Tare (C) //.o. 2 g lbs
l	Weight of Pan and Wet Soil (D) 360,2 gIbs
Cylinder Volume (F) 1934 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 336.9 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 6 & 0 & 0 & 0 & 0 \\ (E) & 3 & 3 & 6 & 0 & 0 & 0 & 0 & 0 \end{pmatrix} x 100 $	(G)	%
Wet Density		
(B) 5.54 -(A) 4,38 ((F) ,=341)	(H) 128,4 pcf	pcf
Dry Density		
$\frac{(H) \qquad /28 \ 4}{\left[1+\left(\frac{(G) \ /3. \ 2_{-}}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I)}{(J)},\frac{J/3}{2},\frac{1}{2}\right) \times 100$	101.7 %	%

Pass/Fail: PASS	Reviewed By:	 Date:	

CANADO BASSAS CANADO	Page 65 of 221
Test No.: 8-7 2-14 Location: <u>111,564,80 = E492,300 C. A.</u>	Date:         0 ⅓         2 ⅓         2 √         2 √         2 √         2 √         2 √         2 √         3 √         2 √         3 √         2 √         3 √<
•	Moisture Content Sample
Weight of Cylinder (A) g // L lbs	Drying Pan Tare (C) /41.73 g lbs
Weight of Cylinder and Soil (B)g _5.36 lbs	Weight of Pan and Wet Soil (D) 34/.3 glbs
Cylinder Volume (F) 5241 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 335,7 g lbs

•	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 36/.3 & -(E) & 25.6 \\ (E) & 235.7 & -(C) & 174.4 \end{pmatrix} \times 100 $	(G)	%
Wet Density		
$\frac{(B)  5.36 - (A)  4.2}{((F)_{-1} \circ 3!^{(I)})}$	(H) 123.2 pcf	pcf
Dry Density		
$\frac{(H) \qquad /23.2}{\left[1+\left(\frac{(G) \qquad 14.7}{100'}\right)\right]}$	(I)/ <u>0.7.</u> ycf	pcf
Compaction $ \left(\frac{(I)  / \circ 7.4}{(J)  / / I.5}\right) \times 100 $	96.3 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

CEC		
Project: Vista landfi) Project No.: 101, 07. 08	611-3	Date: Soil Type:

Page 66 of 22)

Project: VISTA LANDEN 611-3 Project No.: 101, 07.08	Date: 08/22/2012 Soil Type: 5F
Test No.: 8-8 4-10	Proctor Value (D: /Ol. 5
Location: N-1565 250 F-492 300 E Beach	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content: 10,0
Report No.: &	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 157. 9 g lbs
	Weight of Pan and Wet Soil (D) 359.9 g lbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 237.4 glbs

•	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 359, 9 & -(E) & 22.5 \\ (E) & 337.4 & -(C) & 177.5 \end{pmatrix} x 100 $	(G) <u>12.7</u> %	%
· Wet Density		
$\frac{(B)  S \cdot \lambda \cdot \delta  -(A)  \iota_{f} \cdot /2}{\left((F)  \cdot  \omega \cdot 3 + I\right)}$	(H) /20.8 pcf	pcf
Dry Density		
$ \frac{(H) \qquad /2.0, \S}{\left[1 + \left(\frac{(G)}{100}\right)\right]} $	(I) <u>/07.2</u> pcf	pcf
Compaction		
$\left(\frac{(I) \int b \vec{T} \cdot \vec{J}}{(J) \int b \vec{T} \cdot \vec{J}}\right) \times 100$	97.5 %	%

Pass/Fail: PAS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### CEC

Drive Cylinder Test Report

	Page _ 1 7	of 221
3	Date:	
5	Proctor Value (J): /29.5	pcf
Benza		fied ASTM 1557
	Optimum Moisture Content: / 0	%
	Sampled By: 7. 3 rAd fart	

	1 480
Project: <u>Vista Landfull</u> <u>G_1</u> 3 Project No.: <u>Jol. 07. e8</u> Test No.: <u>8-9</u> <u>L-15</u> Location: <u>N1,565,003</u> <u>E.452,300</u> <u>F. bm²</u> Nuclear Density Test No.: <u>M.F.</u>	Date:
Report No.: S	Sampled By: 7. 3rAJArt
Drive Cylinder Information  Weight of Cylinder (A) g_1//6_lbs	Moisture Content Sample  Drying Pan Tare (C) /41.3 g lbs
	s Weight of Pan and Wet Soil (D) 36/7 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 340 7 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3C / \cdot 3 & -(E) & 2O \cdot C \\ (E) & 34O \cdot 7 & -(C) & 179 \cdot 4 \end{pmatrix} \times 100$	(G)//, 5 %	%
Wet Density		
(B) 5.17 -(A) 4.01 ((F) , 0341)	(H) <u>1/7, C</u> pcf	pcf
Dry Density		
$\frac{(H) \frac{1/7.5}{100}}{\left[1+\left(\frac{(G) \frac{1/3.5}{100}}{100}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) - 105.5}{(J) - 105.5}\right) \times 100$	96.3 %	%

Pass/	Fail: Pass	Reviewed By:	 Date:	
Rev.10/98	CF223/CPS			

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Drive Cylinder Test Report

PageX	of
2-12012	

Project: VISTA Landfill (211"3)
Project No.: 101.07.08

Test No.: 5-10 1.15

Location: 41.514.870 £492.320 £8-1

Nuclear Density Test No.: NA Report No.:

10/1
9-5" pct
Modified ASTM 1557
10.0
A d A 6 1

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/.14 lbs	Drying Pan Tare (C) /t /. 3 g lbs
Weight of Cylinder and Soil (B) g Bs	Weight of Pan and Wet Soil (D) 3113 glbs
Cylinder Volume (F) 1934-1 ft	Weight of Pan and Dry Soil (E) 341.3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \cancel{3}\cancel{4} \cancel{1} \cancel{3} - (E) \cancel{2}\cancel{0} \cancel{0}}{(E) \cancel{3}\cancel{4} \cancel{1} \cancel{3} - (C) \cancel{5}\cancel{0} \cancel{0}} \right) \times 100 $	(G) //, ( %	%
Wet Density		
$\frac{(B)  5 \cdot / ?  -(A)  4 \cdot \circ 3}{((F)  0.3 \cdot f!  )}$	(H) //8.2 pcf	pef
Dry Density		
$\frac{(H) \qquad //\mathfrak{E} \cdot ^{2}-}{\left[1+\left(\frac{(G) \qquad //. \ l}{100'}\right)\right]}$	(n) /06·4 pcf	pcf
Compaction		
$\left(\frac{(I)  fol. \   \psi}{(I)  /99.5}\right) \times 100$	97.2 %	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Project: Wista Landfill C11.3
Project No.: _/O/, O7. O 8
Test No.: 9-/ 4-2
Location: At 1564 760 E 492, 025
Nuclear Density Test No.: No.:

Date: <u>\$\vartheta \vartheta \varthet</u> 

Drive Cylinder Information	Moisture Content Sample
i	Drying Pan Tare (C) 159. 9 g lbs
	Weight of Pan and Wet Soil (D) 359 g lbs
Cylinder Volume (F) <u>103'r/</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 379.2 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		a contract to the particular to the
$ \begin{pmatrix} (D) & 3.5\%, & (E) & 20.7 \\ (E) & 33\% & (C) & 17\%, &  \end{pmatrix} x 100 $	(G)%	%
Wet Density		
(B) 5, 16 -(A) 4,2 ((F) ,0341)	(H)	pcf
Dry Density		
$\frac{(H) \qquad 1/7, ^3}{\left[1+\left(\frac{(G) \qquad 1/2, 5^-}{100^\circ}\right)\right]}$	(I) <u>/05.2</u> pcf	pcf
Compaction		
$\left(\frac{(I) \ \ /0.5, \ 2}{(J) \ \ /0.7, \ 8}\right) \ x \ 100$	97.6 %	%

Pass/Fail; Pass/ Reviewed By: \_\_\_ Rev.10/98 CF223/CPS Pipe rentisula

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Drive Cylinder Test Report

Page	of 221
08/23/2012-	
nhue (1): _/09. 5	pcf

Soil Type: Proctor Va ∠Standard ASTM D698 \_\_\_ Modified ASTM 1557 Optimum Moisture Content: 10.0 Sampled By: 7. 1319 d Cond

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/ lbs	Drying Pan Tare (C) // C , 2 g lbs
Weight of Cylinder and Soil (B) g _5.27 lbs	Weight of Pan and Wet Soil (D) 340.2 g lbs
Cylinder Volume (F) <u>1934</u> / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 34/, 0 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 104 150 150 100 100 150 150 150 150 150 150
$ \begin{pmatrix} \underline{(D) \ \underline{3} \ \underline{4} \ \underline{6} \ \underline{2} \ -(E) \ \underline{f} \ \underline{f} \ \underline{2} \ \underline{f}} \\ \underline{(E) \ \underline{3} \ \underline{4} \ \underline{6} \ \underline{6} \ -(C) \ \underline{f} \ \underline{5} \ \underline{7}} \end{pmatrix} x 100 $	(G) <u>/0,6</u> %	%
Wet Density		
(B) _5,27 -(A) _4,11 ((F) _10341 )	(H) 120,5 pcf	pcf
Dry Density		
$ \begin{array}{c c} (H) & /\partial \cdot \cdot \cdot \cdot \\ \hline \left[1 + \left(\frac{(G)}{100'} - \frac{/\partial \cdot \cdot \cdot \cdot}{100'}\right)\right] $ Compaction	(I)	pcf
·		
$\left(\frac{(I) - \int \mathcal{O} \hat{I} \cdot \hat{I} \cdot \hat{I}}{(J) - \int \mathcal{O} \hat{I} \cdot \hat{I}}\right) x  100$	99,3 %	%

Pass/Fail: 1 ASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS	•	

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CEC	Drive Cylinder Test Repor
	Page 70 of 221
Project: Vista Landfill all-3	Date:08/23/20/2
Project No.: 101, 07, 08	Soil Type: 5)2
Test No.: 9-2 1-4	Proctor Value (I): /0 5.5 pcf
Location: N, 1,564,700 F 452. 025	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.://	Optimum Moisture Content: 10, 3 %
Report No.: 7	Sampled By: 7. 13, 4 cl. Lard

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) / i/, 3 g lbs
	Weight of Pan and Wet Soil (D) 361.3 glbs
Cylinder Volume (F) 1024/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 341.2 g lbs

		Nuclear Gauge
Moisture Content		e transce of the property and services.
$ \left(\frac{(D) \stackrel{?}{\cancel{3}} \stackrel{?}{\cancel{4}} $	(G)//, 2_ %	%
Wet Density		
(B) 5, 22 -(A) 14,06 ((F) 0341)	(H)/ pcf	pcf
Dry Density		
$\frac{(H) - \frac{f(G) - \frac{f}{2}}{100'}}{\left[1 + \left(\frac{(G) - \frac{f}{2}}{100'}\right)\right]}$	(I) _/07./_ pcf	pcf
Compaction		
$\left(\frac{(I) - 107 \cdot I}{(J) - 107 \cdot S}\right) \times 100$	9718 %	%

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Pass/Fail:	Reviewed By:		Date:	
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Share Bens Charl	Page 72 of 22
Project: Vista Lndfill an. 3	Date: 8/23/20/2- Soil Type: 55
Project No.: 101.07.02	Soil Type: SF
Test No.: $9-4$ $2-8$	Proctor Value (I):
Location: N. 1,564, 763 E 492, 625	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Optimum Moisture Content: 100
Report No.: 9	Sampled By: 7. 13, nd da. d
Drive Cylinder Information	Moisture Content Sample

Drive Cylinder Information	-Moisture Content Sample
	Drying Pan Tare (C) 160.2 g lbs
	Weight of Pan and Wet Soil (D) 340.2 g lbs
Cylinder Volume (F) ft^3	Weight of Pan and Dry Soil (E) 342.4 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & \frac{36 \cdot \lambda \cdot - (E)}{29 \cdot 2 \cdot 4} & -(E) & \frac{7 \cdot 8}{20 \cdot 2} \\ (E) & \frac{39 \cdot 2 \cdot 4}{2} & -(C) & \frac{78 \cdot \lambda \cdot 2}{20 \cdot 2} \end{pmatrix} x 100 $	(G) <u>9.8</u> %	%
Wet Density		
(B) 5,15 -(A) 3,79 ((F) ,0341)	(H) <u>// 7, コ</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad //7 \cdot 2}{\left[1+\left(\frac{(G)}{100'} - \frac{9 \cdot \mathcal{E}^2}{100'}\right)\right]}$	(I) <u>/06.6</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{bb}, \cancel{b}}{(J) \cancel{27.5}}\right) \times 100$	97.4 %	%

Pass/Fail: ASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

Report No.: \_\_\_\_\_\_\_\_\_\_

Drive Cylinder Test Report

Page 73 of 22/

Project: V. s +24	Hudfill 611-3
Project No.: _/C/	07.08
Test No.: 2 - 5	2-10
Location: 2:1, 564	760 E-492-025
17-1 D	

08/23/2012 5F Date: \_\_\_\_ Soil Type: \_\_\_ Proctor Value (J): \_\_\_\_\_/09.5 

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _// 6 lbs	Drying Pan Tare (C) /59.6 g lbs
Weight of Cylinder and Soil (B) gglbs	Weight of Pan and Wet Soil (D) 359.9 glbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) 341,8 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} \underline{(D)  35\vec{9}.\vec{9} - (E)  /\cancel{E}_{f.\vec{7}.\vec{9}}} \\ \underline{(E)  34\vec{9}  \cancel{8} - (C)  \cancel{JS}_{f.\vec{9}.\vec{9}}} \end{pmatrix} x  100 $	(G) <u>/0, 0</u> %	%
Wet Density		
$\frac{(B)  5.\cancel{4}  -(A)  3.\cancel{7}\cancel{8}}{((F)  \cancel{0}  \cancel{3}\cancel{4}\cancel{7})}$	(H)	pef
Dry Density	1	
$\frac{(H) \qquad // \ b_1 \qquad 7}{\left[1 + \left(\frac{(G) \qquad / \mathcal{O}_1 \qquad 9}{100^n}\right)\right]}$	(I)/C.6./_ pef	pcf
Compaction		
$\left(\frac{(I) - I \circ I \cdot I}{(J) - I \circ I}\right) \times 100$	96.7 %	%

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Drive Cylinder Test Report

Page 25 of 221

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Project No.:	101.	07,08		
Test No.; _	9-7		L. 1 5	
Location: 🛆	1, 1,565,	100 E1	191-900	
Nuclear Der	ısity Test No	: NA		
Report No.:	9			

Date: 3/23/2012

Soil Type: 3B

Proctor Value (7): 29,5 per

L Standard ASTM D698 Modified ASTM 1557

Optimum Molsture Content: 20, 3

Sampled By: 4 ft and Fig. 4

	2. /// // / / / / / / / / / / / / / / /
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) gi, i lbs	Drying Pan Tare (C) 161, 3 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 32/13 glbs
Cylinder Volume (F) 1034 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 4 2, 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		Section 1971, CAN CONTRACTOR
$\begin{pmatrix} \underline{(D).36/.3} & -(E) & /\$.4 \\ \underline{(E).362.9} & -(C) & /\$.4 \end{pmatrix} \times 100$	(G) <u>/0, /</u> %	%
Wet Density		
(B) 5,14 -(A) 3,78 ((F) , 0341)	(H) <u>//b· // pcf</u>	pcf
Dry Density		
$\frac{(H) //6.7}{\left[1+\left(\frac{(G)/0.7}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{/} 0_6, 0}{(J) \cancel{/} 0.5, 5}\right) \times 100$	96,8 %	%

Pass/Fail: 1755	
Rev.10/98	CF223/CPS

\_\_\_\_ Reviewed By: \_\_

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#### CEC

Drive Cylinder Test Report

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D	74	of	221
Page	/	_ or _	0.0.

Project: Vista Land	311 611-3
Project No.: 101, 07,0	8
Test No.: 9-6	1-11
Location: N/ 514 710 E	492 025
37 1 D 11 D 137 16	

Report Ivo	Sampled By. 7. 2014 CYSE
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g// lbs	Drying Pan Tare (C)/60.2_ g lbs
Weight of Cylinder and Soil (B) g 518 lbs	Weight of Pan and Wet Soil (D) 3602 g lbs
Cylinder Volume (F) 23/f/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 342 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 36.0, 2 & -(E) & /7, 3 \\ (E) & 34.2, 7 & -(C) & /8.2, 7 \end{pmatrix} x 100 $	(G) <u>9.5</u> %	%
Wet Density		
(B) . 5./8 -(A) 47.02 ((F) ~0.34/_)	(H) pcf	pcf
Dry Density		
$\frac{\left[H\right) \qquad // 7. \ \hat{\gamma}}{\left[1+\left(\frac{(G)}{100^{\circ}}\right)\right]}$	(I) <u>/07,7</u> pcf	pcf
Compaction		
$\left(\frac{(I) / \Im 7.7}{(J) / \Im 7.5}\right) \times 100$	98,4 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CP8			

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Drive Cylinder Test Report

•	Page of 22 /
Project: Vista LANdfill	Date: 08/23/2012 Soil Type: 5B
Project No.: 101.01.08	Soil Type: 5B
Test No.: 9-8 4-1 58	Proctor Value (J): 109.5 pc
Location: 41, 1,565,050 E 492,000	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content: 10,0
Report No.:	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/1/ b 1bs	Drying Pan Tare (C) g lbs
	Weight of Pan and Wet Soil (D) 359,9 glbs
Cylinder Volume (F) _,<3341_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3442, 1 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 369, \ 9 - (E) \ \ \ \ \ /7, \ 9}{(E) \ 342, \ \ \ \ \ \ \ \ \ \ \ \ \ } x \ \ 100 $	(G) <del>9</del> , 8 %	%
Wet Density		
(B) 5,15-(A) 3,99 ((F) ,0341)	(H) <u>117-0</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad // \   7/ \   0}{\left[1 + \left(\frac{(G)  \mathcal{G} \cdot \mathcal{S}'}{100'}\right)\right]}$	(I)/06, b_ pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{/ob}, \cancel{b}}{(J) \cancel{/ob}, \cancel{5}}\right) \times 100$	97.4 %	%

Pass/Fail	PACS
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Reviewed By: \_\_\_\_ \_\_ Date: \_\_\_\_

Page 7-7 of 2

Project: Victa Lindfill	Date:
Project No.: 101,07105	Soil Typ
Test No.: 9-9 L-1	Proctor 1
Location: V 1, 565, 000 £491- 900 58	V Sta
Nuclear Density Test No.:	Optimur
Report No.: 2	Sampled

Date: 05/23/20	12_
Soil Type:	
Proctor Value (J):	pcf
✓ Standard ASTM D698  —	_Modified ASTM 1557
	9, 2
Sampled By: T. Bra.	dA-C

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 160.2 g lbs
Weight of Cylinder and Soil (B) g <u>5.17</u> lbs	Weight of Pan and Wet Soil (D) 3 10,2 g lbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) 34/, 8 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) \frac{3 \cancel{!} \cdot \cancel{!}$	(G) <u>/O./</u> %	%
Wet Density		
(B) 5,17 -(A) 4,01 ((F) ,034/)	(H)// 7, (_ pcf	pcf
Dry Density		
$\frac{(H) \qquad // \ 7/ \ 6}{\left[1+\left(\frac{(G) \qquad /C \ /}{100'}\right)\right]}$	(I) per	pcf
Compaction		
$\left(\frac{(I) / 06.8}{(J) / \mathcal{P}_{7}^{7}, 5}\right) \times 100$	97,5 %	%

Pass/Fail: /ASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Page 79 of 221

Project: Vista Lan	LF11	Ca11 3
Project No.: /0/. 07.		
Test No: /0 -/	. 68	4-1

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Date: 8/24/20/2
Soil Type: 25
Proctor Value (f): 709. ↑ pet

✓ Standard ASTM D698 Modified ASTM 1557
Optimum Moisture Content: 10, ○ %
Sampled By: 7 Back Soil Location: N, 1565, 050 · E H92 100 Nuclear Density Test No.: N/H

Report No.: /O

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 159.9 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 359.9 glbs
Cylinder Volume (F) <u>r.0.341</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 337-8 g lbs

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (\underline{D}) & 359.9 & -(\underline{E}) & 20 \cdot 1 \\ (\underline{E}) & 339.8 & -(\underline{C}) & 179.4 \end{pmatrix} \times 100 $	(G) <u>//, 7</u> %	%
Wet Density		
(B) 5,22 -(A) 4,06 ((F) 1034/	(H)	pef
Dry Density		
$\frac{(H) \qquad 1/9i \ l}{\left[1 + \left(\frac{(G) \qquad 1/1 \ \mathcal{I}}{100'}\right)\right]}$	(I) <u>106,6</u> pcf	pcf
Compaction		
$\begin{pmatrix} (I) & 106 \cdot k \\ (J) & 199 \cdot \xi^- \end{pmatrix} \times 100$	97,4%	%

Pass/Fail: PASS	Reviewed By:	 Date:	

#### CEC

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Page 78 of 221

Project: Wista Land Project No.: 101. 07.	
Test No.: 9-10	5B L.1
Location: 10-4, 564, 950	E492 000
Nuclear Density Test No.: &	
0	

Date:	08/23/20	12_
Soil Type:	SB (	
Proctor Value	(D: 109.5	po
Standard	ASTM D698	Modified ASTM 1557
	sture Content: _ / 0	
Sampled By:	T. Brid.	20,0

Drive Cylinder Information	Moisture Conlent Sample
Weight of Cylinder (A) g // 1 lbs	Drying Pan Tare (C) /4/, 3 g lbs
Weight of Cylinder and Soil (B) g 5.31 lbs	Weight of Pan and Wet Soil (D) 34/, 3 glbs
Cylinder Volume (F), 0341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>34-0, / g</u> lbs

		Nuclear Gauge
Moisture Content		SHALL MANUFACTURE CONTROL OF
$\begin{pmatrix} (D) & 3CI, & 3 & -(E) & 2I, & 2 \\ (E) & 3 & 40, & I & -(C) & 178, & 2 \end{pmatrix} \times 100$	(G)	%
Wet Density		
(B) 5.31 -(A) 4, 15 ((F) , 03/+1)	(H) /21,7 pcf	pcf
Dry Density		
$\frac{(H) \qquad /2/, 7}{\left[1+\left(\frac{(G)-//, 9}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) / 28.\%}{(J) / 29.5}\right) \times 100$	99,4- %	%

Pass/Fail: 1 f) 5 5	Reviewed By:	Date:
Day 10/09 Orban/cnn		

#### CEC

Report No.:

Drive Cylinder Test Report

Page 80 of 221

Project: Vista Land fil	11 Q11-2	1
Project No.: 181.07.97		8
Test No.: 10-2	L-1 5B	1
Location: N1, 564,950 E	492,100	
Nuclear Density Test No.: N		(

Optimum Moisture Content: O, O
Sampled By: T. Brad for 6

-Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g / 14 lbs	Drying Pan Tare (C) 160 12 g lbs
Weight of Cylinder and Soil (B) g _5, 20 lbs	Weight of Pan and Wet Soil (D) 360.2 g lbs
Cylinder Volume (F), O341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 342, 2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D)\ 360.2 - (E)\ 18.0}{(E)\ 342.2 - (C)\ 182.0}\right) x 100 $	(G) <u>9,9</u> %	%
Wet Density		
(B) 5,20 -(A) 4,04 ((F),0341)	(H)	pcf
Dry Density		
$\frac{(H) //\S \cdot S}{\left[1 + \left(\frac{(G) - 9 \cdot 9}{100^{\circ}}\right)\right]}$	(I) <u>107, 8</u> pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{\cancel{107}}\cancel{\cancel{8}}}{(I)\cancel{\cancel{109}}\cancel{\cancel{109}}}\right) \times 100$	98.4 %	%

Pass/Fail: ASS	Reviewed By:	Control Contro	Date:	

Tana Chang	Page8/of	221

Project: Vista Lydf, 11 Gu - 3 Project No.: 101. 02. 08		Date:
Test No.: _/0 -3	L-1	Proctor Value (J):
Location: N. 15564 900 .	E491900 5B	Standard ASTM D69
Nuclear Density Test No.: 1		Optimum Moisture Conte
/		-

Date: 08/24/20	012
Soil Type: 5 B	
Proctor Value (J): 109.	∫ pcf
✓ Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content;	10,0
Sampled By: T Rute	10.1

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /_/ lbs	Drying Pan Tare (C) 161.3 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 36/3 g lbs
Cylinder Volume (F) _, 034(_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 341.8 glbs

	Drive Cylinder.	Nuclear Gauge
Moisture Content		15.00
$ \begin{pmatrix} (D) & 36 & / & 3 & -(E) & /9 & 5 \\ (E) & 3 & 4 & 7 & -(C) & /80 & 5 \end{pmatrix} x 100 $	(G) <u>10,8</u> %	%
Wet Density		
(B) 5,19 -(A) 4,03 ((F) -034/	(H)	pcf
Dry Density		
$ \frac{(H) \qquad // \& 2^{-}}{\left[1 + \left(\frac{(G) / 2^{-}/2}{100^{\circ}}\right)\right]} $	(I) <u>/06·7</u> pcf	pcf
Compaction		
$\left((l) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	97,4_%	%

n a Pass		
Pass/Fail: /// S	Reviewed By:	 Date:

Drive Cylinder Test Report

1	PageS	_3	of _	221	_
1/24/	20/2				
.5F					_
					_

Project No.: 191. 07.08	
Test No.: _/0-5	2-1
Location: N1, 564, 800 E	= 491,900
Nuclear Density Test No.:	
Report No.: / O	

Project: Vista Land Q:11 C/13

\_\_ Date; \_\_\_*&8* 

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // L lbs	Drying Pan Tare (C) 160.2 g lbs
Weight of Cylinder and Soil (B) g 5.27 lbs	Weight of Pan and Wet Soil (D) 340, 2 glbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 339.6 gibs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3/0 & 2 & -(E) & 20 & (L) \\ (E) & 339 & 6 & -(C) & /79 & 4 \end{pmatrix} x 100 $	(G) _//.5 %	%
Wet Density		
(B) 5,27 -(A) 4,11 ((F) ,0341)	(H) <u>/20,5</u> pcf	pcf
Dry Density		
$\frac{(H)  /20.5}{\left[1+\left(\frac{(G) //.5^{-}}{100}\right)\right]}$	(I) <u>/0 % /</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{0} \%, I}{(J) \cancel{0} \%, S}\right) x 100$	98,7%	%

Pass/Fail: PASS	Reviewed By:	Date:	•
Rev.10/98 CF223/CPS			

#### CEC

Page 82 of 221

	rage ur _oxnz_ ]
roject: Vista LANSGII (C11/3)	Date:
est No.: _/0-4	Proctor Value (J): 189.5 pcf Standard ASTM D698 Modified ASTM 1557
uclear Density Test No.: AAA	Optimum Moisture Content: 10.0 % Sampled By: 7. Bradfy

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 159. 4 g lbs
	Weight of Pan and Wet Soil (D) 359,9 g lbs
Cylinder Volume (F) . \( \tau \) 1341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 338, 4 g lbs

	Drive Cylinder :	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) .359. & Q & -(E) & 2.1.5 \\ (E) .338. & Q & -(C) & 178.5 \end{pmatrix} \times 100 $	(G) _/2.0_ %	%
Wet Density		
(B) <u>5, 29</u> -(A) <u>4, 13</u> ((F) , 0341)	(H) <u>/2 /. /</u> pcf	pcf
Dry Density		
$\frac{(H) /2 I. I}{\left[1 + \left(\frac{(G) /2 \cdot \mathcal{O}}{100^{\circ}}\right)\right]}$	(I) /0 &, / pcf	pc
Compaction		
$\left(\frac{(I) \cancel{IO3}, I}{(J) \cancel{IO9}, S}\right) \times 100$	98.7 %	%

Pass/Fail: PAS	Reviewed By:	Date:
Day 10/09 CE222/CDS		

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Cylinder Volume (F) \_034/\_ ft<sup>3</sup>

Drive Cylinder Test Report

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	Page <u>\$4</u> of 22
Project: Vista Lansfill C11-3	Date: 08/24/2012 Soil Type: 55
Project No.: 101.07.08	Soil Type: SF
Test No.: 10-6 4-2	Proctor Value (J): 109 5 nef
Location: N.1. 564, 750 E 492, 130	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content: /0, > 9
Report No.:/Q	Sampled By: T. BrAdfore
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// b lbs	Drying Pan Tare (C) /6/3 g lbs
Weight of Cylinder and Soil (B) g 5, /8 lbs	

Weight of Pan and Dry Soil (E) 340.0 g

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) 36/.2 & -(E) & 2/.3 \\ (E) 340, 0 & -(C) & /78.7 \end{pmatrix} x 100 $	(G) _ <i>//, 9</i> %	%
Wet Density		
(B) 5,18 -(A) 47,02 ((F),0341)	(H) 1/7.9 pcf	pcf
Dry Density		
$\frac{(H) / 7 \cdot 9}{\left[1 + \left(\frac{(G)}{100'}\right)\right]}$	(I) <u>/05,4</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{05,4}}{(J)\cancel{09,5}}\right) \times 100$	96.3 %	%

Pass/Fail: PAS 5	Reviewed By:	Date:
Rev.10/98 CF223/CPS	Pipe reprovaz	Date.

Report No.: \_\_\_\_

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age	85	of 22	

Project: Visty Lindfil)	611 3
Project No.: 101. 07. 08	
Test No.: 10-7	2-2
Location: N 1564,750 E	442,200
Nuclear Dendity Test No.	

Date: 08/24/2012	
Soil Type:	
Proctor Value (J): 194.5	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:/0.	2 %
2	1 1

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 152, g g lbs
	Weight of Pan and Wet Soil (D) 359 9 g lbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 342.8 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 359.9 & -(E) & 17.1 \\ (E) & 342.8 & -(C) & 182.9 \end{pmatrix} \times 100$	(G) 9,3 %	%
Wet Density		
(B) 5,1 6 -(A) 4.0 ((F) 0341)	(H) //7.3 pcf	pcf
Dry Density		
$\frac{(H) \qquad //7, 3}{\left[1+\left(\frac{(G)-9, 2}{100'}\right)\right]}$	(I) 107,3 pcf	pcf
Compaction		
$\left(\frac{(I) / 07.3}{(J) / 07.5}\right) \times 100$	98.0 %	%

Pass	Fail: PASI	
Rev.10/98	CF223/CPS	

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#### Drive Cylinder Test Report Page 87 of 22/

# CEC Project: Vista Landfill 611 3 Project No.: (0). 07. 08

Cylinder Volume (F) \_\_, 034 ft<sup>3</sup>

Date: 08/24/2013	<u>.</u>
Soil Type: SF	
Proctor Value (J): 189. 5	F
VStandard ASTM D698	Modified ASTM 155

Test No.: _/0 -9	4-4
Location: N1,514, 75	0, F 492,000
Nuclear Density Test No.:	
Report No.:	.:
Drive C	linder Information
Weight of Cylinder (A)	g /// Ibs

Report No.:	Sampled By: T. Bradked
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// lbs	Drying Pan Tare (C) /6 0. 2 g lbs
Weight of Cylinder and Soil (B) g 5,25 lbs	Weight of Pan and Wet Soil (D) 36 4.2 g lbs

Weight of Pan and Dry Soil (E) 340-8 g

Optimum Moisture Content: \_\_\_\_\_\_\_\_\_

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 \not L 0, 2 - (E) & 19 \not L                                 $	(G) <u>/0.7</u> %	%
Wet Density		
(E) _ 5,25 -(A) _ 4,09 ((F) _ , v3+1 _)	(H) // 7. 9 pcf	pcf
Dry Density		
$\frac{(H) //9.9}{\left[1+\left(\frac{(G) /0.7}{100'}\right)\right]}$	(I) <u>/08,3</u> pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{0}\cancel{3}.3}{(J)\cancel{0}\cancel{0}\cancel{5}}\right) \times 100$	98.9 %	%

Page		•		
Pass/Fail; / ASJ	Reviewed By:		Date:	

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Project: Vista Landfill	011:3
Project No.: 201.07.08	
Test No.: 10-8	2-3
Location: N1564, 750 E 4	92,130
Muslam Density Test Me.	

Date: 08/24/2012	
Soil Type:	
Proctor Value (J): /// 5	pcf
✓ Standard ASTM D698Mo	dified ASTM 1557
Optimum Moisture Content:	%
Sampled By: To Bridge	d

Report No.: /0	Sampled By: To Brad Rord
Drive Cylinder Information	Molsture Content Sample
Weight of Cylinder (A) g _/./ _ lbs	Drying Pan Tare (C) /60.2 g lbs
Weight of Cylinder and Soil (B) g 5, 44 lbs	Weight of Pan and Wet Soil (D) 36 0.2 g lbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3358 glbs

	Drive Cylinder	
Moisture Content		
$\begin{pmatrix} (D) 360.2 - (E) 244 \\ (E) 335.8 - (C) 175.4 \end{pmatrix} \times 100$	(Ġ) <u>/3, 9</u> %	%
Wet Density		
(B) 5,44 -(A) 4.28 ((F) 10341)	(H) <u>125,5</u> pcf	pcf
Dry Density		
$ \frac{(H) \qquad \cancel{\cancel{2.5.5}}}{\left[1 + \left(\frac{(G)  \cancel{\cancel{3.9}}}{100'}\right)\right]} $	(I) pcf	pcf
Compaction		
$\left(\frac{(l) / / D \cdot 2}{(J) / / J \cdot 5}\right) \times 100$	98.8 %	%

Pass/	Fail: PASS	Reviewed By:	Date:	-
Rev.10/98	CF223/CPS			

#### CEC

Drive Cylinder Test Report

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Page	88	of.	0.1	

Project: Vista Landfill GIV 3	Date: 18/25/2012.
Project No.: 101. 21. 28	Soil Type: SF
Test No.: 11-1 2-5	Proctor Value (J): ///. 5 pcl
Location: 11,564,730 E 442,257	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 11/1	Optimum Moisture Content: 15. 9
Report No.: //	Sampled By: T. Bradfad
Drive Cylinder Information	Moisture Content Sample

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 159.9 g lbs
	Weight of Pan and Wet Soil (D) 352, 9 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 33012 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 35^{5}, 9 & -(E) & 22^{5}, 7 \\ (E) & 23^{5}, 2 & -(C) & 170, 2 \end{pmatrix} \times 100$	(G) <u>/7.4</u> %	%
Wet Density		
(B) 5,44 -(A) 4,28 ((F) ,0341)	(H) <u>/25.5</u> pcf	pcf
Dry Density		
$ (H) \qquad \cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel$	(I)	pcf
Compaction		
$\left[\frac{(I)  \cancel{\cancel{F}} \dot{\varepsilon} \cdot \cancel{\cancel{9}}}{(J)  \cancel{\cancel{1/1}} \cdot \cancel{\cancel{5}^{\circ}}}\right] \times 100$	95,9" %	%

	Prel		
Pass/Fail: _	/ /A >>	Reviewed By:	

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Page	5-9	of	221	

Project: Vista Lowellill	Date:
Project No.: _/0/ 07 , 0}	Soil Type:
Test No.:	Proctor Val
Location: N / 514 73 - 5-492 125	V Standa
Nuclear Density Test No.: P	Optimum N
Th. 121	•

Date:	12
Soil Type: \( \sigma \mathcal{F} \)	
Proctor Value (J):	pcf
FStandard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:	12-1 %
Sampled By: 7. 3/	1 dford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./4 lbs	Drying Pan Tare (C) 161.3 g lbs
	Weight of Pan and Wet Soil (D) 361, 3 glbs
Cylinder Volume (F) 1034 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 335.2 g lbs

	Drive Cylinder	
Moisture Content		PAGE AND A DOCUMENT
$\begin{pmatrix} (D) & 36/13 & -(E) & & & \\ (E) & & & & & \end{pmatrix} x 100$	(G) <u>/5. \(\circ\)</u> %	%
Wet Density		
(B) 5.22 -(A) 4.06 ((F) : C341)	(H) //9. / pcf	pcf
Dry Density		
$\frac{(H) //9, /}{\left[1 + \left(\frac{(G) //5, \circ}{100^{\circ}}\right)\right]}$	(I) <u>/03, 6</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{\cancel{103}} \cancel{\cancel{10}}}{\cancel{\cancel{107}} \cancel{\cancel{100}}}\right) \times 100$	96.1 %	%

Pass/Fail: PASC	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Drive Cylinder Test Report

Page	91	of_	22	1_
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Project: 1/15+4 1010 8:11 611 3	Date: 08
Project No.: 10 / 62 / 6 J	Soil Type:
Test No.: 13 - 2	Proctor Value (I):
Location: N 1564,600 E491.500	Standard AS
Nuclear Density Test No.:	Optimum Moistur
Report No.: /3	Sampled By:

Date: 08/28/20	12.	
Soil Type: 5)=		_
Proctor Value (J): &	2,5 pc	f
Standard ASTM D698	Modified ASTM 1557	
Optimum Moisture Content:	12.3	%
Sampled By:	Let Cart	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g // L lbs	Drying Pan Tare (C) 135. 7 g lbs
ř	Weight of Pan and Wet Soil (D) 735,7 g lbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/2, 4 g lbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underbrace{335.7}_{(E)} - (E) & /7.7\\ (E) \underbrace{376.4}_{(E)} - (C) & /6c.7 \end{pmatrix} x 100 $	(G) <u>/0 . 7</u> %	%
Wet Density		
(B) 5,22 -(A) 4,04 ((F), 634/)	(H) pcf	pcf
Dry Density		
$\frac{(H) / 9, /}{\left[1 + \left(\frac{(G) / 0, 7}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{C}\cancel{7}, \cancel{6}}{(J)\cancel{C}\cancel{9}, \cancel{5}}\right) \times 100$	98,3 %	%

Pass/Fail: 1975	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

## CEC

Page 90 of 221

Project: Vista Law Laf.	11 04.3
	11 (211.2
Project No.: 10/ 07.08	
Test No.: 13-1	1-6
Location: N. 564 750 E 49)	25-7
Nuclear Density Test No.: / \	
Report No.: 13	

Date: 8/28/2018	7_
Soil Type: SF	
Proctor Value (J): /09.5	р
Standard ASTM D698	Modified ASTM 155
Optimum Moisture Content:/ 2	
Sampled By: 7. 35 /	1-4-1

Drive Cylinder Information	Moisture Content Sample
8	Drying Pan Tare (C) 1300 g lbs
Weight of Cylinder and Soil (B) g _\$/\frac{1}{2}_{\text{lbs}} lbs	Weight of Pan and Wet Soil (D) 330.0 glbs
Cylinder Volume (F) <u>, ロラ4 </u> In³	Weight of Pan and Dry Soil (E) 3/5, 5 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		All specifications & strategic In E. V.S.
$\begin{pmatrix} (D) & 32 & 0, & 0 & -(E) & 15, & 0 \\ (E) & 315, & 5 & -(C) & 185, & 5 \end{pmatrix} \times 100$	(G) <u>8:1</u> %	%
Wet Density		
(B) 5, 14-(A) 3, 99 ((F) 1034 (	(H) _// 7, O pcf	pcf
Dry Density		
$ \frac{(H) \qquad 11 - 7 \cdot 2}{\left[1 + \left(\frac{(G) \qquad \mathring{y}_{r}}{100}\right)\right]} $	(I)/ pcf	pcf
Compaction		
$\left(\frac{(I) / \circ \S . \mathcal{L}}{(J) / \circ \S . \Sigma}\right) \times 100$	98,8 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

Project: Vista Landfili	011-3
Project No.: 101.07. 08	
Test No.:/ 3 3	13
Location: N 1564 100 E. 4	81803
Nuclear Density Test No.: No.:	
Report No.:/ 3	

Page	2 of 221
Date: <u>08/2-8/2012</u> Soil Type: 5F	
Soil Type: グデ	
Proctor Value (J):/0 7.8	pcf
Standard ASTM D698M	fodified ASTM 1557
Optimum Moisture Content:	/ %
Complet Day - C 11/h	

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 232, 5 g lbs
	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) 31/16 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content	2.4.2.2.20(1.3.2.2.2.2.2.2.2.2.2.2.2.2.1.1.	
$ \begin{pmatrix} \underline{(D) \underbrace{332.5}_{-} - (E) \underbrace{20.9}_{-} \\ \underline{(E) \underbrace{377.6}_{-} - (C) \underbrace{75.7}_{-} \end{pmatrix}} \times 100 $	(G) _//, 7_ %	%
Wet Density		
(B) 5.// -(A) 3,95 ((F),0341)	(H) <u>115,8</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad // 5.8'}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) <u>/03, 7</u> pef	pcf
Compaction		
$\left(\frac{(I)\cancel{503},7}{(J)\cancel{507},8}\right) \times 100$	96.2. %	%

Pass/Fail: 1/4) 55	Reviewed By:	Date:	
v 10.000 OF303 (cine			_

Page	93	of 221

Project: Wista Land	£71 G11- 3
Project No.: 201, 27. 0 3	
Test No.: /3.4-	L-3
Location: 11/564 600 2	491,900
Nuclear Density Test No	

Date:	2012	
Soil Type:		
Proctor Value (J): 107,	-8-	pcf
C Standard ASTM D698	Modified AS	TM 1557
Optimum Moisture Content:	12,1	%
Sampled By: T. Bra	7 dobart	

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 130,0 g lbs
	Weight of Pan and Wet Soil (D) 230,0 glbs
Cylinder Volume (F) <u>1034-1</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 5/0. 9 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \ \vec{\beta} \vec{y} \cdot \vec{c} - (E) \ \vec{f} \cdot \vec{f} \cdot \vec{f}}{(E) \ \vec{\beta} \cdot \vec{f} - (C) \ \vec{f} \cdot \vec{f} \cdot \vec{f}} \right) \times 100 $	(G) <u>/0,6</u> %	%
Wet Density		
(B) 5.08 -(A) 3,92 (F) 10241)	(H) //5, a pcf	pcf
Dry Density		
$\frac{(H) \qquad  /  /  \mathcal{S} \cdot \circlearrowleft}{\left[1 + \left(\frac{(G)   / \mathcal{E} \cdot  /  \zeta}{100'}\right)\right]}$	(I) <u>104; ©</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{/0+}, \circ}{(J) \cancel{/0+}, \mathcal{S}}\right) \times 100$	96.5 %	%

Pass/Fail: PA S	Reviewed By:	Date:
Lui tama araasiana		

Drive Cylinder Test Report

Page	95_of	221
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Project: VISTA ANDEII Project No.: 101. 97.07	
Test No.:/3 -6	L-5
Location: NJ, 5(4, 600 )	-491 900
Nuclear Density Test No.: _//	

Date: 08/28/	201
Soil Type:	
Proctor Value (J):	9.5 pc
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: _	10,0
Sampled By: T. Brief	Ford

	Sampled Dy
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C)/3J. S g lbs
Weight of Cylinder and Soil (B)g _517 lbs	Weight of Pan and Wet Soil (D) 332.7 glbs
Cylinder Volume (F), 23441 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 307, L g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} \underline{(D)} \underline{3334.5} & -(E) & \underline{22.4} \\ \underline{(E)} \underline{309.5} & -(C) & \underline{177.1} \end{pmatrix} \times 100 $	(G) <u>12 (9</u> %	%
Wet Density		
(B) -5.17 -(A) -47.01 ((F) _,03+1)	(H) _// 7. 6 pcf	pcf
Dry Density		
$\frac{(H) /7, 6}{\left[1+\left(\frac{(G) /2 \cdot 3}{100}\right)\right]}$	(I) <u>/0 4, 2</u> pcf	pcf
Compaction	95,2	
$\left(\frac{(I) / 0 + 2}{(J) / 0 f_1 5}\right) \times 100$	95,2 26.8 (0)%	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

Page 94- of 221

Project: Vista Londfil	1 04-3	Date: 08	120.15
Project No.: <u>√€ / ,                                  </u>		Soil Type:	5.5
Test No.: <u>/3 · 5</u>		Proctor Value (J):	109
Location: M.1, 564, 669 E 49.	1900	Standard ASTM	D698
Nuclear Density Test No.:		Optimum Moisture C	ontent:
Penort No: /3		Sampled But	T. 06

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _i, / & Ibs	Drying Pan Tare (C) 135,7 g 1bs
Weight of Cylinder and Soil (B) g J.2:3 lbs	Weight of Pan and Wet Soil (D) 335.7 g lbs
Cylinder Volume (F) 034/_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/5.2 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 335, 7 & -(E) & 26, 5 \\ (E) & 3/5, 2 & -(C) & 179, 5 \end{pmatrix} \times 100$	(G)//, 4 %	%
Wet Density		
(B) 5,32 -(A) 4,04 ((F) 074-1	(H) <u>//8,5</u> pcf	pcf
Dry Density		
$\frac{(H) / \% . S^{-}}{\left[1 + \left(\frac{(G)}{100}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) - / ob \cdot \psi}{(J) / o \cdot 9 \cdot 5}\right) \times 100$	97,2 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Day 10/09 (F222/CD0		

## CEC

Total Control	Page 96 of 22 1
Project: Vista Landfill Cul	Date: 8/49/2412
Project No.: /0/. 07. 05	Soil Type:SF
Test No.: 14-1	Proctor Value (J): /59.5 pcf
Location: N1, 564, 750 E 491, 950	Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: / 4	Optimum Moisture Content: 10,0 %
Report No : 14	Sampled By: T. Baralo

Report No.: //Ţ	Sampled By: 1. () (A & Jo
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) _/33, 7 g lbs
Weight of Cylinder and Soil (B)g _5./4_ lbs	Weight of Pan and Wet Soil (D) 335, 7 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 320, 7 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) .335.7 - (E) /5.9}{(E) .320.7 - (C) /85.9} \right) \times 100 $	(G)%	%
Wet Density		
(B) 5./(, -(A) 4, 3 ((F)_2341_)	(H)	pcf
Dry Density		
$ \frac{(H) \qquad \text{17.3}}{\left[1+\left(\frac{(G)}{100'}\right)\right]} $	(1)	pcf
Compaction		
$\left(\frac{(I)}{(J)} \frac{\cancel{1085}}{\cancel{1095}}\right) \times 100$	99.1 %	%

Pass/Fail: PASS	Reviewed By:	 Date:	
D-110/00 CE222/CDG			

Page	91	of 221	
1/2012 SP			

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// bs	Drying Pan Tare (C) /30,0 g lbs
Weight of Cylinder and Soil (B) g 5,04 lbs	Weight of Pan and Wet Soil (D) 330. 2 glbs
Cylinder Volume (F) / D3 4/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/0,7 glbs

		Nuclear Gauge
Moisture Content		
$ \frac{(D) \underbrace{330 \cdot 3}_{(C)} - (E) \underbrace{/9.3}_{(C)} x  100}{(E) \underbrace{3/0.7}_{(C)} - (C) \underbrace{/89.7}_{(C)} x $	(G) <u>/0,7</u> %	%
Wet Density		
(B) 5.0 4 -(A) 3.55 (F) ,0341	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad //^{3} \cdot \delta}{\left[1 + \left(\frac{(G) \qquad /O \cdot 7}{100'}\right)\right]}$	(I)/\(\omega\)2.8 pcf	pcf
Compaction		
$ \begin{pmatrix} \underline{(I) \ / \triangleright 2 \cdot 8} \\ \underline{(J) \ / \wp 7 \cdot \overline{g}} \end{pmatrix} x 100 $	95,4%	%

Pass/Fail: P455 Reviewed By: \_\_\_\_\_\_\_ Date: \_\_\_\_\_

Rev.10/98 CF223/CFS

Drive Cylinder Test Report

CEC

Page 99 of 221

Project: Vista landfill	6113
Project No.: /01, 07, 08	
Test No.: 14-4	2-4
Location: N1, 364,750 E. 49	
Nuclear Density Test No.:	
Penart No : 4/6	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/6 lbs	Drying Pan Tare (C) /30, O g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 330/ 0 glbs
Cylinder Volume (F) <u>+ D3 41</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 308/6 glbs

	Drive Cylinder	- Nuclear Gauge
Moisture Content	Ï	
$ \begin{pmatrix} (\underline{D}) & \underline{330, 0} & -(\underline{E}) & \underline{244} \\ (\underline{E}) & \underline{305, 6} & -(\underline{C}) & \underline{175, 6} \end{pmatrix} x 100 $	(G) _/2,5%	%
Wet Density		
(B) 5.12 -(A) 3.96 ((F) .03t1 )	(H)/6 · / pcf	pcf
Dry Density		
$\frac{(H) \qquad //6.1}{\left[1+\left(\frac{(G) \qquad /2.0}{100'}\right)\right]}$	(I)/03, 7 _ pcf	pcf
Compaction		
$ \begin{pmatrix} (I) & \int o \vec{\beta} & \vec{7} \\ (J) & \int o \vec{7} \cdot \vec{y} \end{pmatrix} x 100 $	96,2 %	%

Pass/	Fail: <u>PASS</u>	Reviewed By:	 Date:	
Rev.10/98	CF223/CPS			

Month Atlanta	Page 78 of 22
Project: 16540 bondfill 611-3	Date:
Project No.: 101, 17. 05	Soil Type: 57
Test No.: 14-3 L-3	Proctor Value (J): ///.5 pcf
Location: 11/514, 725 E 492090	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: M/A	Optimum Moisture Content: 15,9 %
Report No.: /4f	Sampled By: T. Bradford

Report No.: _/4	Sampled By: T. Bradford			
Drive Cylinder Information	Moisture Content Sample			
Weight of Cylinder (A) g//_ lbs	Drying Pan Tare (C) 132, g lbs			
Weight of Cylinder and Soil (B) g5,41 lbs	Weight of Pan and Wet Soil (D) 332.5 glbs			
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 at 4, 1 g lbs			

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) & 232.5 & -(E) & 28.4 \\ (E) & 304.1 & -(C) & 77.4 \end{pmatrix} \times 100 $	(G) _/6/b_ %	%
Wet Density		
(B) 5.48 -(A) 4.32 ((F) .034/	(H)/26,7_ pcf	pcf
Dry Density		
$\frac{(H) \qquad /24.7}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I)/0\\\ pcf	pcl
Compaction		
$\left[\frac{(I) / 2g \cdot 7}{(J) / (II) \cdot 5}\right] \times 100$	97.5 %	%

Pass/Fail: PASS	Reviewed By:	Date:	_
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Drive Cylinder Test Report

Page 100 of 221

\_\_\_Modified ASTM 1557

	-
Project: <u>pista Landfill</u> <u>Cur. 7</u> Project No.: <u>101.57.08</u> Test No.: <u>14-5</u> Location: NJ,564.725 P 454.000	Date: 08/24/20/2 Soil Type: 5F Proctor Value (J): /07/8 V Standard ASTM D698 Md
Nuclear Density Test No.: メイ	Optimum Moisture Content: / 2. (
	The second secon

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) _/3 2 . \( \subseteq \) lbs
Weight of Cylinder and Soil (B) g 5.05 lbs	Weight of Pan and Wet Soil (D) 3725 glbs
Cylinder Volume (F) 1024/ ft3	Weight of Pan and Dry Soil (E) 3/3/3 glbs

·	化化学 医克里特氏 医克里特氏 医二甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) 372.5 - (E) /9.5^{\checkmark}}{(E) 7/3.0 - (C) /30.5^{\checkmark}}\right) \times 100 $	(G) /0.8 %	%
Wet Density		
(B) 5,05 -(A) 3,89 ((F) ,074/)	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad // \cdot f_{-} /}{\left[1 + \left(\frac{(G) \qquad / \circ \cdot \cdot \delta}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) - /O ?, O}{(I) - /O ?, g}\right) \times 100$	95.5 %	%

Pass/	Pass/Fail: Pass		Reviewed By:		
Rev.10/98	CF223/CP8				

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Project: Vista Landill G113	Date: 08/29/2-3/-
Project No.: /01. 07.5 8	Soil Type:
Test No.: 14-6 4-6	Proctor Value (J):
Location 11514, 750 & 471,950	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Optimum Moisture Content:
Report No · 14	Sampled Bur To Brad Cord

Drivé Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 13:2.5 g lbs
Weight of Cylinder and Soil (B)g B B B	Weight of Pan and Wet Soil (D) 3345 glbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) 312.9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underbrace{332.5^{\circ}}_{3} - (E) & \underline{/9.6}_{6} \\ (E) \underbrace{3.72.9}_{3} - (C) & \underline{/ge.4} \end{pmatrix} \times 100 $	(G) <u>/۵.9</u> %	%
Wet Density		
(B) 4.91 -(A) 3.75 ((F) , 2341)	(H) //0.0 pcf	pcf
Dry Density		
$\frac{(H) \qquad //\mathcal{O} \cdot \mathcal{O}}{\left[1 + \left(\frac{(G) - /\mathcal{O} \cdot \mathcal{O}}{100^{\circ}}\right)\right]}$	(I) <u>99, 2</u> pcf	pcf
Compaction		
$\left(\frac{(I) - 99.2}{(J) - 107.8}\right) \times 100$	92.0 %	%

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Retest

Drive Cylinder Test Report

### CEC

Page 103 of 221 Optimum Moisture Content: 12.1 Sampled By: 7. Bradfold

Project No.: 101.07-08	_
Test No.: 14 - 8 L-6	_
Location: N. 564,750 E491,933	
Nuclear Density Test No.: _//A	_
Report No.: 14	_
	_

Drive Cylinder Information Moisture Content Sample Weight of Cylinder (A) \_\_\_\_\_\_ g /\_/ lbs Drying Pan Tare (C) \_\_\_/. 70 g Weight of Cylinder and Soil (B) g 5.02 lbs Weight of Pan and Wet Soil (D) 330.0 g Cylinder Volume (F) \_\_\_\_\_ ?4 ft<sup>3</sup> Weight of Pan and Dry Soil (E) 31/, 9 g

	Drive Cylinder	Nuclear Gauge
Moisture Content .		
$\begin{pmatrix} (D) \frac{330 \cdot 3}{(E) \cdot 3} & -(E) & /8 \cdot \frac{1}{2} \\ (E) \frac{3}{3} & // \cdot 8 & -(C) & /8 & / \cdot 8 \end{pmatrix} \times 100$	(G)%	%
Wet Density		
(B) 5.02-(A) 3.86 ((F) .034-1)	(H) //3. 2. pcf	pcf
Dry Density		
$ \frac{(H) \qquad //3,2}{\left[1+\left(\frac{(G) \qquad /\varnothing , \varnothing}{100^{\circ}}\right)\right]} $	(I) <u>/52-9</u> pcf	pcf
Compaction		
$\left(\frac{(I) / 2 \cdot 7}{(J) / 2 \cdot 7 \cdot 5}\right) \times 100$	95.5 %	%

Pass/	Fail: PA	55 .	Reviewed By:		Date:	
Rev,10/98	CF223/CPS	*	Re Jest Jor	14-6		

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Page /OL	of	22	1	

Project: Vista Landfill Gall	Date: 8/29/2012 Soil Type: 55
Project No.: /0/. 9 7. 05	
Test No.: 14-7 C-7	Proctor Value (J): /o f.5 pc
Location: N 156 t, 72-5 [= 491,950	
Nuclear Density Test No.:	Optimum Moisture Content: 10, 0
Report No.: 14	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g lbs	Drying Pan Tare (C) /3013 g lbs
Weight of Cylinder and Soil (B)gg lbs	Weight of Pan and Wet Soil (D) 330,0 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/4/ / glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} \underline{(D) 330.0 - (E) /5.9} \\ \underline{(E) 39.9 - (C) /9.49} \end{pmatrix} \times 100 $	(G) 8,6 %	%
Wet Density		
(B) 5.09 -(A) 3.93 ((F) , 0341)	(H)	pcf
Dry Density		
$\frac{(H) \qquad \text{if } 5, 2^{-}}{\left[1 + \left(\frac{(G)  \text{gr} \cdot \omega}{100^{\circ}}\right)\right]}$	(I) <u>/0</u> (. / pcf	pel
Compaction		
$\left(\frac{(I)}{(J)} \frac{/o \cdot J \cdot 7}{/o \cdot f \cdot S}\right) \times 100$	97.4 %	%

Pass/Fail: PASS	Reviewed By:	 Date:	
2 10/09 CF222/CBC			

#### CEC

Physical Arteria	Page 104 of 221
roject: Vista Land Sill Gu 3	Date: 8/30/2012-
roject No.: 161. 67. 08	Soil Type:
est No.: 15-1 2-6	Proctor Value (I): 189.5 pcf
ocation: 11.514,730 F 492 250 Silvery	Standard ASTM D698 Modified ASTM 1557
luclear Density Test No.; _ ル オ	Optimum Moisture Content: 10.0
eport No.:	Sampled By: T. 3mlf

Tuport To.:	Sampled By. 1. STW255
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g / lbs	Drying Pan Tare (C) 130, C g lbs
Weight of Cylinder and Soil (B) g 5-22 lbs	Weight of Pan and Wet Soil (D) F. O glbs
Cylinder Volume (F) <u>, 034</u> /ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/3/2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \underbrace{335 \circ -(E) /6 \cdot 8}}{(E) \underbrace{3/3.2}_{-(C)} -(C) /8 \cdot 3 \cdot 2} \right) \times 100 $	(G) <u>9,2</u> %	%
Wet Density		
(B) 522-(A) 4.06 ((F) 1024/)	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad \text{if } q \text{. f}}{\left[1 + \left(\frac{(G) - g \cdot 2}{100^{\circ}}\right)\right]}$	(I)/	pcf
Compaction		
$\left(\frac{(I) \cancel{f} + \cancel{f} + \cancel{f} + \cancel{f}}{(J) \cancel{f} + \cancel{f} + \cancel{f}}\right) x  100$	99.6 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
Day 10/08 GE221/CING			

Page 105 of 221

Project: Vista Landfill	Cr11-3
Project No.: 101. 07. 08	
Test No.: 15-2	16
Location: N. 1. 564, 730 E-4	42,125 Silvin
Nuclear Density Test No.:	
Report No.: 1.5	

	rage	<u>u</u>	
Date:08/	130/201	2	
Soil Type:	57		
Proctor Value (J): _	109.5		pcf
Standard ASTN	A D698	Modified ASTM	1557
Optimum Moisture			%
Sampled By:	T. BYAd	. An A	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g_1/6 lbs	Drying Pan Tare (C) 130, 3 g lbs
Weight of Cylinder and Soil (B) g _5_2 lbs	Weight of Pan and Wet Soil (D) 33 20 g lbs
Cylinder Volume (F) <u>341</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 314.8 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \underbrace{330}, \circ -(E) \underbrace{15, 2}}{(E) \underbrace{374, y}_{-} -(C) \underbrace{134, y}_{-} + x}\right) \times 100 $	(G) <u>8,2</u> %	%
Wet Density		
(B) 5,02 -(4) 3,86 ((F) 1,0344)	(H) pcf	pcf
Dry Density		
$ \frac{(H) //3, 2}{\left[1 + \left(\frac{(G) - S \cdot 2}{100'}\right)\right]} $	(I)/04,-\ pcf	pcf
Compaction		
$ \begin{pmatrix} (I) & /\cancel{D} + \cancel{D} \\ (J) & /\cancel{O} & \cancel{I} & \cancel{S} \end{pmatrix} \times 100 $	95.5 %	%

Pass/Fail: Pass	Reviewed By:	Date:

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Drive Cylinder Test Report

Page	107	of	22	1

Project: VISTA LANGE	11 911-3
Project No.: 101. 07. 08	
Test No.: 15-4	2-6
Location: N.1,564, 600 E	491 900 5.Bela
Nuclear Density Test No.: MA	
Report No.: 15	

Date: 08/30/2011	į.
Soil Type: 57	
Proctor Value (J): 199.5	pcf
✓ Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:/	0,00 %
Sampled By: T. Brade	lard

Report No.:	
-Drive Cylinder Information	: Moisture Content Sample
Weight of Cylinder (A) g _/_/ lbs	Drying Pan Tare (C) 135, 7 g lbs
Weight of Cylinder and Soil (B) g _5220 lbs	Weight of Pan and Wet Soil (D) 3357 gIbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 316.0 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 335,7 - (E) \ /9,7}{(E) \ 3/6, 0 - (C) \ /80/3}\right) \times 100 $	(G) <u>/0, 9</u> %	%
Wet Density		
(B) 5./2 -(A) 3.94 ((F) , 0344 )	(H)	pcf
Dry Density		
$\frac{(H) \qquad //5,5}{\left[1+\left(\frac{(G) \qquad /2,9}{100}\right)\right]}$	(I)/04/ pcf	pcf
Compaction		
$\left(\frac{(I) / 2.4 \cdot I}{(J) / 2.5 \cdot 5}\right) \times 100$	9510 %	%

Pass/Fail:/	PASS	Reviewed By:	 Date:
Rev.10/98 CF223/C	PS		

## CEC

Drive Cylinder Test Report

Project: Vista Land	f'11 on 3	Date: 05
Project No.: 101. 07, 08		Soil Type:
Test No.:	1-6	Proctor Value
Location: NJ 584 725 E4	-92,000 5, Briz	Standard
Nuclear Density Test No.: 📈 🗡		Optimum Mois
Report No.:		Sampled By:

	Page	106	of_2	21
Date: 08/30 Soil Type: 5F		Ŀ		
Proctor Value (J):				pcf
Standard ASTM D	698	Modif	ed ASTN	f 1557
Optimum Moisture Con	tent: 🟒	(2)		%
C1-2 D	- 1	. 1 0 -1		

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _ /./ l lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g5, 17 lbs	Weight of Pan and Wet Soil (D) 332, Tglbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 310, 8 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 7321 & 5 & -(E) & 2 & 1 & 7 \\ (E) & 3 & 5 & -(C) & 178 & 3 \end{pmatrix} \times 100 $	(G) <u>/2-2</u> %	%
Wet Density		
(B) 5./-7 -(A) 4,0/ ((F) -23-4/	(H) pcf	pcf
Dry Density		
$ \frac{(H) \qquad //7.6}{\left[1 + \left(\frac{(G)}{100}\right)\right]} $	(I)/0 % } pcf	pcf
Compaction		
$\left(\frac{(I) - \frac{124}{5}\%}{(J) - \frac{129}{5}\%}\right) \times 100$	95.7%	%·

Pass/	Fail: <u>Pass</u>	Reviewed By:	 Date:	
D 10/00	OP222/ORG			

## CEC

Page 108	of 22
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Project: Virta LINSAI	1 Coll . 3
Project No.: 10 1, 0 7, 0	8
Test No.: 15-5	4-7
Location: N11,51,4,730	492,250 5 Brown
Nuclear Density Test No.:/_	
- 15-	

Date:	8/30/20	1/2
Soil Type:	15F	
Proctor Value (J)	102.5	pc
✓ Standard AS	TM D698	Modified ASTM 1557
Optimum Moistu	re Content: 🔟	0,0
Sampled By:	TI Brid	Lid

report ivo	Samped Dy
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g /. / Je lbs	Drying Pan Tare (C) 130,0 g lbs
Weight of Cylinder and Soil (B) g 5, 25 lbs	Weight of Pan and Wet Soil (D) 3,30,0 glbs
Cylinder Volume (F) 3 Let 1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>3/しき g</u> lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 330 & 0 & -(E) & /3, 2 \\ (E) & 3/4 & 8 & -(C) & /3/4 & 8 \end{pmatrix} \times 100$	(G)%	%
Wet Density		
$\frac{(B)  5.09  -(A)  3.93}{((F)  , 0.341)}$	(H) pcf	pcf
Dry Density		
$\frac{(H) - \frac{1}{5' \cdot 2}}{\left[1 + \left(\frac{(G) - 7 \cdot I}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) / 0 ? (J)}{(J) / 0 ? (J)}\right) x 100$	98,3 %	%

Pass/Fail: <u>fass</u> Reviewed By		Date:	
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Page 109 of 221

Nuclear Density Test No.: \_\_\_\_\_ Nuclear Density Nuclear Densit

Sampled By: T. Brad Ford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g /,/L lbs	Drying Pan Tare (C) 132 · S g ' lbs
Weight of Cylinder and Soil (B) g 5.2.7 lbs	Weight of Pan and Wet Soil (D) 3323 g lbs
Cylinder Volume (F)r ¢3 4 1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/3, □ g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content	1.000 (1.0	
$ \left(\frac{(D) \underline{332.5^{\circ}} - (E) \underline{19.5^{\circ}}}{(E) \underline{313.5^{\circ}} - (C) \underline{180.5^{\circ}}}\right) \times 100 $	(G) <u>/C, 8</u> %	%
Wet Density		
(B) 5,27 -(A) 4,11 ((F) 1034/	(H) 120,5 pcf	pcf
Dry Density		
$\frac{(H) \qquad /2 \circ, 5}{\left[1 + \left(\frac{(G)  /o, 5}{100'}\right)\right]}$	(I) _/08. [ pcf	pcf
Compaction		
$\begin{pmatrix} (I) & / \varrho g, g \\ (J) & / \varrho g, J \end{pmatrix} x 100$	99.4-%	%

Pass/Fail: P1355	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### CEC

Drive Cylinder Test Report

 Project:
 Vis F1/Lx J£/11 Ge/73
 Date:

 Project No.:
 101.07.08
 Soil Typ

 Test No.:
 16-1
 4-14
 Proctor

 Location:
 N.1.4564.57
 £ 4(2,30)
 £ 10...
 ✓ Sta

 Nuclear Density Test No.:
 11/L
 Optimur
 Optimur

08/31/2014 

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // L lbs	Drying Pan Tare (C) _/35, 7 g lbs
Weight of Cylinder and Soil (B) g 57,37 lbs	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F) _, 234-1_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 312.2 gIbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 5 & 7 & -(E) & 2 & 3 & 5 \\ (E) & 3 & 1 & 2 & -(C) & 7 & 6 & 5 \\ \end{pmatrix} x 100 $	(G) <u>/3.3</u> %	%
Wet Density		
(B) 6.37 -(A) 4.2-/ ((F) , 0341)	(H) / 23.5 pcf	pcf
Dry Density		
$\frac{\left[H\right) \qquad /23.5}{\left[1+\left(\frac{(G)  /3.3}{100'}\right)\right]}$	(I) <u>/99, 0</u> pcf	pcf
Compaction		
$\left(\frac{(I)\_/\rho q. \ \delta}{(J)\_//1.5}\right) \times 100$	97,8%	%

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

#### CEC

Drive Cylinder Test Report Page //0 of 221

	_
Project: Visto Landfil	Q11.3
Project No.: 131. 47. 08	
Test No.: _/5~7	4-7
Location: 1/1564, 600 E 49,	1,900 5 Ber
Nuclear Density Test No.: F. A	
Report No.: 15	

Date: 08/30/2	2011
Soil Type: 5F	
Proctor Value (J): 109-5	pc
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: 🔟	, 5
Campbed Den	"u . d

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g//6′ lbs	Drying Pan Tare (C) /30,0 g bs
Weight of Cylinder and Soil (B)g5,/3_ lbs	Weight of Pan and Wet Soil (D) <u>33つ, ロ</u> glbs
Cylinder Volume (F) 234- / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/0, / glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 & 3 & 0 & 0 & 0 & 0 \\ (E) & 3 & 3 & 0 & 0 & 0 & 0 & 0 \end{pmatrix} \times 100$	(G)//, O %	%
Wet Density		
(B) 5.13 -(A) 3,97 ((F),0341)	(H)	pcf
Dry Density		
$ \frac{(H) \qquad // _{h} \cdot \varphi}{\left[1 + \left(\frac{(G) - // _{\circ} 2}{100}\right)\right]} $	(I) <u>/04, 9</u> pcf	pcf
Compaction		
$\left(\frac{(I)}{(J)} \frac{\cancel{I} \circ \cancel{I}, \stackrel{\circ}{1}}{\cancel{I} \otimes \cancel{I}_{I}} \right) \times 100$	95.8 %	%

Pass/Fail: Pass	Reviewed By:	Date:	
Pay 10/98 CF223/CPS			

#### CEC

Project: Vista	Landfill	01173
Project No.: 101. 5	7.08	
Test No.: 16 -2	i	-16
Location: N / 545	050 E.4	42.300 Ean
Nuclear Density Test N		

	Page	of_221_
Date: 08/3	31/2012	-
Soil Type:5 F		
Proctor Value (J):	109.5	pcf
Standard ASTM De	698M	odified ASTM 1557
Optimum Moisture Con		<u> </u>
0-110-7	POLL F.	

Report No.: / 6	Sampled By: T. Brad food	
Drive Cylinder Information	Moisture Content Sample	
Weight of Cylinder (A) g /./ lbs	Drying Pan Tare (C) 132.5 g lbs	
Weight of Cylinder and Soil (B) g 5,22 lbs	Weight of Pan and Wet Soil (D) 332.3 glbs	
Cylinder Volume (F) 2014 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 310, 4 g lbs	

	Drive Cylinder	Nuclear Gauge
Moisture Content		Market Call Statement Statement Call
$ \begin{pmatrix} (D) & 332.5 & -(E) & 22.1 \\ (E) & 3/0.4 & -(C) & 177.9 \end{pmatrix} \times 100 $	(G) <u>/2.4</u> %	%
Wet Density		
(B) 5,22 -(A) 4,06 ((F) .0341)	(H)	pcf
Dry Density		
$\frac{(H) / (9.)}{\left[1 + \left(\frac{(G) / (2.)^{4}}{100^{\circ}}\right)\right]}$	(I)/06.0 pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{0}\cancel{0}.0}{(J)\cancel{0}\cancel{0}\cancel{0}.5}\right) \times 100$	96.8 %	%

Pass/Fail: PAS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Page 113 of 221

Project: Vista Landill Q11 3	Date: 08/31/2012
Project No.: /01-07 25	Soil Type: 5 £
Test No.: 16-3 4-11	Proctor Value (J): ///. pcf
Location: N, 1565,250 E 462 700	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 4/A	Optimum Moisture Content: 15,9
Report No.: / L	Sampled By: 7. B 142 Co. 1

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 135, 7 g lbs
	Weight of Pan and Wet Soil (D) 375. 7 glbs
Cylinder Volume (F) 1074-/ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 327. 8 g lbs

-	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) .335.7 - (E) / . 9 \\ (E) .323.8 - (C) / 88.  \) $ x 100	(G) 6.3 %	%
Wet Density		
$\frac{(B) 5.33}{((F) 0341)} - (A) 4717$	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{2.2.3}}{\left[1 + \left(\frac{(G)  \cancel{\iota \cdot 3}}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) - I/S, I}{(J) - I/S, I/S}\right) \times 100$	103.6 %	%
PassFedi: FA 1 Reviewed By:		Date:
198 CF2734CPS / Retest )	5 16-4	

#### Drive Cylinder Test Report

	Drive Cylinder Test Report
Wast Erra Wast	Page 1/5 of 22 /
Project: Vista Landfill	Date: Date:
Project No.: _/o 1, 07, \( \oldsymbol{S} \)	Soil Type: SF
Test No.: /6-5	Proctor Value (I): / 0 9 . c pcf
Location: N. 1,564,850 E 492, 300	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content: / 0 , 3 %
Report No.: / 6	Sampled By: T. Brad Brd

Report No.;	Sampled By: / Bradene
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) B lbs
Weight of Cylinder and Soil (B) g 5 ,1 9 lbs	Weight of Pan and Wet Soil (D) 230, 0 g lbs
Cylinder Volume (F) 0341 ft3	Weight of Pan and Dry Soil (E) 308.8 g lbs

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) & 330.0 & -(E) & 2 &   \cdot \lambda \\ (E) & 308.8 & -(C) &   /78.8 \end{pmatrix} x 100 $	(G) %	%
Wet Density		
$\frac{(B)  \cancel{5}, \cancel{19}  -(A)  \cancel{4}, \cancel{03}}{((F)  \cancel{034}, \cancel{0})}$	(H) //8.2 pcf	pcf
Dry Density		
$\frac{(H) \qquad //  \Im_{r, \mathcal{I}_{-}}}{\left[1 + \left(\frac{(G) - / \cdot \cdot  \Im}{100'}\right)\right]}$	(I)/£ pcf	pcf
Compaction		
$\left(\frac{(I) - 1/0.5.6}{(J) - 1/0.9.5}\right) \times 100$	96.4 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Rotest 6-16-3

Drive Cylinder Test Report

	Page	221
08	131/2012	
pe:	<u> </u>	
Value (J):	111.5	pcf

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 159-9 g lbs
	Weight of Pan and Wet Soil (D) 357.0 gIbs
Cylinder Volume (F) <u>Ø34/</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 336.3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 359. \circ & -(E) & 22. 7 \\ (E) & 326. 3 & -(C) & 176. 4 \end{pmatrix} \times 100$	(G) <u>/2-9</u> %	%
Wet Density		
(B) 5·3+ -(4) 4·18 ((F) . 03+1)	(H) /22.6 pcf	pcf
Dry Density		
$\frac{(H) /22.4}{\left[1+\left(\frac{(G) /2.9}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{/08}, k}{(J) \cancel{///.5}}\right) \times 100$	97,4 %	%

Pass/F	ail: <u>P.455</u>		Reviewed By:			 Date:	
Rev.10/98	CF223/CPS	*	Retest	G-	16-3		

#### CEC

Drive Cylinder Test Report

Page // 6 of 221

roject: Vist+ Land £11 G11 -3 roject No.: 101.07.08	Date:
est No.: 16 -6 L-17	Proctor Value (J): ///. 5 pc
ocation: N 4565,050 E 492 300	
uclear Density Test No.: 📈 🔊	Optimum Moisture Content: 1.5, 9
eport No.:/ 6	Sampled By: Brad for &

Report No.:/_E	Sampled By: 7, 8142 to te
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g _1.1 blbs	Drying Pan Tare (C) 122.5 g lbs
Weight of Cylinder and Soil (B)g _5.24_ lbs	Weight of Pan and Wet Soil (D) 332, 5 g lbs
Cylinder Volume (F) 1934-1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 212.1 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		I- o service de la come.
$\begin{pmatrix} (D) & 333.5 & -(E) & 20.4 \\ (E) & 332.1 & -(C) & 179.4 \end{pmatrix} \times 100$	(G)	%
Wet Density		
(B) 5.24 -(A) 4,08 (F) ,034/	(H) pcf	pcf
Dry Density .		
$\frac{(H) \qquad \qquad JJ \cdot f \cdot b}{\left[1 + \left(\frac{(G) \qquad JJ \cdot f}{100'}\right)\right]}$	(I)/07,4_ pcf	pcf
Compaction		
$\left(\frac{(l)  /07, 4}{(l)  /l  5}\right) x  100$	96.3 %	%

Pass/Fail: PAS 5	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

\_\_\_\_ Modified ASTM 1557

Nuclear Gauge

\_%

	Page // 8 of 221
Project: V 1 str 1 and 1 il C 1 1 T  Project No.: 10 1 1 0 1 1 T  Test No.: 16 - Y  L - 18  Location: M1 514 8 NO. 6 481 700 5 5 6 1 1  Nuclear Density Test No.: M 6  Report No.: 16	Date:   0.8   7.1   2.0   2.0
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g ///  bls	Drying Pan Tare (C) /30,0 g lbs
Weight of Cylinder and Soil (B) g 5.35 lbs	Weight of Pan and Wet Soil (D) 330 0 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 305, 0 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 330, \circ & -(E) & 25, \circ \\ (E) & 355, \circ & -(C) & 175, \circ \end{pmatrix} \times 100 $	(G) <u>143</u> %	%
Wet Density		
(B) 5.35 -(A) 4.19 ((F) 10341)	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad 1  22.9}{\left[1 + \left(\frac{(G)  14.3}{100'}\right)\right]}$	(I) <u>107.5</u> pcf	pcf
Compaction		
$\left(\frac{(I)  / \circ 7.5^{-}}{(J)  / 1/.5}\right) \times 100$	96.4 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
10/00 OF333/CDD			

Moisture Content  $\left(\frac{(D) 335.7 - (E) 24.1}{(E) 311.6 - (C) 75.9}\right) \times 100$ (G) <u>/3,7</u> % 5,33 -(A) 4,17 (H) 122.3 pcf ((F) 1934/ Dry Density (H)  $\left[1 + \left(\frac{(G) / 3 / 7}{100'}\right)\right]$ (I) 107, b pcf Compaction 96.5 %  $\left(\frac{(I) / 0.7, \, \zeta}{(J) / I.5}\right) x \quad 100$ 

Project: 11 is +4 Vanifill 6/1 3 Date: 08/31/2012 Project No.: 101, 27, 28 Soil Type: 5F

Test No.: 16-7 L-12 Proctor Value (1): 1/1/.5

Standard ASTM D698

Optimum Moisture Content:

Sampled By: T. Brad Lord

Drying Pan Tare (C) \_\_\_\_/35. 7 \_\_\_ g \_\_\_\_

Drive Cylinder

Weight of Pan and Wet Soil (D) 335.7 g

Moisture Content Sample

Weight of Pan and Dry Soil (E) 3 / / , 6 g \_\_\_\_lbs

Location: N.1, 565, 250 E 442, 363

Weight of Cylinder and Soil (B) \_\_\_\_\_ g \_\_\_\_\_ g \_\_\_\_\_\_ lbs

Drive Cylinder Information Weight of Cylinder (A) g 1/6 lbs

Nuclear Density Test No.: MA

Cylinder Volume (F) \_\_\_\_\_\_\_ fl<sup>3</sup>

Report No.: 16

Pass/Fail:	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

	C

Test No.: 16-9

Project: Vista | AND 17/1/
Project No.: 10(27.04

Drive Cylinder Test Report

	Page	115 of 221
6113	Date: 08/3//2 Soil Type: 5 f	2012-
1-18	Proctor Value (J):	107.8 pcf
, 100	Standard ASTM D698	
	Optimum Moisture Content:	
	Sampled By: Brad	ford

rest ivo 7 5 7	Proctor value (1):
Location: N.1, 515, 050 E 492, 700	Modified ASTM 1557
Nuclear Density Test No.: M/M	Optimum Moisture Content: /2 . / %
Report No.: / 6	Sampled By: T. Bracker
Drive Cylinder Information	. Moisture Content Sample
Weight of Cylinder (A) g _/./ _ lbs	Drying Pan Tare (C) _/32.\_ g lbs
Weight of Cylinder and Soil (B) g 5, 19 lbs	Weight of Pan and Wet Soil (D) <u>F32.5 g</u> lbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 307, 4 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 392.5 & -(E) & 23.1 \\ (E) & 309.4 & -(C) & /76.5 \end{pmatrix} \times 100$	(G) <u>/3,1</u> %	%
Wet Density		
$\frac{(B)  5 \cdot   \hat{\gamma}  -(A)  4 \cdot , \circ 3}{((F)  \circ 34 \mid J)}$	(H)	pef
Dry Density		
$\frac{(H) \qquad // \stackrel{?}{\vee},  \smile}{\left[1 + \left(\frac{(G) - / \stackrel{?}{\vee},  /}{100^{\circ}}\right)\right]}$	(1) 104,5 pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{104.5}}{(J) \cancel{107.8}}\right) \times 100$	96.9 %	%

Pass/Fail: P#55	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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er	E	N
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Drive Culinder Test Report

CEC	2 cymma 200224po
	Page /20 of 22
Project No.: 761.07 68  Test No.: 16-10 L-8  Location: 1544.730 E 442 250 5, Bern	Date: 08/31/2012  Soil Type: 5  Proctor Value (I): ///. 5 pcf  Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 1/A	Optimum Moisture Content; 15.5 %
Report No.:/ 6	Sampled By: T. Brad Lord
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _// / b lbs	Drying Pan Tare (C) 135, 7 g lbs
Weight of Cylinder and Soil (B) g 5,44 lbs	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 369.9 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335.7 & -(E) & 25.8 \\ (E) & 399.9 & -(C) & 174.2 \end{pmatrix} \times 100 $	(G) <i>/4.8</i> %	%
Wet Density		
(B) 5,44 -(A) 4,28 ((F) ,23+1)	(H) <u>125.5</u> pcf	pcf
Dry Density		
$\frac{(H) \frac{\cancel{25.5}}{1+\left(\frac{(G)}{100'}\right)}}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I)/05.3_ pcf	pcf
Compaction		
$\left(\frac{(I)  /^{\circ} ? \cdot 3}{(I)  / / / 5}\right)  x  100$	98,0 %	%

Pass/Fail: Poss	Reviewed By:	Date:
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	Page /d of 22 /
Project: Vists Land Fill @11-3 Project No.: 101.07.08	Date: 05/3//2012 Soil Type: 5F
Test No.:	Proctor Value (J):
Location: N.1564, 725 E452,000	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content: _/0,0 %
Report No.: 16	Sampled By: T. Brad ford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _L/ b Ibs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g 5,05 lbs	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/6,3 gfbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		The second of th
$\begin{pmatrix} (D) & 3 & 3 & 2 & 5 & -(E) & // L_1 & 2 & \\ (E) & 3 & // L_2 & 3 & -(C) & -1/83 & 8 & \end{pmatrix} \times 100$	(G) <u>8, 8</u> %	%
Wet Density		
$\frac{(B)  5.06  -(A)  3.^{9}}{((F)  \cdot \circ 3 \cdot f^{1})}$	(H)	pcf
Dry Density		
$\frac{(H) \qquad // + +}{\left[1 + \left(\frac{(G) - \frac{g}{2}, \frac{g}{2}}{100'}\right)\right]}$	(I)/	pcf
Compaction	0 -	'
$\left(\frac{(I) - 105(I)}{(I) - 104(.5)}\right) \times 100$	9610 %	%

Pass/Fail: FA.55	Reviewed By:	Date:
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#### Drive Cylinder Test Report

	Page / d of & x )
Project No.: 1011 07.08	Date:
Test No.: /6-13	Proctor Value (I): ///. \square
Nuclear Density Test No.: No.:	Standard ASTM D698 Modified ASTM 155' Optimum Moisture Content: /5, ?
Report No.:/ 6	Sampled By: T. Bradland

Drive Cylinder Information	Moisture Content Sample
I .	Drying Pan Tare (C) g lbs
L	Weight of Pan and Wet Soil (D) 335.7 g lbs
Cylinder Volume (F) _, 334 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 305, 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		I see some a group carry grand
$ \begin{pmatrix} (D) & 335.7 - (E) & 29.5^{\circ} \\ (E) & 305.9 - (C) & 172.2 \end{pmatrix} \times 100 $	(G) %	%
Wet Density		
(B) _ 5,44	(H)	pcf
Dry Density		
$\frac{(H) \qquad /2.5'.5'}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) _/O(.8 pcf	pcf
Compaction		
$\left(\frac{(I) / 3 \ell , 8}{(J) / (I + 5)}\right) \times 100$	95.8 %	%

Pass/Fail: Pass/	Reviewed By:	Date:
Day 10/09 CE222/ODG		

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Const.	No.	W

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roject: Vista Low Still G11-3 Date: 08/31/2012	
roject No.: 101, 07, 0.8 Soil Type: 51	
est No.: 16-12 1-8 Proctor Value (J): 169. Continue	pcf
uclear Density Test No.: 1/8 Optimum Moisture Content: /0, 3	1557 %
eport No.: 16 Sampled By: 7. Brad Love	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g / lbs	Drying Pan Tare (C) /32,5 g lbs
Weight of Cylinder and Soil (B) g 5,24 lbs	Weight of Pan and Wet Soil (D) 33.1.1 glbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 3/7/4- g lbs

	Drive Cylinder	
Moisture Content		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
$ \begin{pmatrix} (D) & 332 & 5 & -(E) & 15 & 1 \\ (E) & 3/7 & 4 & -(C) & 184 & 9 \\ \end{pmatrix} x 100 $	(G) <u>8.2</u> %	%
Wet Density		
(B) 5,24 -(A) 4, 1 ((F) ,034( )	(H) <u>/20,1</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad / 2 \circ , 2}{\left[1 + \left(\frac{(G) \qquad g, \ \nu}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{///}\cancel{/}}{(J)\cancel{/}0\cancel{/}\cancel{5}}\right) \times 100$	101.5 %	%

Pass/Fail: 8455	Reviewed By:	Date:
10:00 OP222 (OP2		

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	Page 124 of 201
Project: Vista boudfill all 3	Date: 09/04/2012
Project No.: 101.07.08	Soil Type: 5 F
Test No.:/ 7 - /	Proctor Value (J): /07. 3 pc
ocation: N1,514,800 F 492,300 ER	Standard ASTM D698 Modified ASTM 1557
Fuclear Density Test No.:/ >	Optimum Moisture Content: /2 - /
Report No.: 17	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g lbs	Drying Pan Tare (C)/32.5 g ibs
	Weight of Pan and Wet Soil (D) 332, 5 g lbs
Cylinder Volume (F)3+1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/4.2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3 & 32 & 5 & -(E) & 15 & 3 \\ (E) & 3 & 4 & 2 & -(C) & 18 & 7 \end{pmatrix} \times 100$	(G) <u>/o.  </u> %	%
Wet Density		***************************************
(B) 5.02 -(A) 3.8 L ((F) 0341)	(H) _//3.2_ pcf	pcf
Dry Density .		
$\frac{(H) \qquad //\beta,  \mathcal{L}}{\left[1 + \left(\frac{(G) - \mathcal{L} \cdot /}{100^{\circ}}\right)\right]}$	(I) <u>/シス.タ</u> pcf	pcf
Compaction		~
$\left(\frac{(I) / 2.8}{(I) / 2.7.9}\right) \times 100$	95,4 %	%

Pass/Fail: PASS	Reviewed By:	Date:
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	Page / 3-3 of 222 (
Project: N3+4 Loude:11 G11-3	Date: 09/04/20/2 Soil Type: 515
rest No.: 17-2 1 2-19	Proctor Value (J): /07, 9 pc
ocation: N1,965,050 E 492,390 CBin	Standard ASTM D698 Modified ASTM 1557
Juclear Density Test No.: 1/14	Optimum Moisture Content: 8,2
teport No.:/ 7	Sampled By: T. Brad Cord
Date Calledo Teformalista	Moisture Content Sample

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./6 lbs	Drying Pan Tare (C) _/35,-7 g lbs
Weight of Cylinder and Soil (B) g5,0 /_ lbs	Weight of Pan and Wet Soil (D) 335,7 glbs
Cylinder Volume (F) , c34-/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/8, 4 g lbs

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) & 335.7 & -(E) & 17.3 \\ (E) & 319.4 & -(C) & 182.7 \end{pmatrix} x 100 $	(G) <u>9, 5</u> %	%
Wet Density		
$\frac{(B) \frac{5 \cdot 0}{-(A) 3 \cdot 85}}{((F) \cdot 03 \cdot 7)}$	(H) <u>//२-9</u> pcf	pcf
Dry Density		
$\frac{(H) \frac{//\lambda \cdot 9}{100}}{\left[1 + \left(\frac{(G) - 9.5}{100}\right)\right]}$	(I) <u>/03.1</u> pcf	pcf
Compaction		
$\left(\frac{(I) / 03, I}{(J) / 07.9}\right) \times 100$	95,6 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Page 27 of 221

Project: <u>Vista Landfill</u> Q11-3 Project No.: 101, 07, 00 Test No.: 17-4 Location: N3514,800 (5-492),100 (5-80-1) Nuclear Density Test No.: 11 A Report No.: 17	Date: 09 / 04 / 20 / 2 Soil Type: FF Proctor Value (I): 20 7 1 9
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Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_//_ lbs	Drying Pan Tare (C) 130, 5 g lbs
Weight of Cylinder and Soil (B) g _5, o / lbs	Weight of Pan and Wet Soil (D) 330,5 glbs
Cylinder Volume (F) 2034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/7, 6 glbs

	Drive Cylinder	
Moisture Content		
$ \left(\frac{(D) \ 330.5^{-} - (E) \ /2.9}{(E) \ 3/7.6} - (C) \ /87.7}\right) \times 100 $	(G) <u>6 , 9</u> %	%
Wet Density		
$\frac{(B) 5.0/-(A)3.85}{((F).034/)}$	(H) _//3.9 pcf	pcf
Dry Density		
$\frac{(H) \qquad //2.9}{\left[1+\left(\frac{(G)-\cancel{L}.9}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{0.5. k}}{(J) \cancel{0.7.9}}\right) \times 100$	97,9 %	%

0. 25			
Pass/Fail:A.5.5	Reviewed By:	 Date:	

CEC	Drive Cylinder Test Report
	Page /d /2 of 221
Project: \( \frac{1.5 + a}{1.5 + a} \) \( \frac{1.7 \cdot 0.7}{1.5	Date: 09/04/2012  Soil Type: SP  Proctor Value (I): 1995 pcf  Standard ASTM D698 Optimum Moisture Content: 10,0 96  Sampled By: 7, 6,7 etc. 4, 6,7 etc.
Drive Cylinder Information  Weight of Cylinder (A) g	Moisture Content Sample  Drying Pan Tare (C) /35,7 g lbs

Weight of Pan and Dry Soil (E) 312.8 g

Weight of Cylinder and Soil (B) g 5.29 lbs Weight of Pan and Wet Soil (D) 325.7 g

Cylinder Volume (F) .0341 ft3

	Drive Cylinder	
Moisture Content	The state of the s	1 2 11 11 11 11 11 11 11 11 11 11 11 11
$\begin{pmatrix} (D) & 335.7 & -(E) & 22.9 \\ (E) & 312.8 & -(C) & 177.7 \end{pmatrix} \times 100$	(G) <u>/2.9</u> %	%
Wet Density		
$\frac{(B) \underline{5 \cdot 29} - (A) \underline{4}_{1} \underline{73}}{((F) \underline{}, \underline{}\underline{}\underline{}\underline{}\underline{}\underline{}\underline{}$	(H) /2/,/ pcf	pcf
Dry Density		
$\frac{(H) /2/. /}{\left[1 + \left(\frac{(G) /2.9}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\begin{array}{c} (I) & 107.3 \\ (J) & 109.5 \end{array}\right) \times 100$	98,0 %	%

Pass/Fail: RASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Drive Cylinder Test Report

	Page /18 of It
Project: Vista Landell Q113	Date: 09/04/2014
Project No.: 101, 07, 08	Soil Type:
Test No.:	Proctor Value (J): ///. 5 pcf
Location: N4565,000 E4927330 EB.	✓ Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: NA	Optimum Moisture Content: 15. 9
Depart No. 17	Compled Buy

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Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) /3 ユ 「 g lbs
Weight of Cylinder and Soil (B) g _5.45 lbs	Weight of Pan and Wet Soil (D) 3335 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>303, ロ g</u> lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3322.5^{\circ} & -(E) & 22.5^{\circ} \\ (E) & 203.0 & -(C) & 170.5^{\circ} \end{pmatrix} \times 100$	(G)/7.3_ %	%
Wet Density		
(B) 5. 45 -(A) 4.25 (F) 10341	(H) <u>1.2 5. \$7</u> pcf	pcf
Dry Density		
$ (H) \qquad \cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel{\cancel$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) - 10 \cdot 7.2}{(J) - 1/1 \cdot 5}\right) \times 100$	96./	%

Pass/Fail: PASS	Reviewed By:	 Date:	
*** 10/09 CE222/CBC			

Project: Vi+ta /av.Lf.71 Cu 3

Project No.: /0/.07.03

Test No.: /7-6

L-/4

Location: A/1.56.5, 9.50 £492, 30.0 £ Bu
Nuclear Density Test No.: A//A

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	E COLO	-

Weight of Cylinder and Soil (B)

Cylinder Volume (F) \_\_\_\_\_\_\_\_ ft<sup>3</sup>

Page	130	of	22	1

Page /29 of 221	(	Sheet Short Short
Date: 09/04/2012 Soil Type: 5F		Project: Vista 24, Project No.: 101, 07
Proctor Value (I): ///. pcf  V Standard ASTM D698Modified ASTM 1557		Test No.: 18-1 Location: A/1, 564, 725
Sampled By: 7 2014 A		Nuclear Density Test No.: _/ Report No.:/

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/1/4_ lbs	Drying Pan Tare (C) 13 2.5 g lbs
Weight of Cylinder and Soil (B) g g lbs	Weight of Pan and Wet Soil (D) 332 (Tglbs
Cylinder Volume (F) 10344 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>308 に</u> g lbs

	Drive Cylinder	1. 19 · 特别的 1. · · · · · · · · · · · · · · · · · ·
Moisture Content		
$\begin{pmatrix} (D) \underline{3325} - (E) \underline{244} \\ (E) \underline{308.1} - (C) \underline{775.4} \end{pmatrix} \times 100$	(G) <u>/3.9</u> %	%
Wet Density		
(B) 5,50 -(A) 4,34 ((F) 1034/)	(H) 127.3 pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{\cancel{13}} \cancel{\cancel{3}} \cancel{\cancel{3}}}{\left[1 + \left(\frac{(G) \qquad \cancel{\cancel{13}} \cancel{\cancel{100}}}{100^{\circ}}\right)\right]}$	(I)///.8 pcf	pcf
Compaction		
$\left(\frac{(I) / I / S}{(I) / I / S}\right) \times 100$	100,3 %	%

Pass/Fail: Pat	55	Reviewed By:	 Date:	
Rev.10/98 CF223/CPS				


Drive Cylinder Test Report Page 131 of 221

	Date:	69 / v	5/3	2012	
	Soil Type: _	Š.F			
	Proctor Valu	e (J):	100.	9	pcf
<i>.</i>	1/04	4 4 6 77 4 77 6 10		Modified	A CTS & 1557

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Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ lbs	Drying Pan Tare (C) 135.7 g lbs
Weight of Cylinder and Soil (B) g _5,06 lbs	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F)34/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3.23. + glbs

4	Drive Cylinder	
Moisture Content	- C Indonesia Abattan Pulan	
$ \left(\frac{(D) .335.7 - (E) /2.3}{(E) 323.4 - (C) /87.7}\right) x 100 $	(G) <u>6.6</u> %	%
Wet Density		
(B) 5.05 -(A) 319 ((F) 1039-1)	(H)pcf	pcf
Dry Density		
$ \frac{(H) \qquad \qquad // \cancel{4} \cancel{4} }{ \left[ 1 + \left( \frac{(G) - \cancel{\xi} - \cancel{\xi}}{100} \right) \right] } $	(I) <u>ノロル3</u> pcf	pef
Compaction		
$\left(\frac{(I) - 107 \cdot 3}{(J) - 107 \cdot 3}\right) \times 100$	99,4 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Day 10/98 CF223/CPS		

roject: Vista 24ndfill a	1/3 Date: 09/05/2012
roject No.: _/01, ©7, 08	Soil Type: SF
Cest No.:/8-1	- 9 Proctor Value (J): 107.8 pcf
ocation: N1, 514, 725 E 492, 200	
luclear Density Test No.: ///	Optimum Moisture Content: /2 / / %
eport No.: /5	Sampled By:
Drive Cylinder Information	
Veight of Culinder (A) a / // the	Dryler Pen Tour (C) 122 S

g 5.3 lbs Weight of Pan and Wet Soil (D) 332,5 g lbs

Weight of Pan and Dry Soil (E) 303.9 g

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 33 & 5 & -(E) & 25 & 6 \\ (E) & 3 & 5 & -(C) & 171 & 4 \end{pmatrix} x 100$	(G) 1617 %	%
Wet Density		
$\frac{(B)  \underline{5}, \diamond  -(A)  \underline{3}, \mathcal{S} + \underline{l}}{((F)  \underline{0}, \underline{0}, \underline{3} + \underline{l})}$	(H) pcf	pcf
Dry Density		
$\frac{(H) \frac{1/\beta \cdot k}{\left[1+\left(\frac{(G) - \beta \cdot 7}{100'}\right)\right]}$	(I) <u>96.5</u> pcf	pcf
Сотраction		
$\left(\frac{(I)  96.5}{(J)  /07.8}\right)  x  100$	(89.5)%	%

Pass/Fail: F41L	Reviewed By:	Date:
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	Page_	1.3.2	of 1221
Date:	09/05	12012	
Soil Type:	SP		
Proctor Valu	ne (J):	.8	pcf
✓ Standar	d ASTM D698	Modi	fied ASTM 1557
Optimum M	oisture Content:	2,1	. %

Project: Vis++ Landfill G113	Date: 09/05 /2012
Project No.: 101.07.08	Soil Type: SF
Test No.:/8 - 3	Proctor Value (J):po
Location: N1 56 4, 725, E-452, 200 S. B.	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: ///A	
Report No.:	Optimum Moisture Content: 12, 1 Sampled By: 1, 0, 1+ 1 ford
	Moisture Content Sample
Weight of Cylinder (A) g _/_/ lbs	Drying Pan Tare (C) /35/7 g lbs
Weight of Cylinder and Soil (B) g 5,77 lbs	
	1 , , , , , , , , , , , , , , , , , , ,
Cylinder Volume (F) / 0.74 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3//, 4 glbs

	Drive Cylinder	
Moisture Content		
$ \left(\frac{(D) \ 335,7 - (E) \ 24,3}{(E) \ 31,4 - (C) \ 75,7}\right) \times 100 $	(G) <u>/3,8</u> %	%
Wet Density		-
(B) 5.19 -(A) 4.03 ((F) , 0341)	(H)	pcf
Dry Density		
$\frac{(H) / \mathring{S} \cdot 2}{\left[1 + \left(\frac{(G) / 3 \cdot \mathring{S}}{100}\right)\right]}$	(I)/33.9 pof	pcf
Compaction		
$\left(\frac{(I)}{(J)} \frac{/ \circ 3 \cdot ?}{/ \circ 7 \cdot \cancel{S}'}\right) x  100$	96.4 %	%

Pass/Fail: PASS	Reviewed By:	Date:
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Beer Breet	Page <u>/33</u> of <u>22 (</u>
Project: ViS+4 L4,vd-V-i / Ce// -3  Project No.: / O/. C.7, O.5  TEST No.: / S - 4  Location: V/.514, 7.25 & 451, 950 \$4,804  Nuclear Density Text No.: U/h  Report No.: 18	Date:         09/05/2012           Soil Type:         5/2012           Proctor Value (I):         204, 5         pet           L-Standard ASTM D698         Modified ASTM 1557           Optimum Moisture Content:         70, 0         96           Sampled By:         7, Bradden         96
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs  Weight of Cylinder and Soil (B) g lbs	Drying Pan Tare (C) 135.7 g lbs  Weight of Pan and Wet Soil (D) 335.7 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335,7 - (E) & 21,4 \\ (E) & 314,3 - (C) & 178,6 \end{pmatrix} x 100 $	(G) <u>12.0</u> %	%
Wet Density		
(B) 5,17 -(A) 4.0/ ((F) 034/)	(H)	pcf
Dry Density		
$ \frac{(H)  // 7.  \zeta_{\circ}}{\left[1 + \left(\frac{(G) / 2  c}{100}\right)\right]} $	(I) <u>/05,0</u> pcf	pcf
Compaction		
$\left(\frac{(I) - 105, 0}{(J) - 109, 5}\right) \times 100$	<u>95.9</u> %	%

Pass/F	ail: <u>PASS</u>	Reviewed By:	 Date:	
Rev.10/98	CF223/CPS			

C, O pcf	pcf	
T.9_%	%	

Weight of Pan and Dry Soil (E) 3/4,3 g

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Drive	Cylinder	Test	Report

CEC	Drive Cylinder Test Report  Page 135 of 22
	Page /31 of 221
Project: Virta Landfill Gins	Date: 09/05/2012
Project No.: 191, 07, 98	Soil Type: 55
Test No.:/8 - 6	Proctor Value (J): 1/1.5 pcf
I 1-1 (1-1 + 1-2 F 1-10 1 4	Condend ACTACOCO ACASE A ACTACAGO

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g 1.15 lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g _5,54 lbs	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) , p 341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 306.6 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 332.5 & -(E) & 25.9 \\ (E) & 306.6 & -(C) & 174.1 \end{pmatrix} x 100 $	(G) <u>/4* 9</u> %	%
Wet Density	`	
(B) 5.56 -(A) 4, 4 ((F) ,0341)	(H) <u>129. 0</u> pcf	pcf -
Dry Density		
$\frac{(H) \qquad \cancel{\cancel{2}} ? \cdot \circ}{\left[1 + \left(\frac{(G) \qquad \cancel{\cancel{2}} \cancel{\cancel{2}} \cdot ?}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) - \lambda I 2 \cdot 3}{(J) - rIJ \cdot 5}\right) \times 100$	180.7 %	%

Pass/Fail: 1431	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

	Page /34 of 221
Project: Visty LANSfill G11-3	Date: 09/05/20/2
Project No.: / 6 /. 07 - 0 3	Soil Type: SY
Test No.: 18-5 1-8	Proctor, Value (J): 109, 5 pc
Location: 41,564,600 E 481,900 5, Jun-	Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: _A/A	Optimum Moisture Content: 10, 2
Report No.: /8	Sampled By: T. Brithe
Drive Cylinder Information	
Weight of Cylinder (A)g _/_/ b_ lbs	Drying Pan Tare (C)/3.5. 7 _ g lbs
Weight of Cylinder and Soil (B) g 5.24 lbs	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F)o341 ft3	Weight of Pan and Dry Soil (E) 315.4 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		1. 12 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
$\begin{pmatrix} (D) & 335 & 7 & -(E) & 20 & 3 \\ (E) & 315 & 7 & -(C) & 171 & 7 \end{pmatrix} \times 100$	(G)//. 3 %	%
Wet Density		
(B) 5.24 -(A) 4.08 ((F) ,034/)	(H)pcf	pcf
Dry Density		
$\frac{(H) \frac{1/9, \nu}{\left[1 + \left(\frac{(G) - 1/\sqrt{3}}{100^{\circ}}\right)\right]}$	(I)	pct
Compaction		-
$\left(\frac{(I)}{(J)} \frac{107.5}{109.5}\right) \times 100$	98.2 %	%

Pass/Fail: FASS	Reviewed By:	Date:
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0 9 / 05 / 20/L  Type:

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/, / w lbs	Drying Pan Tare (C) 15010 g lbs
Weight of Cylinder and Soil (B) g 4.9 L lbs	Weight of Pan and Wet Soil (D) 330.0 glbs
Cylinder Volume (F), 034-/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/4 8 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \underline{330,0} - (E) \underline{13.2}}{(E) \underline{31.8} - (C) \underline{/84.8}} \right) x  100 $	(G) <u>7.1</u> %	%
Wet Density		
$\frac{(B)  4\cdot7 \leftarrow -(A)  3\cdot8^{\circ}}{((F)  \cdot  03 + 1)}$	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad /// \cdot +}{\left[1 + \left(\frac{(G) \qquad 7/ \ j}{100'}\right)\right]}$	(I) <u>/ いけぃ</u> ロ pcf	pcf
Compaction		
$\left(\frac{(I)  10^{\circ} q^{\circ}, \circ}{(J)  107.  q^{\circ}}\right) x  100$	96.4 %	%

	Pass/l	Fail: Pass	Reviewed By:	Date:	
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Page	137	of 221	

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Project: Vista Landfill G11-3	Date: 09/05/20/2
Project No.: 10/207, 03	Soil Type:SF
Test No.: 18-8 4-10	Proctor Value (J): 109,5 p
Location: N1,564,725 E 492,050	Standard ASTM D698 Modified ASTM 155
Nuclear Density Test No.: M/Pr	Optimum Moisture Content: _/o . o
Report No.: /d	Sampled By: To Bra 2 lovd

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 135.7 g lbs
Weight of Cylinder and Soil (B) g 5,12 lbs	Weight of Pan and Wet Soil (D) 33.5, 7 g lbs
Cylinder Volume (F) /034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) コテムガ glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (\underline{D}) \underline{335}, \underline{7} & -(\underline{E}) \underline{/5}, \underline{9} \\ (\underline{E}) \underline{3/6}, \underline{9} & -(\underline{C}) \underline{/3/5} \end{pmatrix} x 100 $	(G) 10,4 %	%
Wet Density		
(B)	(H)// 6./_ pcf	pcf
Dry Density		
$ \frac{(H) \qquad \text{116.} \text{1}}{\left[1 + \left(\frac{(G)  \text{100.} \text{1}}{100'}\right)\right]} $	(I) 105,2 pcf	pcf
Compaction		
$ \begin{pmatrix} (I) & / \delta & S, 2 \\ (J) & / \delta & S, S \end{pmatrix} x 100 $	96.1 %	%

Pass/I	Fail: <u>PA 5 5</u>	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

Drive Cylinder Test Report

Page	139	_of	22	(	
105/	2012				

Project: V15+4 1/2Nd 4111 6113	Date: 0 4 1/0
Project No.: _/0/, 07/ 08	Soil Type: JF
Test No.:/8-1P	Proctor Value (J):/
Location: N1,564,600 E 491,900 5, 1	Standard ASTM D69
Nuclear Density Test No.: NA	Optimum Moisture Conte
Report No.:/ S	Sampled By:

11dject 140., _/E/; E// E/8	Soil Type: /F
Test No.:/8-1P	Proctor Value (I): 1/1,5 pcf
Location: N1,564,600 E 491 200 S. Box	Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: _// /	Optimum Moisture Content: 15,9 %
Report No.:/ &	Sampled By: T. Bradford
- 2000年1月2日 - 1000年1月2日 - 1000年1月1日 -	Moisture Content Sample
Weight of Cylinder (A)g /1/6 lbs	Drying Pan Tare (C) / 30,0 g lbs
Weight of Cylinder and Soil (B) g g lbs	Weight of Pan and Wet Soil (D) 330. 2 glbs
Cylinder Volume (F) 2034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 306.7 g lbs

	Drive Cylinder	
Moisture Content		O DOMESTIC OF THE PARTY OF THE
$ \begin{pmatrix} (D) & 330.0 & -(E) & 23.3 \\ (E) & 304.7 & -(C) & /7 & /7 \end{pmatrix} \times 100 $	(G) _/3,2_ %	%
Wet Density		
$\frac{(B) \ 5 \cdot 45 \ -(A) \ 4 \cdot 29}{((F) \ 014 \ )}$	(H) <u>/25.8</u> pcf	pef
Dry Density		
$ \frac{(H)  /2    5.    }{\left[1 + \left(\frac{(G)  /3.    2}{100'}\right)\right]} $	(I)	pcf
Compaction		
$\left(\frac{(I) / I/I, I}{(J) / I/I, 5}\right) \times 100$	99.6 %	%

Pass/Fail: PASS	Reviewed By:	Date:
10/09 OT333/GRO		

### CEC

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Page 138 of 221

Project: <u>Vista MwdPill</u> Coll - 3 Project No.: <u>191. 97. 98</u> Pest No.: <u>18</u> -9	Date: <u>09/05/20F</u> Soil Type: <u>5F</u> Proctor Value (I):/09, 5
ocation: N1, 564, 725 E 491,950	VStandard ASTM D698 Modified ASTM 1557
Judear Density Test No.: A//A	Optimum Moisture Content: 10.03
Drive Culinder Information	VI 2900 DUST

Drive Cylinder Information	E-Wilder and Company of the Company
	Moisture Content Sample
Weight of Cylinder (A) g /// L lbs	Drying Pan Tare (C) 13010 g lbs
Weight of Cylinder and Soil (B) g 5,75 lbs	Weight of Pan and Wet Soil (D) 330,0 g lbs
Cylinder Volume (F) <u>\$\sigma 34\/_ft^3\$</u>	Weight of Pan and Dry Soil (E) 3 14 3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 3300 - (E) - 15.7 \\ (E) 314.3 - (C) - 184.3 \end{pmatrix} x 100 $	(G) <u>8,5</u> %	%
Wet Density		
$\frac{(B)  5.15  -(A)  3.99}{((F)  0.347)}$	(H) _// 7 = pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{17.0}}{\left[1+\left(\frac{(G)}{100}\right)\right]}$	(I) _ <i>[07,8</i> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{57.5}}{(J)\cancel{59.5}}\right) \times 100$	98,4 %	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev 10/98 CF223/CPS	•	

#### CEC

Drive Cylinder Test Report

Page 140	_of_	221
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Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g /_/ L lbs	Drying Pan Tare (C) 132, 5 g lbs
Weight of Cylinder and Soil (B) g 5,0 kg lbs	Weight of Pan and Wet Soil (D) 332, 5 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 316,4-glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content	5.1-10337 MEMARIAN (27.47)	A STATE OF THE PROPERTY OF
$ \begin{pmatrix} (D) \underline{332.5} & -(E) \underline{/6./} \\ (E) \underline{316.4} & -(C) \underline{/33.7} \end{pmatrix} x 100 $	(G) <u>8,8</u> %	%
Wet Density		
$\frac{(B)  \underline{5.06}  -(A)  \underline{3.9}}{((F)  \underline{10.34} \cdot I)}$	(H)	pcf
Dry Density		
$\frac{(H) / 4 \cdot 4}{\left[1 + \left(\frac{(G) \cdot \cancel{\cancel{S}}^{\cancel{\cancel{Y}}}}{100^{\circ}}\right)\right]}$	(I) <u>105.1</u> pcf	pcf
Compaction		
$\left(\begin{array}{c} (I) \underline{\hspace{0.1cm} / \hspace{0.1cm} 05./} \\ (J) \underline{\hspace{0.1cm} / \hspace{0.1cm} 07.5} \end{array}\right) \hspace{0.1cm} x \hspace{0.1cm} 100$	96,0 %	%

Pass/Fail: PASS	Reviewed By:	Date:	

Page 141 of 22 1

Date: 09/05/2012-	
Soil Type: SF	
Proctor Value (J): 107.8	pcf
Standard ASTM D698 Modifi	ed ASTM 1557
Optimum Moisture Content: _/2./	%
Sampled By: 71 Bradford	

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) /32.5 g lbs
	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) 2034/ ft3	Weight of Pan and Dry Soil (E) <u> </u>

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & & & & & & \\ (E) & & & & & \\ (E) & & & & & \\ & & & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & & \\ & & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & \\ & & & \\ \end{pmatrix} \begin{pmatrix} (E) & & \\ \end{pmatrix} \begin{pmatrix} (E) & & \\ & & \\ \end{pmatrix} \begin{pmatrix} (E) & & \\ \end{pmatrix} \begin{pmatrix} (E)$	(G)/6,/_ %	%
Wet Density		
(B) 5,29 -(A) 4,13 ((F) , 0341)	(H)/2/ <sub>1</sub> / pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{12} \cancel{1}, \cancel{1}}{\left[1 + \left(\frac{(G)  \cancel{16} \cancel{1}, \cancel{1}}{100^{\circ}}\right)\right]}$	(I) <u>104.3</u> pcf	pcf
Compaction		
$\left(\frac{(I) \  \  /2 \  4 \  3}{(I) \  \  /0 \  2 \  8^2}\right) \  x \  100$	96-8 %	%

Pass/Fail: PASS	Reviewed By:	 Date:	
v 10/98 CF223/CPS			

Drive Cylinder Test Report

Page 1+3 of 22 1

Date: 09/05/20/	2
Soil Type: 5F	
Proctor Value (J)://. \	pcf
✓ Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: _/5	, 9
Sampled By: T Brad 6	3.4

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _// \( \) lbs	Drying Pan Tare (C) /3010 g lbs
Weight of Cylinder and Soil (B) g	Weight of Pan and Wet Soil (D) 330.0 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 301, 8 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 3\% \ \circ -(E) \ 2\% \ 2}{(E) \ 361 \ \% -(C) \ \cancel{/7/.\%}}\right) x 100 $	(G) <u>/6.4</u> %	%
Wet Density		
$\frac{(B) \ 5.5^{\circ} \ -(A) \ 4.34}{((F) \ .0341}$	(H) 127.3 pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{\cancel{2}\cancel{\cancel{-}\cancel{\cancel{-}\cancel{-}\cancel{\cancel{-}\cancel{-}\cancel{-}\cancel{-}\cancel{-}\cancel$	(I) <u>/09, 4</u> pcf	pcf
Compaction		***
$\left(\frac{(I) - /29.4}{(J) - //1.5}\right) \times 100$	93,2 %	%

Pass/	Pass/Fail: PASS		Reviewed By:	
Rev.10/98	CF223/CPS			

#### CEC

Drive Cylinder Test Report

Section Control	Page 142 of 221
Project: \( \frac{\sqrt{15} \infty \Landfill \( \omega \)	Date: 05/05/2012  Soil Type: 58  Proctor Value (I): 07.8 pcf  Standard ASTM D698  Optimum Moisture Content: 12.1  Sampled By: 1544444

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./4 Ibs	Drying Pan Tare (C) /35.7 g lbs
Weight of Cylinder and Soil (B) g 5.12 lbs	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F) 1/3 4/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 310, 4 g lbs

1	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335.7 & -(E) & 25.3 \\ (E) & 370.4 & -(C) & 174.7 \end{pmatrix} \times 100 $	(G) <u>14,5</u> %	%
Wet Density		
$\frac{(B)  \begin{array}{ccccccccccccccccccccccccccccccccccc$	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad j \circ g, \ell}{\left[1 + \left(\frac{(G) - \ell^2 f, S^-}{100'}\right)\right]}$	(I) <u>104.0</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{104.0}}{(J) \cancel{107.5}}\right) \times 100$	96.5_%	%

Pass/Fail: PASS	Reviewed By:	Date:	_
10/09 CE222/CDP			

### CEC

Cylinder Volume (F) \_\_\_\_\_\_ft<sup>3</sup>

Drive Cylinder Test Report

Chara Mara	Page 144 of 221
Project: Virty Landfill 011-3	Date: 09/06/20/2
Project No.: 101, 07. 08	Soil Type: 57
Test No.: 19-1 L-12	Proctor Value (J):pcf
Location: 11,564 725 E 412 200 & Dem	Standard ASTM D698 Modified ASTM 1557

Nuclear Density Test No.: Also Sampled By: To By Advisor Content: 157

Drive Cylinder Information

Weight of Cylinder (A) g A/L bs

Weight of Cylinder and Soil (B) g 5. H/L lbs

Weight of Cylinder and Soil (B) g 5. H/L lbs

Weight of Pan and Wet Soil (D) 325.7 g lbs

Weight of Pan and Dry Soil (E) 3/012 g

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D).235,7 & -(E) & 25.5 \\ (E).310,2 & -(C) & 174.5 \end{pmatrix} x 100 $	(G) <u>/4. 6</u> %	%
Wet Density		
(B) 5,4/ -(A) 4,25 ((F) 1034/ )	(H) <u>ノスサム</u> pcf	pcf
Dry Density		
$ \frac{(H) \qquad \cancel{\cancel{2}} \cancel{\cancel{2}} \cancel{\cancel{4}} \cancel{\cancel{5}} \cancel{\cancel{5}} }{ \left[ 1 + \left( \frac{(G) \qquad \cancel{\cancel{4}} \cancel{\cancel{4}} \cancel{\cancel{5}} \cancel{\cancel{5}}}{100'} \right) \right] } $	(I)	pcf
Compaction		
$\left(\frac{(I) / 0 \mathcal{S}_1 7}{(J) / II \cdot 5}\right) \times 100$	97.5 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
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Page	1.45	of	22	1

Drive Cylinder Information	
Drive Cymidei iniormatog	Moisture Content Sample
	Drying Pan Tare (C) 13.2.5 g lbs
1	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 312,3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \vec{332.5} & -(E) & 20.2. \\ (E) \vec{312.3} & -(C) & /79.5 \end{pmatrix} x 100 $	(G)%	%
Wet Density		
(B) 5.11 -(A) 3.95 ((F) ,034-1)	(H) / 15, 8 pcf	pcf
Dry Density		
$\frac{(H) - \frac{1}{5}.8}{\left[1 + \left(\frac{(G) - \frac{1}{1}.2}{100}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I)\_/\circ 4.I}{(J)\_/\circ 7.9}\right) \times 100$	96.5 %	%

Pass/Fail: ASS Reviewed By: \_ Rev.10/98 CF223/CPS

### CEC

Drive Cylinder Test Report

Page /41 of 22 (

Project: Vista Landsfill (	\$11.3
Test No.: 19.4	4-13
Location: 11.1, 564, 725 £492, 200	\$ 60-
Nuclear Density Test No.: A A	
Report No . 46	

09/06/2012 Soil Type: \_\_\_\_\_\_SP
Proctor Value (J): \_\_\_\_\_//.5 Standard ASTM D698 Modifie
Optimum Moisture Content: 15.7
Sampled By: 7. Brid Sord

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/. / L lbs	Drying Pan Tare (C) 132,5 g lbs
Weight of Cylinder and Soil (B)gg	Weight of Pan and Wet Soil (D) 3323 glbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 304,8 glbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underline{332.5} - (E) \underline{27.7} \\ (E) \underline{394.K} - (C) \underline{172.3} \end{pmatrix} x 100 $	(G) <u>/6, /</u> %	%
Wet Density		
$\frac{(B)  5. + 9  -(A)  4.33}{((F)  .34/  )}$	(H) <u>/27.0</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2.7.\circ}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) / 6f \cdot f}{(J) / I \cdot f}\right) \times 100$	98,/_%	%

Pass/Fail: P455	Reviewed By:	Date;

#### CEC

Drive Cylinder Test Report

Charles Charles	Page 146 of 221
Project: Vista LANDEN CUIT  Project No.: 121.0208	Date: 04/06/2012 Soil Type: 5F
Test No.: 19-3 L-12-	Proctor Value (I): 199.5 pcf
Location: N1, SU4, Las F491, 900 5. Berm	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: WA	Optimum Moisture Content: 10,0 %
Penort No: 1G	Sampled Bur 7. Brate.

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g كلال الله lbs	Drying Pan Tare (C) 13010 g lbs
Weight of Cylinder and Soil (B)g _57.3./_ lbs	Weight of Pan and Wet Soil (D) 33010 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 707. 3 g lbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 330, 0 & -(E) & 20, 17 \\ (E) 309, 3 & -(C) & 179.3 \end{pmatrix} \times 100 $	(G)//, 5 %	%
Wet Density		
(B) 5.31 -(A) 4.15 ((F), 0341)	(H) <u>/21.7</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad J2J.7}{\left[1+\left(\frac{(G)}{100}\right)\right]}$	(I)/3 9. / pcf	pcf
Compaction		
$\left(\frac{(I) - 10 ?. /}{(J) - 20 ?. 5}\right) \times 100$	99,6 %	%

Pass/Fail: Px55	Reviewed By:	 Date:	

#### CEC

had Essa Bood	Page 141 of 221
roject: Vista Landfill 1011-3	Date: 01/04/20/2 Soil Type: 5F
est No.: 10 - 5 /-13	Proctor Value (I): 107,5 pc
ocation: N, 1,514,725 F-492,000 8,3em	U Standard ASTM D698 Modified ASTM 1557
fuclear Density Test No.: ///	Optimum Moisture Content:
eport No.:	Sampled By: T. Brad Love

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g	Drying Pan Tare (C) /JO, O g lbs
Weight of Cylinder and Soil (B) g5./7_ lbs	Weight of Pan and Wet Soil (D) ₹3€, ○ glbs
Cylinder Volume (F)ft³	Weight of Pan and Dry Soil (E) 3/// 5 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content	100000000000000000000000000000000000000	35.50.51.51.50.00.20.0
$ \begin{pmatrix} \underline{(D)} & \underline{330}, \underline{0} & -(E) & \underline{1315} \\ \underline{(E)} & \underline{311.5} & -(C) & \underline{181.5} \end{pmatrix} \times 100 $	(G) <u>/0, 2</u> %	%
Wet Density		
(B) 5,17 -(A) 4,0/ ((F) ,034/	(H) pcf	pcf
Dry Density		
$ \begin{bmatrix} H) & //7, 6 \\ 1+\left(\frac{(G) & /\mathcal{O}_+\mathcal{Z}}{100'}\right) \end{bmatrix} $	(I)	pcf
Compaction		
$\left(\frac{(I)  / \circ (I)  /}{(I)  / \circ (I)  5}\right)  x  100$	97.4 %	%

Pass/Fail: Pits	Reviewed By:	Date:
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Report No.: \_\_\_\_/6

Project: Vista Landfill G113
Project No.: /0/-07-08
Test No.: 19-6 4.13
Location: N1.5(4,600 E 491,90: 5 Ben
Nuclear Density Test No.: NA

	Page 141 of 221
	Date: 09/06/2012 Soil Type: 5F
	Proctor Value (J): ///. 5 pcf
-	VStandard ASTM D698Modified ASTM 1557
	Optimum Moisture Content: _/5.5%
	Sampled Bur T Rudden

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 130, c g lbs
Weight of Cylinder and Soil (B) g 5,43 lbs	Weight of Pan and Wet Soil (D) 3300 g lbs
Cylinder Volume (F) , 0341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 299,9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) : 370, 0 & -(E) & 30, / \\ (E) : 299, 9 & -(C) & / L S, 9 \end{pmatrix} \times 100$	(G)%	%
Wet Density		
$\frac{(B) - 5.4^{3} - (A) - 4.27}{((F) - 0.0347)}$	(H) <u>/25.2</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad \frac{1 \cdot 2 \cdot 5 \cdot 2}{100}}{\left[1 + \left(\frac{(G) \qquad \frac{1 \cdot 7 \cdot 7}{100}}{100}\right)\right]}$	(I)pcf	pcf
Compaction		
$\left(\frac{(I) / \circ l, \Psi}{(J) / J/J \cdot S^{-}}\right) \times 100$	95.4 %	%

Pass/	Fail: PASS	Reviewed By: _	Date:	
Rev.10/98	CF223/CPS			

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Drive Cylinder Test Report

Page _	15	of _	27	<u>J</u>

Project: Victa Lorde	11 64.3
Project No.: 12/, 97.00	
Test No.: 19-8	L-14
Location: 11,564, 125 E	4492,000 5, 81
Nuclear Density Test No.:	<u>^</u>
Report No.: 19	

Date:	100/4
Soil Type: S	
Proctor Value (J): ///.5	pcf
✓ Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:/_	5.9 %
1	11 C d

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 13010 g lbs
Weight of Cylinder and Soil (B)g _5.49_ lbs	Weight of Pan and Wet Soil (D) 382.0 glbs
Cylinder Volume (F) , 0347 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 301/1 glbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 3330.0 & -(E) & 28.9 \\ (E) 301./ & -(C) & /71./ \end{pmatrix} x 100 $	(G) <u>/6-9</u> %	%
Wet Density		
(B) 5.49 -(A) 4.37 (F) 1234/	(H) <u>127.0</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2.7.0}{\left[1+\left(\frac{(G) \ /\ell.,^{9}}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) / \ell^4 \cdot \delta'}{(J) / I \cdot \ell \cdot \delta}\right) x  100$	95-8 %	%

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Pass/Fail; ////	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

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63	Sec.	8
62	EV	W

Page /50 of 221

Project: Victa Ard Pill Coll 3	Date:09/06/2012 Soil Type:
Project No.: /1107, 08	Soil Type: 5F
Test No.: _/9-7	Proctor Value (J): /// pcf
Location: NI, 514725 E492, 200 5. Be-	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: NA	Optimum Moisture Content: 15.9
Report No.:	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/上 lbs	Drying Pan Tare (C)13.2.5 g lbs
Weight of Cylinder and Soil (B) g 5,57 lbs	Weight of Pan and Wet Soil (D) 322,5" glbs
Cylinder Volume (F) 1034 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 302 · 6 g lbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3.3.2.5 & -(E) & 2.9.5 \\ (E) & 3.0.2.6 & -(C) & 1.70.1 \end{pmatrix} x 100$	(G) <u>17, 5</u> %	%
Wet Density		, , , , , , , , , , , , , , , , , , , ,
(B) 5,53 -(A) 4,37 ((F) ,034/)	(H) <u>/28, 2</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2.7,2}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{J} \circ \cancel{q}_{I} \circ}{(J) \cancel{J} \cancel{J} \cancel{J} \cdot \cancel{S}}\right) \times 100$	97.8 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
Day 10/09 CE222/CHR			

## CEC

	Page 152 of 211	_
	Date: 09/06/2012	
	Soil Type: SF	
14	Proctor Value (I): 105.5 p	:f
5 Bea-	Standard ASTM D698 Modified ASTM 155	7
	Optimum Moisture Content: 10, 0	%
	Sampled By: T. Bra Lloce	_

•	•
Project: Vi344 4NDCi11 C11-3 Project No.: 101.07.08	Date:
Test No.: 19-9 L-14	Proctor Value (I): 105. 5 pc
Location: N1, 504,600 F491,900 5 Bun	✓ Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 1/14	Optimum Moisture Content: 10, 0
Report No.: /7	Sampled By: Tralfort
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g lbs	Drying Pan Tarc (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g 5.19 lbs	Weight of Pan and Wet Soil (D) [Ds
Cylinder Volume (F) <u>03 + /</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 311, 3 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content ·		
$\begin{pmatrix} (D) & 332.5^{\circ} - (E) & 21.2 \\ (E) & 311.3 & -(C) & 175.5 \end{pmatrix} \times 100$	(G)//. ? %	%
Wet Density		
$\frac{(B)  5,19  -(A)  4,03}{((F)  ,034  /)}$	(H) pcf	pcf
Dry Density		
$\frac{\left[(H) - \frac{J/S_1}{2} \right]}{\left[1 + \left(\frac{(G) - \frac{J}{2} \cdot \frac{G}{2}}{100'}\right)\right]}$	(I) <u>105, 6</u> pcf	pcf
Compaction		
$\left(\frac{(I) /0.5/6}{(J) /0.5.5}\right) \times 100$	96.4 %	%

Pass/	Fail: PASS	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

Weight of Pan and Dry Soil (E) 320,4 g lbs

Page 153 of 24 (

Project: \( \frac{1}{1} \) \( \frac{1} \) \( \frac{1}{1} \) \( \frac{1} \) \( \frac{

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ L lbs	Drying Pan Tare (C) /35.7 g lbs
Weight of Cylinder and Soil (B) g _ <u>ラ,47</u> . lbs	Weight of Pan and Wet Soil (D) 335,7 g lbs
Cylinder Volume (F) 1034 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>プロガ, / g</u> lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 335.7 - (E) & 27.6 \\ (E) & 308,                                   $	(G)/6, O %	%
Wet Density		
(B) 5,47 - (A) 4,31 ((F) 10341)	(H) 12614 pcf	pcf
Dry Density		
$\frac{(H) \qquad \frac{1 \cdot 2 \cdot L_1 \cdot 4^{\prime}}{1 \cdot 100^{\prime}}}{\left[1 + \left(\frac{(G) \qquad 1 \cdot L_1 \cdot \theta}{100^{\prime}}\right)\right]}$	(I)/0/ pef	pcf
Compaction ·		
$\left(\frac{(I) - f \circ g_{\perp} \circ \mathcal{O}}{(I) - f \circ I \circ \mathcal{S}}\right) \times 100$	97,8 %	%

Pass/Fail: PASS Reviewed By: \_\_ Date: \_\_\_ Rev.10/98 CF223/CPS

#### Drive Cylinder Test Report

Project: Victor Lywelfit G/1- B Date: Project No.: 10/107.08

Test No.: 19-12 L-18 Location: 11, 514600E471,900 5. A. 

CEC

08/06/2012 Soil Type: \_\_\_\_SF 

Page 155 of 221

Report No	Sampled by. 121784-510
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/_/_ lbs	Drying Pan Tare (C) 13013 g lbs
Weight of Cylinder and Soil (B)g _5.45 lbs	Weight of Pan and Wet Soil (D) 3300 g lbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>3 のん ツ g</u> lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 330,0 & -(E) & 28.73 \\ (E) 30,7 & -(C) & 171,1 \end{pmatrix} x 100 $	(G) <u>/6.5</u> %	%
Wet Density		
(B) 5,45 -(A) 4,25 ((F) ,934/)	(H) /25, 8 pcf	pcf
Dry Density		
$\frac{(H) \qquad \text{/2.5.8}}{\left[1 + \left(\frac{(G) \qquad \text{/2.5}}{100}\right)\right]}$	(I) 108.0 pcf	pcf
Compaction		
$\left(\frac{(I) - 1/2\delta_{+}C}{(J) - 1/1/3}\right) \times 100$	96.9 %	%

Pass/Fail: PHS5	Reviewed By:	Date:
Rev.10/98 CF223/CFS		

Santa Correct	Page 154 of 221
Project: Vista LANAFIII (21) · 3	Date: 01/06/20/L Soil Type: 5F
Project No.:/ 0/, 0 7, 08	Soil Type: SF
Test No.:	Proctor Value (J): 199.5 pcf
Location: M, 514 720 F 442, 000 5. Bon	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: A/A	Optimum Moisture Content: 10,0 %
Report No.:	Sampled By:
Drive Cylinder Information	, Moisture Content Sample
Weight of Cylinder (A) g/_/_ lbs	Drying Pan Tare (C) _/35, 7 g lbs
Weight of Cylinder and Soil (B) g 5, 26 lbs	Weight of Pan and Wet Soil (D) 335, 7 g lbs

	-Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335, 7 & -(E) & 15 \cdot 3 \\ (E) & 380.4 & -(C) & 184.7 \end{pmatrix} \times 100 $	(G) <u>\$,3</u> %	%
Wet Density		
(B) 5,06 -(A) 3,5 ((F),034/)	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad //4, -4}{\left[1+\left(\frac{(G) - B - 2}{100'}\right)\right]}$	(I)/OS,.6_ pcf	pcf
Compaction		
$\left(\frac{(I) - 105.6}{(I) - 109.5}\right) \times 100$	96.4 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Cylinder Volume (F) 103 + 1 ft<sup>3</sup>

Drive Cylinder Test Report

		Page_	156	_ of _ 22	. 1
Date:	09/1	16/2	012		
Soil Type: _	5 F				
Proctor Value	(D: 7/	1.5			ncf

Project No.: /9 / 07 08

Test No.: /9 - 13 4-16 Location: A. 1,564,600 E,491 900 S.B. Nuclear Density Test No.: MA Report No.: \_\_\_ / 9

Project: Vista Lwdfill 0113

Proctor Value (J)://. 5	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:/_	
Sampled By: T. Br.	4 d. 6 1 d
To the state of th	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./ L 1bs	Drying Pan Tare (C) 135.7 g lbs
Weight of Cylinder and Soil (B) g J.4/_ lbs	Weight of Pan and Wet Soil (D) 335, 7 glbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 3 //. 2 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 235.7 - (E) & 24.5 \\ (E) & 311.2 - (C) & 175.5 \end{pmatrix} \times 100$	(G) <u>/4.0</u> %	%
Wet Density		
(B) 5,41 -(A) 4,25 ((F) .0341	(H) <u>/24.6</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2  \varphi \cdot \omega}{\left[1 + \left(\frac{(G) \qquad /  \varphi \cdot \circ}{100}\right)\right]}$	(I) <u>/09.3</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{5} \cancel{9}, \cancel{3}}{(J) \cancel{1/I}.5}\right) \times 100$	98,0 %	%

Pass/Fail: PA:55	Reviewed By:		Date:	
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Page	151	of	221	

Project: Vista Landfill Project No.: 10/107, US	611	3
Test No.: 20-/	4-16	5. Burn
Location: N. 1514, 725 E 49		
Nuclear Density Test No.: M	0,000	1-7.0
Report No.: 20		

Date:	0/4
Soil Type: 5F	
Proctor Value (J): /07,	8 pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:	12.1 %
Sampled By: T. Br+dlov.	e <sup>l</sup>

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) / 30, 0 g lbs
Weight of Cylinder and Soil (B) g 5.0.7 lbs	Weight of Pan and Wet Soil (D) 330 0 glbs
Cylinder Volume (F) 19341 ft3	Weight of Pan and Dry Soil (E) 307. (a g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (\underline{D}) & 330 \cdot 0 & -(\underline{E}) & 20 \cdot \underline{U} \\ (\underline{E}) & 307 \cdot \underline{C} & -(\underline{C}) & \underline{777 \cdot C} \end{pmatrix} \times 100$	(G) %	%
Wet Density		
(B) 5.07 -(A) 3,7/ ((F) , 03+1	(H)	pcf
Dry Density		
$\frac{(H) \qquad // \cancel{4} \cdot 7}{\left[1 + \left(\frac{(G) - // \cancel{4}}{100}\right)\right]}$	(I) <u>/03.60</u> pcf	pcf
Compaction		***************************************
$\left(\frac{(I) / 23_I \circ}{(J) / 67.8}\right) \times 100$	95.5 %	%

Pass/F	ail:	<u>/</u>	455
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Reviewed By:	Date:	

#### CEC

	Page _	159	_ of	221
08/0	17/20	12-		

Project: Vista Land	C: 11
Project No.: / + 1. 0 7. 0 8	
Test No.: 20-3	2-17
Location: N.1.564, 725 &	492,200
Nuclear Density Test No.: 1	
Report No.: 20	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// lbs	Drying Pan Tare (C) /35.7 g lbs
Weight of Cylinder and Soil (B) g5, O lbs	Weight of Pan and Wet Soil (D) 335, 7 glbs
Cylinder Volume (F) 1034-1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/9.7 glbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 335 \cdot 7 & -(E) & / (L \cdot C) \\ (E) & 319 \cdot 7 & -(C) & / (244 \cdot C) \end{pmatrix} \times 100$	(G) <u>8, 7</u> %	%
Wet Density		
(B) 5.0 -(A) 3.84 ((F) , 0341)	(H)//2.6_ pcf	pcf
Dry Density		
$\frac{(H) // \lambda \cdot \omega}{\left[1 + \left(\frac{(G) \mathcal{S} \cdot 7}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I)\cancel{53.6}}{(J)\cancel{57.9}}\right) \times 100$	96.0 %	%

Pass/	Fail: <u>PASS</u>	Reviewed By: _	Date:	
Rev.10/98	CF223/CPS			

200	

	Page / 58 of .22 /
Project: Nista Undfill GU 3 Project No.: 101-07.08	Date: 68/67/2012 Soil Type: 5#
Test No.: 20-2 ocation: N1564, 125 E 491, 950	Proctor Value (J):
Nuclear Density Test No.: $\wedge$ $\wedge$	Optimum Moisture Content: _/O, 3
eport No.: 40	Sampled By: T. Bradlow

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 132.5 g lbs
	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/4, a glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 333.5 & -(E) & 18.5 \\ (E) & 3/4.0 & -(C) & 18.5 \end{pmatrix} \times 100 $	(G) _/J,2_ %	%
Wet Density		
$\frac{(B) \underline{\mathcal{S}, \mathcal{S}} - (A) \underline{+, 1}}{((F), \circ 3^{q-1})}$	(H) <u>ルルチ</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2J \cdot 4}{\left[1 + \left(\frac{(G) \qquad /2 \cdot 2}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) / 0/2}{(J) / 09.5}\right) x  100$	100.6 %	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### CEC

Drive Cylinder Test Report

Page _	16.0	αf	QJ	/
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Project: Vista Landfil	1 au -2
Project No.: 101, 07, 03	
Test No.: _20-4	1-17
Location: #1, 564. 725 F-	491,950
Nuclear Density Test No.: A/ /	
Report No · 20	

 Date:
 0.7 / 0.7 / 2.5 (2-)

 Soil Type:
 ... F

 Proctor Value (J):
 ... / 0.7 (2-)
 pcf

 ✓ Standard ASTM D698
 \_\_\_\_\_ Modified ASTM 1557

 Optimum Moisture Content:
 ... / 2... / 2... / 3.

 Sampled By:
 ... / 7 / 0... / 0... / 0... / 4... / 4... / 3.

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./ 6 lbs	Drying Pan Tare (C) 135.7 g lbs
	Weight of Pan and Wet Soil (D) 375.7 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 31619 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		Control of the Contro
$\begin{pmatrix} (D) & 235.7 & -(E) & 18.18 \\ (E) & 276.7 & -(C) & 181.2 \end{pmatrix} x 100$	(G) <u>/0,4</u> %	%
Wet Density		
(B) 5,08 -(A) 3,92 ((F) ,034/)	(H)	pcf
Dry Density		
$ \frac{(H) \qquad 115.0}{\left[1+\left(\frac{(G) \qquad 10.4}{100'}\right)\right]} $	(I)	pof
Compaction		
$ \begin{pmatrix} (I) & / \circ \cancel{q}, 2 \\ (J) & / \circ \cancel{q}, 9 \end{pmatrix} x 100 $	96.6 %	%

Pass/Fail: PASS	Reviewed By:	Date:
	Zerienea zij.	Date.

Project: Vista Landfill	@11.3
Project No.: 101, 07, 08	
Test No.: 20 -5	1-18
Location: 11.58 4,725 E492	200
Nuclear Density Test No.:	
Report No.: 20	

	Page/ - [	of_211
Date: E9/C		
Proctor Value (J):		
_∠ Standard ASTM De	698 Modifie	d ASTM 1557
Optimum Moisture Con	tent: <u>/0,10</u>	%
Sampled By:	Bridford	

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/ lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B)g _ <u>5', /S</u> lbs	Weight of Pan and Wet Soil (D) 332,5 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 3, 9 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 332, & 5 & -(E) & /8, & \\ (E) & 3/3, & 9 & -(C) & /8, & 4 \end{pmatrix} x 100 $	(G) <u>/o, 3</u> %	%
Wet Density		
$\frac{(B)  \mathcal{S}, /\&  -(A)  \mathcal{H}, \circ 2}{((F)  \cdot  0.34 \mid 1)}$	(H)	pcf
Dry Density		
$\frac{(H) \frac{1/7 \cdot ?}{\left[1 + \left(\frac{(G) \cancel{/} \cancel{C} \cdot ?}{100}\right)\right]}$	(I)/06.9 pcf	pef
Compaction		
$\left(\frac{(I) / v_{\ell} \cdot \hat{\gamma}}{(J) / \rho_{\ell} \hat{\gamma} \cdot \hat{S}^{-}}\right) \times 100$	97.6 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
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Drive Cylinder Test Report Page 163 of 221

09/	07	12	0 12	 
F				 
		~ C		

Soil Type: SF
Proctor Value (J): Standard ASTM D698 Modified ASTM 1557
Optimum Moisture Content:
Sampled By: Frad Lfa, d

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g _/./ 6 lbs	Drying Pan Tare (C) 130.10 g lbs
Weight of Cylinder and Soil (B)g4. ?? lbs	Weight of Pan and Wet Soil (D) 330,00 glbs
Cylinder Volume (F) _, 0341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/6, 8 gIbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \underbrace{3\cancel{3} \circ \cdot \circlearrowleft}_{3/4} - (E) \underbrace{/\cancel{3}, \bot}_{5/4} \cdot \cancel{5}}{(E) \underbrace{\cancel{3}/4}_{5/4} \cdot \cancel{5}} - (C) \underbrace{/\cancel{5}4}_{5/4} \cdot \cancel{5}} \right) x  100 $	(G)%	%
Wet Density		
$\frac{(B) \ \cancel{+}, \cancel{?} \cancel{?} \ -(A) \ \cancel{3}, \cancel{y} \cancel{3}}{((F) \ \cancel{\circ} \cancel{3} \cancel{+} \cancel{/})}$	(H) pcf	pcf
Dry Density		
$ \frac{(H) \qquad //3 \cdot 3}{\left[1 + \left(\frac{(G) - 7 \cdot l}{100^{\circ}}\right)\right]} $	(I) <u>/of-9</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{J04.9}}{(J) \cancel{J07.9}}\right) \times 100$	97,2 %	%

Pass/Fail: P1455	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Page /62 of 221

1001 1 1000 - 0	
roject: Vista Landfill ans -3	Date: 09/07/2012
roject No.: 101, 07, 08	Soil Type: SF
est No.: 20-6 1-18	Proctor Value (J): 107, 8 pc
ocation: N. 514, 725 £ 482,000	✓ Standard ASTM D698 Modified ASTM 1557
uclear Density Test No.: A/A	Optimum Moisture Content:
eport No.: 20	Sampled By: 7. Brad Cord

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ 🔄 lbs	Drying Pan Tare (C) 130,0 g lbs
Weight of Cylinder and Soil (B) g 5.28 lbs	Weight of Pan and Wet Soil (D) 330, 0 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3043 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 35C, & -(E) & 25, 7 \\ (E) & 3c4, 3 & -(C) & /74, 3 \end{pmatrix} \times 100$	(G) <u>/4.7</u> %	%
Wet Density		
(B) 5,28 -(A) 4,12 ((F) -, 0341)	(H) /20.8 pcf	pcf
Dry Density		
$\frac{(H) \qquad / @0, P}{\left[1 + \left(\frac{(G)  \cancel{\cancel{14}}, \cancel{\cancel{1}}}{100}\right)\right]}$	(I)pcf	pcf
Compaction $ \left(\frac{(I)  \cancel{\cancel{N}} \ \cancel{\cancel{O}} \ \cancel{\cancel{N}} \ $	97.7 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
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#### CEC

Drive Cylinder Test Report

Page 164 of 22 1

Project: Vists Landful 611-3
Project No.: 101.07.08
Test No.: 25.-8 1- (9
Location: W1, \$45, 725, E472, 200
Nuclear Density Test No.: Alfa
Report No.: 20 
 Soil Type:
 3 / 2
 pcf

 Proctor Valuer (I):
 187, 6
 pcf

 \_\_Standard ASTM D698
 \_\_\_Modified ASTM 1557

 Optimum Moisture Content:
 3, 2, %

 Sampled By:
 7, Bradford

raport tion	January,
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/// L lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g 5, 59 lbs	Weight of Pan and Wet Soil (D) 332,5 g lbs
Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 315, b g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (\underline{D}) \underline{332.5} & -(\underline{E}) \underline{/6.9} \\ (\underline{E}) \underline{3 5.U} & -(\underline{C}) \underline{/63.1} \end{pmatrix} \times 100$	(G) <u>9,2</u> %	%
Wet Density		
(B) 5:09 -(A) 3.93 ((F) 1:2341	(H) pcf	pcf
Dry Density		
$\frac{(H)  //5. }{\left[1 + \left(\frac{(G) - 9.2}{100}\right)\right]}$	(I)/ <u>2.5.5</u> _ pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{105.5}}{(J) \cancel{107.9}}\right) \times 100$	77.8 %	%

Pass/	Fail:	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

Aced Serve Breat	Page 165 of 221
Project No.: 101, 07,05	Date: 09/07/2012 Soil Type: 57
Test No.: 20-9 1-19	Proctor Value (J): 107,8 pcf
Location: 11.564, 725 F-492 00	Standard ASTM D698 Modified ASTM 1557
	Optimum Moisture Content: _/d . /%
	Sampled By: T. Brad Cord
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// lbs	Drying Pan Tare (C) /35,7 g lbs
Weight of Cylinder and Soil (B) g 5./6 lbs	Weight of Pan and Wet Soil (D) 335,7 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 311, 21 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content	,	
$\begin{pmatrix} (D) & 335, 7 & -(E) & 2+3 \\ (E) & 37/, + & -(C) & 775, 7 \end{pmatrix} \times 100$	(G)/3,8 %	%
Wet Density		
(B) 5,16 -(A) 4,0 ((F) 10341)	(H) pcf	pcf
Dry Density		
$\frac{(H) \frac{//7.3}{\left[1+\left(\frac{(G) \frac{/3.8}{100}}{100}\right)\right]}$	(I) <u>/03.</u> pcf	pcf
Compaction \[ \left( \frac{(l) \left/ 0.3 \left/ }{(l) \left  \left( \frac{1}{2} \right) \right  x  100 \]	95.b %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Car Lan Carl	Drive Cylinder Test Report
Been Home Store	Page
Project: Vista Mulfill O11-3	Date:
Project No.: 101, 07, 08	Soil Type: 5 F
Project No.:/0/, 07 08  Test No.:20-//	Proctor Value (J):
Location: N'1.524 725 E 452 000	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Optimum Moisture Content: /0 0 %
Report No.: 20	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample

Weight of Cylinder and Soil (B) g 5:33 lbs Weight of Pan and Wet Soil (D) 3321) g

Drying Pan Tare (C) //2.5 g

Weight of Pan and Dry Soil (E) 3 // , 7 g

Weight of Cylinder (A) g /1/6 lbs

Cylinder Volume (F) 1034/ ft3

	Drive Cylinder	
Moisture Content		
$\begin{pmatrix} (D) & 333.5 \\ (E) & 377.7 \\ \end{pmatrix} - (C) & 20.8 \\ \end{pmatrix} \times 100$	(G)//, 6%	%
Wet Density		
(B) 5,33 -(A) 4.17 ((F) ,03+/ )	(H)/ pef	pcf
Dry Density		
$ \frac{(H) \qquad /22 \cdot .3}{\left[1 + \left(\frac{(G) - // , lc}{100}\right)\right]} $	(I)/09. 6_ pcf	pcf
Compaction		
$\left(\frac{(I) / 0 \hat{\gamma}. G}{(J) / 0 \hat{\gamma}. S}\right) \times 100$	100,1%	%

Pass/Fail: Pass 5	Reviewed By:	Date:

Const Carry Carri	Page
Project: V:549 Lud V:11 6/1-3  Project No.: 101.07.08  Test No.: 20-0 L-20  Location: VI.554 725 G.492, 200  Nuclear Density Test No.: MfA  Report No.: 20	Date:   67   67   20   2   2
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // L lbs	Drying Pan Tare (C) lbs
Weight of Cylinder and Soil (B) g 5.41	lbs Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F) . 034 / ft <sup>3</sup>	Weight of Pan and Dry Soil (F) 7/32 gr lbs

	Drive Cylinder Nuclear Gauge
Moisture Content	
$\begin{pmatrix} (D) 335,7 - (E) 26.5 \\ (E) 397.2 - (C) 173,5 \end{pmatrix} \times 100$	(G)
Wet Density	
(B) 5,4-/ -(A) 4,25 (F) ,0341	(H) <u>/24.6</u> pcf pcf
Dry Density	
$\frac{(H) \frac{/\lambda + l}{2}}{\left[1 + \left(\frac{(G) - l \cdot 5 \cdot 3}{100'}\right)\right]}$	(I)
Compaction	
$\left(\frac{(I)  / \circ S, /}{(J)  / JJ, \varsigma}\right)  x  100$	96.6 % %

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Con Con	Drive Cylinder Test Report	
See See See	Page / 6 × of 22 1	
Project: Vista Landfill G11.3	Date: 09/07/2012	
Project No.: 10/. 07. 05	Soil Type: 5F	
Test No.: _20-/2_	Proctor Value (J): ///, 5 pcf	
Location: NI, 58 7 1.30 E491, 930	Standard ASTM D698 Modified ASTM 1557	
Nuclear Density Test No.:	Optimum Moisture Content:/5, 9	
Report No.:QO	Sampled By: T. Bradford	
Drive Cylinder Information	Moisture Content Sample	
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 130,0 g lbs	
Weight of Cylinder and Soil (B) g 5,38 lbs	Weight of Pan and Wet Soil (D) 330.0 glbs	

Weight of Pan and Dry Soil (E) 3041/g

Cylinder Volume (F) \_\_034/\_ ft<sup>3</sup>

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D)_{330,0} - (E)_{25,6} \\ (E)_{304,1} - (C)_{174,1} \end{pmatrix} \times 100 $	(G) <u>/4. 9</u> %	%
Wet Density		
(B) 5,38 -(A) 4,12 ((F) , 2341 )	(H) /23.7 pcf	pcf
Dry Density		
$\frac{(H) / 23.8}{\left[1 + \left(\frac{(G) / 24.7}{100'}\right)\right]}$	(I) pcf	pef
Compaction		
$\left(\frac{(I) \cancel{107.7}}{(J)\cancel{1/1.5}}\right) \times 100$	<u>P6.4</u> %	%

Pass/Fail: Pass	Reviewed By:	Date:
D 10 MB CF202 (CDC	<b>\</b>	

Report No.: 22

Drive Cylinder Test Report

Page //6 of \_22 /

Project: \$\sqrt{1.5 + 1} \sqrt{1.4 \(\delta \delta \delta

Date: 27/0/2012Soil Type: SFProctor Value (I): ETS pcf ETS Modified ASTM 1557
Optimum Moisture Content: ETS %
Sampled By: ETS Bradely ETS

 Weight of Cylinder (A)
 g ⊥ / ∠ lbs
 Drying Pan Tare (C) \_ 3 ½ ↓ √ g \_\_\_\_\_ lbs

 Weight of Cylinder and Soil (B)
 g 5 ∠ ∠ lbs
 Weight of Pan and Wet Soil (D) \_ 3 ½ √ g \_\_\_\_ lbs

 Cylinder Volume (F)
 \_ 63 ¼ / ft³
 Weight of Pan and Dry Soil (E) \_ 3 ½ 1, 9 g \_\_\_\_ lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 332.5 & -(E) & 22_{1.1_{0}} \\ (E) & 379.9 & -(C) & 177.4 \end{pmatrix} \times 100$	(G) <u>12.7</u> %	%
Wet Density		
(B) 5/12 -(A) 3,96 ((F) 034/)	(H) //6,/ pcf	pcf
Dry Density		
$\frac{(H) //6. \int}{\left[1+\left(\frac{(G) /2.7}{100'}\right)\right]}$	(I) <u>/೨3, □</u> pcf	pcf
Compaction		
$\begin{pmatrix} (I) & / & 3 & ? & ? \\ (J) & / & ? & ? & 8 \end{pmatrix}                          $	95,5 %	%

Date:

#### CEC

Drive Cylinder Test Report

Page 171 of 221

Project: V. 14 Jan 2011 6/1- 3
Project No.: 201, 07-08

Test No.: 22-3

Location: VI. 544, 725 £492,000 5. 16...

Nuclear Density Test No.: 1/A

Report No.: 22...

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g ///• lbs	Drying Pan Tare (C) 130.0 g lbs
Weight of Cylinder and Soil (B)g _5,// lbs	Weight of Pan and Wet Soil (D) 330, oglbs
Cylinder Volume (F) <u>0341</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3140 g lbs

	Drive Cylinder	
Moisture Content		
$ \begin{pmatrix} (D) 33 & Q & O & -(E) & J & J & O \\ (E) 31 & Q & O & -(C) & J & J & O \end{pmatrix} x 100 $	(G) <u>8.7</u> %	%
Wet Density		
(B) 5, 1   -(A) 3, 9.5 ((F) , 934   )	(H) pcf	pcf
Dry Density		
$\frac{(H) \frac{1}{5}, \delta'}{\left[1 + \left(\frac{(G) - \delta', 7}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) / 26.5}{(J) / 89.5}\right) \times 100$	97,3 %	%

Pass/Fail:	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

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Drive Cylinder Test Report

Page \_\_\_// of \_\_\_22\_ (

Project: Vis 14 (4 Nd fri) Q/1 - 3

Project No.: \( \sigma \sigma \cdot \cdot \cdot \sigma \sigma \sigma \cdot \cdot \cdot \sigma \sigma \cdot \

Date: 0.9/10/20/1/
Soil Type: 5.77

Proctor Value (1): /97, 7 pcf

∠ Sandard ASTM 1587

Optimum Molsture Content: /0.00

Sampled By: 7.00 d A. vd

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/./ b lbs	Drying Pan Tare (C) 1.35.7 g lbs
Weight of Cylinder and Soil (B)g _5_119_ lbs	Weight of Pan and Wet Soil (D) 335,7 glbs
Cylinder Volume (F) 23+1 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/6, 5 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underbrace{.235, 7}_{CE} & -(E) & \underbrace{! ? . 2}_{J \cdot SU, S'} \\ (E) \underbrace{.31\ell .5}_{J} & -(C) & \underline{./SU, S'}_{J} \end{pmatrix} x 100 $	(G)/%	%
Wet Density $ \frac{(B)  f_{1}/4  -(A)  l_{1} \circ 3}{((F)  0.3 + l_{1})} $	(H)	pcf
Dry Density		
$\frac{(H) \qquad \text{[13,2]}}{\left[1+\left(\frac{(G) - \cancel{100} \cdot \cancel{100}}{100^{\circ}}\right)\right]}$	(I)/ <u>06.9</u> pcf	pef
Compaction $ \left(\frac{(I)  I \circ b \cdot \hat{I}}{(J)}\right)  x  100 $	97.6 %	%

Pass/Fail: A-S.S	Reviewed By:	Date:
2au 10/08 CE223/CBS		

CEC

Report No.: 22

Drive Cylinder Test Report

Page 112 of 22 1

Project: Victy Land Cill 0/1-3
Project No: 10/1.07,08
Test No: 22.4
L-4
Location: MISSY,652 E \$1/475 5.8
Nuclear Density Test No: MA

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _1, /6_ lbs	Drying Pan Tare (C) <u>パネルリ</u> g lbs
Weight of Cylinder and Soil (B) g Sr27 lbs	Weight of Pan and Wet Soil (D) 333, 5 g lbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 305.8 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 332.5 & -(E) & 22.7 \\ (E) & 305.8 & -(C) & /77.3 \end{pmatrix} \times 100$	(G) <u>/२,४</u> %	%
Wet Density		
(B) 5,27 -(A) 4,1/ ((F) -334/_)	(H)	pcf
Dry Density		
$\frac{(H) \qquad 120.5}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{134.8}}{(J) \cancel{137.8}}\right) \times 100$	99. / %	%

Pass/Fail: ASS Reviewed By: Date:
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Rev.10/98 CF223/CPS

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a Kana	Chart	Paga	173	of	22	ı

Project: Vista Lite dfill Q11-3
Project No.: 10/,07-08
Test No.: 22 - 5
Location: # 564,650, E491,875 5, B.
Nuclear Density Test No.: A 1/4

Date: 09/10/201	12
Soil Type: 5 /=	
Proctor Value (J)://, 5	pci
Standard ASTM D698	_Modified ASTM 1557
Optimum Moisture Content: 15,9	

Troport, Trop.	Datapied By
/ Drive Cylinder Information	Moisture Content Sample
The second of th	Secretary bearing and the second second
Weight of Cylinder (A)g 1/6 lbs	Drying Pan Tare (C) 135,7 g lbs
1	
Weight of Cylinder and Soil (B) g 5,42 lbs	Weight of Pan and Wet Soil (D) 33517 glbs
0 11 11 11 00 11 11 13	
Cylinder Volume (F)034/_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 310, 0 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 5 & 7 & -(E) & 2 & 5 & 7 \\ (E) & 3 & 6 & 0 & -(C) & 17 & 4 & 3 \end{pmatrix} \times 100 $	(G) <u>/4, 7</u> %	%
Wet Density		
(B) 5,42 -(A) 4,26 ((F) ,0341 )	(H) <u>/2 4 9</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2 \cancel{4} \cdot \cancel{9}}{\left[1 + \left(\frac{(G) \qquad /\cancel{9} \cdot \cancel{2}}{100'}\right)\right]}$	(I)pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{5} \cancel{9}, \cancel{4}}{(J) \cancel{III}, \cancel{5}}\right) \times 100$	98,/_%	%

Port			
Pass/Fail:	Reviewed By:	Date:	

## CEC

Drive Cylinder Test Report

Project: Vista Lindfill G11-3	Date: 07/11/2012
Project No.: 101,07.08	Soil Type: 5 F
Test No.: 23-/	Proctor Value (J): 187,8 pc
Location: N4 564, 703 E491-875 S. Br.	L Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: M/A	Optimum Moisture Content: 1-2 /
Report No.: 23	Sampled By: To Brid ford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // 4 lbs	Drying Pan Tare (C) 135,7 g lbs
Weight of Cylinder and Soil (B) g 507 lbs	Weight of Pan and Wet Soil (D) glbs
Cylinder Volume (F) _/ \infty 34-1_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 314.5 g lbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (\underline{D}) & 335.7 & -(\underline{E}) & -2.1 & 2 \\ (\underline{E}) & 314.5 & -(\underline{C}) & 178.8 \end{pmatrix} x 100 $	(G)%	%
Wet Density		
$\frac{(B)  5_{i} \circ 7  -(A)  3_{i} \circ 7}{((F)  , \circ 3 \not + 1)}$	(H) <u>//</u> 4,7 pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{\cancel{1/2}} \cdot \cancel{7}}{\left[1 + \left(\frac{(G)}{100'}  \cancel{\cancel{1/2}} \cdot \cancel{7}}{100'}\right)\right]}$	(I) <u>/oa, 5</u> pcf	pcf
Compaction		
$\left(\frac{(I)\cancel{2.5}}{(J)\cancel{5.7.8}}\right) \times 100$	95,0 %	%

Pass/Fail: ASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

Project: Vista Landeill 611-3	Date:
Project No.: 101, 07, 08	Soil Type:
Test No.: 22-6 4-8	Proctor Va
Location: N-56465 E 491875 5.13	Stand
Nuclear Density Test No.: NA	Optimum 1
Demost May (2.7)	a

Date:	09/10	12014
Soil Type:		
Proctor Value	D: 107.9	р
Standard	ASTM D698	Modified ASTM 155
Optimum Mois	ture Content: 8	12
	7 2	101

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/, lbs	Drying Pan Tare (C) 13010 g lbs
Weight of Cylinder and Soil (B) g 5.01 lbs	Weight of Pan and Wet Soil (D) 330, 0 glbs
Cylinder Volume (F) 1934/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/3, 7 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 330, 0 & -(E) & / l. 2 \\ (E) & 3/3, 9 & -(C) & / l/3, 9 \end{pmatrix} x 100 $	(G) <u>\$,8</u> %	%
Wet Density		
(B) <u>5.0/-(A) 3.85</u> ((F) .034/)	(H) //2 · 9 pcf	pcf
Dry Density		
$ \frac{(H) \qquad // \mathcal{L} \cdot \stackrel{?}{/}}{\left[1 + \left(\frac{(G) \qquad \stackrel{?}{/} , \stackrel{?}{/}}{100'}\right)\right]} $	(I) pef	pcf
Compaction		
$\left(\begin{array}{c} (I) \nearrow \Im_{r} \Im_{r} \\ (J) \nearrow \Im_{r} \Im_{r} \end{array}\right) \times 100$	96.2 %	<u> </u>

Pass/Fail: Pass 5	Reviewed By:	Date:	
Day 10/09 CE222/CB0			

## CFC

t	
Project: Vista LANDER 11 Co	11-3
Project No.: 101, 07, 08	
Test No.: 23-2	4.72
Location: N1,564,700 E 412 300	S Der
Nuclear Density Test No.: Nuclear Density Test No.:	

Page _ / 7 1	of 221
Date: 88/11/20/2- Soil Type: 5F	
Proctor Value (J):	pcf
Standard ASTM D698 Modifie	d ASTM 1557
Optimum Moisture Content: 15.9	%

Report No.:	Sampled By
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// L lbs	Drying Pan Tare (C) 130, 5 g lbs
Weight of Cylinder and Soil (B) g خرباح lbs	Weight of Pan and Wet Soil (D) 330.0 glbs
Cylinder Volume (F) <u>134-1</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 301. / glbs

	Drive Cylinder	
Moisture Content	The state of the s	
$\begin{pmatrix} (D) & 330, 0 & -(E) & 28, 9 \\ (E) & 30! & 1 & -(C) & 17! & 1 \end{pmatrix} \times 100$	(G) _/6.9_ %	%
Wet Density		
(B) 5.45 -(A) 47.29 ((F) 10341)	(H) <u>/25, 8</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2.5.8}{\left[1+\left(\frac{(G) \qquad /6.9}{100}\right)\right]}$	(I) 1076 pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{/07.6}}{(J) \cancel{/J} \cancel{/J} \cancel{5}}\right) \times 100$	96.5 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
D 10/00 OF200/OF0			

Drive Cylinder Test Report

Page 111 of 221

Project: Vista Landfill G11-3
Project No.: 101, 07, 08
Test No.: 23-3
Location: 11,56+700 E+91100 8 Bin
Nuclear Density Test No.: MA
Report No.: 23

Date:	11/20,	12-
Soil Type: 5F	<i>:</i>	
Proctor Value (J):	111.5	pcf
Standard ASTM D6	98	_ Modified ASTM 1557
Optimum Moisture Conte	ent:	9
Sampled By:	Brist	E ve

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1/1, lbs	Drying Pan Tare (C)132.5 g lbs
Weight of Cylinder and Soil (B) g 5.47 lbs	Weight of Pan and Wet Soil (D) 352 丁 glbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 300, 9 glbs

	Drive Cylinder	1.2 与影響等的原理的學品與影響等
Moisture Content		
$ \left( \frac{(D) 332.5^{-} - (E) 3/. (L)}{(E) 300.5^{-} - (C) /23.4} \right) \times 100 $	(G)/5,8%	%
Wet Density		
(B) 5.47 -(A) 4.3/ ((F) .034/	(H) <u>/みい</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad / \mathcal{L} \cdot \mathcal{V}}{\left[1 + \left(\frac{(G) \qquad / \mathcal{S} \cdot \mathcal{S}'}{100'}\right)\right]}$	(I)/T.6-4_ pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{J} \circ (.\cancel{J})}{(J) \cancel{J} / J \cdot 5}\right) \times 100$	95.4 %	%

Pass/Fail: PASS	Reviewed By:	Date:

CEC

Cylinder Volume (F) , 034 / ft<sup>3</sup>

Drive Cylinder Test Report

Page 179 of 22 (

Project: Vista LANSfill 011.3	Date: 89/11/2012
Project No.: 101. 07. 08	Soil Type: S B
Test No.: 23-5 5 B	Proctor Value (J): 107.9 pc
Location: 111584, 710 Edg2,100 S.Berr	✓ Standard ASTM D698 Modified ASTM 1557
Muslage Dansity Tast Ma . A / /fl	O-st

Weight of Pan and Dry Soil (E) 317.8 g

Nuclear Density Test No.: $\[ \omega / A \]$ Report No.: $\[ 2 \] 3 \]$	Optimum Moisture Content: 8. 2 Sampled By: 7. By ad ford			
Drive Cylinder Information	Moisture Content Sample			
Weight of Cylinder (A) g _/,/ G lbs	Drying Pan Tare (C) 130, 5 g lbs			
Weight of Cylinder and Soil (B) g 4.98 lbs	Weight of Pan and Wet Soil (D) 330 sglbs			

	Drive Cylinder	
Moisture Content	Security and Security and Security	
$ \begin{pmatrix} (D) & 330 & 0 & -(E) & /2 & 2 \\ (E) & 3/7.8 & -(C) & /87.0 &  \end{pmatrix} x 100 $	(G) <u>6.5</u> %	%
Wet Density		
$\frac{(B)  \cancel{\cancel{4}}, \cancel{\cancel{5}} \cancel{\cancel{5}}  -(A)  \cancel{\cancel{\cancel{5}}}, \cancel{\cancel{5}} \cancel{\cancel{5}}}{((F)  \cancel{\cancel{5}} \cancel{\cancel{5}} \cancel{\cancel{5}} \cancel{\cancel{5}})}$	(H)//2 pcf	pcf
Dry Density		
$\frac{(H) //2.0}{\left[1+\left(\frac{(G) /2.5^{-}}{100^{\circ}}\right)\right]}$	(I) 105.2 pcf	pcf
Compaction		
$\left(\frac{(I) - 105 \cdot 2}{(I) - 105 \cdot 3}\right) \times 100$	97.5 %	%

Pass/Fall: P355 Reviewed By:	:
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CEC

Weight of Cylinder (A) g /// lbs

Cylinder Volume (F) \_\_\_\_\_\_ ft<sup>3</sup>

Drive Cylinder Test Report

	Page
Project: Vista Landfill an-3	Date: 89/11/2012
Project No.: 101.07.08	Soil Type: SB
Test No.: 23-4 ,5B	Proctor Value (J): / o 7, 9 pcf
Location: 11,54,700 E 482.240 5 BM	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: // /	Optimum Moisture Content: 8,2 9
Report No.: 23	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample

Weight of Cylinder and Soil (B) g 4.99 lbs Weight of Pan and Wet Soil (D) 335.7 g

Drying Pan Tare (C) 135,7 g

Weight of Pan and Dry Soll (E) 3.2 1, 3 g

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) \underbrace{335.7}_{321.3} - (E) \underbrace{/4./}_{E}}{(E) \underbrace{321.3}_{32} - (C) \underbrace{/85.6}_{E}} \right) \mathbf{x}  100 $	(G) <u>7.6</u> %	%
Wet Density		
$\frac{(B)  \stackrel{\iota + \iota \circ \circ}{}  -(A)  2 \iota \circ \circ \circ}{((F)  , \circ \circ \circ \circ \mid )}$	(H)	pcf
Dry Density		
$\frac{(H) \qquad // \lambda \cdot 3}{\left[1 + \left(\frac{(G)  -7, \ 6}{100}\right)\right]}$	(I) <u>/ º Ӌ</u> , Ӌ pcf	pcf
Compaction		

Pass/Fail: PASS	Reviewed By:	Date:	
Rev.10/98 CF223/CPS			

CEC

 $\left(\frac{(I) 104,4}{(J)107.9}\right)$ 

Drive Cylinder Test Report

Carl Maria Cara	Page / 80 of 22 /
Project: V/5+4 14.56-11 61/-3 Project No.: 101, 07, 08	Date: <u>09/11/2012</u> Soil Type: 5B
Test No.: 23-6 SB	Proctor Value (J): 197,9 pcf

Location: \$\sqrt{1,524}, 710 \overline{F} \overline{Hi}1,70 \overline{O} \overline{5\text{Bin}} \sqrt{Standard ASTM D698} \text{Optimum Moisture Content:} \text{Report No.: } 23 \text{Sampled By: } \overline{7}. \text{Moisture Content:} \text{Sampled By: } \text{Sa

Weight of Cylinder (A) g /./ la lbs

Weight of Cylinder and Soil (B)

Cylinder Volume (F) 1034/ ft3

Weight of Pan and Dry Soil (E) 3/6.6 g

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left( \frac{(D) 333.5 - (E) 15.9}{(E) 3/6.6 - (C) 18/4} \right) \times 100 $	(G) <u>\$,8</u> %	%
Wet Density		
(B) 5,08 -(A) 3,92 ((F),034/)	(H) 115.0 pcf	pef
Dry Density		
$ \frac{(H) \qquad \qquad   1 \mid \mathcal{S}_1 \mid \circ}{\left[1 + \left(\frac{(G)  \mathcal{S}_1 \mid \mathcal{S}_2}{100'}\right)\right]} $	(I) _/05.7 pcf	pcf
Compaction		
$\left(\frac{(I) / 0.5.7}{(J) / 0.7.7}\right) \times 100$	9810 %	%

Pass/Fail: 8455	Reviewed By:	Date:	
Day 10/00 CE222/CD0			

Charlest Patrick Charlest	Page/8/of22 /
	Date:
Test No.: 23 - 7	Proctor Value (J):/D 7 / 9 pcf
Location: N1584, 453 E 491 875 5, Ben	/Standard ASTM D698Modified ASTM 1557
Nuclear Density Test No.: A A	Optimum Moisture Content: 8, 2. %
Report No.: 2.3	Sampled By: Tr Bradford
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g / _/ (_ lbs	Drying Pan Tare (C) 135, 7 g lbs
Weight of Cylinder and Soil (B) g 5.03 lbs	Weight of Pan and Wet Soil (D) 335.7 g lbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/7. glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underline{335}, \underline{7} & -(E) & / \ell \cdot \underline{7} \\ (E) \underline{377}, \underline{\circ} & -(C) & / \ell \cdot \underline{3}.3 \end{pmatrix} x 100 $	(G) <u>9, /</u> %	%
Wet Density		
(B) 5,03 -(A) 3,87 (F) ,0341	(H)	pcf
Dry Density		
$\frac{(H) \qquad //3.5^{\circ}}{\left[1+\left(\frac{(G)-9.7}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{/} \circ \cancel{7} \cdot \circ}{(I) \cancel{/} \circ \cancel{7} \cdot \circ}\right) \times 100$	96.4 %	%

Pass/Fail: JASS	Reviewed By:	 Date:	
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Drive Cylinder Test Report

P	age/	13'5	of _	22	1

Nuclear Density Test No.: Nuclear Density Test No.:	Date:   OS / (2 / 2.6) / 2     Soil Type:   SF     Proctor Value (I):   /// S     Standard ASTM D698   Modified ASTM 1557     Optimum Molsture Content:   /// S / 9
Report No.: 24-	Sampled By: To Brad fire

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_// lbs	Drying Pan Tare (C) 130.0 g lbs
Weight of Cylinder and Soil (B) g 5.47 lbs	Weight of Pan and Wet Soil (D) 33613 glbs
Cylinder Volume (F) Ø34/ ft3	Weight of Pan and Dry Soil (E) 298. (g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3 & 3 & 0, & 3 & -(E) & 3 & 4 & 4 \\ (E) & 2 & 3 & 3 & 6 & -(C) & 1 & 6 & 6 \end{pmatrix} x 100 $	(G) <u>18.5</u> %	%
Wet Density		
$\frac{(B)  \zeta.  \forall \gamma  -(A)  \forall .  3  /}{((F)  ,  o  3  \forall /  )}$	(H) /2.6.4 pcf	pcf
Dry Density		
$\frac{(H) \qquad \frac{\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}}{\left[1+\left(\frac{(G)}{100} - \cancel{\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}\cancel{\cancel{2}}}{100}\right)\right]}$	(1) <u>/66.7</u> pef	pcf
Compaction		
$\left(\frac{(I) \cancel{///} \cancel{C} \cancel{J}}{(J) \cancel{///} \cancel{S}}\right) x 100$	95,7 %	%

Pass/	Fail: <u>PA.5 5</u>	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

CEC	Drive Cylinder Test Repor	
Chara Monara Canas	Page	
Project: Vista londfill 011.3	Date: 39/11/2012 Soil Type: 35	
Project No.: 181, 0708	Soil Type:	
Test No.: _2,3 - 8	Proctor Value (J): ///, 5 pcf	
Location: 41564.650 E 491880 5 8.1.	Standard ASTM D698Modified ASTM 1557	
Nuclear Density Test No.: N/A	Optimum Moisture Content: 15.9 %	
Report No.: 23	Sampled By: T. Bradford	
Drive Cylinder Information	Moisture Content Sample	
Weight of Cylinder (A) g 1/6- lbs	Drying Pan Tare (C)/32 \sqrt{5} g fbs	
Weight of Cylinder and Soil (B) g S.3 1/2 lbs	Weight of Pan and Wet Soil (D) 332,5 g lbs	
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 306, 5 g lbs	

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 222.5 & -(E) & 25.7 \\ (E) & 306.9 & -(C) & 74.3 \end{pmatrix} x 100 $	(G) <u>14, 7</u> %	%
Wet Density		
(B) 5:38 -(A) 4.22 (F) :034/	(H)/23.p pcf	pcf
Dry Density		
$\frac{(H) \qquad /23, \%}{\left[1 + \left(\frac{(G) \qquad /4. \ 7}{100'}\right)\right]}$	(I) pcf	pctpct
Compaction		
$\left(\frac{(I) / 27.9}{(J) / J / J.5}\right) \times 100$	<u> </u>	%

Pass/Fail: fr 5 5	Reviewed By:	Date:	
Rev.10/98 CE223/CPS			

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Drive Cylinder Test Report

	Page / 84 of 22 /
Project: Victory LANDSILL 6113	Date:09/12/2012
Project No.: /0/, 07, 05	Soil Type: SF
Test No.: 2-4-2 2-23	Proctor Value (J): ///,5 pcf
Location: NIS64,160 F. 492, 150 S Ben	✓ Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 10/17	Optimum Moisture Content: 15.9 %
Ponort No. 24	Samulad Dur

	zampiecz).
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/1/6 lbs	Drying Pan Tare (C) 135,7 g lbs
Weight of Cylinder and Soil (B) g _5.5つ lbs	Weight of Pan and Wet Soil (D) 335.7 g lbs
Cylinder Volume (F) / 03 4/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 304-, / gIbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underline{\cancel{3}\cancel{5}\cancel{5}\cancel{7}} - (E) \underline{\cancel{7}\cancel{1}\cancel{6}} \\ (E) \underline{\cancel{3}\cancel{9}\cancel{4}\cancel{7}} - (C) \underline{\cancel{1}\cancel{6}\cancel{9}\cancel{4}} \end{pmatrix} x 100 $	(G)	%
Wet Density		
(B) 5,50 -(A) 4,34 ((F) ,034/)	(H) <u>127.3</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{\cancel{27.3}}}{\left[1 + \left(\frac{(G)  \cancel{\cancel{19.5}}}{100}\right)\right]}$	(I)/ pcf	pcf
Compaction	,	
$\begin{pmatrix} (I) & / \ 0 \ 7 \ 2 \\ (J) & / \ / \ / \ 3 \end{pmatrix}                        $	96:/%	%

Pass/Fail: Pr55	Reviewed By:		Date:	
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Project: Vista Landfill 611.3 Project No.: \( \textit{ 201.07.5} \)

Test No.: \( \textit{.24-3} \)

Location: \( \textit{.01.56.4.675} \)

\( \textit{E-451,978-5.Bu} \) Nuclear Density Test No.: A/A
Report No.: 24

09/12/2012 Date: \_ 

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) /35,7 g lbs
Weight of Cylinder and Soil (B) g S lbs	Weight of Pan and Wet Soil (D) 375.7 glbs
Cylinder Volume (F) 1034 ft	Weight of Pan and Dry Soil (E) 304, 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & .335, 7 & -(E) & .25, 5 \\ (E) & .30c, 9 & -(C) & .771, 2 \end{pmatrix} \times 100$	(G)/6-8 %	%
Wet Density		
(B) 5,57 -(A) 4,4/ ((F) ,0341 )	(H) <u>/29,3</u> pcf	pcf
Dry Density		
$ \frac{(H) \qquad /3.9.3}{\left[1 + \left(\frac{(G)  / \cdot / \cdot \cdot \cdot \cdot \cdot }{100^{\circ}}\right)\right]} $	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{1/2}.7}{(J) \cancel{1/1}.5}\right) \times 100$	99-3 %	%

Pass/Fail: Pres	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

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Drive Cylinder Test Report

Page 187 of 22/

Project: Vista 1400	dfill 611.5
Project No.: / 4 /. 2 7/ 2	2×
Test No.: 24 -5	1-21
Location: ALL SGG, GOD	E491,900
Nuclear Density Test No.:	∪ A
Report No.: 24	

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 135, 7 g lbs
	Weight of Pan and Wet Soil (D) 3357 glbs
Cylinder Volume (F), OJY/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 30145 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content .		
$\begin{pmatrix} (D) \underline{335.7} - (E) & 3/.2 \\ (E) \underline{304.5} - (C) & /LS.8' \end{pmatrix} \times 100$	(G) _1815_ %	%
Wet Density		
(B) 5,53-(A) 4,37 ((F) ,034 )	(H) _ / 28,2_ pcf	pcf
Dry Density		
$\frac{(H) \qquad /2.8,2}{\left[1+\left(\frac{(G)-j\hat{s}.5^{-}}{100'}\right)\right]}$	(1)	pcf
Compaction		
$ \begin{pmatrix} (I) & /o g, 2 \\ (J) & /// . 5 \end{pmatrix} x 100 $	97.0 %	%

Pass/Fail: PACC	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### CEC

Cylinder Volume (F) 1034/ ft<sup>3</sup>

Page / 16 of 22 /

Project: Vista (4ndl) (1 01) Project No.: 101 07, 08	Date:
Test No.: 24-4	Proctor Value (J): ///. 5 pcf
Location: N1,564,700 E 471, 875 S.B.	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Optimum Moisture Content: 15.9
Report No.: 24	Sampled By: To Brad Land
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/6_ lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g 5.62 lbs	Weight of Pan and Wet Soil (D) 332.5 g lbs

Weight of Pan and Dry Soil (E) <u>メ ピリッ</u>ナ g

	Drive Cylinder	Nuclear Gauge
Moisture Content		The same of the same of the same of
$\begin{pmatrix} (D) 332.5 & -(E) & 25.1 \\ (E) 304.4 & -(C) & 77/.9 \end{pmatrix} \times 100$	(G)/6,3%	%
Wet Density		
(B) 5.6.2 -(A) 4,4/s ((F) . 0,34/ )	(H)	pcf
Dry Density		
$\frac{(H) / 3c_{r}R}{\left[1+\left(\frac{(G) / L_{r} 3}{100'}\right)\right]}$	(I)//2 · 5 pcf	pcf
Compaction		
$\left(\frac{(I) / / 2 \cdot 5}{(J) / I \cdot 5}\right) \times 100$	100,9 %	%

Pass/	Fail: PASS	Reviewed By;	MANAGE TO THE PARTY OF THE PART	Date:	
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TOTAL STREET	Page // V of 22
roject: V(5+11 /ΔΛΔΩ11 CΔ11 · T roject No.: Δ0 / 10 7 · 05 Fest No.: Δ4 - (	Date: 09/12/2012  Soil Type: 05  Proctor Value (1): 1/1.5  Pstandard ASTM D698  Optimum Modistre Content: 15.5  %  Sampled By: 77.6 0.4 6.4
,	

·	
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g///_ lbs	Drying Pan Tare (C) 130, 0 g lbs
Weight of Cylinder and Soil (B) g 5,5 / 1bs	Weight of Pan and Wet Soil (D) 3300 g lbs
Cylinder Volume (F) 10341 ft3	Weight of Pan and Dry Soil (E) <u>3のをい</u> g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 330, & -(E) & 23,5 \\ (E) 306, & -(C) & 176, 5 \end{pmatrix} \times 100 $	(G) <u>/3,3</u> %	%
Wet Density		
$\frac{(B)  5, \leq 1  -(A)  4,35}{((F)  ,0341)}$	(H) _/2.7.6 pcf	pcf
Dry Density		
$\frac{(H) \qquad /37/6}{\left[1+\left(\frac{(G) \qquad /3.3}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I)  //2. \ b}{(J)  //I \cdot S}\right) \times 100$	/01.0 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

\_\_Modified ASTM 1557

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Page	189	of	221

Project: Vista LANdfill 6/1-3 Project No.: 10/1 07, 08	Date: 29/13/20 Soil Type: 5 F
Test No.: 25-/	Proctor Value (J):///, 5
Location: 41,564,680 E 491,880	✓ Standard ASTM D698
Nuclear Density Test No.: A	Optimum Moisture Content: /5

Report No.: 25	Sampled By: T. Bradford
Drive Cylinder Information	
Weight of Cylinder (A) g // (. 1bs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g5.54_ lbs	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) 1034// ft3	Weight of Pan and Dry Soil (E) 308, b g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \underbrace{\cancel{333.5}}_{\cancel{233.6}} - (E) \underbrace{\cancel{23.5}}_{\cancel{233.6}} \right) \times 100 $	(G)	%
Wet Density		
(B) 5.54 -(A) 4.38 ((F) .0341)	(H) 128,4 pcf	pcf
Dry Density		
$\frac{(H) \qquad /  \beta \cdot \beta \cdot \varphi}{\left[1 + \left(\frac{(G) \qquad /  \beta \cdot  \varphi}{100'}\right)\right]}  .$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) //3, 2}{(J) //J \cdot \nabla}\right) \times 100$	101.3 %	%

Pass/Fail: Pass	_ Reviewed By:	 Date:	
Rev.10/98 CF223/CPS			

#### Drive Cylinder Test Report

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Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/. / b Ibs	Drying Pan Tare (C) _/30.3 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 330,0 g lbs
Cylinder Volume (F) _ 1234 1 ft3	Weight of Pan and Dry Soil (E) 303.3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 330 & 0 & -(E) & 26.7 \\ (E) & 503 & 3 & -(C) & /73.3 \end{pmatrix} \times 100$	(G) (15.4) %	%
Wet Density ·		
$\frac{(B)  \mathcal{S}, \circ \circ - (A)  \mathcal{J}, \mathcal{S} \leftarrow (B)}{((B)  \mathcal{S}, \circ \circ$	(H)//ゼーと pcf	pcf
Dry Density		
$\frac{(H) \frac{1}{2} \cdot C}{\left[1 + \left(\frac{(G) \cdot 15 \cdot C}{100}\right)\right]}$	(I) 97.6 pcf	pcf
Compaction		
$\left(\frac{(I) - 97.6}{(J) \cancel{07.9}}\right) \times 100$	(90.5)%	%

Pass/Fail: FaiL	Reviewed By:	Date:
Rev.10/98 CF223/CPS	Retot is 2	5-4

#### CEC

Cylinder Volume (F) \_1034 | ft3

Page 190 of 22 /

Project: Vista Land-All O11-3	Date:05/13/20 P
Project No.: 101,07,08	Soil Type: Sp
Test No.: 25-2	Proctor Value (J): ///.5 pcf
Location: N1, 544, 6570 E 491, 850	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: N A	Optimum Moisture Content: 15.9 %
Report No.: 25	Sampled By: T. Bradfort
Drive Cylinder Information	
Weight of Cylinder (A)gl.// <sub>2</sub> lbs	Drying Pan Tare (C) 135.7 g lbs
Weight of Cylinder and Soil (B) g 5.53 lbs	Weight of Pan and Wet Soil (D) 335. 7 glbs

Weight of Pan and Dry Soil (E) 304-5 g

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335,7 & -(E) & 3/, 2 \\ (E) & 3 \circ 4,5 & -(C) & 1/, 3, 3 \end{pmatrix} \times 100 $	(G)	%
Wet Density		
(B) 5.53 -(A) 4/.37 ((F) -034/)	(H) <u>/28,2.</u> pcf	pcf
Dry Density .		
$\frac{(H) \qquad \text{$^{\prime}\lambda\mathcal{F},\lambda$}}{\left[1+\left(\frac{(G) - \text{$^{\prime}\mathcal{F},\varsigma$}}{100^{\circ}}\right)\right]}$	(I) <u>/08,2</u> pcf	pcf
Compaction		
$ \begin{pmatrix} \frac{(I)  /c  \$, 2}{(J)  /I J \cdot \$} \\ \end{pmatrix} x  100 $	97,0 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
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Page	192	of 221	

Project: Virta Landfill 64-3	Date: 39/13/2014
Project No.: 104 57. 68	Soil Type:
Test No.: 2.5-4	Proctor Value (J): 127.9 pcf
ocation: NI 514 700 E 491, 875	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 📈 🖰	Optimum Moisture Content: 8,2 %
Report No.: 25	Sampled By: T. Bridge

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _h l l lbs	Drying Pan Tare (C) 132, 5 g lbs
Weight of Cylinder and Soil (B) g _5./4/ lbs	Weight of Pan and Wet Soil (D) 332, 5 glbs
Cylinder Volume (F) 19341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/3/7 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 332.5 & -(E) /3.8 \\ (E) 3/3.7 & -(C) /8/.2 \end{pmatrix} x 100 $	(G) <u>/0,4</u> %	%
Wet Density		
(B) 5,14 -(A) 3,98 (F) .034/	(H) pcf	pcf
Dry Density		
$\frac{(H) / (G) / (G) / (G) / (G)}{\left[1 + \left(\frac{(G) / (G) / (G)}{100'}\right)\right]}$	(I)	pcf
Compaction		
$ \begin{pmatrix} (I) & 1 \circ 5, 7 \\ (J) & 1 \circ 7 \circ 9 \end{pmatrix} \times 100 $	98,0. %	%

Pass/	Fail:	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

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Page	193	of	221	

Project: Nicta Landfill all.3	Date:
Project No.: 101.07.08	Soil Type:SF
Test No.: 25-5	Proctor Value (J):pcf
Location: NI, 514, 676 E 491 680	
Nuclear Density Test No.: No.: No.:	Optimum Moisture Content: 15,9
Report No.: 25	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // L lbs	Drying Pan Tare (C) 133.5 g lbs
Weight of Cylinder and Soil (B) g 5244 lbs	Weight of Pan and Wet Soil (D) 332,5 glbs
Cylinder Volume (F) <u>• 23 4 /</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) .306,9 g lbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 332.5 & -(E) & 25.66 \\ (E) & 306.7 & -(C) & 174.4 \end{pmatrix} x 100$	(G) 14,7 %	%
Wet Density		
(B) 5,44 -(A) 4,28 ((F) 034/	(H) <u>/25.5</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad 1255}{\left[1+\left(\frac{(G)-14\cdot7}{100}\right)\right]}$	(I) _/ <u>© 9. <sup>44</sup></u> pcf	pcf
Compaction		
$\left(\frac{(I) \int \mathcal{S} S,  \mathcal{Y}}{(J) \int \mathcal{Y} S}\right) x  100$	98.1 %	%

Pass/Fail: Pass/	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### Drive Cylinder Test Report

	Drive	e Cylinder Test Report
Street Erred	Page/	195 of 221
Project: Visto Israell Con-3	Date: 09/13/20	1/2
Project No.: _/01, 07, 08	Soil Type:	
Test No.: 2.5 ~ 7	Proctor Value (J):	pcf
Location: 4/1844 60 6 491 880	Standard ASTM D698	Modified ASTM 1557

Test No.:	Proctor Value (J):	pcf
Location: N-1564.650 6491,850	Standard ASTM D698	Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content:	
Report No.:2_S	Sampled By: T. Biad	tolg
Drive Cylinder Information	Moisture Con	tent Sample

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ L lbs	Drying Pan Tare (C) 135, 7 g lbs
Weight of Cylinder and Soil (B) g 5,29 lbs	Weight of Pan and Wet Soil (D) 335, 7 glbs
Cylinder Volume (F) / a34/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 311.1 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335, 7 - (E) & 24, (4) \\ (E) & 311, 1 - (C) & 175, 4 \end{pmatrix} \times 100 $	(G) <u>14.0</u> %	%
Wet Density		
$\frac{(B) 5,25 - (A) 4,13}{((F) 2,24)}$	(H) <u>/-2 /- 1</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /2 / , /}{\left[1+\left(\frac{(G) \qquad /2 / , 2}{100'}\right)\right]}$	(I) <u>/0(-2</u> pcf	pcf
Compaction		
$\left(\frac{(I)  f \circ \iota \cdot \lambda}{(J)  f J) \cdot \varsigma}\right)  x  100$	95.2%	%

Pass/Fail: PASS	Reviewed By:	Name of the Control o	Date:	

## CEC

Cylinder Volume (F) \_, 034/ ft<sup>3</sup>

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Project No.:	Date:         07/13 /3012           Soil Type:         5 E           Proctor Value (I):         10.7, 9         pcf           Standard ASTM 1557         Modified ASTM 1557           Optimum Moisture Content:         5.7.         %           Sampled By:         7. Br-4f7. cd         %
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1/4 lbs	Drying Pan Tare (C) 13517 g Ibs
Weight of Cylinder and Soil (B) g 5. 03 lbs	Weight of Pan and Wet Soil (D) 345.7 g lbs

Weight of Pan and Dry Soil (E) 322, 0 g

	Drive Cylinder Nuclear Gauge	÷.
Moisture Content		
$\begin{pmatrix} (D) 335,7 & -(E) & 13.7 \\ (E) 322, 0 & -(C) & 186.7 \end{pmatrix} \times 100$	(G) _7, 4 _ %	%
Wet Density		$\neg$
(B) 5,03 -(A) 3.87 ((F) ,0341)	(H)	f.
Dry Density		7
$\frac{(H) \qquad //3.5}{\left[1+\left(\frac{(G) \qquad 7.4}{100}\right)\right]}$	(I)/05.7_ pcf	pcf
Compaction		
$\left(\frac{(I) / 55, 7}{(I) / 07, 9}\right) \times 100$	98,0 %	6

Pass/l	Fail: Pass	Reviewed By:	Date:
Rev.10/98	CF223/CPS		

## CEC

	Page /41 of 22.1
roject: Virda LANdfill 611-3	Date: 24/13/2012
roject No.: 101-07-08	Soil Type:
est No.:2_C	Proctor Value (I): 107,8 pcf
ocation: NISLY, 550 E 481,800	Standard ASTM D698 Modified ASTM 1557
fuclear Density Test No.: 📈 🗡	Optimum Moisture Content: /2 //
eport No.: 25	Sampled By: Ti Bra da-d

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /_/ 6 lbs	Drying Pan Tare (C) 130, 0 g lbs
Weight of Cylinder and Soil (B)g,51, 22_lbs	Weight of Pan and Wet Soil (D) 33010 glbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 305.3 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \cdot 330 \cdot 0}{(E) \cdot 205.5} - (E) \cdot 247.5}{(E) \cdot 205.5}\right) \times 100 $	(G)	%
Wet Density		
(B) 5,22 -(A) 4,06 ((F) ,034/ )	(H)	pcf
Dry Density		
$ \frac{(H) \qquad \qquad J \mid 7, \  }{\left[1 + \left(\frac{(G) \qquad J \mid \Psi_{J} \mid \triangle}{100'}\right)\right]} $	(I)	pcf
Compaction		
$\left(\begin{array}{c} (I)  J \text{ 05.5} \\ (J)  J \text{ 07.5} \end{array}\right) \text{ x } 100$	97.9 %	<u></u> %

Pass/Fail: Lass	Reviewed By:	Date:	
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Project: Vista Landfell G11-3	Date: 09/14/2012_
Project No.: 101, 07, 08	Soil Type: SF
Test No.: 26-2	Proctor Value (J): 157. 8 pc
Location: NJ 564,650 E491,875	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: ///r	Optimum Moisture Content: /2./
Report No.:26	Sampled By: BroJBV

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /. / Ja lbs	Drying Pan Tare (C) 137.5 g lbs
Weight of Cylinder and Soil (B) g glbs	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) 1034 / ft3	Weight of Pan and Dry Soil (E) 30718 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) 332.5 & -(E) & 24.7 \\ (E) 307.6 & -(C) & 175.3 \end{pmatrix} x 100 $	(G) <u>/4 /</u> %	%
Wet Density		
(B) 517 -(A) #01 ((F) 254/ )	(H) pcf	pcf
Dry Density		
$\frac{(H) - \frac{1}{7}, \zeta_{o}}{\left[1 + \left(\frac{(G) - \frac{1}{4}, 1}{100'}\right)\right]}$	(I)/03./_ pcf	pc
Compaction		
$\left(\frac{(I)  /\circ 3./}{(J)  /^{\circ} 7.  \mathring{s}}\right)  x  100$	95,6 %	%

Pass/Fail: PASS	Reviewed By:	Date:
2411 10/09 CE222/CBS		

## Page 197 of 221

Project: Vista / and Bill Gill 3	Date: 09/14/2012
Project No.: /2/- 27. 08	Soil Type: Se
Test No.: 24 /	Proctor Value (J): 107, 8 pcf
Location: N/ 564,700 E 49: 860	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: _A/A	Optimum Moisture Content: 2./ %
Report No : 22 6-	Sampled Bur - Read And

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// lbs	Drying Pan Tare (C) _/3 0, G g lbs
Weight of Cylinder and Soil (B) g Sil 9 lbs	Weight of Pan and Wet Soil (D) 330,0glbs
Cylinder Volume (F) 10347 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3657 / glbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (\underline{D}) & \underline{33c}, \underline{c} & -(\underline{E}) & \underline{\mathcal{Q}} & \underline{f}, \underline{f} \\ (\underline{E}) & \underline{3} & \underline{c}, \underline{f}, \underline{f} & -(\underline{C}) & \underline{f} & \underline{f}, \underline{f} \end{pmatrix} x  100$	(G) <u>/4.;2</u> %	%
Wet Density		
(B) 5.19 -(4) 4.03 (F) .0341	(H)	pcf
Dry Density		
$\frac{(H) \qquad //\mathscr{E}, \ 2}{\left[1+\left(\frac{(G) \qquad /\cancel{2}, \ 2}{100'}\right)\right]}$	(I)/ 03.5 pcf	pcf
Compaction		
$ \left(\frac{(I) \ /03.5}{(J) \ /07.8}\right) \times 100 $	96,3%	%

Pass/Fail; PASS	Reviewed By:	Date:
Rev.10/98 CF223/CP8		

## CEC

Drive Cylinder Test Report

	Page	of 22 1
Date:	09/14/2012	
Soil Type:	SB	
Proctor Value	(D): 139,5	pcf
Standard	ASTM D698 Mod	lified ASTM 1557
Optimum Moi	sture Content: 10/0	%
Sampled By:	T. Bradford	

rage /// ot start
Date: 05/14/20/2 Soil Type: 5 B
Proctor Value (I): 135/5 pcf
Standard ASTM D698 Modified ASTM 1557
Optimum Moisture Content: 10, 0 9
Sampled By: T. Bradford
Moisture Content Sample
Drying Pan Tare (C) /35.7 g lbs
Weight of Pan and Wet Soil (D) 235,7 glbs
Weight of Pan and Dry Soil (E) 3 22,2 g lbs

		Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) \ 335.7 \ -(E) \ /3.5 \\ (E) \ 322.2 \ -(C) \ /84.5 \end{pmatrix} x \ 100$	(G) %	%
Wet Density		
(B) 5.15 -(A) 3,99 ((F) 0341	(H)// 7, 5 pcf	pcf
Dry Density		
$ \frac{(H) \qquad //7.2}{\left[1+\left(\frac{(G)-7.2}{100}\right)\right]} $	(I)/ <i>&gt;</i> 9/pcf	pcf
Compaction		
$\left[\frac{(I) - 10 \cdot f \cdot I}{(J) - 10 \cdot f \cdot I}\right] \times 100$	94,6 %	%

Pass/	Fail:	Reviewed By:	 Date:	
Rev.10/98	CF223/CPS			

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AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	Page 200 of 22	(
Project: Vista Landfill Gu-3	Date: 67/14/ 2012 Soil Type: 57	
Project No.:/Of. O7, OX	Soil Type: 5F	_
rest No.:	200	nc
ocation: N. 1564, 707 E491, 880	Standard ASTM D698Modified ASTM 15:	57
Nuclear Density Test No.: AA	Optimum Moisture Content: _/②, 2	•
Report No · 2 /	Sampled By T Rend Caid	_

apon no 12 G	Sampled By:/, \(\infty\) /2\(\infty\) 421(4
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ b lbs	Drying Pan Tare (C) 130,0 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 330/0 glbs
Cylinder Volume (F)034/_ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 305, 9 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335, 2 & -(E) & 24, 1 \\ (E) & 356, 9 & -(C) & 175, 9 \end{pmatrix} x 100 $	(G)/3,7 %	%
Wet Density		
(B) 5.36 -(A) 47.2 ((F) , 234/	(H) 123,2 pcf	pcf
Dry Density		
$(H) \qquad 23.2  \left[1 + \left(\frac{(G) - 3.7}{100}\right)\right]$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{\triangle 5}, \cancel{4}}{(J) \cancel{\triangle 9}, \cancel{5}}\right) \times 100$	<u>9919</u> %	%

Pass/Fail: 1955	Reviewed By:	Date:	
Ray 10/98 CF223/CPS			

Page	20	1	of	221	

Project: \( \langle \frac{1}{2} \frac{1}{2} \langle A \times \frac{1}{2} \f Report No.: 24

Date: 6-9/17/2012	4.
Soil Type: 58	
Proctor Value (J): 107-8	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:/.)	./%
Sampled Bry 7 G . 1 C	L-4

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/,/ 4 lbs	Drying Pan Tare (C) /30,0 g lbs
Weight of Cylinder and Soil (B)g _5, Q9 lbs	Weight of Pan and Wet Soil (D) 320. 2 glbs
Cylinder Volume (F) 103H ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>3つワード</u> glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 330 \cdot 0 & -(E) & 20 \cdot 2 \\ (E) & 30 \cdot 9 \cdot 8 & -(C) & 17 \cdot 9 \cdot 8 \end{pmatrix} \times 100 $	(G)%	%
Wet Density		
(B) 5,09 -(A) 3,93 ((F) ,0341)	(H) _//5, <sup>-2</sup> pcf	pcf
Dry Density		
$\frac{(H) \qquad 1/5.2}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) /03/6 pcf	pcf
Compaction		
$\left(\frac{(I)}{(J)} \frac{/\circ 3.(c)}{/\circ 7.g}\right) \times 100$	96,1 %	%

0		
Pass/Fail: //45)	Reviewed By:	Date:

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Rev.10/98 CF223/CPS

#### Drive Cylinder Test Report Page 203 of 221

v Standard ASTM D698 Modified ASTM 1557
Optimum Moisture Content: £, 2 %
Sampled By: The Astandard

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A)g g lbs	Drying Pan Tare (C) /35, 7 g lbs
Weight of Cylinder and Soil (B) g 5:03 lbs	Weight of Pan and Wet Soil (D) 335.7 g lbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/4.5 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (\underline{D}) & 335 \cdot 7 & -(\underline{E}) & \underline{/5 \cdot 9} \\ (\underline{E}) & \underline{3/9 \cdot 8} & -(\underline{C}) & \underline{/\$ \cdot 4} & \underline{1} \end{pmatrix} x 100 $	(G) <u>8,6</u> %	%
Wet Density		
(B) 5.03 -(A) 3.87 ((F) .0341)	(H)//3.\frac{1}{2} pcf	pcf
Dry Density		
$\frac{(H) - \frac{1}{3}.5}{\left[1 + \left(\frac{(G) - \mathcal{E} \cdot \iota_{-}}{100^{\circ}}\right)\right]}$	(I) <u>/04.5</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{04.5}}{(J) \cancel{107.4}}\right) \times 100$	96.8 %	%

Pass/Fail: PASS	Reviewed By:	Date:	
, Rev.10/98 CF223/CPS			

#### CEC

Weight of Cylinder (A) \_\_\_\_\_ g /// lbs

Cylinder Volume (F) \_\_\_34/\_ ft<sup>3</sup>

Weight of Cylinder and Soil (B) g SAF lbs

Page 202 of 221

roject: Vista Lyndfill Coul-3	Date: 09/17/2012 Soil Type: 5 B	
roject No.: _/ 2 /. 3 2 5 8	Soil Type: S B	
rest No.: 29-2 5'13	Proctor Value (I): /07.8	p
ocation: N/5(4850 E492 050 Floor	✓ Standard ASTM D698 Modified Astronomy	STM 155
Juclear Density Test No.: _    A	Optimum Moisture Content: /2 . /	
cport No.: 29	Sampled By: T. Bradford	
Drive Cylinder Information	Moisture Content Sample	1120.500

Drying Pan Tare (C) 132.5 g

Weight of Pan and Wet Soil (D) 732 5 g

Weight of Pan and Dry Soil (E) 3/3.44 g

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 333.5 & -(E) & 29.1 \\ (E) & 313.4 & -(C) & 186.9 \end{pmatrix} x 100 $	(G) 10,6 %	%
Wet Density		
$\frac{(B)  \cancel{5}. \circ \cancel{6}  -(A)  \cancel{3}. ?}{((F)  \cancel{5}. \circ \cancel{2} \cancel{4})}$	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad \qquad II \ \mathcal{G}_{I} \ \iota \downarrow}{\left[1 + \left(\frac{(G) \qquad /\sigma, \ \iota \omega}{100^{\circ}}\right)\right]}$	(I) <u>/03 '4</u> pcf	pcf
Compaction		
$\left(\frac{(I) / 23. 4}{(J) / 27. 8}\right) \times 100$	<u>95.9</u> %	%

Pass/Fail: Pin 55	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

### CEC

Drive Cylinder Test Report Page 204 of 221

Project: Vistu LANDILL GU-3	Date:
Project No.: /0/, 57, 05	Soil Type: > j
Test No.: 30-1	Proctor Value (J):
Location: 41,515,000 E 492 333 Const	Standard ASTM I
Nuclear Density Test No.: N/A	Optimum Moisture Cor
Report No.: 130	Sampled By: Tree

Date:	2012
Soil Type:シュ	
Proctor Value (J):	7,9 pc
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: _	¥12- 9
Sampled By Ti Ricad	Pard

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1./4- lbs	Drying Pan Tare (C) 130, c g lbs
Weight of Cylinder and Soil (B) g 5.0 lbs	Weight of Pan and Wet Soil (D) 330,0 glbs
Cylinder Volume (F) 16341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/6 4 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\begin{array}{c c} \underline{(D)} & \underline{33C}, \underline{\circ} & -(E) & \underline{/3}, \underline{6} \\ \underline{(E)} & \underline{316}, \underline{+} & -(C) & \underline{/36}, \underline{4} \end{array}\right) \times 100 $	(G) <u>7.3</u> %	%
Wet Density		
$\frac{(B)  5_{1} \circ -(A)  \cancel{2}_{+}  \cancel{8}  \cancel{4}}{((F)  0.34  1)}$	(H) _//-7, (-, pcf	pcf
Dry Density		
$\frac{(H) \qquad \qquad /2 \cdot \zeta_{-}}{\left[1 + \left(\frac{(G) \qquad \qquad 7 \cdot 3}{100'}\right)\right]}$	(I) <u>/o'4, 9</u> pcf	pcf
Compaction		-1
$\left(\frac{(I) \int 04, 9}{(J) \int 07.9}\right) \times 100$	97,2%	%

Pass/	Fail: <u>1455</u>	Reviewed By:	Date:	
Rev.10/98	CF223/CPS			

	Page <u>205</u> of <u>221</u>
Project: Vistu 244dfill 011-3	Date: 09/18/2013
Project No.: 101, 07, 08	Soil Type: 5' &
Test No.: 30 - 2 58	Proctor Value (J): 10 9.5 pc
Location: 11,565 300 F 492 397 FB00	✓ Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: M/3	Optimum Moisture Content: 10, 0
Report No.:3 🔾	Sampled By: Brad ford

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) /35, 7 g lbs
	Weight of Pan and Wet Soil (D) 335, 7 g lbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>さんし、</u> g lbs

•	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D)335.7 & -(E) & /5'.5' \\ (E)320.2 & -(C) & /84'.3 \end{pmatrix} x 100$	(G)	%
Wet Density		
(B) 5,2 -(A) 4,04 ((F),03+1)	(H)	pcf
Dry Density		
$\frac{(H) \frac{1/\sqrt{3}, \sqrt{5}}{\left[1+\left(\frac{(G)-\sqrt{3}, 4}{100'}\right)\right]}$	(I)/ <u>07/3</u> _pcf	pcf
Compaction		
$\left(\frac{(I) - 10? \cdot ?}{(J) - 19? \cdot ?}\right) \times 100$	99.8 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CFS		

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Drive Cylinder Test Report

	Page_	207	of _	221	
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Project: Visto Landfill Gil . J	Date: 09/18/2012
Project No.: _/0/, 107, 03	Soil Type: &
Test No.: 30-4 SB	Proctor Value (J):
Location: AU, 544,000 F 42 300 & S	UStandard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: (A)	Optimum Moisture Content: 10, 0
Report No.: 30	Sampled By: T. Bradford

	7 / 25 / 10 / 10 / 10 / 10 / 10 / 10 / 10 / 1
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g /// L 1bs	Drying Pan Tare (C) 132,5 g lbs
Weight of Cylinder and Soil (B) g 5,04 lbs	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F)ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/6 8 g lbs

,		
•	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3.3.2.5 & -(E) & 15.7 \\ (E) & 3/6.8 & -(C) & 184.3 \end{pmatrix} \times 100$	(G)%	%
Wet Density		
(B) 5.04 -(A) 3.88 ((F) , 0.341)	(H) _//3 . 8 pcf	pcf
Dry Density		
$\frac{(H) \qquad //3 \cdot \mathcal{V}}{\left[1 + \left(\frac{(G)  \mathcal{S} \cdot \mathcal{S}'}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) / c \cdot f,  ?}{(J) / c \cdot f \cdot S}\right) \times 100$	95,8 %	%

Pass/Fail: PASS	Roviewed By:	Date: _	
Rev.10/98 CF223/CPS			

	Drive Cylinder Test Report
,	Page 29 6 of
Project: Vists Land 14 # 011 3  Project No.: 201.07.08	Date: 89/18/2012 Soil Type: 5 F
Test No.: 30-3 Location: N1.564, 800 E 490, 330 Across	Proctor Value (J): /c7. 9 pcf  Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 44	Optimum Moisture Content: 8,2 % Sampled By: 7, Bro d Lord
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/(_ lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 3325 glbs
Cylinder Volume (F) 1234 / ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3シル (O・glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 3323.5^{\circ} - (E) & //.5^{\circ} \\ (E) & 32/.0 & -(C) & /38.5^{\circ} \end{pmatrix} x = 100$	(G) <u>(, /</u> %	%
Wet Density		
(B) 5,0 -(A) 3.84 ((F)	(H)	pcf
Dry Density		
$\frac{(H) //\lambda \cdot \ell}{\left[1 + \left(\frac{(G) - \ell \cdot I}{100'}\right)\right]}$	(I)/36./_pcf	pcf
Compaction		
$\left(\frac{(I)  / \circ \iota \cdot \int}{(J)  / \circ \gamma \cdot \eta}\right) x  100$	98,3 %	%

Pass/Fail: Pass/S	Reviewed By:	Date:
Part 10/09 CE222/CDP	· ·	

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88	<b>District</b>	23

	Page 208 of 221
Project: VistA bandfill Q11.3	Date: 09/18/2012
Project No.:/0/, 07, 08	Soil Type: SB
Test No.:	Proctor Value (I): 107, 9 ncf
Location: N.1.584, 900 F. 492.356 PENOUT	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.:	Optimum Moisture Content; _ \$, 2.
Report No.:30	Sampled By: T. Bradford

Report No	Sampled By: 7, 07424au
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _/_/ lbs	Drying Pan Tare (C) 130,0 g lbs
Weight of Cylinder and Soil (B) g Ibs	Weight of Pan and Wet Soil (D) 330, 2 glbs
Cylinder Volume (F) 1034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/5.8 g lbs

		Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) 330 \cdot 0}{(E) 315.8} - (E) \cancel{/4.2}\right) \times 100 $	(G)%	%
Wet Density		
(B) 5.3 -(A) 3.84 ((F) , 034/)	(H) _//-2 · 6 _ pcf	pcf
Dry Density		
$\frac{(H) \qquad // \ \mathcal{L}_{l} \ \mathcal{L}_{l}}{\left[1+\left(\frac{(G) \qquad 7, \ \mathcal{L}_{l}}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) \cancel{104.6}}{(J) \cancel{107.9}}\right) \times 100$	<u>96.9</u> %	%

Pass/Fail: PASS	Reviewed By:	Date:	
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Page _	20	4	of	221

Project:	Vista L	wdf:11 C.11	. 3
Project No.	: 101. 07.	18	
Test No.:	30-6	5	- В
Location:	11565 250	E 497,330	Ernsy
Nuclear De	nsity Test No.: _	NA	
Report No.	: 30		

Date: EF/	8/2012
Soil Type:	B
Proctor Value (J):	07.9 pcf
✓ Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:	8,2 %
Sampled By:	addo.d

Drive Cylinder Information	- Moisture Content Sample
Weight of Cylinder (A) g /// lbs	Drying Pan Tare (C) 135.7 g lbs
	Weight of Pan and Wet Soil (D) glbs
Cylinder Volume (F) /234/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 32/10 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335,7 & -(E) & /4,7 \\ (E) & 32/, \infty & -(C) & /6^{\frac{2}{5}}3 \end{pmatrix} x 100 $	(G) <u>-7, 9</u> %	%
Wet Density		
$\frac{(B)  4i  ?  ?}{((F)  .  ?  3 \cdot 7)}$	(H)//2.3 pcf	pcf
Dry Density		
$ \frac{(H) \qquad // 2 \cdot 3}{\left[1 + \left(\frac{(G) - 7 \cdot 9}{100}\right)\right]} $	(I)/ pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{5.4_t}}{(J) \cancel{5.7_t}}\right) \times 100$	96.5 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

Drive Cylinder Test Report Page 211 of 221

Date:	09/12/	2012
Soil Type:	58	
Proctor Value (J): _		pcf
Standard AST	M D698	_ Modified ASTM 1557
Optimum Moisture	Content: 10,	3 9
	- 0	<b>Y</b>

Project No.: /0/. 07. 08	Soil
Test No.: 30 - 8 5B	Pro
Location: N1314.750 E 492.320 E Dan	V
Nuclear Density Test No.: N A	Opt
Report No.: 30	San

Report No.:	Sampled By: 7. Gradfard
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g lbs	Drying Pan Tare (C) 135.7 g lbs
Weight of Cylinder and Soil (B)g5,2.2-lbs	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F)ft <sup>1</sup>	Weight of Pan and Dry Soil (E) 3/7.5 g lbs

		Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 3ZS \cdot 7 & -(E) & /8,2 \\ (E) & 3/7.5 & -(C) & /8/1.8 \end{pmatrix} x 100 $	(G) <u>/0. 0</u> %	%
Wet Density		
(B) 5,22-(A) 4,06 ((F) 034-1)	(H)//9. /_ pcf	pef
Dry Density		
$\frac{(H) \qquad \text{if } ?. \mid}{\left[1 + \left(\frac{(G) - / \circ . \circ}{100^{\circ}}\right)\right]}$	(I) <u>/08.3</u> pcf	pcf
Compaction		
$\left(\frac{(I) / \circ F, 3}{(J) / \circ 9, 5}\right) \times 100$	98.9 %	%

Pass/Fail:	Pr's' Reviewed By:	Date:
Rev.10/98 CF223/CPS	•	

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Page	210	of	221	

Project: Visto HARCIN GII-3	Date:
Project No.: - /0/,07, 05	Soil Type: 5 B
Test No.: 30 - 7 5B	Proctor Value (J): / 0 9.5 pcf
Location: N1,565, 100 . E 492 320 EB-	Standard ASTM D698 Modified ASTM 1557
	Optimum Moisture Content:/o, \(\tau\)
Report No.: 3 9	Sampled By: Ti Bin do id
Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) /35.7 g lbs
Weight of Cylinder and Soil (B) g lbs	Weight of Pan and Wet Soil (D) 3357 glbs
Cylinder Volume (F) ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 320 ( g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 335.7 & -(E) & 15.1 \\ (E) & 320.6 & -(C) & 18.4.9 \\ \end{pmatrix} \times 100 $	(G)8, %	%
Wet Density		
$\frac{(B)  5_1/1  -(A)  3_1 \cdot 95^-}{((F)  ,  0.3 \cdot 9 \cdot 1)}$	(H) //5/8' pcf	pcf
Dry Density		
$\frac{(H) \qquad \frac{1/\mathcal{G}.\mathcal{E}'}{1}}{\left[1+\left(\frac{(G)}{100'}-\frac{\mathcal{S}.\mathcal{Z}_{-}}{100'}\right)\right]}$	(I) pcf	pcf
Compaction		
$\left(\frac{(I) - / \circ 7, \circ}{(J) / \circ 9, \circ}\right) \times 100$	97.7 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

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Best Bloom What	Page 212 of 221
Project: Vista Landfill (11-3 Project No.: 101, 07. 08	Date: /0/01/2012 Soil Type: S12
Test No.: 42-1 Archar Travel,	Proctor Value (I): /0 7. 8 pc
Location: N4.564, 650 F 491035	✓ Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: 1/9	Optimum Moisture Content: 12-1
Report No.: 42	Sampled By: T. Bradford

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 132,5 g lbs
	Weight of Pan and Wet Soil (D) 23.2.1 g lbs
Cylinder Volume (F) 1034/ ft3	Weight of Pan and Dry Soil (E) 307. 2 g lbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) & 332.5 & -(E) & 23.3 \\ (E) & 304.2 & -(C) & 172.7 \end{pmatrix} \times 100 $	(G)/3.\(\nu_\) %	%
Wet Density		
(B) .5,15 -(A) 3,99 ((F) .03.41)	(H) pcf	pcf
Dry Density		
$ \frac{(H) \qquad // 7. \circ}{\left[1+\left(\frac{(G)  /3. \cdot 2}{100'}\right)\right]} $	(I) _/=3.4_ pcf	pcf
Compaction		
$ \left(\begin{array}{c} (I) & 103.4 \\ (J) & 107.8 \end{array}\right) x 100 $	95.9 %	%

Pass/Fail: Pars	Reviewed By:	Date:
D., 10/09 CP332/CDC		

Page	213	of	221	′

Project: Vista LANdfill		
Project No.: 10407. 08		
Test No.: 42-2 ANGGE Trens		
Location: N. 1.564, 715 E- 491, 950		
Nuclear Density Test No.: 1		
Report No : 45		

Date: 10/01/20	12.	
Soil Type: 5F		
Proctor Value (J):	5	pcf
✓ Standard ASTM D698	Modified AST	M 1557
Optimum Moisture Content:	10.0	%
Sampled Buy T Beal	2.01	

Drive Cylinder Information	Moisture Content Sample
4 .	Drying Pan Tare (C) 135.7 g lbs
L	Weight of Pan and Wet Soil (D) 33517 glbs
Cylinder Volume (F)ft <sup>1</sup>	Weight of Pan and Dry Soil (E) 320.0 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 335.7 & -(E) & /5.7 \\ (E) & 320.0 & -(C) & /84.3 \end{pmatrix} \times 100$	(G)	%
Wet Density		
(B) 5.24 -(A) 4,08 ((F) 0341)	(H)/ pcf	pcf
Dry Density		
$ \frac{(H)  // ?. \checkmark}{\left[1 + \left(\frac{(G)  ?. ?.}{100'}\right)\right]} $	(I)	pcf
Compaction		
$\left(\frac{(I) / I \mathcal{O}, 2_{-}}{(I) / \mathcal{O}_{I}, S}\right) \times 100$	180,6 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

Page	214	of	22	1	

Project: Visitia Invafill Coll-3	Date: 10/01/2017
Project No.: _ / 0 /, 0 7, 0 8'	Soil Type: 5 =
Test No.: 42-3 Aughi. Travel	Proctor Value (J):
Location: N1564 720 E 492,050	
Nuclear Density Test No.: 🏒 📶	Optimum Moisture Content: 15.4 %
Report No.: 42	Sampled By: Sized By

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) /30, C) g lbs
	Weight of Pan and Wet Soil (D) 330,0 glbs
Cylinder Volume (F) , 034/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 306.7 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \begin{pmatrix} (D) \underline{330,0} & -(E) & \underline{23,5} \\ (E) \underline{331,5} & -(C) & \underline{776,5} \end{pmatrix} x 100 $	(G)/3,3%	%
Wet Density		
(B) 5,26 -(A) 4,1 ((F) ,0341	(H) <u>/20, 2</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad /\cancel{3} , \cancel{2}}{\left[1 + \left(\frac{(G)}{100}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I) / 06. /}{(J) / I / 5}\right) \times 100$	95.2 %	%
	1 1	

Pass/Fail: P.4-55	Reviewed By:	Date:
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## CEC

#### Drive Cylinder Test Report

_	215			,	
Page	215	of	21	1	

Project: Vista Loudf. 11 Gul-3	
Project No.: /9/. 97, 08	
Test No.: 42-4 Auchor Treach	
Location: N1564, 720 E 492, 150	
Nuclear Density Test No.: 1/4	
- · · · · · · · · · · · · · · · · · · ·	

Date:	12-
Soil Type: SF	
Proctor Value (J)://_5	pcf
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content: _/5	. 9 %
0 7 2 1	0 1

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g 1/16 lbs	Drying Pan Tare (C) /32, 5 g lbs
Weight of Cylinder and Soil (B) g 5/30 lbs	Weight of Pan and Wet Soil (D) 332.5 glbs
Cylinder Volume (F) / 103 41 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) <u>3つよい</u> glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) & 33\lambda \cdot 5 & -(E) & 2 \cdot 3 \cdot L \\ (E) & 3 \cdot 08 \cdot 6 & -(C) & 17 \cdot L \cdot 4 \end{pmatrix} x  100$	(G)	%
Wet Density		
(B) 5,30 -(A) 4,14 ((F) 1034)	(H)	pcf
Dry Density		
$\frac{(H) \qquad /2 \cdot 4}{\left[1 + \left(\frac{(G)  /3 \cdot 4}{100'}\right)\right]}$	(I) _/s·7. / pcf	pcf
Compaction		
$\left(\frac{(I) - I \circ 7 \cdot I}{(J) - I I \cdot 5}\right) \times 100$	96.4	%

Pass/Fail: Ros S	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## CEC

Drive	Cylind	er Test	Repor

	Page 21 col col
oject: Virta landfill Coll-5	Date: /0/01/2012
nject No.: /4/_ ロフ. ロタ	Soil Type:S F
st No.: 42-5 whole treach	Proctor Value (J): /99. 5 pcf
cation: N1, 564, 725 E 492, 250	✓ Standard ASTM D698Modified ASTM 1557
iclear Density Test No.: / A	Optimum Moisture Content: 10.0 %
port No.: 42	Sampled By: T. Brad for d

Drivé Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 135.7 g lbs
	Weight of Pan and Wet Soil (D) 335.7 glbs
Cylinder Volume (F) <u>, 034</u> ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/4 , 1 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		WANG, 13
$ \left(\frac{(D) \underline{335.7} - (E) \underline{/?. \zeta}}{(E) \underline{3/\zeta. /} - (C) \underline{/80.4f}}\right) x 100 $	(G) <u>/0.9</u> %	. %
Wet Density		
(B) 5,/8 -(A) 4,02 ((F) ,034/)	(H) pcf	pcf
Dry Density		
$\frac{(H) \qquad 1/7, 9}{\left[1+\left(\frac{(G)}{100'}\right)\right]}$	(I) <u>/06.3</u> pcf	pcf
Compaction		
$\left(\frac{(I) \cancel{106.3}}{(J) \cancel{209.5}}\right) \times 100$	97,1 %	%

Pass/Fail: PASS	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

Page 217 of 221

 Project:
 V:5+3
 Jandfill
 CII-3
 Date:

 Project No.:
 161, 07, 08
 Soil Tyr

 Test No.:
 46-6
 Auckles: Tester
 Proctor

 Location:
 N/1, 545, 445 E 481 700
 Sta

 Nuclear Density Test No.:
 Auckles: Tester
 Optimus

 Report No.:
 LD
 Sampled

Drive Cylinder Information	Moisture Content Sample
	Drying Pan Tare (C) 130.0 g lbs
	Weight of Pan and Wet Soil (D) 370, O g lbs
Cylinder Volume (F) 10341 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3 57. / g . Ibs

	Drive Cylinder Nuclear Gauge
Moisture Content	
$ \begin{pmatrix} (D) \underline{33000} - (E) \underline{22.1} \\ (E) \underline{307.1} - (C) \underline{1771.1} \end{pmatrix} x 100 $	(G)/æ · 9 %%
Wet Density	
(B) 5,20 -(A) 4.04 (F) ,034/)	(H)//ð; \(\sum_\) pcf pcf
Dry Density	
$ \frac{(H) - \frac{1}{\beta}, 5}{\left[1 + \left(\frac{(G) - \lambda \mathcal{I}, \mathfrak{T}}{100'}\right)\right]} $	(I) <u>/05,0</u> pcfpcf
Compaction	
$\left(\frac{(I)}{(J)} \frac{105, 0}{107.8}\right) \times 100$	97.4 %%

Pass/Fail: Fr.5.5	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

#### Drive Cylinder Test Report

Page 219 of 221

Project: Vish (Mcf.) (1-3 Date: 10/01/2012-

Report No.: 42	Sampled By: T. Bradford
Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // 5. 1bs	Drying Pan Tare (C) <u>135.</u> 7 g lbs
Weight of Cylinder and Soil (B) g	Weight of Pan and Wet Soil (D) 235.7 g lbs
Cylinder Volume (F) Cylinder Volume (F)	Weight of Pan and Dry Soil (E) 322, + glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		
$ \left(\frac{(D) \ 335.7 - (E) \ /3.7}{(E) \ 322.4 - (C) \ /86.7}\right) \times 100 $	(G)%	%
Wet Density		
(B) 5./6 -(A) 4.0 ((F) .0341)	(H)	pcf
Dry Density		
$\frac{(H) \qquad // 7, 3}{\left[1+\left(\frac{(G)}{100^{\circ}}\right)\right]}$	(I)	pcf
Compaction		
$\left(\frac{(I)\cancel{A}3.5}{(J)\cancel{A}3.5}\right) x 100$	100.0 %	%

Pass/Fail: Pass	Reviewed By:	Date:
Rev.10/98 CF223/CPS		

## C Par C

Page 218 of 221

Project: Vista Landfull Coll 3
Project No.: 10607, 98
Test No.: 42-7 Auchor Treach
Location: N1, 565,415 E 492,000
Nuclear Density Test No.: MA
Report No.: 42

Date: 10/01/20	12
Soil Type: S =	
Proctor Value (J): ///. 5	pc
Standard ASTM D698	Modified ASTM 1557
Optimum Moisture Content:	15.9
Sampled By: 7. Brand	ford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g _// 6 lbs	Drying Pan Tare (C) 132.5 g lbs
Weight of Cylinder and Soil (B) g S.33 lbs	Weight of Pan and Wet Soil (D) 332.3 glbs
Cylinder Volume (F) / o3'f/ ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 306,7 glbs

	Drive Cylinder	Nuclear Gauge
Moisture Content		I STATE OF THE STA
$\begin{pmatrix} (D) & 332-5 & -(E) & 25.9 \\ (E) & 332.7 & -(C) & 174.2 \end{pmatrix} \times 100$	(G)%	%
Wet Density		
(B) <u>5,33</u> -(A) <u>4.17</u> ((F) ,034/	(H) <u>/22.3</u> pcf	pcf
Dry Density	<u> </u>	
$\frac{(H) \qquad /2 \ 2 \cdot 3}{\left[1 + \left(\frac{(G) \qquad /4 - 3}{100}\right)\right]}$	(I)/01 .5_ pcf	pcf
Compaction		
$\left(\frac{(I) / 06.5}{(J) / I/I.5}\right) \times 100$	95.5 %	%

Pass/Fail:	Reviewed By:	Date:
Rev 10/98 CF223/CPS		

CEC

Drive Cylinder Test Report

Page 220	of _	221
10/-02/2012		

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g/ lbs	Drying Pan Tare (C) 135.7 g lbs
	Weight of Pan and Wet Soil (D) 375, 7 glbs
Cylinder Volume (F) 1974 ft <sup>3</sup>	Weight of Pan and Dry Soil (E) 3/1. / g lbs

·	Drive Cylinder	Nuclear Gauge
Moisture Content		
$\begin{pmatrix} (D) &(E) & 24. \\ (E) & 311. \\ \end{pmatrix} - (C) & 175.4 \\ \end{pmatrix} x = 100$	(G)/4_0 %	%
Wet Density		
(B) 5,39 -(A) 4,23 ((F) ,6341)	(H) <u>/24,0</u> pcf	pcf
Dry Density		
$\frac{(H) \qquad \cancel{\cancel{2}} \cancel{\cancel{4}},  \cancel{\cancel{O}}}{\left[1 + \left(\frac{(G) \qquad \cancel{\cancel{1}} \cancel{\cancel{1}} \cancel{\cancel{1}} \cancel{\cancel{O}}}{100'}\right)\right]}$	(I)	pc
Compaction		
$\left(\frac{(I) - \sqrt{OS \cdot S}}{(I) - (I) \cdot I \cdot S}\right) x  100$	97.6 %	%

Pass/Fail: PAS	Reviewed By:	Date:

ASTELLA.	ENEW!	CO II
		A STATE OF THE PARTY OF THE PAR
Wayer.	0	Ø

Dogg	221	of	22	(

Project: Vista Land Pill G11-3	Date:/0/02/2011-
Project No.: 10/07.08	Soil Type: J'/=
Test No.: 43-2	Proctor Value (J): 107-8 pc
Location: N1, 565, 415 E 492.300	Standard ASTM D698 Modified ASTM 1557
Nuclear Density Test No.: MA	Optimum Moisture Content: 12.
Report No.: 1+3	Sampled By: Tr Bradford

Drive Cylinder Information	Moisture Content Sample
Weight of Cylinder (A) g // (, lbs	Drying Pan Tare (C) 130.0 g lbs
Weight of Cylinder and Soil (B) g5.27 lbs	Weight of Pan and Wet Soil (D) 330.0 g lbs
Cylinder Volume (F) 1034 / ft3	Weight of Pan and Dry Soil (E) 303,8 g lbs

Drive Cylinder	Nuclear Gauge
(G)	%
(H)	pcf
(I)	pcf
97.1 %	%
	(G)

Pass/Fail: PASS

Rev.10/98 CF223/CPS

### A.3 PROTECTIVE COVER CONFORMANCE TESTS

#### VISTA CLASS III LANDFILL - CELL 3 SUMMARY OF SOIL DATA

					Attert	oerg L	imits	Grain S	ize Distri	bution	Standard	Proctor		Unit W	/eight		
			Soil	In-Situ				% Finer	% Finer	% Finer	Maximum	Optimum		Dry	Moisture		Carbonate
Sample	Sample	Sample	Classi-	Moisture				No. 4	No. 200	.005 mm	Dry Density	Moisture		Density	Content	Permeability	
ID	Туре	Depth	fication	(%)	L.L.	P.L.	P.I.	Sieve	Sieve	Sieve	(lb/cu.ft)	Content (%)	Gs	(lb/cu.ft)	(%)	(cm/sec)	(%)
PC-2	Bag		SP	3.7	-		b-	100.0	2.5	40	*	-	-	91.1	4.1	9.85E-03	0.7
PC-3	Bag		SP	4.5	-	-	-	100.0	1.6	-		-	-	89.3	4.4	1.14E-02	1.5
PC-4	Bag	-	SP	3.6	1	-	-	100.0	0.9		-	•	-	87.0	3.5	4.95E-02	-
PC-5	Bag		SP	4.7	-	-	-	100.0	0.5	-	64	-	-	89.1	4.0	2.48E-02	1.1
PC-6	Bag		SP-SM	11.2		u	-	100.0	12.0		-	-	-	88.1	10.7	5.91E-03	-
PC-7	Bag	u	SP	4.5	-	-	-	100.0	1.6	es.	in .	•	-	90.4	4.5	1.15E-02	-
PC-8	Bag	•	SP	4.7	-	-	-	100.0	0.3	4		-	-	86.4	4.3	2.68E-02	0.0
PC-9	Bag	ter	SP	4.8	-	-	14	100.0	2.0		pas	-	-	86.6	5.3	1.86E-02	-
PC-10	Bag	-	SP	5.9	-	-	-	100.0	2.3	-	-	-	-	90.3	5.8	2.57E-03	0.8
-	-	•	-	-	•		•	-	M	•	-	-	-	,,	-	-	-
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ABBREVIATIONS: LIQUID LIMIT (L.L.)

PLASTIC LIMIT (P.L.)
PLASTICITY INDEX (P.I.)
NON-PLASTIC (N/P)
SPECIFIC GRAVITY (Gs)
MOISTURE CONTENT (Mc)

NOTES: T = TRIAXIAL TEST

U = UNCONFINED COMPRESSION TEST

DS = DIRECT SHEAR TEST O = ORGANIC CONTENT

P = pH

CC = CARBONATE CONTENT

PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3 SAMPLE NUMBER:

PROJECT NUMBER: 2012-26

PC-2 Bag

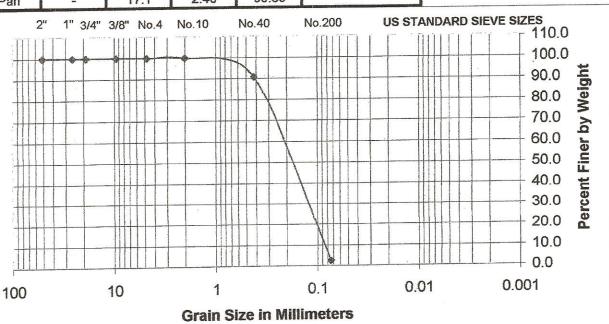
IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	919.6
Dry Wt. Soil + Tare (gm)	893.2
Weight of Tare (gm)	180.1
Weight of Water (gm)	26.4
Weight of Dry Soil (gm)	713.1
Moisture Content (%)	3.7

)
893.2
180.1
713.1

DESCRIPTION:

**BROWN SAND** 

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	66.6	9.34	9.34	90.7
No. 200	0.074	628.6	88.15	97.49	2.5
Pan	-	17.1	2.40	99.89	-



Coarse | Fine | Cor. | Medium | Fine | Silt | Clay |

GRAVEL | SAND | FINES |

Genesis Testing Services, Inc.

DATE: 10/25/12

REVIEW: AAG

#### RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434) 9/22/2012 VISTA LANDFILL - CELL 3 DATE: PROJECT TITLE: BAG SAMPLE TYPE: PROJECT NUMBER: 2012-26 DIAMETER, INCHES: 3.0 SAMPLE NUMBER: PC-2 3.0 SOIL DESCRIPTION: BROWN SAND LENGTH, INCHES: ESTIMATED S.G.: 2.66 LIQUID LIMIT: SP USCS:

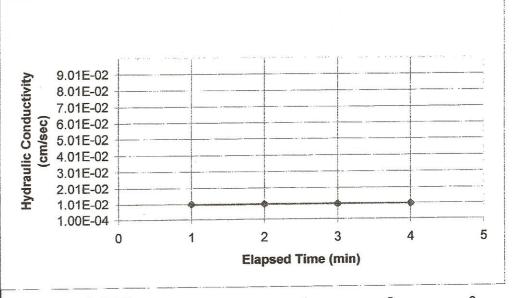
SPECIMEN PRO	OPERTIES	
INITIAL		
MOISTURE %:	4.1%	
DRY WEIGHT (pcf):	91.1	
SATURATION (%):	13.3%	
VOID RATIO:	0.82	

PLASTICITY INDEX: -

MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT	(%) N/A

PERMEANT DESCRIPTION: Tap Water

FINAL		PERMEATION	
MOISTURE %:	30.9%	FINAL BACK PRESSURE:	-
DRY WEIGHT (pcf):	91.1	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.82	HYDRAULIC GRADIENT:	0.367
ROOM TEMP. (°C):	24.44	QUANTITY OF FLOW:	44.0 cu.cm



ELAPSED TIME (MIN):

HYDRAULIC CONDUCTIVITY (CM/SEC):

1 9.85E-03

2 9.85E-03

9.85E-03

9.85E-03

HYDRAULIC CONDUCTIVITY @ 20 oC 9.85E-03 cm/sec

DATE: 0/25/12 REVIEWED BY:

PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3

PROJECT NUMBER: 2012-26

SAMPLE NUMBER:

PC-3

SAMPLE TYPE:

Bag

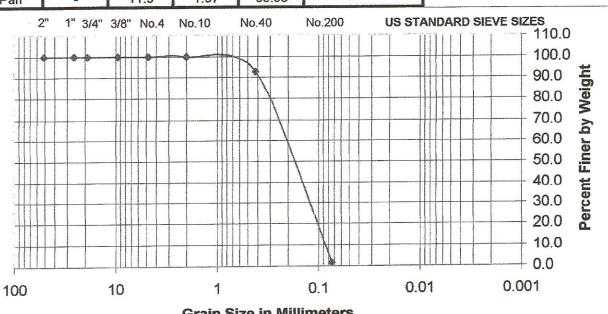
IN-SITU MOISTURE			
Wet Wt. Soil + Tare(gm)	932.3		
Dry Wt. Soil + Tare (gm)	899.9		
Weight of Tare (gm)	180.4		
Weight of Water (gm)	32.4		
Weight of Dry Soil (gm)	719.5		
Moisture Content (%)	4.5		

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	899.9
Weight of Tare (gm)	180.4
Weight of Sample (gm)	719.5

DESCRIPTION:

**ORANGE AND TAN SAND** 

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	53.1	7.38	7.38	92.6
No. 200	0.074	654.8	91.01	98.39	1.6
Pan	_	11.3	1.57	99.96	-



#### **Grain Size in Millimeters**

Clay Coarse | Fine | Cor. | Medium | Fine **FINES** 1 SAND **GRAVEL** 

Genesis Testing Services, Inc.

DATE: 10/25/12

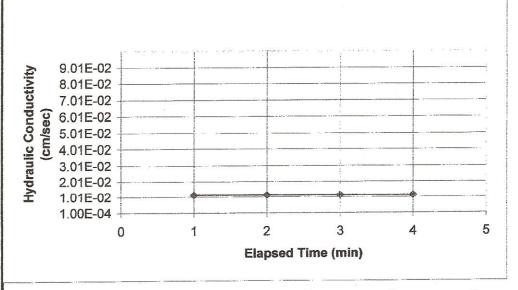
REVIEW: XXG

RIGID WALL PERMEABILITY TEST REPORT (ASTWID 2434)				
PROJECT TITLE: VISTA LANDFILL - CELL 3	DATE:	9/22/2012		
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	BAG		
SAMPLE NUMBER: PC-3	DIAMETER, INCHES:	3.0		
SOIL DESCRIPTION: ORANGE AND TAN SAND	LENGTH, INCHES:	3.0		
LIQUID LIMIT: -	ESTIMATED S.G.:	2.66		
PLASTICITY INDEX: -	USCS:	SP		

SPECIMEN PRO	OPERTIES
INITIAL	
MOISTURE %:	4.4%
DRY WEIGHT (pcf):	89.3
SATURATION (%):	13.6%
VOID RATIO:	0.86

N/A
N/A
ameter.

FINAL		PERMEATION		
MOISTURE %:	32.3%	FINAL BACK PRESSURE:	-	
DRY WEIGHT (pcf):	89.3	EFFECTIVE CONSOLIDATION PRESSURE:	-	
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-	
VOID RATIO:	0.86	HYDRAULIC GRADIENT:	0.315	
ROOM TEMP. (°C):	25	QUANTITY OF FLOW:	44.0 cu.cm	



ELAPSED TIME (MIN):

1

2

1.14E-02

HYDRAULIC CONDUCTIVITY (CM/SEC):

1.14E-02

1.14E-02

1.14E-02

HYDRAULIC CONDUCTIVITY @ 20 oC 1.14E-02 cm/sec

DATE: 10/25/12 REVIEWED BY: AAG

PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3

SA

SAMPLE NUMBER: PC-4

PROJECT NUMBER: 2012-26

SAMPLE TYPE:

Bag

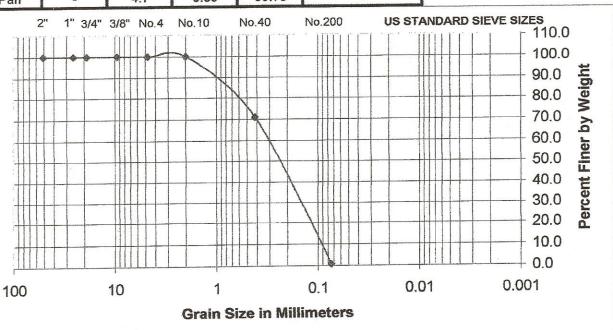
IN-SITU MOISTURE						
Wet Wt. Soil + Tare(gm)	1027.7					
Dry Wt. Soil + Tare (gm)	1000.9					
Weight of Tare (gm)	249.8					
Weight of Water (gm)	26.8					
Weight of Dry Soil (gm)	751.1					
Moisture Content (%)	3.6					

TOTAL WEIGHT OF SAMPLE USED	)
Weight of Sample + Tare gm)	1000.9
Weight of Tare (gm)	249.8
Weight of Sample (gm)	751.1

DESCRIPTION:

TAN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	216.9	28.88	28.88	71.1
No. 200	0.074	527.7	70.26	99.13	0.9
Pan		4.7	0.63	99.76	-



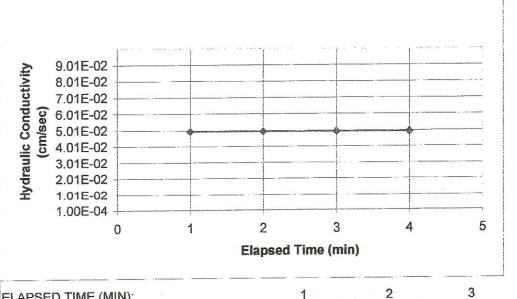
 Т	Coarse I F	ine	I Cor. I	Medium I	Fine	1	Silt	1 (	Clay I	
ī	GRAVE	EL	1	SAND		1		<b>FINES</b>		
								encometica de la missione de la companya del la companya de la com	DATE: \(	)[25][2-
		Gen	esis T	esting Se	ervices,	Inc.			REVIEW:	AAG

#### RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434) 9/22/2012 PROJECT TITLE: VISTA LANDFILL - CELL 3 DATE: BAG SAMPLE TYPE: PROJECT NUMBER: 2012-26 DIAMETER, INCHES: SAMPLE NUMBER: PC-4 3.0 LENGTH, INCHES: 3.0 SOIL DESCRIPTION: TAN SAND ESTIMATED S.G.: 2.66 LIQUID LIMIT: PLASTICITY INDEX: -USCS: SP

SPECIMEN PROPERTIES						
INITIAL						
MOISTURE %:	3.5%					
DRY WEIGHT (pcf):	87.0					
SATURATION (%):	10.3%					
VOID RATIO:	0.91					

REMOLDED SOIL PROPERTIES	
MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the perme	eameter.
PERMEANT DESCRIPTION: Tap Water	

FINAL		PERMEATION	
MOISTURE %:	34.1%	FINAL BACK PRESSURE:	-
DRY WEIGHT (pcf):	87.0	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.91	HYDRAULIC GRADIENT:	0.079
ROOM TEMP. (°C):	25	QUANTITY OF FLOW:	48.0 cu.cm



ELAPSED TIME (MIN): HYDRAULIC CONDUCTIVITY (CM/SEC):

1 4.95E-02 2 3 4.95E-02 4.95E-02

4 4.95E-02

HYDRAULIC CONDUCTIVITY @ 20 oC 4.95E-02 cm/sec

DATE: 15/25/12 REVIEWED BY: AAG

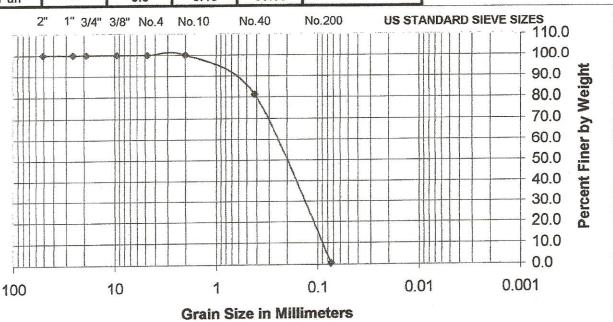
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3 SAMPLE NUMBER: PC-5
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTURE							
Wet Wt. Soil + Tare(gm)	1077.1						
Dry Wt. Soil + Tare (gm)	1039.8						
Weight of Tare (gm)	253.8						
Weight of Water (gm)	37.3						
Weight of Dry Soil (gm)	786.0						
Moisture Content (%)	4.7						

TOTAL WEIGHT OF SAMPLE USED	)
Weight of Sample + Tare gm)	1039.8
Weight of Tare (gm)	253.8
Weight of Sample (gm)	786.0

DESCRIPTION: TAN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	147.8	18.80	18.80	81.2
No. 200	0.074	633.9	80.65	99.45	0.5
Pan	-	3.5	0.45	99.90	-



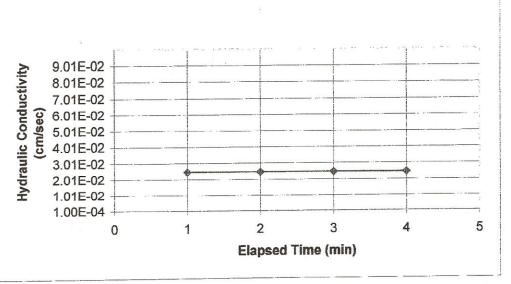
		Gon	ocic T	esting Se	ervice	s Inc.			REVIEW:	
 	0.00								DATE: NO	25/12
	GRA	/FI	1	SAND		1		FINES	6	
	Coarse I	Fine	I Cor. I	Medium 1	Fine	I	Silt	1	Clay I	

RIGID WALL PERMEABILITY TEST REPORT (ASTWID 2434)								
PROJECT TITLE: VISTA LANDFILL - CELL 3	DATE:	9/22/2012						
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	BAG						
SAMPLE NUMBER: PC-5	DIAMETER, INCHES:	3.0						
SOIL DESCRIPTION: TAN SAND	LENGTH, INCHES:	3.0						
LIQUID LIMIT: -	ESTIMATED S.G.:	2.66						
PLASTICITY INDEX: -	USCS:	SP						

SPECIMEN PRO	OPERTIES
INITIAL	
MOISTURE %:	4.0%
DRY WEIGHT (pcf):	89.1
SATURATION (%):	12.3%
VOID RATIO:	0.86

REMOLDED SOIL PROPERTIES	
MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the perme	eameter.
DEDMEANT DESCRIPTION: Tan Water	

FINAL		PERMEATION	
MOISTURE %:	32.4%	FINAL BACK PRESSURE:	
DRY WEIGHT (pcf):	89.1	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.86	HYDRAULIC GRADIENT:	0.144
ROOM TEMP. (°C):	25	QUANTITY OF FLOW:	44.0 cu.cm



ELAPSED TIME (MIN):

HYDRAULIC CONDUCTIVITY (CM/SEC):

1

2.48E-02

2 2.48E-02 3 2.48E-02

4 2.48E-02

HYDRAULIC CONDUCTIVITY @ 20 oC 2.48E-02 cm/sec

DATE: 10/25/12 REVIEWED BY: AAC

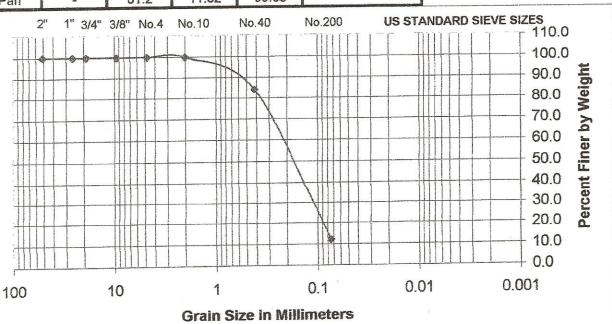
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3 SAMPLE NUMBER: PC-6
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

Wet Wt. Soil + Tare(gm)	1017.6
Dry Wt. Soil + Tare (gm)	940.4
Weight of Tare (gm)	253.7
Weight of Water (gm)	77.2
Weight of Dry Soil (gm)	686.7
Moisture Content (%)	11.2

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	940.7
Weight of Tare (gm)	253.7
Weight of Sample (gm)	687.0

DESCRIPTION: TAN SAND WITH SILT

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve Number	Size (mm)	The second secon	mass retained on each sieve	percent retained	Finer (%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	108.8	15.84	15.84	84.2
No. 200	0.074	495.8	72.17	88.01	12.0
Pan	Art	81.2	11.82	99.83	-



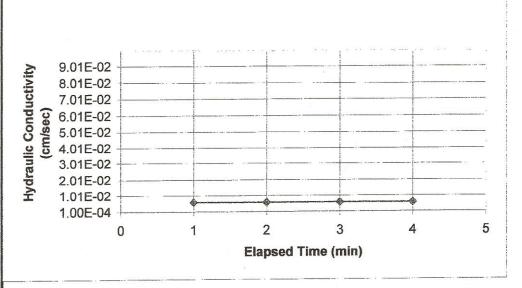
	Coarse I	Fine	I Cor. I	Medium 1	Fine	l	Silt	1 (	Clay I	
 T	GRAV	/EL	1	SAND	)	1		<b>FINES</b>	-	
 									DATE: 10	25/12
		Ger	esis T	esting Se	ervices	s, Inc.			REVIEW:	

RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434)			
PROJECT TITLE: VISTA LANDFILL - CELL 3	DATE:	10/6/2012	
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	BAG	
SAMPLE NUMBER: PC-6	DIAMETER, INCHES:	3.0	
SOIL DESCRIPTION: TAN SAND WITH SILT	LENGTH, INCHES:	3.0	
LIQUID LIMIT: -	ESTIMATED S.G.:	2.66	
PLASTICITY INDEX: -	USCS:	SP-SM	

SPECIMEN PRO	OPERTIES	
INITIAL		
MOISTURE %:	10.7%	
DRY WEIGHT (pcf):	88.1	
SATURATION (%):	32.2%	
VOID RATIO:	0.88	

MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the perme	eameter.
PERMEANT DESCRIPTION: Tap Water	

FINAL		PERMEATION	
MOISTURE %:	33.2%	FINAL BACK PRESSURE:	**
DRY WEIGHT (pcf):	88.1	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.88	HYDRAULIC GRADIENT:	0.564
ROOM TEMP. (°C):	23.88	QUANTITY OF FLOW:	40.0 cu.cm



ELAPSED TIME (MIN): HYDRAULIC CONDUCTIVITY (CM/SEC):

5.91E-03

2 5.91E-03

5.91E-03

5.91E-03

HYDRAULIC CONDUCTIVITY @ 20 oC 5.91E-03 cm/sec

10/25/12 REVIEWED BY:

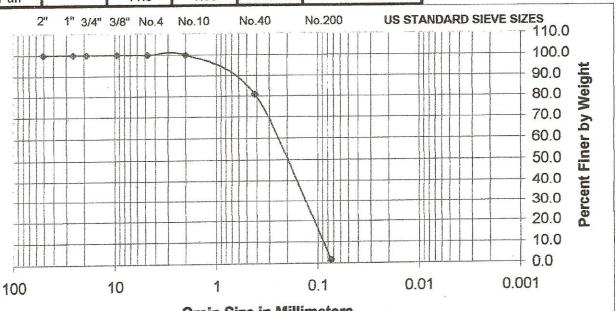
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3 SAMPLE NUMBER: PC-7
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTURE		
Wet Wt. Soil + Tare(gm)	1028.5	
Dry Wt. Soil + Tare (gm)	995.4	
Weight of Tare (gm)	252.1	
Weight of Water (gm)	33.1	
Weight of Dry Soil (gm)	743.3	
Moisture Content (%)	4.5	

Weight of Sample + Tare gm)	995.4
Weight of Tare (gm)	252.1
Weight of Sample (gm)	743.3

DESCRIPTION: TAN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	141.2	19.00	19.00	81.0
No. 200	0.074	590.3	79.42	98.41	1.6
Pan	-	11.5	1.55	99.96	-



#### **Grain Size in Millimeters**

I Coarse | Fine | Cor. | Medium | Fine | Silt | Clay | |

I GRAVEL | SAND | FINES |

Genesis Testing Services, Inc. | DATE: 10/25/12 |

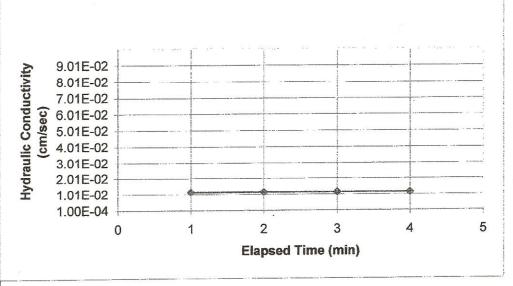
REVIEW: AAG

#### RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434) DATE: 10/6/2012 PROJECT TITLE: VISTA LANDFILL - CELL 3 SAMPLE TYPE: PROJECT NUMBER: 2012-26 BAG SAMPLE NUMBER: DIAMETER, INCHES: PC-7 3.0 LENGTH, INCHES: 3.0 SOIL DESCRIPTION: TAN SAND. ESTIMATED S.G.: 2.66 LIQUID LIMIT: PLASTICITY INDEX: -USCS: SP

SPECIMEN PRO	OPERTIES	
INITIAL		
MOISTURE %:	4.5%	
DRY WEIGHT (pcf):	90.4	
SATURATION (%):	14.3%	
VOID RATIO:	0.84	

ODTIMUM MOIOTURE CONTENT (0/)	
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the permen	ameter.

FINAL		PERMEATION	
MOISTURE %:	31.4%	FINAL BACK PRESSURE:	-
DRY WEIGHT (pcf):	90.4	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.84	HYDRAULIC GRADIENT:	0.577
ROOM TEMP. (°C):	23.88	QUANTITY OF FLOW:	40.0 cu.cm



ELAPSED TIME (MIN): HYDRAULIC CONDUCTIVITY (CM/SEC): 1 1.15E-02 2 1.15E-02

3 1.15E-02

4 1.15E-02

HYDRAULIC CONDUCTIVITY @ 20 oC 1.15E-02 cm/sec

DATE: 10/25/12 REVIEWED BY: AACT

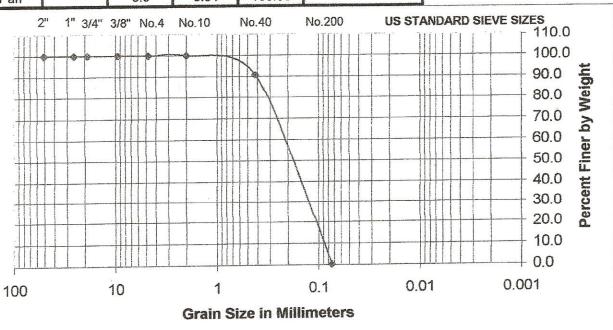
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3 SAMPLE NUMBER: PC-8
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTUR	E
Wet Wt. Soil + Tare(gm)	818.9
Dry Wt. Soil + Tare (gm)	790.6
Weight of Tare (gm)	182.0
Weight of Water (gm)	28.3
Weight of Dry Soil (gm)	608.6
Moisture Content (%)	4.7

Weight of Sample + Tare gm)	790.6
	, , , , , ,
Weight of Tare (gm)	182.0
Weight of Sample (gm)	608.6

DESCRIPTION: GREY AND TAN SAND

	Grain	Mass of	Percent of	Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	56.8	9.33	9.33	90.7
No. 200	0.074	549.7	90.32	99.65	0.3
Pan	_	3.9	0.64	100.30	-



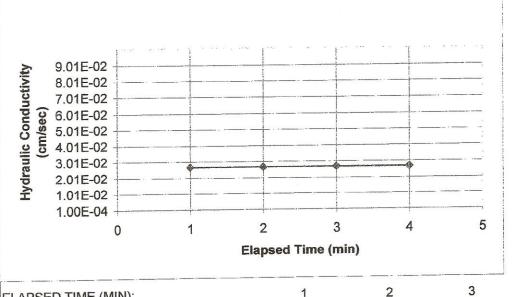
1	Coarse I	Fine	I Cor. I	Medium I	Fine	ı	Silt	1 0	clay I	
	GRAVI	EL	ŀ	SAND				FINES	l	
									DATE: 10	25/12
		Gen	esis T	esting Se	rvices	s, Inc.			REVIEW:	HAG

#### RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434) 10/6/2012 VISTA LANDFILL - CELL 3 DATE: PROJECT TITLE: SAMPLE TYPE: BAG PROJECT NUMBER: 2012-26 3.0 DIAMETER, INCHES: SAMPLE NUMBER: PC-8 3.0 SOIL DESCRIPTION: GREY AND TAN SAND. LENGTH, INCHES: 2.66 ESTIMATED S.G.: LIQUID LIMIT: SP USCS: PLASTICITY INDEX: -

SPECIMEN PRO	OPERTIES	
INITIAL		
MOISTURE %:	4.3%	
DRY WEIGHT (pcf):	86.4	
SATURATION (%):	12.4%	
VOID RATIO:	0.92	

REMOLDED SOIL PROPERTIES MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the perm	eameter.

FINAL		PERMEATION	
MOISTURE %:	34.6%	FINAL BACK PRESSURE:	-
DRY WEIGHT (pcf):	86.4	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.92	HYDRAULIC GRADIENT:	0.236
ROOM TEMP. (°C):	23.88	QUANTITY OF FLOW:	38.0 cu.cm



ELAPSED TIME (MIN): HYDRAULIC CONDUCTIVITY (CM/SEC): 1 2.68E-02 3 2.68E-02

2.68E-02

2.68E-02

HYDRAULIC CONDUCTIVITY @ 20 oC 2.68E-02 cm/sec

DATE: 10/25/12 REVIEWED BY: AAG

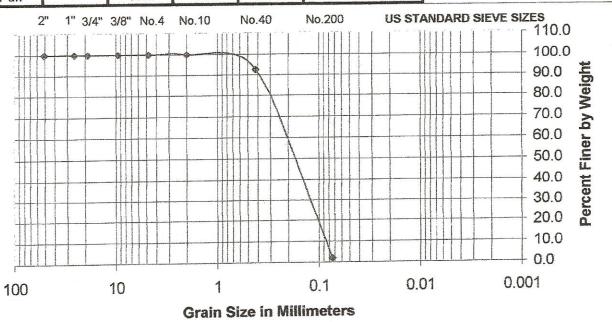
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3	SAMPLE NUMBER:	PC-9
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	Bag

IN-SITU MOISTU	RE
Wet Wt. Soil + Tare(gm)	871.9
Dry Wt. Soil + Tare (gm)	840.1
Weight of Tare (gm)	181.4
Weight of Water (gm)	31.8
Weight of Dry Soil (gm)	658.7
Moisture Content (%)	4.8

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	840.1
Weight of Tare (gm)	181.4
Weight of Sample (gm)	658.7

ORANGE		

	Grain			Cumulative	Percent
Sieve	Size	soil retained	mass retained	percent	Finer
Number	(mm)	on sieve (g)	on each sieve	retained	(%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	49.1	7.45	7.45	92.5
No. 200	0.074	596.3	90.53	97.98	2.0
Pan	-	11.3	1.72	99.70	_



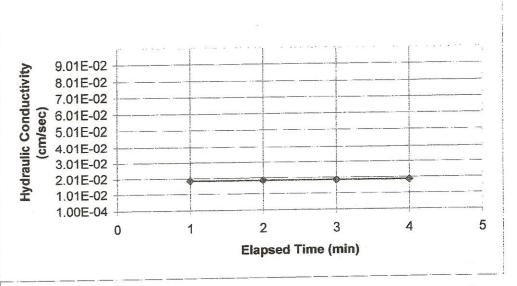
	Coarse   Fine   C	or. I Medium I Fine	) ]		Clay I	
I	GRAVEL I	SAND	Stewart	FINES		
					DATE: על	25/12
	Genesi	s Testing Servi	ces, Inc.		REVIEW:	AAG

RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434)			
PROJECT TITLE: VISTA LANDFILL - CELL 3	DATE:	10/22/2012	
PROJECT NUMBER: 2012-26	SAMPLE TYPE:	BAG	
SAMPLE NUMBER: PC-9	DIAMETER, INCHES:	3.0	
SOIL DESCRIPTION: ORANGE AND TAN SAND.	LENGTH, INCHES:	3.0	
LIQUID LIMIT: -	ESTIMATED S.G.:	2.66	
PLASTICITY INDEX: -	USCS:	SP	

SPECIMEN PRO	OPERTIES	
INITIAL		
MOISTURE %:	5.3%	
DRY WEIGHT (pcf):	86.6	
SATURATION (%):	15.4%	
VOID RATIO:	0.92	

REMOLDED SOIL PROPERTIES MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the perme	eameter.

FINAL		PERMEATION	
MOISTURE %:	34.5%	FINAL BACK PRESSURE:	-
DRY WEIGHT (pcf):	86.6	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.92	HYDRAULIC GRADIENT:	0.275
ROOM TEMP. (°C):	22.77	QUANTITY OF FLOW:	60.0 cu.cm



ELAPSED TIME (MIN): 1
HYDRAULIC CONDUCTIVITY (CM/SEC): 1.86E-02

2 3 02 1.86E-02 1.86E-02 4 1.86E-02

HYDRAULIC CONDUCTIVITY @ 20 oC 1.86E-02 cm/sec

DATE: 15/25/12 REVIEWED BY: AAG

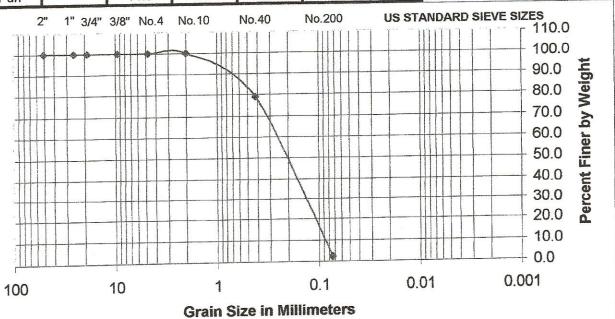
PROJECT TITLE: VISTA CLASS III LANDFILL - CELL 3 SAMPLE NUMBER: PC-10
PROJECT NUMBER: 2012-26 SAMPLE TYPE: Bag

IN-SITU MOISTURE			
Wet Wt. Soil + Tare(gm)	882.0		
Dry Wt. Soil + Tare (gm)	843.1		
Weight of Tare (gm)	182.2		
Weight of Water (gm)	38.9		
Weight of Dry Soil (gm)	660.9		
Moisture Content (%)	5.9		

TOTAL WEIGHT OF SAMPLE USED	
Weight of Sample + Tare gm)	843.1
Weight of Tare (gm)	182.2
Weight of Sample (gm)	660.9

DESCRIPTION: TAN SAND

Sieve Number	Grain Size (mm)	soil retained	Percent of mass retained on each sieve	Cumulative percent retained	Percent Finer (%)
3-inch	76.1	0.0	0.00	0.00	100.0
2-inch	50.8	0.0	0.00	0.00	100.0
1-inch	25.7	0.0	0.00	0.00	100.0
3/4-inch	19.0	0.0	0.00	0.00	100.0
3/8-inch	9.51	0.0	0.00	0.00	100.0
No. 4	4.76	0.0	0.00	0.00	100.0
No. 10	2.00	0.0	0.00	0.00	100.0
No. 40	0.42	139.5	21.11	21.11	78.9
No. 200	0.074	505.9	76.55	97.65	2.3
Pan	-	14.8	2.24	99.89	-



I Coarse I Fine I Cor. I Medium I Fine I Silt I Clay I
I GRAVEL I SAND I FINES I

Genesis Testing Services, Inc.

REVIEW: ACC

#### RIGID WALL PERMEABILITY TEST REPORT (ASTM D 2434) PROJECT TITLE: VISTA LANDFILL - CELL 3 DATE: 10/22/2012 SAMPLE TYPE: **BAG** PROJECT NUMBER: 2012-26 SAMPLE NUMBER: PC-10 DIAMETER, INCHES: 3.0 SOIL DESCRIPTION: TAN SAND. LENGTH, INCHES: 3.0 ESTIMATED S.G.: LIQUID LIMIT: 2.66

SPECIMEN PRO	OPERTIES	
INITIAL		
MOISTURE %:	5.8%	State State Street
DRY WEIGHT (pcf):	90.3	
SATURATION (%):	18.4%	
VOID RATIO:	0.84	

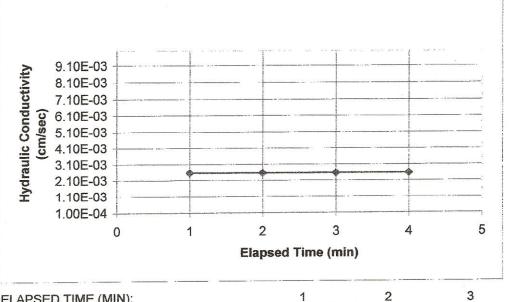
PLASTICITY INDEX: -

REMOLDED SOIL PROPERTIES	
MAXIMUM DRY DENSITY (pcf):	N/A
OPTIMUM MOISTURE CONTENT (%)	N/A
Material was lightly compacted in the perme	eameter.
PERMEANT DESCRIPTION: Tap Water	

SP

USCS:

FINAL		PERMEATION	
MOISTURE %:	31.5%	FINAL BACK PRESSURE:	-
DRY WEIGHT (pcf):	90.3	EFFECTIVE CONSOLIDATION PRESSURE:	-
SATURATION:	100.0%	PORE PRESSURE DIFFERENCE:	-
VOID RATIO:	0.84	HYDRAULIC GRADIENT:	0.931
ROOM TEMP. (°C):	22.77	QUANTITY OF FLOW:	28.0 cu.cm



ELAPSED TIME (MIN):

2.57E-03

HYDRAULIC CONDUCTIVITY (CM/SEC):

2.57E-03

2.57E-03

2.57E-03

HYDRAULIC CONDUCTIVITY @ 20 oC 2.57E-03 cm/sec

DATE: 10/25/12 REVIEWED BY: AAG

# CARBONATE CONTENT (Calcite Equivalent) ASTM D 4373

PROJECT TITLE PROJECT NUMBER REMARKS

GTS/WM-VISTA LF-CELL 3/FL	
123-90170	
-	

SAMPLEID	P(C <sup>2</sup> )	TO PC3	PC-5
SPECIMEN	Carbonate Content	Carbonate Content	Carbonate Content
NUMBER	%	%	%
1	0.6	1.4	1.0
2	0.8	1.6	1.1
Average	0.7	1.5	1.1

SAMPIACAD==	Pess 1	1726	
SPECIMEN	Carbonate Content	Carbonate Content	Carbonate Content
NUMBER	%	%	%
1	0.0	0.7	
2	0.0	0.8	
Average	0.0	0.8	

SAMPERID			
SPECIMEN NUMBER	Carbonate Content %	Carbonate Content %	Carbonate Content
1			
2			
Average			

SAMPELID			
SPECIMEN NUMBER	Carbonate Content %	Carbonate Content %	Carbonate Content
1			
2			
Average			

TECH	TJ
DATE	10/23/12
CHECK	allen
REVIEW	PINA
APPROVE	1

### A.4 STONE AGGREGATE CONFORMANCE TESTS

# VISTA CLASS III LANDFILL - CELL 3 SUMMARY OF SOIL DATA

					Atterb	erg L	imits	Grain S	ize Distri	bution	Standard	Proctor		Unit W	/eight		
			Soil	In-Situ				% Finer	% Finer	% Finer	Maximum	Optimum		Dry	Moisture		Carbonate
Sample	Sample	Sample	Classi-	Moisture				No. 4	No. 200	.005 mm	Dry Density	Moisture		Density	Content	Permeability	Content
ID	Type	Depth	fication	(%)	L.L.	P.L.	P.I.	Sieve	Sieve	Sieve	(lb/cu.ft)	Content (%)	Gs	(lb/cu.ft)	(%)	(cm/sec)	(%)
#4Stone	Bulk		GP	pin)	54	Na.	#Lex	1.0	0.2	ENG.	1 <b>3</b> 4	Pd.		104.8	MIN-	36.3	0.2
#57Stone	Bulk		GP		<b>7.4</b>		minu	3.7	0.5			<b>*</b>		111,7		21.4	0.9
130					AME.	<b>L</b> .			<b>á</b> ra				apoti ganes for the resonant land of Market to the				
	33.			shik		rjul	Tital	district.		<b>Biol</b> Christopharographical and a complete comp		D <sub>A</sub>				<b>SPR</b>	
				ies La companya de la comp	Salangai cannacha can in an		Pápi Nominoserva e ubdomána (1984)		disa Bandan anan kalimpon kan disan kan Manipisi ni kan 1888 di	zannien kirkeliniere, proplakter an in de monte service in selection in selection in selection in selection in	tokal Open delen kirja mineral delen kraftiqui in ipagai neplantria pira tribi parte (mineral) kraft (historia)	<u> </u>		apper	est Danishining sakan kanada ang kalabahan sakan		
New t	##	ichter De leine eine de leine de lein	par.	entill.	<del> </del>	· · · · · · · · · · · · · · · · · · ·	per normat kinde (perioda para)		illen Trittini i Provinsk fransk fransk forsk fransk f	terrational publications of terration have a southern terration of the second s					and the second s	espa Lando esta na productiva a segui de sanda como españo esta por esta se sanda esta se se se se se se se se se s	
depi				inte		#le TZFM#\\banksusektyksiistomoirksi				<b>ands</b> <del>- Vijagandas ji Cogardia, Sajingan</del> ang kugin apagandan anda in sid <u>ina da a</u>		Men To the Control of		<b>44</b>			
elekti.	###				produkt skipat eksantiseikoko, koja (sp.		ECO	ap.	itaa Jankyysi ispirjinii iriska ilikuliiska kirjootta oo						nije Literaturoja postanja		geph
tion.	encologic spine maline maline massici del conjugación es en es en esta esta esta esta esta esta esta esta	endi halanin saidh si han i Sainnean ann ann an Alban (i le i l			des Ans		oin.		etal San dalikaritanen konistaa kitaalatia sidatta	engi Storatorov dogo kolodi i sandaya karandada o akafalan d <u>ar ek</u>	iele La companya di transportation de la companya de la	W <sub>A</sub> L	THE STATE OF THE S	ente		edist	ya kai nahi artara kai kai kai kai kai kai kai kai kai ka
		#And	and an emphysical december to the popular depty of the popular depty of the popular depty of the popular depty		<del>-</del>		na Danarda kasikalanda da 1977	THE STREET PROPERTY OF THE STREET	<u>Signai, copportain proprieta mentenciamente En politica de Lindo.</u> Print		OUR	Sam sample, prijege, pagago (pagago <del>pagago pagago </del>	etal	is <sub>e</sub> niganist uženaienienienienienienienienienienienienieni	igus,		
<u>pening paint tricking de Capari and individuality di Virence</u>	igtopeperko-donktivi inflamonti eta po-nelengui kanisani. Pilit				tak		biel	en de la completa de La completa de la completa del la completa de la completa del la completa de la completa del la completa de la completa de la completa del la completa della della della completa della complet			niki).		SZN LANONSKI INDONESIA SYTTÄNISTY	in a securitaria de desta de la companio de la comp Esta la companio de	enter de la completa	se namentaja nden) kiennasjala elempapa manaman, denkirata personan manaman personan menentaja esta manaman m Manaman personan menentaja nden personan menentaja esta manaman personan menentaja esta manaman personan menen	
		fips				ALE CITATION AND AND AND AND AND AND AND AND AND AN	ens		estan	ennementaliste de la completa de la	dade	Plain The option that the standard control for the specifier, the standard of the standard control thick control the standard of the standard		isa nisa An Orden do di inchinistria in indicazioni malla dendi interita i			
interes.		land. Sadan serimengan dirikah kembahan dalam dan serimengan basar basar basar dan serimengan basar basar basar dan s		nia	e ministration experience process	iki	-	one poli–infectional propriet is constructed to the construction of the construction o			. Appli Company of the state of		E-1	D SAME CONTRACTOR OF THE PARTY	void - Constant and the American Constant and Constant a	spent in commonwealthcommunication and production a	
	ing and the second seco	ina		della	Karanina to avaz - maiara		THE THE PERSON NAMED IN COLUMN 2 IN COLUMN	ides Se Sententing and it will depart any demonstration of the latter than the second	im naconòmica nunciona del mande del menos		in printipa konson pinanga anga anga anga anga anga anga ang				institutioner on a second seco		
	HAP.			To	EQN Self-manusiyona kunnana kanana kan		egei			THE STREET STREET	heri	Maria Na displacementativa si anno de la sua d L	en en commente, som en commençat en siène à encit		iera Pariosidos especialismos productivos productivos productivos productivos productivos productivos productivos p		
			kolenski karalenare e karalenare astera zulga kejaren erebere e eter		e o o servicio de la composição de la co		and the second s		telli					entell Sala forten Septembel der landen flagt wicht auf Albert Heilen (der Ansterland bestellt der Ansterland bestell			tana mandang mandang di salah mandan kecamatan kecamatan di salah mendengan kecamatan di salah mendengan di sa
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	-	inn			en i santanangan kalan kepandan napatan napanga				edida Antikan erfedenden sejerir keda (Hanishi da da manasa Alikana (Hanishi da da manasa Alikana (Hanishi da manasa				Mark	tes	spine Communication of the state of the stat		
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rie <u>C. 1. popuis prijes i der sei al riektoria andra</u>	<u></u>	<del>-</del>				AND SECURITION OF THE PARTY OF	54 151411111111111111111111111111111111						ALTHOUGH COMMISSION OF THE PARTY.	en <u>ministration and an </u>	ede Typedistrikeringskepteringskepteringskepteringskepterings		k farmatri kalmana ma
didah 	<b></b>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		esh			eta La continuación de descripción de la continuación de la continuación de la continuación de la continuación de la		ing sayang again sayang again sayang ang ang ang ang ang ang ang ang ang	planti De <sup>progradu selectris a planticio conserva personali personali de la conserva personali personali de la conse</sup>			Medi	nore and the contract of the c	pen ne do <u>entre de servicionismo</u> de la pentación de la penta		
=2		<u> </u>	20-4		800	And the second	-						ena				

ABBREVIATIONS: LIQUID LIMIT (L.L.)

PLASTIC LIMIT (P.L.)

PLASTICITY INDEX (P.I.)

NON-PLASTIC (N/P)
SPECIFIC GRAVITY (Gs)

MOISTURE CONTENT (Mc)

NOTES: T = TRIAXIAL TEST

U = UNCONFINED COMPRESSION TEST

DS = DIRECT SHEAR TEST
O = ORGANIC CONTENT

P = pH

CC = CARBONATE CONTENT

GP

0.0%

USCS:

# CONSTANT HEAD PERMEABILITY TEST ASTM D 2434 - MODIFIED

PROJECT TITLE
PROJECT NUMBER
REMARKS

GTS/WM-VISTA LF - CELL 3/FL
123-90170

SAMPLE ID	#4 STONE	
SAMPLE TYPE	Bulk	
SAMPLE DEPTH	_	

		TIME IN SECONDS	, ,	TEMP.	Flow Rate (ml/sec)	•
Gradient -1	1.	8.72	7570	23.0	868.12	*
	2.	9.00	7570	23.0	841.11	*
	3.	8.78	7570	23.0	862.19	*
Gradient -2	1.	7.72	7570	23.0	980.57	*
	2.	7.81	7570	23.0	969.27	*
	3.	7.57	7570	23.0	1000.00	*
Gradient -3	1.	6.82	7570	23.0	1109.97	*
	2.	6.81	7570	23.0	1111.60	*
	3.	6.74	7570	23.0	1123.15	*

## INITIAL UNIT WEIGHT DETERMINATION

APPARATUS & WET SAMPLE (lbs):	42.0
APPARATUS & WET SAMPLE (g):	19050.
APPARATUS WEIGHT (g):	1.8
APPARATUS & WET SAMPLE (g): APPARATUS WEIGHT (g): WET SAMPLE WEIGHT (g):	19049.

SAMPLE LENGTH (in):
SAMPLE DIAMETER (in):
SAMPLE AREA (in²):
SAMPLE AREA (cm <sup>2</sup> ):
SAMPLE VOLUME (in <sup>3</sup> ):
SAMPLE VOLUME (ft <sup>3</sup> ):
WET DENSITY IN (pcf):
DRY DENSITY IN (pcf):

FNAL
8.0
10.5
86.59
558.64
692.72
0.401
104.8
104.8

## INITIAL MOISTURE CONTENT

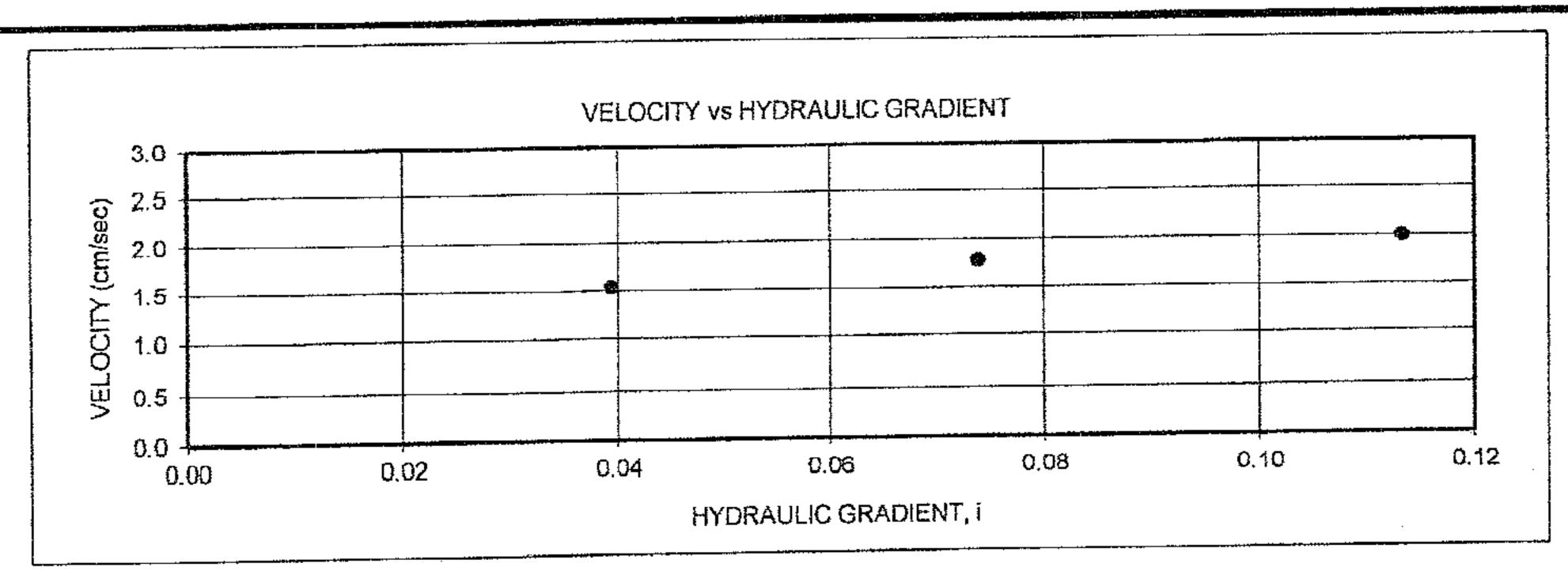
WET SAMPLE & TARE (g):	
DRY SAMPLE & TARE (g):	
WEIGHT OF TARE (g):	
WEIGHT OF WATER (g):	
DRY SAMPLE WEIGHT (g):	
MOISTURE CONTENT (%):	
DRY SAMPLE WEIGHT (g):	

AVERAGE FLOW RATE (ml/sec):
AVERAGE TEMP (°C):
TEMPERATURE CORRECTION:
HEAD OF WATER (mm):
HEAD OF WATER (in):
HYDRAULIC GRADIENT (i):
Velocity (cm/sec)

	857.14	983.28	1114.91
	23.0	23.0	23.0
	0.931	0.931	0.931
	8.0	15.0	23.0
	0.3	0.6	0.9
	0.04	0.07	0.11
	1.53	1.76	2.00
_			

Permeability	@ 20°C(	[cm/sec]	) =	-

36.3	22.2	16.4	



TECH TJ

DATE 10/18/12

CHECK NO.

REVIEW NO.A.

APPROVE

## CARBONATE CONTENT ASTM D 3042 - MODIFIED GTS/WM-VISTA LF - CELL 3/FL PROJECT TITLE 123-90170 PROJECT NUMBER #4 STONE SAMPLE ID 598.02 594.31 594.97 Residue +Tare weight (g) 84.54 82.94 83.22 Tare Weight (g) 513.48 511.37 511.75 Residue weight (g) After Acid Application and Wash 596.99 593.14 593.54 Residue + Tare weight (g) 512.45 510.20 510.32 Residue weight (g) 0.2 0.2 0.3 Carbonate Content (%) Average Carbonate Content (%) REMARKS Gray, COARSE GRAVEL, trace medium to fine sand, trace fines. GP USCS Only the Plus No.200 Size material used in the test. MODIFIED: TECH 101/19/12 DATE CHECK REVIEW APPROVE

# CONSTANT HEAD PERMEABILITY TEST ASTM D 2434 - MODIFIED

PROJECT TITLE
PROJECT NUMBER
REMARKS

GTS/WM-VISTA LF - CE	LL 3/FL	
123-90170		

SAMPLE ID	#57 STONE
SAMPLE TYPE	Bulk
SAMPLE DEPTH	

	TIME IN SECONDS	VOLUME (ml)	TEMP.	Flow Rate (ml/sec)	-
Gradient -1	. 7.59	7570	23.0	997.36	*
2	7.38	7570	23.0	1025.75	*
3	. 7.28	7570	23.0	1039.84	*
Gradient -2	. 7.78	7570	23.0	973.01	*
2	. 7.88	7570	23.0	960.66	*
3	. 8.00	7570	23.0	946.25	*
Gradient -3	9.50	7570	23.0	796.84	*
2	. 9.59	7570	23.0	789.36	*
3	9.44	7570	23.0	801.91	*

## INITIAL UNIT WEIGHT DETERMINATION

APPARATUS & WET SAMPLE (lbs):	56.0
APPARATUS & WET SAMPLE (g):	25401.2
APPARATUS WEIGHT (g):	1.8
WET SAMPLE WEIGHT (g):	25399.4

SAMPLE LENGTH (in):

SAMPLE DIAMETER (in):

SAMPLE AREA (in²):

SAMPLE AREA (cm²):

SAMPLE VOLUME (in³):

SAMPLE VOLUME (ft³):

WET DENSITY IN (pcf):

DRY DENSITY IN (pcf):

INITIAL	FINAL
10.0	10.0
10.5	10.5
86.59	86.59
558.64	558.64
865.90	865.90
0.501	0.501
111.7	111.7
111.7	111.7
	<u> </u>

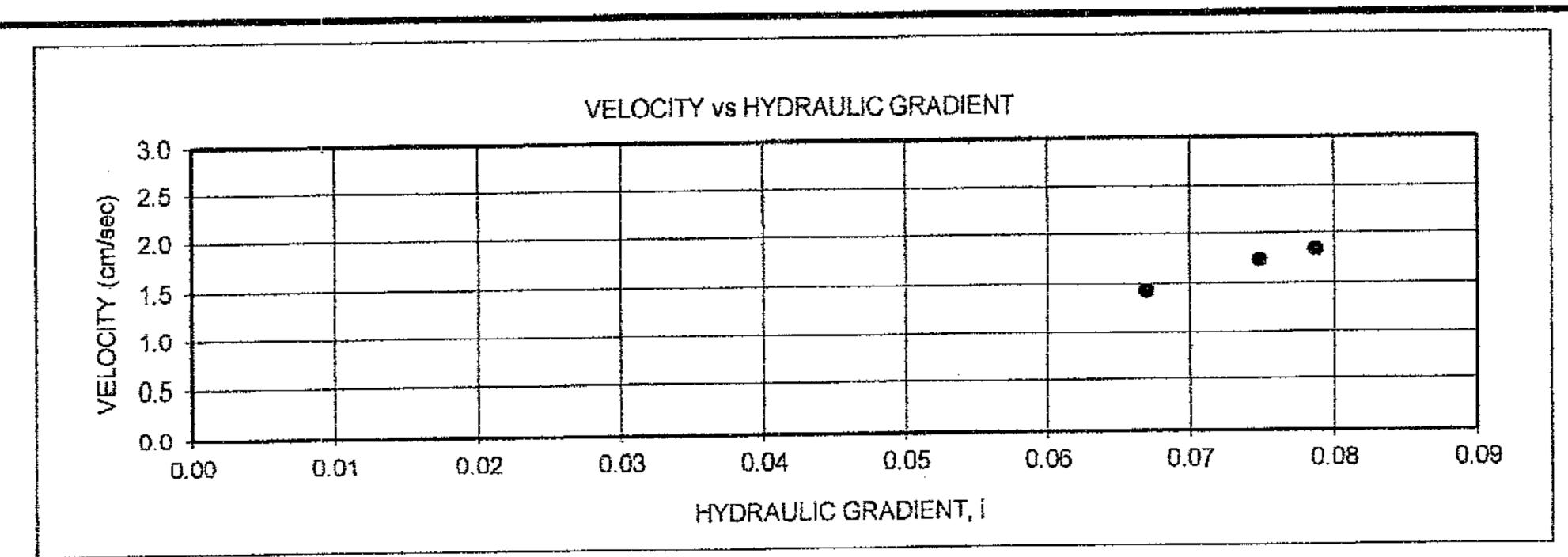
## INITIAL MOISTURE CONTENT

WET SAMPLE & TARE (g):	_
DRY SAMPLE & TARE (g):	
WEIGHT OF TARE (g):	_, .
WEIGHT OF WATER (g):	<del></del>
DRY SAMPLE WEIGHT (g):	
MOISTURE CONTENT (%):	

AVERAGE FLOW RATE (ml/sec):
AVERAGE TEMP (°C):
TEMPERATURE CORRECTION:
HEAD OF WATER (mm):
HEAD OF WATER (in):
HYDRAULIC GRADIENT (i):
Velocity (cm/sec)

1020.98	959.97	796.04
23.0	23.0	23.0
0.931	0.931	0.931
20.0	19.0	17.0
0.8	0.7	0.7
0.08	0.07	0.07
1.83	1.72	1.42
		100

Permeability @ 20°C(cm/sec) =	21.6	21.4	19.8
-------------------------------	------	------	------



		_
TECH	TJ/PWM	
DATE	10/18/12	<del></del>
CHECK		-
REVIEW	IWA	
APPROVE		

## CARBONATE CONTENT ASTM D 3042 - MODIFIED GTS/WM-VISTA LF - CELL 3/FL PROJECT TITLE 123-90170 PROJECT NUMBER #57 STONE SAMPLE ID 583.90 580.49 580.02 Residue +Tare weight (g) 82.75 80.30 81.03 Tare Weight (g) 501.15 500.19 498.99 Residue weight (g) After Acid Application and Wash 577.24 577.17 576.42 Residue + Tare weight (g) 494.49 496.87 495.39 Residue weight (g) 1.3 0.7 0.7 Carbonate Content (%) Average Carbonate Content (%) REMARKS Gray, COARSE GRAVEL, trace coarse to fine sand, trace fines. SAMPLE DESCRIPTION GP USCS Only the Plus No.200 Size material used in the test. MODIFIED: TECH 10/19/12 DATE CHECK REVIEW APPROVE

#### A.5 SUBGRADE ACCEPTANCE FORMS

	1 GEMENT INC	
Project Name: Celd - 3	www.combattana.com	
Site Name: Vista Low II	77/	
Location: Apopka Fl		
Date: $09/21/2012$		
Installer:	5.1	····
I the Undersigned, a duly authorized	representative of	do hereby accept the Soil
Subgrade surface covered by geome	mbrane panel(s) P-1 through	f-27 as an acceptable
surface on which to install geomemb	orane.	
E.S. 1		
Souligha		Supt
Name	Signature	Title
$\frac{Q-21-12}{\text{Date}}$		
CEC's CQA certification acceptance	hvr.	
CEC S CQA certification acceptance	: uy.	
	$\mathcal{M}$	1 /
Tommy C Brad	love for CBr.	IN CAA Mounter
Name	Signature	Title
9/2/2		

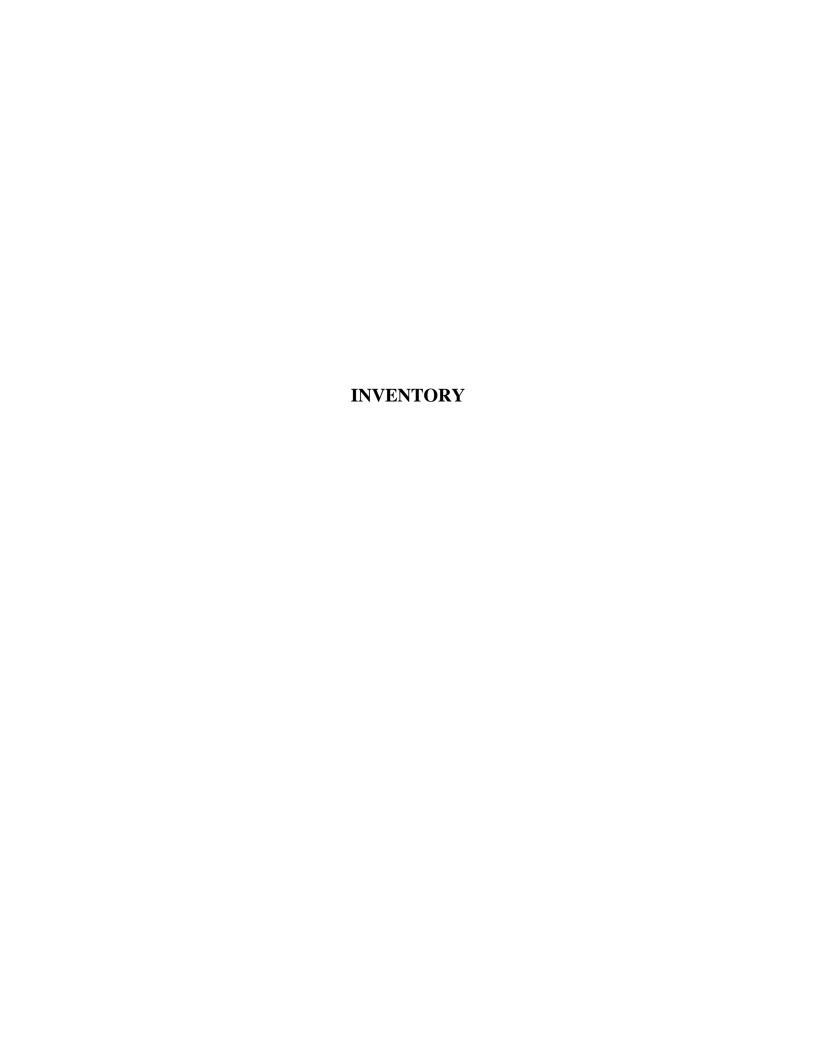
Date

89/23/2012		
Name	Signature	Title
Tommy C Bradford	Hong C Brefel	COA Month
CEC's CQA certification acceptance by:		
Date		
0/22/2		
Name	Signature	Title
SOULIGNA		SOOT
surface on which to install geomembrane.		
•	<b>/</b>	
Subgrade surface covered by geomembrane	panel(s) P-28 through P-43	as an acceptable
I the Undersigned, a duly authorized represen	ntative of	do hereby accept the Soil
	··· · · FST	
•		
Installer:		-
Date: 97/23/20/2		
Location: Apoples El		
Project Name: Cell - 3		
Owner: MASTE MANAGEME	ent INC	

Owner: MAST MER ASPENSA	if the	
Project Name: 601/3		COMPANIE TO THE CONTRACTOR
Site Name: Vista Land	F: 1)	
Location: Apopka FI		
Date: 09/24/2012		<del></del>
Installer: ESI		
T.d TT. d	EST	
I the Undersigned, a duly authorized rep	presentative of ESI	do hereby accept the Soil
C.1 1	162 ) intt 3/2 m	O da l
Subgrade surface covered by geomemor	rane panel(s) P-44 through	as an acceptable
muniform an architekta inestall mannamkanan	_	
surface on which to install geomembrane	e.	
		0.00
Sauligna		SUDT
Saulisma Name	Signature	SUD+ Title
Sau San A	Signature	SUDT
Sau 1500 Name 09/24/12	Signature	SUDT
Sau 1500 Name 09/24/12 Date	Signature	SUDA
Say 1500 Name 09/24/12 Date	Signature	SUD+ Title
Say 15 Name 09/24/12 Date	Signature	SUDT
Sau 1500 Name 09/24/12 Date	Signature	SUDA
Say 1500 Name 09/24/12 Date	Signature	SUD+
09/24/12 Date		SUD+ Title
Name  O  O  O  O  O  O  D  D  T  D  CEC's CQA certification acceptance by:		SUDA
09/24/12 Date		SUDA
Date  CEC's CQA certification acceptance by:		SUD+ Title
09/24/12 Date		SUDA Title
CEC's CQA certification acceptance by:	: Lance Below	COA Mounton
CEC's CQA certification acceptance by:	: Lance Below	COA Mounton

		~ ~~~
Name Bradford	Signature	COA miniter
CC's CQA certification acceptance by:		
- <u>25</u> - 19 Date		
	Signature	Title
Souligha	Signature	SUP+ Title
rface on which to install geomembrane.		
bgrade surface covered by geomembrane	panel(s) P-62 through	as an acceptable
ne Undersigned, a duly authorized represe	entative of	do hereby accept the Soil
staller: E.S		
pocation: $Apopka$ F1 ate: $29/25/20/2$		MANUTO, Alley Alley Alley Angelegy and
		the state of the s
te Name: Visita LANSfol	/	

#### **B.1 GEOMEMBRANE – TEXTURED**



Project Name Vista Landeill Ce/1-3	Date:	09/11/2012
Client: WMI	Material Type:	60 Mil Micro Geomembrane
Project No.: 101,07,08	Manufacturer:	_AGRU

EEC ID #	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		435343-12	234505		
		435452 - 12 435563 - 12 435570 - 12	r f		
		4.35563 - 12	(1		
		435570 - 12	, 1		
	Manager 1997 (1997)	435571-12	()		
		435572-12	. 11		
		435573-12	()		
		435574 -12	( )		
	· · · · · · · · · · · · · · · · · · ·	435574 - 12 435676-12 435677-12 435678-12	(1		
		435677-12	. '		
		435678-12	()		
	· · · · · · · · · · · · · · · · · · ·				
		·			
					· · · · · · · · · · · · · · · · · · ·
				A ( a	
	Totals	11 Rolls	127, 165	ftz	

BL = 034634

Project Na	me Visita Lands	Pill Cocy 3 Date:	é	09/14/2012	
			al Type: 60 M	nic Micro geomembrane	
Project No.	WMI : 101.07.08	Manufa	acturer:	AGRU	
CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		435453-12			
		435454-12	١١		
		435459-12	υt		
		435564-12	4		
		435565-12	e i		
		435566-12	Ч		
		435567-12	d		
		435568-12	e l		
		435569-12	vl		
		435675-12	eq.		
					·
	Totals: /	l Rolls	127,765	ft2	
lotes:					

BOL = 034650

D 1 .37	V:	11 0 12 -		11-7/2-1)	
	ne Vista Landfi)	Date:		17/2012 nic nicro geomembrave	
	WMI	Mater	al Type: 60 M	uc nicro geomembrave	
Project No.	181.07.08	Manuf	acturer:	96RU	<del></del>
CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		435344-12	23 X505'		
		43 54 45 -12	t (		
		435446-12	( )		
		43 5447-12	(*		
	w 114	435449-12	a		
		435450-12	L.E		
		435451-12	(		
		435456-12	"(		
		435460-12	·( '		
		4.35561-12	C!		,
		435562-12	61		
	· · · · · · · · · · · · · · · · · · ·				
			<u> </u>		
		,			
	Totals: /	1 Rolls	127,765	ff 2	
otes:					

BOC 034656





cust: PO#:

**English Dimensions** 

Waste Management South 1000024651 Vista LF LLC Cell 3 Dest:

Apopka, FL

33 rolls 60 HD micro (505)

19859

doc

roll #	wid	len	area	check	weld roo	d qty (if or	dered)	wgt		resin lot #
				100	k/lot sm	sqs + 2ft	fric			
435343 .1:	2 23	505	11,615.0	60HD	micro	33tot	1	3933	2ft fric + sqs	H7121073
435344 .1:	2 23	505	11,615.0	60HD	micro	33tot	2	3830		H7121073
435445 .1:	2 23	505	11,615.0	60HD	micro	33tot	3	3830		H7121073
435446 .1	2 23	505	11,615.0	60HD	micro	33tot	4	3710		H7121073
435447 .1:	2 23	505	11,615.0	60HD	micro	33tot	5	3706		H7121073
435449 .1:	2 23	505	11,615.0	60HD	micro	33tot	6	3711		H7121073
435450 .1:	2 23	505	11,615.0	60HD	micro	33tot	7	3702		H7121073
435451 .1:	2 23	505	11,615.0	60HD	micro	33tot	8	3710		H7121073
435452 .1:	2 23	505	11,615.0	60HD	micro	33tot	9	3701	sqs	H7121073
435453 .1:	2 23	505	11,615.0	60HD	micro	33tot	10	3707		H7121073
435454 .1:	2 23	505	11,615.0	60HD	micro	33tot	11	3708		H7121073
435455 .13	2 23	505	11,615.0	60HD	micro	33tot	12	3707		H7121073
435456 .1:	2 23	505	11,615.0	60HD	micro	33tot	13	3710		H7121073
435459 .13	2 23	505	11,615.0	60HD	micro	33tot	14	3918		H7121073
435460 .1:	2 23	505	11,615.0	60HD	micro	33tot	15	3913		H7121073
435561 .1:	2 23	505	11,615.0	60HD	micro	33tot	16	3923		H7121073
435562 .1:	2 23	505	11,615.0	60HD	micro	33tot	17	3920		H7121073
435563 .1:	2 23	505	11,615.0	60HD	micro	33tot	18	3900	sqs	H7121073
435564 .1:	2 23	505	11,615.0	60HD	micro	33tot	19	3911		H7121073
435565 .1:	2 23	505	11,615.0	60HD	micro	33tot	20	3914		H7121090
435566 .1:	2 23	505	11,615.0	60HD	micro	33tot	21	3915		H7121090
435567 .1:	2 23	505	11,615.0	60HD	micro	33tot	22	3915		H7121090
435568 .1:	2 23	505	11,615.0	60HD	micro	33tot	23	3905		H7121090
435569 .13	2 23	505	11,615.0	60HD	micro	33tot	24	3908		H7121090
435570 .1:	2 23	505	11,615.0	60HD	micro	33tot	25	3900		H7121090
435571 .1:	2 23	505	11,615.0	60HD	micro	33tot	26	3918	sqs	H7121090
435572 .1:	2 23	505	11,615.0	60HD	micro	33tot	27	3912		H7121090
435573 .13	2 23	505	11,615.0	60HD	micro	33tot	28	3907		H7121090
435574 .13	2 23	505	11,615.0	60HD	micro	33tot	29	3918		H7121090
435675 .1:	2 23	505	11,615.0	60HD	micro	33tot	30	3921		H7121090
435676 .13	2 23	505	11,615.0	60HD	micro	33tot	31	3918		H7121090
435677 .13	2 23	505	11,615.0	60HD	micro	33tot	32	3920		H7121090
435678 .13	2 23	505	11,615.0	60HD	micro	33tot	33	3918		H7121090



435343-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.55 mm 61 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 67 MAX: 1.69 mil **TEST** 28/33 mil AVE: 1.61 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.47 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **156** ppi 27 N/mm (kN/m) 2,458 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 210 ppi **37** N/mm (kN/m) 3,317 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.08 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 533.3 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 265.2 N 59.622 lbs Puncture Resistance Average Peak Load lbs 105.16 467.8 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 658.1 N 147.95 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.474** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/29/2012

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435344-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.51 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 67 MAX: 1.69 mil **TEST** 28/35 mil AVE: 1.61 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.47 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **156** ppi 27 N/mm (kN/m) 2,458 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 210 ppi **37** N/mm (kN/m) 3,317 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.08 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 533.3 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 265.2 N 59.622 lbs Puncture Resistance Average Peak Load lbs 105.16 467.8 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 658.1 N 147.95 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.474** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/29/2012

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435445-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.52 mm 60 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 67 MAX: 1.69 mil **TEST** 26/31 mil AVE: 1.61 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.40 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **156** ppi 27 N/mm (kN/m) 2,458 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 210 ppi **37** N/mm (kN/m) 3,317 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.08 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 533.3 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 265.2 N 59.622 lbs Puncture Resistance Average Peak Load lbs 105.16 467.8 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 658.1 N 147.95 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.474** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/30/2012

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435446-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.45 mm 57 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.65 mil **TEST** 29/32 mil AVE: 1.57 mm **62** mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.40 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 27 N/mm (kN/m) **152** ppi 2,458 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break **205** ppi **36** N/mm (kN/m) 3,317 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.08 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 533.3 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 265.2 N 59.622 lbs Puncture Resistance Average Peak Load lbs 105.16 467.8 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 658.1 N 147.95 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.474** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/30/2012

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ROLL#	<b>435447-</b> 1	12	Lot	#:	H	<del>1</del> 7121073	Liner 7	Type: N	/licrosp	ike™	™ HDPE	
Measurement ASTM D5994 (Modified)		11N: 1AX:	METR 1.50 1.68	IC mm mm	59	SLISH mil mil	Thickness Length Width		1.5 m 153.926 7.01	<b>m</b> m m;		eet eet
Asperity ASTM D74	.66: <b>29/33</b> mil A		1.58	mm		mil	OIT(Standard) AS	TM D3895	minutes	168	TES RESUI	
Specific Gravit ASTM D792	у	ı	Density				g/cc				.943	
MFI ASTM D1: COND. E GRADE:	238 <b>K307</b>	ı	Melt Flov	v Inde	ex 19(	0ºC /2160 g	g g/10 m	nin			.24	
Carbon Black ( ASTM D4218	Content	ı	Range				%				2.29	
Carbon Black   ASTM D5596	Dispersion		Category	/						10	0 In Cat 1	
Tensile Streng ASTM D6693 ASTM D638 (N ( 2 inches / mir	Modified)	,	Average	Strer	ngth @	② Yield	<b>26</b> N/mm	(kN/m)	<b>146</b> p	pi	2,347	psi
(2 11101100 / 11111			Average	Stre	ngth @	Break	<b>32</b> N/mm	(kN/m)	<b>185</b> p	pi	2,975	psi
Elongation AS ASTM D638 (M ( 2 inches / mir Lo = 1.3" Yield	Modified) nute )	,	Average	Elon	gation	ı @ Yield	%				14.66	
Lo = 2.0" Brea		,	Average	Elon	gation	@ Break	%				528.4	
Dimensional S ASTM D1204	•	,	Average	Dime	ension	al change	%				42	
Tear Resistand ASTM D1004			Average	Tear	Resis	stance	265.2	N			59.622	lbs
Puncture Resis	stance thod 2065 (Mod	ified)	Average	e Pea	k Loa	d	467.8	N			105.16	lbs
Puncture Resistant D4833			Average	e Pea	k Loa	d	658.1	N			147.95	lbs
ESCR ASTM D1693			Minimur	n Hrs	s w/o f	Failures	1500 hrs			CI	ERTIFIED	
Notched Cons ASTM D5397	tant Tensile Loa	ad p	oass / fai	I @ 3	0%		300 hrs			C	NGOING	
Smooth Edge Tes	sting ASTM D1004		Average T	ear Re	esistan	ice					51.178	lbs
								0	12012042			

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

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8/30/2012

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435449-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.43 mm 56 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 66 MAX: 1.68 mil **TEST** Asperity ASTM D7466: 24/37 mil AVE: 1.58 mm **62** mil OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.29 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **146** ppi 26 N/mm (kN/m) 2,347 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 32 N/mm (kN/m) **185** ppi 2,975 psi Elongation ASTM D6693 Average Elongation @ Yield % 14.66 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 528.4 **Dimensional Stability** % -.42 Average Dimensional change ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 265.2 N 59.622 lbs Puncture Resistance Average Peak Load lbs 105.16 467.8 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 658.1 N 147.95 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 51.178 lbs

Customer: Waste Management South

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Date: 8/30/2012

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435450-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.52 mm 60 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 66 MAX: 1.67 mil **TEST** 29/34 mil AVE: 1.59 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.29 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 26 N/mm (kN/m) **147** ppi 2,347 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break **186** ppi **33** N/mm (kN/m) 2,975 psi Elongation ASTM D6693 Average Elongation @ Yield % 14.66 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 528.4 **Dimensional Stability** % -.42 Average Dimensional change ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 265.2 N 59.622 lbs Puncture Resistance Average Peak Load lbs 105.16 467.8 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 658.1 N 147.95 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 51.178 lbs

Customer: Waste Management South

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Date: 8/30/2012

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ROLL # 435451-1	<b>2</b> Lot #	H7121	073 Liner Type:	Microspike™	rospike™ HDPE		
(NA - 1'C - 1)		ENGLISH nm 58 mi	Width	1.5 mm 153.926 <sup>m</sup> 7.01 m;	60 mil 505.0 fe 23.0 fe	et et	
Asperity ASTM D7466: 29/34 mil AN		nm <b>61</b> mi		95 minutes <b>168</b>	TES1 RESUL		
Specific Gravity ASTM D792	Density		g/cc		.943		
MFI ASTM D1238 COND. E GRADE: <b>K307</b>	Melt Flow	ndex 190°C /21	60 g g/10 min		.24		
Carbon Black Content ASTM D4218	Range		%		2.29		
Carbon Black Dispersion ASTM D5596	Category			10	In Cat 1		
Tensile Strength ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute )	Average S	trength @ Yield	<b>25</b> N/mm (kN/m)	<b>143</b> ppi	2,347	psi	
(2 inches / minute)	Average S	trength @ Breal	<b>32</b> N/mm (kN/m)	<b>182</b> ppi	2,975	psi	
Elongation ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute )	Average E	longation @ Yie	eld %		14.66		
Lo = 1.3" Yield Lo = 2.0" Break	Average E	longation @ Bre	eak %		528.4		
Dimensional Stability ASTM D1204 (Modified)	Average D	imensional char	nge %		42		
Tear Resistance ASTM D1004 (Modified)	Average T	ear Resistance	265.2 N		59.622	lbs	
Puncture Resistance FTMS 101 Method 2065 (Modif	Average F fied)	Peak Load	<b>467.8</b> N		105.16	lbs	
Puncture Resistance ASTM D4833 (Modified)	Average F	Peak Load	<b>658.1</b> N		147.95	lbs	
ESCR ASTM D1693	Minimum	Hrs w/o Failures	s 1500 hrs	CE	RTIFIED		
Notched Constant Tensile Load ASTM D5397	d pass / fail @	2 30%	300 hrs	0	NGOING		
Smooth Edge Testing ASTM D1004	Average Tea	r Resistance			51.178	lbs	

Customer: Waste Management South

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8/30/2012

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ROLL# 435452-12				12	L	ot#	:		H712	107	3 Liner	Type: I	e: Microspike™ HDPE					
Measurement ASTM D5994				MIN:	МЕТ <b>1.49</b>			ENC <b>59</b>	GLISH r	mil	Thicknes	SS	1.5 m 153.926 7.01	m	60 mil 505.0	feet feet		
(Modified)			1	MAX:	1.65	m	nm	65	r	mil	Width		7.01	,				
Asperity ASTM D7		30/33	mil /	AVE:	1.56	m	nm	61	r	mil	OIT(Standard) A	STM D3895	5 minutes	168	TES RESU			
Specific Grav ASTM D792	/ity				Density	/					g/cc				.943	3		
MFI ASTM D COND. E GRADE:	1238	K3(	07		Melt Fl	ow I	Inde	ex 19	90°C /2	2160	g g/10 ı	min			.24	ļ		
Carbon Black ASTM D4218		ent			Range						%				2.67	•		
Carbon Black ASTM D5596	-	ersion			Catego	ry								1	0 In Cat 1			
Tensile Stren ASTM D6693 ASTM D638 (2 inches / m	3 (Modifi	,			Averag	je S	trer	ngth (	@ Yiel	ld	<b>26</b> N/mm	n (kN/m)	<b>148</b> p	pi	2,403	<b>s</b> ps		
( 2 11101100 / 111		,			Averag	e S	trer	ngth (	@ Bre	ak	<b>35</b> N/mm	n (kN/m)	<b>202</b> p	pi	3,286	ps ps		
Elongation A ASTM D638 ( 2 inches / m Lo = 1.3" Yiel	(Modifi ninute )	ied)	}		Averag	e E	lon	gatio	n @ Y	ïeld	%				16.03	3		
Lo = 2.0" Bre					Averag	e E	lon	gatio	n @ B	reak	%				537.0	)		
Dimensional ASTM D1204		-			Averag	e D	ime	ensio	nal cha	ange	e %				42	2		
Tear Resistar ASTM D1004		ified)			Averag	e Te	ear	Resi	istance	Э	245.0	N			55.076	i lbs		
Puncture Res			(Mo	dified)	Avera	ge F	Pea	k Loa	ad		396.9	N			89.241	l lps		
Puncture Res					Avera	ge F	ea	k Loa	ad		572.2	N			128.63	ß lbs		
ESCR ASTM D1693	3				Minim	um	Hrs	s w/o	Failur	es	1500 hrs			CI	ERTIFIED	)		
Notched Con ASTM D5397		Γensile	e Lo	ad	pass / f	ail @	2 3	0%			300 hrs			C	ONGOING	;		
Smooth Edge T	esting A	ASTM D	01004	4	Average	Tea	ır Re	esista	nce						57.663	3 lbs		
												•	12012042					

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

8/30/2012

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435453-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.44 mm 57 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 66 MAX: 1.67 mil **TEST** 29/34 mil AVE: 1.53 mm 60 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.67 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **145** ppi 25 N/mm (kN/m) 2,403 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) **198** ppi 3,286 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.03 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 537.0 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 245.0 N 55.076 lbs Puncture Resistance Average Peak Load lbs 89.241 396.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load **572.2** N 128.63 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs **CERTIFIED ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.663** lbs

**Customer: Waste Management South** 

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/30/2012

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435454-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.48 mm 58 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.65 mil **TEST** Asperity ASTM D7466: 27/33 mil AVE: 1.55 mm 61 mil OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.67 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 26 N/mm (kN/m) **147** ppi 2,403 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) **201** ppi 3,286 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.03 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 537.0 **Dimensional Stability** % -.42 Average Dimensional change ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 245.0 N 55.076 lbs Puncture Resistance Average Peak Load lbs 89.241 396.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load **572.2** N 128.63 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs **CERTIFIED ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.663** lbs

Customer: Waste Management South

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Date: 8/30/2012

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435455-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.48 mm 58 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) MAX: 1.62 mm 64 mil **TEST** Asperity ASTM D7466: 27/29 mil AVE: 1.57 mm **62** mil OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.32 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 26 N/mm (kN/m) **149** ppi 2,403 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 203 ppi 3,286 **36** N/mm (kN/m) psi Elongation ASTM D6693 Average Elongation @ Yield % 16.03 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 537.0 **Dimensional Stability** % -.42 Average Dimensional change ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 245.0 N 55.076 lbs Puncture Resistance Average Peak Load lbs 89.241 396.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load **572.2** N 128.63 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs **CERTIFIED ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.663** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

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435456-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.47 mm 58 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 67 MAX: 1.70 mil **TEST** 28/34 mil AVE: 1.55 mm 61 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.32 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 26 N/mm (kN/m) **147** ppi 2,403 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) **201** ppi 3,286 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.03 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 537.0 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 245.0 N 55.076 lbs Puncture Resistance Average Peak Load lbs 89.241 396.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load **572.2** N 128.63 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs **CERTIFIED ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 57.663** lbs

Customer: Waste Management South

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ROLL#	ROLL# 435459-12			Lo	Lot #: H7121073 Liner Type						oe: Microspike™ HDPE					
Measurement ASTM D5994 (Modified)	t		MIN: MAX:	METF 1.53 1.72	RIC mm mm	60	GLISH mil mil	Thickness Length Width		1.5 m 153.926 7.01			eet			
Asperity ASTM D		<b>28/35</b> n	nil AVE:	1.59	mm		mil	OIT(Standard) AS	TM D3895	minutes	168	TES RESU				
Specific Grav ASTM D792	•			Density				g/cc				.943				
MFI ASTM D COND. E GRADE:	)1238	K30	7	Melt Flo	w Ind	ex 19	0ºC /2160 (	g g/10 m	nin			.24				
Carbon Black ASTM D4218		ent		Range				%				2.15				
Carbon Black ASTM D5596		ersion		Categor	у						1(	0 In Cat 1				
Tensile Strer ASTM D669 ASTM D638 (2 inches / n	3 (Modif	,		Average	Stre	ngth (	② Yield	<b>27</b> N/mm (	(kN/m)	<b>156</b> p	pi	2,497	psi			
( =		,		Average	Stre	ngth @	@ Break	<b>34</b> N/mm (	(kN/m)	<b>197</b> p	pi	3,146	psi			
Elongation AASTM D638 (2 inches / nLo = 1.3" Yie	(Modif minute	ied)		Average	: Elon	gatior	n @ Yield	%				15.10				
Lo = 2.0" Bre				Average	Elon	gatior	n @ Break	%				526.4				
Dimensional ASTM D1204		-		Average	Dime	ensior	nal change	%				42				
Tear Resista ASTM D1004		lified)		Average	Tear	Resis	stance	245.0	N			55.076	lbs			
Puncture Re FTMS 101 M			Modified	Average	e Pea	k Loa	ıd	396.9	N			89.241	lbs			
Puncture Re ASTM D483				Average	e Pea	k Loa	ıd	572.2	N			128.63	lbs			
ESCR ASTM D1693	3			Minimu	m Hrs	s w/o	Failures	1500 hrs			CI	ERTIFIED				
Notched Cor ASTM D539		Tensile	Load	pass / fa	il @ 3	0%		300 hrs			C	NGOING				
Smooth Edge 1	Testing	ASTM D	1004	Average <sup>-</sup>	Tear R	esistar	nce			1001001		51.126	lbs			
									0	12012042						

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435460-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.51 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.65 mil **TEST** Asperity ASTM D7466: 27/34 mil AVE: 1.59 mm 63 mil OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.11 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **156** ppi 27 N/mm (kN/m) 2,497 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break **197** ppi **34** N/mm (kN/m) 3,146 psi Elongation ASTM D6693 Average Elongation @ Yield % 15.10 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 526.4 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 245.0 N 55.076 lbs Puncture Resistance Average Peak Load lbs 89.241 396.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load **572.2** N 128.63 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs **CERTIFIED ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 51.126 lbs

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Date: 8/30/2012

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435561-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.54 mm 61 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 66 MAX: 1.68 mil **TEST** 29/33 mil AVE: 1.61 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.11 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 28 N/mm (kN/m) **158** ppi 2,497 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) **199** ppi 3,146 psi Elongation ASTM D6693 Average Elongation @ Yield % 15.10 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 526.4 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 245.0 N 55.076 lbs Puncture Resistance Average Peak Load lbs 89.241 396.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load **572.2** N 128.63 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs **CERTIFIED ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 51.126 lbs

**Customer: Waste Management South** 

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/31/2012



Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.52 mm 60 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.65 mil **TEST** 29/34 mil AVE: 1.60 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.42 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 29 N/mm (kN/m) **167** ppi 2,657 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 203 ppi 3,222 **36** N/mm (kN/m) psi Elongation ASTM D6693 Average Elongation @ Yield % 16.19 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 523.4 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.286 lbs Puncture Resistance Average Peak Load 106.57 lbs 474.1 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 634.5 N 142.64 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 55.972 lbs

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ROLL#	435	563	-12	Lo	t #:	H	<del>1</del> 7121073	3 Liner 1	Гуре: М	/licrosp	ike⊺	™ HDPE	
Measurement ASTM D5994 (Modified)	t		MIN:	METF 1.51	mm	59	iLISH mil	Thickness Length Width		1.5 m 153.926 7.01			eet eet
Asperity ASTM D		<b>7/32</b> mil	MAX: AVE:	1.69 1.60	mm mm		mil mil	OIT(Standard) AS	TM D3895	minutes	168	TES RESUI	
Specific Gra ASTM D792	•			Density				g/cc				.943	
MFI ASTM D COND. E GRADE:	01238	K307		Melt Flo	w Ind	ex 19(	0ºC /2160 g	g g/10 m	iin			.24	
Carbon Blac ASTM D421		nt		Range				%				2.42	
Carbon Blac ASTM D559	•	rsion		Categor	y						1(	0 In Cat 1	
Tensile Strei ASTM D669 ASTM D638 ( 2 inches / r	3 (Modifie	ed)		Average	Strei	ngth @	② Yield	<b>29</b> N/mm (	kN/m)	<b>167</b> p	pi	2,657	psi
( 2				Average	Stre	ngth @	Break	<b>36</b> N/mm (	kN/m)	<b>203</b> p	pi	3,222	psi
Elongation / ASTM D638 ( 2 inches / r Lo = 1.3" Yie	(Modifie minute )			Average	Elon	gation	ı @ Yield	%				16.19	
Lo = 2.0" Bre				Average	Elon	gation	@ Break	%				523.4	
Dimensional ASTM D120	-			Average	Dime	ension	al change	%				42	
Tear Resista ASTM D100		ied)		Average	Tear	Resis	stance	254.8	N			57.286	lbs
Puncture Re FTMS 101 M			odified)	Average	e Pea	k Loa	d	474.1	N			106.57	lbs
Puncture Re ASTM D483				Average	e Pea	k Loa	d	634.5	N			142.64	lbs
ESCR ASTM D169	3			Minimu	m Hrs	s w/o l	Failures	1500 hrs			CI	ERTIFIED	
Notched Cor ASTM D539		ensile L	oad	pass / fa	il @ 3	0%		300 hrs			C	NGOING	
Smooth Edge	Testing A	STM D100	04	Average	Гear R	esistan	ice		_	10.410.5.5		55.972	lbs
									0	124 1204 2			

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

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435564-12 Lot #: H7121073 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.45 mm 57 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) MAX: 1.62 mm 64 mil **TEST** 26/34 mil AVE: 1.56 mm 61 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 168 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .943 ASTM D792 MFI ASTM D1238 .24 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.42 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 29 N/mm (kN/m) **163** ppi 2,657 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) **198** ppi 3,222 psi Elongation ASTM D6693 Average Elongation @ Yield % 16.19 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 523.4 **Dimensional Stability** Average Dimensional change % -.42 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.286 lbs Puncture Resistance Average Peak Load 106.57 lbs 474.1 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 634.5 N 142.64 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 55.972 lbs

Customer: Waste Management South

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Date: 8/31/2012

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ROLL#	43	5565	5-12	Lo	t #:	H	<del>1</del> 712109	0 Liner 7	Гуре: М	/licrosp	ike¹	™ HDPE	
Measuremen ASTM D5994 (Modified)	t		MIN:	METF 1.46	mm	57	LISH mil	Thickness Length Width		1.5 m 153.926 7.01			eet
Asperity ASTM D		<b>26/34</b> m	MAX: <sub>nil</sub> AVE:	1.69 1.57	mm mm		mil mil	OIT(Standard) AS	TM D3895	minutes	183	TES RESU	
Specific Gra ASTM D792	•			Density				g/cc				.946	
MFI ASTM D COND. E GRADE:	D1238	K30	7	Melt Flo	w Ind	ex 19(	0ºC /2160 (	g g/10 m	nin			.25	
Carbon Blac ASTM D421		ent		Range				%				2.42	
Carbon Blac ASTM D559		ersion		Categor	y						1	0 In Cat 1	
Tensile Stree ASTM D669 ASTM D638 (2 inches / r	3 3 (Modifi	,		Average	Strei	ngth @	② Yield	<b>29</b> N/mm (	(kN/m)	<b>164</b> p	pi	2,657	psi
( 2	,	,		Average	Stre	ngth @	Break	<b>35</b> N/mm (	(kN/m)	<b>199</b> p	pi	3,222	psi
Elongation / ASTM D638 ( 2 inches / r Lo = 1.3" Yie	3 (Modifi minute )	ied)		Average	Elon	gation	ı @ Yield	%				16.19	
Lo = 2.0" Bre				Average	Elon	gation	@ Break	%				523.4	
Dimensional ASTM D120		-		Average	Dime	ension	al change	%				67	
Tear Resista ASTM D100		ified)		Average	Tear	Resis	stance	254.8	N			57.286	lbs
Puncture Re FTMS 101 M			Modified)	Average	e Pea	k Loa	d	474.1	N			106.57	lbs
Puncture Re ASTM D483				Average	e Pea	k Loa	d	634.5	N			142.64	lbs
ESCR ASTM D169	)3			Minimu	m Hrs	s w/o F	-ailures	1500 hrs			CI	ERTIFIED	
Notched Co ASTM D539		Γensile	Load	pass / fa	il @ 3	0%		300 hrs			C	NGOING	
Smooth Edge	Testing A	ASTM D1	1004	Average	Tear R	esistan	ce			10.410.5.5		55.972	lbs
									0	124 1204 2			

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ROLL # 4355	66-12	Lo	t #:	Н	17121090	Liner T	ype: N	licrosp	ike¹	™ HDPE	
Measurement ASTM D5994 (Modified)	MIN: MAX:	METF 1.51 1.66	RIC mm mm		LISH mil mil	Thickness Length Width		1.5 m 153.926 7.01			eet
Asperity ASTM D7466: <b>28/3</b> TOP / BOTTOM	9 mil AVE:	1.58	mm		mil	OIT(Standard) AS	ГМ D3895	minutes	183	TES RESU	
Specific Gravity ASTM D792		Density				g/cc				.946	
MFI ASTM D1238 COND. E GRADE:	(307	Melt Flo	w Ind	ex 190	°C /2160 g	g g/10 m	in			.25	
Carbon Black Content ASTM D4218		Range				%				2.42	
Carbon Black Dispersion ASTM D5596	on	Categor	у						1	0 In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute )		Average	e Strei	ngth @	) Yield	<b>29</b> N/mm (F	«N/m)	<b>165</b> p	pi	2,657	psi
(2 mones / minute )		Average	Stre	ngth @	Break	<b>35</b> N/mm (F	«N/m)	<b>200</b> p	pi	3,222	psi
Elongation ASTM D66 ASTM D638 (Modified) ( 2 inches / minute ) Lo = 1.3" Yield		Average	e Elon	gation	@ Yield	%				16.19	
Lo = 2.0" Break		Average	Elon	gation	@ Break	%				523.4	
Dimensional Stability ASTM D1204 (Modified	d)	Average	Dime	ensiona	al change	%				67	
Tear Resistance ASTM D1004 (Modified	(k	Average	e Tear	Resis	tance	254.8	N			57.286	lbs
Puncture Resistance FTMS 101 Method 206	5 (Modified)	Average	e Pea	ık Loac	d	474.1	N			106.57	lbs
Puncture Resistance ASTM D4833 (Modified	d)	Average	e Pea	ık Loac	t l	634.5	N			142.64	lbs
ESCR ASTM D1693		Minimu	m Hrs	s w/o F	ailures	1500 hrs			CI	ERTIFIED	
Notched Constant Tens ASTM D5397	sile Load	pass / fa	il @ 3	30%		300 hrs			C	NGOING	
Smooth Edge Testing ASTI	M D1004	Average <sup>-</sup>	Tear R	esistand	ce		0	/31/2012		55.972	lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

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435567-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.49 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.65 mil **TEST** 27/36 mil AVE: 1.59 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.33 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **169** ppi **30** N/mm (kN/m) 2,708 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 212 ppi 3,389 **37** N/mm (kN/m) psi Elongation ASTM D6693 Average Elongation @ Yield % 17.18 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 529.7 **Dimensional Stability** Average Dimensional change % -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.286 lbs Puncture Resistance Average Peak Load 106.57 lbs 474.1 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 634.5 N 142.64 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 57.335 lbs

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ROLL # 435568	<b>3-12</b>	Lo	t #:	Н	17121090	Liner T	Гуре: М	/licrosp	ike¹	™ HDPE	
Measurement ASTM D5994 (Modified)	MIN: MAX:	METF 1.43 1.63	RIC mm mm		LISH mil mil	Thickness Length Width		1.5 m 153.926 7.01	<b>m</b> m m;		eet eet
Asperity ASTM D7466: <b>27/37</b> mi		1.56	mm		mil	OIT(Standard) AS	TM D3895	minutes	183	TES RESUI	
Specific Gravity ASTM D792		Density				g/cc				.946	
MFI ASTM D1238 COND. E GRADE: <b>K307</b>	,	Melt Flo	w Ind	ex 190	0°C /2160 g	g g/10 m	iin			.25	
Carbon Black Content ASTM D4218		Range				%				2.33	
Carbon Black Dispersion ASTM D5596		Categor	у						1	0 In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute )		Average	Stre	ngth @	) Yield	<b>29</b> N/mm (l	kN/m)	<b>166</b> p	pi	2,708	psi
(=)		Average	Stre	ngth @	Break	<b>36</b> N/mm (l	kN/m)	<b>208</b> p	pi	3,389	psi
Elongation ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute ) Lo = 1.3" Yield		Average	Elon	gation	@ Yield	%				17.18	
Lo = 2.0" Break		Average	Elon	gation	@ Break	%				529.7	
Dimensional Stability ASTM D1204 (Modified)		Average	Dime	ensiona	al change	%				67	
Tear Resistance ASTM D1004 (Modified)		Average	Tear	Resis	tance	254.8	N			57.286	lbs
Puncture Resistance FTMS 101 Method 2065 (M	(lodified	Average	e Pea	k Load	t	474.1	N			106.57	lbs
Puncture Resistance ASTM D4833 (Modified)		Average	e Pea	k Load	d	634.5	N			142.64	lbs
ESCR ASTM D1693		Minimu	m Hrs	s w/o F	ailures	1500 hrs			CI	ERTIFIED	
Notched Constant Tensile   ASTM D5397	Load	pass / fa	il @ 3	0%		300 hrs			C	NGOING	
Smooth Edge Testing ASTM D1	004	Average <sup>-</sup>	Tear R	esistand	ce		•	/31/2012		57.335	lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

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435569-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.47 mm 58 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 67 MAX: 1.69 mil **TEST** 27/35 mil AVE: 1.58 mm **62** mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.33 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **168** ppi 29 N/mm (kN/m) 2,708 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break **211** ppi 3,389 **37** N/mm (kN/m) psi Elongation ASTM D6693 Average Elongation @ Yield % 17.18 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 529.7 **Dimensional Stability** Average Dimensional change % -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.286 lbs Puncture Resistance Average Peak Load 106.57 lbs 474.1 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 634.5 N 142.64 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 57.335 lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

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Date: 8/31/2012

Signature......Quality Control Department



435570-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.47 mm 58 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 67 MAX: 1.69 mil **TEST** 28/35 mil AVE: 1.56 mm 61 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.24 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 29 N/mm (kN/m) **166** ppi 2,708 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 208 ppi 3,389 **36** N/mm (kN/m) psi Elongation ASTM D6693 Average Elongation @ Yield % 17.18 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 529.7 **Dimensional Stability** % Average Dimensional change -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.286 lbs Puncture Resistance Average Peak Load 106.57 lbs 474.1 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 634.5 N 142.64 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 57.335 lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/31/2012



435571-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.50 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 64 MAX: 1.63 mil **TEST** 29/33 mil AVE: 1.57 mm **62** mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.24 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 29 N/mm (kN/m) **167** ppi 2,708 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 209 ppi 3,389 **37** N/mm (kN/m) psi Elongation ASTM D6693 Average Elongation @ Yield % 17.18 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 529.7 **Dimensional Stability** Average Dimensional change % -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.286 lbs Puncture Resistance Average Peak Load 106.57 lbs 474.1 N FTMS 101 Method 2065 (Modified) Puncture Resistance Average Peak Load 634.5 N 142.64 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 57.335 lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/31/2012

Quality Control Department

Signature.....



ROLL # 435	572-12	Lo	t #:	Н	<mark>1712109</mark> 0	Liner T	ype: M	licrosp	ike⊺	™ HDPE	•
Measurement ASTM D5994 (Modified)	MIN: MAX:	METF 1.48 1.68	RIC mm mm		LISH mil mil	Thickness Length Width		1.5 m 153.926 7.01	<b>m</b> m m;		feet feet
Asperity ASTM D7466: 28	3/35 mil AVE:	1.59	mm		mil	OIT(Standard) AST	ГМ D3895	minutes	183	TES RESU	
Specific Gravity ASTM D792		Density				g/cc				.946	
MFI ASTM D1238 COND. E GRADE:	K307	Melt Flo	w Inde	ex 190	°C /2160 g	g/10 mi	in			.25	j
Carbon Black Conter ASTM D4218	nt	Range				%				2.26	
Carbon Black Dispers ASTM D5596	sion	Categor	y						1(	0 In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modifie ( 2 inches / minute )	d)	Average	Strer	ngth @	? Yield	<b>28</b> N/mm (k	kN/m)	<b>163</b> p	pi	2,598	<b>s</b> psi
(2 inches / initiate )		Average	Strer	ngth @	Break	<b>34</b> N/mm (k	«N/m)	<b>196</b> p	pi	3,134	psi
Elongation ASTM D6 ASTM D638 (Modifie ( 2 inches / minute ) Lo = 1.3" Yield		Average	Elon	gation	@ Yield	%				15.71	
Lo = 2.0" Break		Average	Elon	gation	@ Break	%				505.5	;
Dimensional Stability ASTM D1204 (Modifi		Average	Dime	ensiona	al change	%				67	,
Tear Resistance ASTM D1004 (Modifi	ed)	Average	Tear	Resis	tance	254.8	N			57.279	) lbs
Puncture Resistance FTMS 101 Method 20		Average	e Pea	k Loac	d	442.9	N			99.575	j lbs
Puncture Resistance ASTM D4833 (Modifi		Average	e Pea	k Loac	d	610.2	N			137.18	ß lbs
ESCR ASTM D1693		Minimu	m Hrs	s w/o F	ailures	1500 hrs			CI	ERTIFIED	)
Notched Constant Te ASTM D5397	ensile Load	pass / fa	il @ 3	0%		300 hrs			C	ONGOING	<b>;</b>
Smooth Edge Testing AS	STM D1004	Average	Tear R	esistano	ce					54.995	5 lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

8/31/2012

Signature......Quality Control Department



ROLL # 435573	-12	Lo	t #:	Н	17121090	Liner T	ype: N	licrosp	ike¹	™ HDPE	
Measurement ASTM D5994 (Modified)	MIN: MAX:	METF 1.48 1.64	RIC mm mm		LISH mil mil	Thickness Length Width		1.5 m 153.926 7.01			eet
Asperity ASTM D7466: <b>26/35</b> mi		1.58	mm		mil	OIT(Standard) AST	ΓM D3895	minutes	183	TES RESU	
Specific Gravity ASTM D792		Density				g/cc				.946	
MFI ASTM D1238 COND. E GRADE: <b>K307</b>	•	Melt Flo	w Ind	ex 190	ºC /2160 (	g g/10 m	in			.25	
Carbon Black Content ASTM D4218		Range				%				2.26	
Carbon Black Dispersion ASTM D5596		Categor	у						1	0 In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute )		Average	Stre	ngth @	? Yield	<b>28</b> N/mm (F	kN/m)	<b>162</b> p	pi	2,598	psi
(2 mondo / minuto )		Average	Stre	ngth @	Break	<b>34</b> N/mm (k	«N/m)	<b>195</b> p	pi	3,134	psi
Elongation ASTM D6693 ASTM D638 (Modified) ( 2 inches / minute ) Lo = 1.3" Yield		Average	: Elon	gation	@ Yield	%				15.71	
Lo = 2.0" Break		Average	Elon	gation	@ Break	%				505.5	
Dimensional Stability ASTM D1204 (Modified)		Average	Dime	ensiona	al change	%				67	
Tear Resistance ASTM D1004 (Modified)		Average	Tear	Resis	tance	254.8	N			57.279	lbs
Puncture Resistance FTMS 101 Method 2065 (M	lodified)	Average	e Pea	k Loac	d	442.9	N			99.575	lbs
Puncture Resistance ASTM D4833 (Modified)		Average	e Pea	k Loac	d	610.2	N			137.18	lbs
ESCR ASTM D1693		Minimu	m Hrs	s w/o F	ailures	1500 hrs			CI	ERTIFIED	
Notched Constant Tensile L ASTM D5397	₋oad	pass / fa	il @ 3	0%		300 hrs			C	NGOING	
Smooth Edge Testing ASTM D10	004	Average <sup>-</sup>	Tear R	esistano	ce		0	/31/2012		54.995	lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

8/31/2012

Signature......Quality Control Department



435574-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Length..... MIN: 1.49 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 66 MAX: 1.67 mil **TEST** Asperity ASTM D7466: 27/34 mil AVE: 1.62 mm 64 mil OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.26 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield **166** ppi 29 N/mm (kN/m) 2,598 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) 200 ppi 3,134 psi Elongation ASTM D6693 Average Elongation @ Yield % 15.71 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 505.5 **Dimensional Stability** % Average Dimensional change -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.279 lbs Puncture Resistance Average Peak Load lbs 99.575 442.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance 610.2 N Average Peak Load 137.18 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 54.995** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 8/31/2012



435675-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.49 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 66 MAX: 1.68 mil **TEST** Asperity ASTM D7466: 27/34 mil AVE: 1.60 mm 63 mil OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.42 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 29 N/mm (kN/m) **164** ppi 2,598 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 35 N/mm (kN/m) **197** ppi 3,134 psi Elongation ASTM D6693 Average Elongation @ Yield % 15.71 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 505.5 **Dimensional Stability** Average Dimensional change % -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.279 lbs Puncture Resistance Average Peak Load lbs 99.575 442.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance 610.2 N Average Peak Load 137.18 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance 54.995** lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 9/1/2012

Quality Control Department

Signature.....



ROLL # 4356	<b>676-12</b>	Lo	t #:	Н	17121090	Liner T	ype: N	licrosp	ike⊺	™ HDPE	•
Measurement ASTM D5994 (Modified)	MIN: MAX:	METF 1.55 1.67	RIC mm mm		LISH mil mil	Thickness Length Width		1.5 m 153.926 7.01	<b>m</b> m m;		feet feet
Asperity ASTM D7466: <b>27/</b>	35 mil AVE:	1.60	mm		mil	OIT(Standard) AS	TM D3895	minutes	183	TES RESU	
Specific Gravity ASTM D792		Density				g/cc				.946	
MFI ASTM D1238 COND. E GRADE:	K307	Melt Flo	w Ind	ex 190	°C /2160 g	g g/10 m	in			.25	
Carbon Black Content ASTM D4218	t	Range				%				2.42	
Carbon Black Dispers ASTM D5596	ion	Categor	у						1(	0 In Cat 1	
Tensile Strength ASTM D6693 ASTM D638 (Modified ( 2 inches / minute )	I)	Average	Strei	ngth @	? Yield	<b>29</b> N/mm (I	kN/m)	<b>164</b> p	pi	2,598	psi
(2 inches / minute)		Average	Stre	ngth @	Break	<b>35</b> N/mm (I	kN/m)	<b>197</b> p	pi	3,134	psi
Elongation ASTM D6 ASTM D638 (Modified ( 2 inches / minute ) Lo = 1.3" Yield		Average	Elon	gation	@ Yield	%				15.71	
Lo = 2.0" Break		Average	Elon	gation	@ Break	%				505.5	
Dimensional Stability ASTM D1204 (Modifie	ed)	Average	Dime	ensiona	al change	%				67	•
Tear Resistance ASTM D1004 (Modifie	ed)	Average	Tear	Resis	tance	254.8	N			57.279	lbs
Puncture Resistance FTMS 101 Method 20	65 (Modified)	Average	e Pea	k Loac	d	442.9	N			99.575	lbs
Puncture Resistance ASTM D4833 (Modifie	ed)	Average	e Pea	k Loac	d	610.2	N			137.18	lbs
ESCR ASTM D1693		Minimu	m Hrs	s w/o F	ailures	1500 hrs			CI	ERTIFIED	
Notched Constant Ter ASTM D5397	nsile Load	pass / fa	il @ 3	0%		300 hrs			C	NGOING	i
Smooth Edge Testing AS	ΓM D1004	Average	Tear R	esistand	ce					54.995	lbs

Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

9/1/2012

Signature......Quality Control Department



435677-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.51 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.66 mil **TEST** 26/34 mil AVE: 1.60 mm 63 mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.33 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 29 N/mm (kN/m) **164** ppi 2,600 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 212 ppi **37** N/mm (kN/m) 3,362 psi Elongation ASTM D6693 Average Elongation @ Yield % 13.63 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 535.7 **Dimensional Stability** Average Dimensional change % -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.279 lbs Puncture Resistance Average Peak Load lbs 99.575 442.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance 610.2 N Average Peak Load 137.18 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 55.034 lbs

**Customer: Waste Management South** 

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 9/1/2012

Quality Control Department

Signature.....



435678-12 Lot #: H7121090 Liner Type: Microspike™ HDPE ROLL# 1.5 mm 60 mil **METRIC ENGLISH** Thickness..... Measurement 153.926 m 505.0 feet Lenath..... MIN: 1.50 mm 59 mil **ASTM D5994** 7.01 23.0 feet Width..... (Modified) mm 65 MAX: 1.65 mil **TEST** 26/35 mil AVE: 1.57 mm **62** mil Asperity ASTM D7466: OIT(Standard) ASTM D3895 minutes 183 **RESULTS** TOP / BOTTOM Specific Gravity Density g/cc .946 ASTM D792 MFI ASTM D1238 .25 Melt Flow Index 190°C /2160 g q/10 min COND. E GRADE: K307 Carbon Black Content Range % 2.33 **ASTM D4218** Carbon Black Dispersion Category 10 In Cat 1 ASTM D5596 Tensile Strength Average Strength @ Yield 28 N/mm (kN/m) **161** ppi 2,600 psi **ASTM D6693** ASTM D638 (Modified) (2 inches / minute) Average Strength @ Break 208 ppi **36** N/mm (kN/m) 3,362 psi Elongation ASTM D6693 Average Elongation @ Yield % 13.63 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break Average Elongation @ Break % 535.7 **Dimensional Stability** % Average Dimensional change -.67 ASTM D1204 (Modified) Tear Resistance ASTM D1004 (Modified) Average Tear Resistance 254.8 N 57.279 lbs Puncture Resistance Average Peak Load lbs 99.575 442.9 N FTMS 101 Method 2065 (Modified) Puncture Resistance 610.2 N Average Peak Load 137.18 lbs ASTM D4833 (Modified) **ESCR** Minimum Hrs w/o Failures 1500 hrs CERTIFIED **ASTM D1693** Notched Constant Tensile Load pass / fail @ 30% 300 hrs **ONGOING ASTM D5397** Smooth Edge Testing ASTM D1004 **Average Tear Resistance** 55.034 lbs

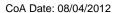
Customer: Waste Management South

PO: 1000024651 Vista LF LLC Cell 3

Destination Apopka, FL

Date: 9/1/2012

Signature......Quality Control Department





## **Certificate of Analysis**

Shipped To: AGRU AMERICA INC

500 GARRISON RD

GEORGETOWN SC 29440

USA

Recipient: PALMER

Fax:

Delivery #: 88501114

PO #: 6780

Weight: 195500 LB Ship Date: 08/04/2012

Package: BULK

Mode: Hopper Car Car #: CHVX896829

Seal No: 296903

Product:

MARLEX POLYETHYLENE K307 BULK

Lot Number: H7121073

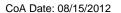
Property	Test Method	Value	Unit
Melt Index HLMI Flow Rate Density Pellet Count Production Date	ASTM D1238 ASTM D1238 D1505 or D4883 P02.08.03	0.24 19 0.938 25 08/01/2012	g/10mi g/10mi g/cm3 pel/g

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Troy Griffin

**Quality Systems Coordinator** 

For CoA questions contact Customer Service Representative at +1-832-813-4806





## **Certificate of Analysis**

Shipped To: AGRU AMERICA INC

500 GARRISON RD

GEORGETOWN SC 29440

USA

Recipient: PALMER

Fax:

Delivery #: 88506820

PO #: 006840 Weight: 197500 LB Ship Date: 08/15/2012

Package: BULK Mode: Hopper Car

Car #: CITX703193

Seal No: 296675

Product:

MARLEX POLYETHYLENE K307 BULK

Lot Number: H7121090

Property	Test Method	Value	Unit
Melt Index HLMI Flow Rate Density Pellet Count Production Date	ASTM D1238 ASTM D1238 D1505 or D4883 P02.08.03	0.25 20 0.937 28 08/05/2012	g/10mi g/10mi g/cm3 pel/g

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem). However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Troy Griffin

**Quality Systems Coordinator** 

For CoA questions contact Customer Service Representative at +1-832-813-4806



Lili Cui, Ph.D., Geomembrane Technical Service & Applications Development
Room 154 PTC ■ Bartlesville, OK 74004■
918-661-1897 ■ cuil@cpchem.com ■ Fax: 918-662-2220 ■ www.cpchem.com

June 8, 2012

Grant Palmer Agru America 500 Garrison Road Georgetown, SC 29440

## Dear Grant:

This letter is to report the final results of oven-aging and UV-aging tests (according to GRI-GM13 and GRI-GM17) on Agru America sheet samples that you provided to us in 2011. These tests were performed by CPChem's Materials Evaluation Laboratory in Bartlesville, OK. The tests were completed April 2012.

The GRI-GM13 (HDPE) and GRI-GM17 (LLDPE) durability tests were done according to the following procedures.

Test	Exposure	Method
HP-OIT	150 °C, 500 psi oxygen	D5885
Oven Aging	90 days, 85 °C	D5721
UV Aging	1600 UV hrs (Conditions were 20 hours UVA-340 at 75 °C followed by 4 hrs dark with condensation at 60 °C. Irradiance was 0.72 W/m² at 340	D7238
	nm.)	

## **Oven-Aging Results**

Sample	Initial HP-OIT (min)	HP-OIT Value after Oven Aging (min)	% HP-OIT Retained	GRI-GM13 or GRI- GM17 % Retained Requirement
40 mil LLDPE Roll # 346550-11 from Marlex <sup>®</sup> 7104 Polyethylene Lot # CBC810430	659	572	87	60
60 mil HDPE Roll # 447108-11 from Marlex <sup>®</sup> K307 Polyethylene Lot # 71-1-1104	1136	994	88	80

## **UV-Aging Results**

Sample	Initial HP-OIT (min)	HP-OIT Value after UV Aging (min)	% HP-OIT Retained	GRI-GM13 or GRI- GM17 % Retained Requirement
40 mil LLDPE Roll # 346550-11 from Marlex <sup>®</sup> 7104 Polyethylene Lot # CBC810430	659	449	68	35
60 mil HDPE Roll # 447108-11 from Marlex <sup>®</sup> K307 Polyethylene Lot # 71-1-1104	1136	924	81	50

According to these test results, the durability requirements are met.

If you have any questions, please call me at 918-661-1897.

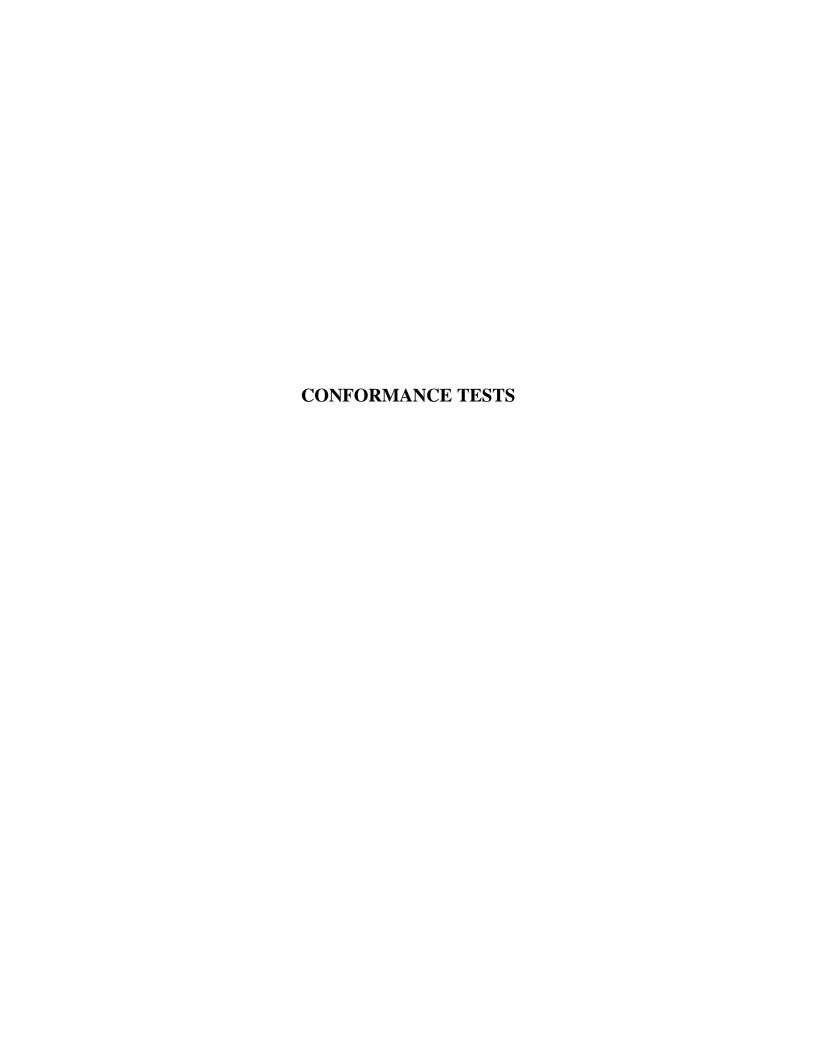
Sincerely,

Lili Cui, Ph.D.

Sili Cui

Geomembrane Technical Service & Applications Development

Any technical advice, recommendations, results, or analysis ("Information") contained herein, including, without limitation, Information as it may relate to the selection of a specific product ("Product") for your use and application, is given without warranty or guarantee and is accepted at your sole risk. It is imperative that you test the Information (and Product, if applicable) to determine to your own satisfaction whether the Information (and Product, if applicable) are suitable for your intended use and application. You expressly assume, and release Chevron Phillips Chemical Company, from all risk and liability, whether based in contract, tort or otherwise, in connection with the use of, or results obtained from, such Information (and Product, if applicable).



September 4, 2012

Mail To: Bill To:

Sheree Grant Waste Management, Inc.

<= Same

email: sgrant@wm.com ccemail: snunes@cecenv.com ccemail: pwalls@cecenv.com

Dear Sheree::

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista Landfill

TRI Job Reference Number: E2372-07-08

Material(s) Tested: 1, Agru 60 mil Microspike HDPE Geomembrane

Test(s) Requested: Thickness (ASTM D 5994)

Density (ASTM D 1505)

Carbon Content (ASTM D 4218) Carbon Dispersion (ASTM D 5596)

Tensile (ASTM D 6693)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel

Matel

Sr. Laboratory Coordinator Geosynthetic Services Division www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager

## **GEOMEMBRANE TEST RESULTS**

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Agru 60 mil Microspike HDPE Geomembrane Sample Identification: 435343.12

TRI Log #: E2372-07-08

PARAMETER	TEST REP	LICATE NU	MBER								MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
Thickness (ASTM D 5994)													
Thickness (mils)	66	65	62	61	63	65	63	64	68	65	64	2	60 min
This was (mile)		00	02	٠.	00	00	00	0.	00	00	61	<< min	54 low ind
Density (ASTM D 1505)													
Density (g/cm3)	0.944	0.944	0.944								0.944	0.000	0.94
Carbon Black Content (ASTM D 4218)													
% Carbon Black	2.28	2.33									2.31	0.04	2.0-3.0
70 Carbon Black	2.20	2.55									2.51	0.04	2.0-3.0
Carbon Black Dispersion (ASTM D 5596	)												
Rating - 1st field view	1	1	1	1	1								9/10 in Cat 1 or Cat 2
Rating - 2nd field view	1	1	1	1	1								All in Cat 1, 2 or 3
g <u>-</u>	•	•	·	•	•								
Tensile Properties (ASTM D 638/GRI GM	l 13, 2 ipm str	ain rate, Ty	pe IV specii	men - HDP	E)								
MD Yield Strength (ppi)	166	157	150	154	148						155	7	126 min
TD Yield Strength (ppi)	156	163	166	172	176						167	8	126 min
0 417													
MD Break Strength (ppi)	233	208	225	230	181						215	22	90 min
TD Break Strength (ppi)	205	208	207	188	235						209	17	90 min
MD Yield Elongation (%)	32	29	28	26	28						29	2	12 min
TD Yield Elongation (%)	19	20	20	18	22						20	1	12 min
MD Break Elongation (%)	479	524	536	539	488						513	28	100 min
TD Break Elongation (%)	635	621	628	561	678						625	42	100 min

MD Machine Direction TD Transverse Direction

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

September 6, 2012

Mail To: Bill To:

Sheree Grant Waste Management, Inc.

<= Same

email: sgrant@wm.com ccemail: snunes@cecenv.com ccemail: pwalls@cecenv.com

Dear Sheree::

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista Landfill

TRI Job Reference Number: E2372-09-08

Material(s) Tested: 2, Agru 60 mil Microspike HDPE Geomembrane

Test(s) Requested: Thickness (ASTM D 5994)

Density (ASTM D 1505)

Carbon Content (ASTM D 4218) Carbon Dispersion (ASTM D 5596)

Tensile (ASTM D 6693)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Matel

Mansukh Patel Sr. Laboratory Coordinator Geosynthetic Services Division www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager

## **GEOMEMBRANE TEST RESULTS**

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Agru 60 mil Microspike HDPE Geomembrane Sample Identification: 435452.12

TRI Log #: E2372-09-08

PARAMETER	TEST REP	LICATE NU	MBER								MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
Thickness (ASTM D 5994)													
Thickness (mils)	60	59	62	61	61	66	66	66	71	63	64	4	60 min
											59	<< min	54 low ind
Density (ASTM D 1505)													
,													
Density (g/cm3)	0.944	0.945	0.945								0.945	0.001	0.940 min
Carbon Black Content (ASTM D 4218)													
% Carbon Black	2.26	2.30									2.28	0.03	2.0-3.0%
% Carbon Black	2.20	2.30									2.20	0.03	2.0-3.0%
Carbon Black Dispersion (ASTM D 5596)													
Rating - 1st field view	1	1	1	1	1								9/10 in Cat 1 or Cat 2
Rating - 2nd field view	1	1	1	1	1								All in Cat 1, 2 or 3
Tensile Properties (ASTM D 638/GRI GM	13, 2 ipm stı	rain rate, Ty	pe IV speci	men - HDF	PE)								-
MD Yield Strength (ppi)	154	157	158	166	156						158	5	126 min
TD Yield Strength (ppi)	176	163	173	160	170						168	7	126 min
MD Break Strength (ppi)	235	210	177	232	187						208	26	90 min
TD Break Strength (ppi)	172	198	215	156	201						188	24	90 min
MD Yield Elongation (%)	31	26	29	24	26						27	3	12 min
TD Yield Elongation (%)	24	24	23	21	23						23	1	12 min
MD Break Elongation (%)	508	508	476	483	483						491	15	100 min
TD Break Elongation (%)	504	580	646	463	603						559	75	100 min

MD Machine Direction TD Transverse Direction

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

## **GEOMEMBRANE TEST RESULTS**

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Agru 60 mil Microspike HDPE Geomembrane Sample Identification: 435563.12

TRI Log #: E2372-09-08

PARAMETER	TEST REP	LICATE NU	MBFR								MEAN	STD. DEV.	PROJ. SPEC.
. 7	1	2	3	4	5	6	7	8	9	10	,		0. 20.
Thickness (ASTM D 5994)	·	_	·	·	·	Ū	•	Ū					
Thickness (mils)	67	68	68	67	63	68	65	64	66	64	66 63	2 << min	60 min 54 low ind
											03	CC 111111	34 IOW IIIU
Density (ASTM D 1505)													
Density (g/cm3)	0.945	0.945	0.945								0.945	0.000	0.940 min
Carbon Black Content (ASTM D 4218)													
Carbon Black Content (ASTM D 4210)													
% Carbon Black	2.22	2.24									2.23	0.01	2.0-3.0%
Carbon Black Dispersion (ASTM D 5596)													
D. C C. I													0/10: 0.11 0.10
Rating - 1st field view Rating - 2nd field view	1	1 1	1 1	1	1 1								9/10 in Cat 1 or Cat 2 All in Cat 1, 2 or 3
Rating - Zha hela view	'	1	1	'	ı								All III Cat 1, 2 01 3
Tensile Properties (ASTM D 638/GRI GM	13, 2 ipm stı	rain rate, Ty	pe IV specii	men - HDF	PE)								
MD Yield Strength (ppi)	158	163	166	162	166						163	3	126 min
TD Yield Strength (ppi)	188	190	181	174	185						184	6	126 min
												-	
MD Break Strength (ppi)	231	234	229	232	189						223	19	90 min
TD Break Strength (ppi)	209	202	209	186	209						203	10	90 min
MD Yield Elongation (%)	27	31	31	22	32						29	4	12 min
TD Yield Elongation (%)	24	23	26	18	23						23	3	12 min
MD Break Elongation (%)	498	486	446	496	428						471	32	100 min
TD Break Elongation (%)	563	553	593	526	580						563	26	100 min
• • •													

MD Machine Direction TD Transverse Direction

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

September 7, 2012

Mail To: Bill To:

Sheree Grant Waste Management, Inc.

<= Same

email: sgrant@wm.com ccemail: snunes@cecenv.com ccemail: pwalls@cecenv.com

Dear Sheree::

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista Landfill

TRI Job Reference Number: E2372-11-03

Material(s) Tested: 1, Agru 60 mil Microspike HDPE Geomembrane

Test(s) Requested: Thickness (ASTM D 5994)

Density (ASTM D 1505)

Carbon Content (ASTM D 4218) Carbon Dispersion (ASTM D 5596)

Tensile (ASTM D 6693)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel

Sr. Laboratory Coordinator Geosynthetic Services Division www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager

## **GEOMEMBRANE TEST RESULTS**

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Agru 60 mil Microspike HDPE Geomembrane Sample Identification: 435571.12

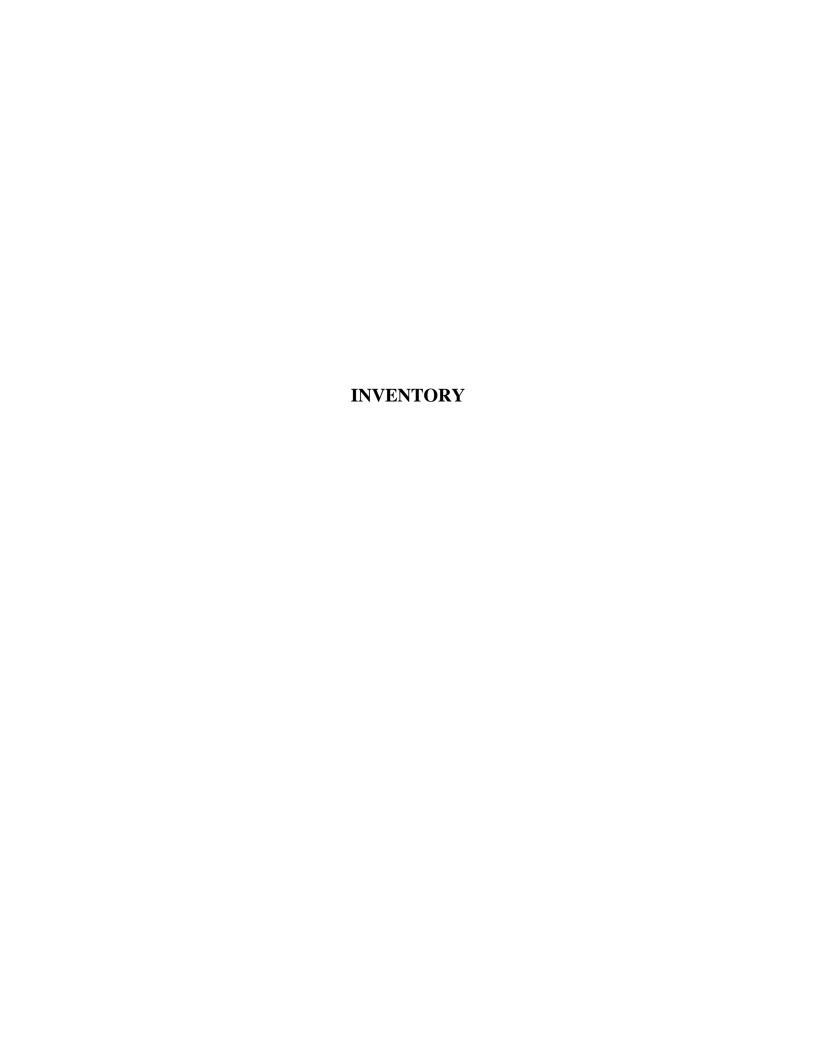
TRI Log #: E2372-11-03

PARAMETER	TEST REP	LICATE NU	MBER								MEAN	STD. DEV.	PROJ. SPEC.
	1	2	3	4	5	6	7	8	9	10			
Thickness (ASTM D 5994)													
Thickness (mils)	66	67	66	67	65	64	62	63	68	69	66	2	60 min
											62	<< min	54 low ind
Density (ASTM D 1505)													
beholy (Aeria b 1666)													
Density (g/cm3)	0.946	0.946	0.946								0.946	0.000	0.940 min
Carbon Black Content (ASTM D 4218)													
Carbon Black Content (ASTM D 4210)													
% Carbon Black	2.37	2.37									2.37	0.00	2.0-3.0%
Carbon Black Dispersion (ASTM D 5596)													
Carbon Black Dispersion (ACTIN D 3330)													
Rating - 1st field view	1	1	1	1	1								9/10 in Cat 1 or Cat 2
Rating - 2nd field view	1	1	1	1	1								All in Cat 1, 2 or 3
Tensile Properties (ASTM D 638/GRI GM	13, 2 ipm str	rain rate, Ty	pe IV specii	men - HDF	PE)								
MD Yield Strength (ppi)	164	166	157	152	164						161	6	126 min
TD Yield Strength (ppi)	175	173	182	166	165						172	7	126 min
1100	050	057	405		004								
MD Break Strength (ppi) TD Break Strength (ppi)	258 208	257 214	195 212	202 200	231 193						229	30 9	90 min 90 min
1D Break Strength (ppi)	200	214	212	200	193						203	9	90 111111
MD Yield Elongation (%)	25	25	25	25	25						25	0	12 min
TD Yield Elongation (%)	19	20	18	18	20						19	1	12 min
MD Break Elongation (%)	558	523	510	486	490						513	29	100 min
TD Break Elongation (%)	613	523 639	609	486 606	490 580						609	29 21	100 min 100 min
12 Diodit Liongation (70)	313	555	000	550	550						303		100 111111

MD Machine Direction TD Transverse Direction

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

# B.2 GEOTEXTILE – 8 Ounce



## Geoderthe

CEC

Project Na	ame Vista MANASAII C	201-3 Date:		9/28/2012		
Client:	WMI	Materia	1 Type: <i>Geof</i>	exfile 8 02 Avd 6 02		
Project No	o.: 101.07.08	Manufa	cturer: 5	KAPS		
CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #	
	W315-18-300	330068416	300 X 15	Work Geofex HI1		
		330068417	11	Woven geotext114  for RoAd		
	// /)	330068417 330068418	47	( )		
	11	330068392	1/	11		
	17	3300 8394	11	//		
	/1	338068 393	(1	11		
	GE180-180-690	27297.01	15×690	NONWOVEN geotextile		
		27297.02	U	NONWOVEN geotextile So leachate		
		27297,03	cl	sxsten.		
					-	
	***************************************					
	Totals: 3	Rolls Mover Rolls Noverover	$\rightarrow$	Moven fabric = 27; Nonword fabric = 31,	050 AZ	
_			***************************************			
Votes:						





SKAPS Industries (Nonwoven Division) 335, Athena Drive Athens, GA 30601 (U.S.A.) Phone (706) 354-3700 Fax (706) 354-3737

E-mail: info@skaps.com

Sales Office:

Engineered Synthetic Product Inc.

Phone: (770)564-1857 Fax: (770)564-1818

October 1, 2012 Waste Management

PO: 1000024653

**BOL: 32691** 

Dear Sir/Madam:

This is to certify that SKAPS GE180 is a high quality needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, randomly networked to form a high strength dimensionally stable fabric.SKAPS GE180 resists ultraviolet deterioration, rotting, biological degradation. The fabric is inert to commonly encountered soil chemicals. Polypropylene is stable within a pH range of 2 to 13. SKAPS GE180 conforms to the property values listed below:

PROPERTY	TEST METHOD	UNITS	M.A.R.V. Minimum Average Roll Value				
Weight	ASTM D 5261	oz/sy (g/m²)	8.00 (271)				
Thickness*	ASTM D 5199	mils (mm)	100 (2.54)				
Grab Tensile	ASTM D 4632	lbs (kN)	225 (1.00)				
Grab Elongation	ASTM D 4632	%	50				
Trapezoidal Tear	ASTM D 4533	lbs (kN)	90 (0.40)				
Puncture Resistance	ASTM D 4833	lbs (kN)	130 (0.58)				
Mullen Burst Strength	ASTM D 3786	psi (kPa)	425 (2930)				
Permittivity*	ASTM D 4491	sec <sup>-1</sup>	1.26				
Permeability*	ASTM D 4491	cm/sec	0.30				
Water Flow*	ASTM D 4491	gpm/ft <sup>2</sup> (I/min/m <sup>2</sup> )	100 (4074)				
AOS*	ASTM D 4751	US Sieve (mm)	80 (0.18)				
UV Resistance	ASTM D 4355	%/hrs	70/500				

## Notes:

## **PALAK PATEL**

QUALITY CONTROL MANAGER

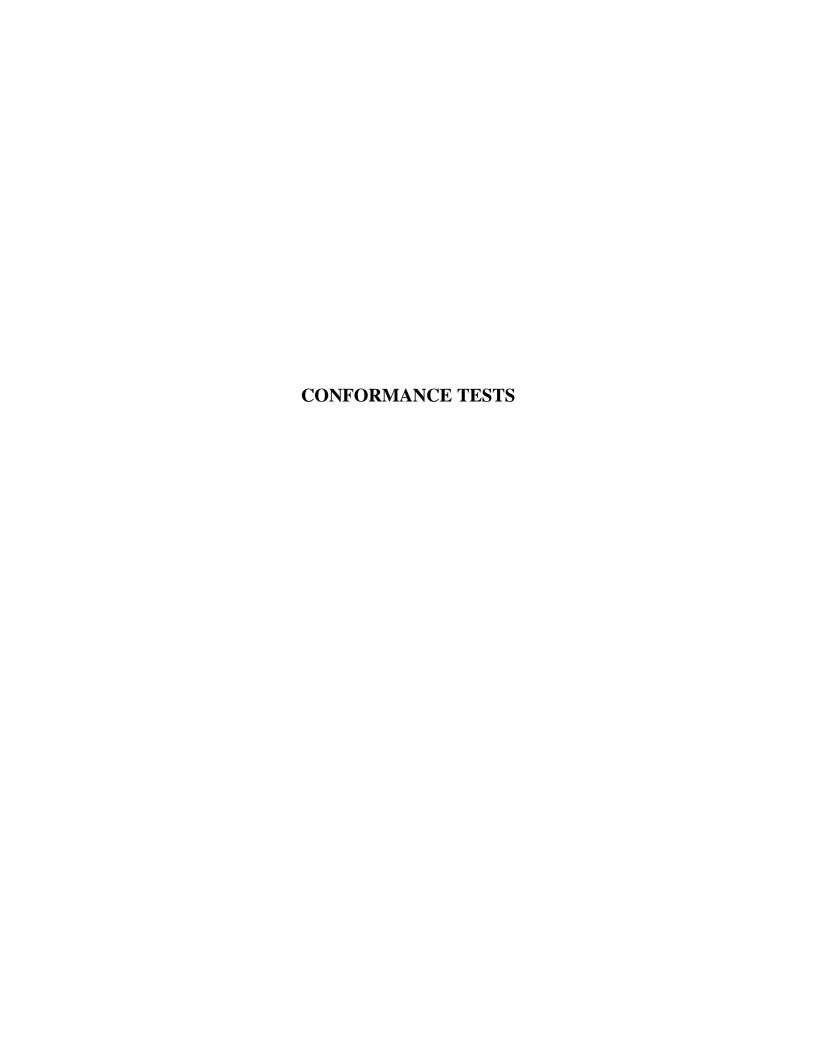
www.skaps.com

www.espgeosynthetics.com

<sup>\*</sup> At the time of manufacturing. Handling may change these properties.

## Product : GE180-180

ROLL#	WEIGHT	THICKNESS	MD TENSILE	MD ELONG	XMD TENSILE	XMD ELONG	MD TRAP	XMD TRAP	PUNCTURE	MULLEN	AOS	WATER FLOW	PERMEABILITY	PERMITTIVITY
ASTM METHOD	D5261	D5199	D4632	D4632	D4632	D4632	D4533	D4533	D4833	D3786	D4751	D4491	D4491	D4491
UNITS	oz/sq yd	(mils)	lbs.	%	lbs	%	lbs.	lbs	lbs.	psi	US Sieve	gpm/ft <sup>2</sup>	cm/sec	sec <sup>-1</sup>
TARGET	8.00	100	225	50	225	50	90	90	130	425	80	100	0.30	1.26
27297.01	8.53	124	233	72	244	82	104	119	137	434	80	102	0.43	1.36
27297.02	8.53	124	233	72	244	82	104	119	137	434	80	102	0.43	1.36
27297.03	8.53	124	233	72	244	82	104	119	137	434	80	102	0.43	1.36



September 28, 2012

Mail To: Bill To:

Sheree Grant <= Same

Waste Management, Inc.

email: sgrant@wm.com cc email: snunes@cecenv.com cc email: pwalls@cecenv.com

Dear Sheree:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista Landfill Cell 3

TRI Job Reference Number: E2372-28-05

Material(s) Tested: 1, Skaps GE180 Nonwoven Geotextile

Test(s) Requested: Mass/Unit Area (ASTM D 5261)

Grab Tensile (ASTM D 4632)
Puncture Resistance (ASTM D 4833)
CBR Puncture Strength (ASTM D 6241)
Trapezoidal Tear (ASTM D 4533)
Apparent Opening Size (ASTM D 4751)

Permittivity (ASTM D 4491)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel

Sr. Laboratory Coordinator Geosynthetic Services Division www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager

### **GEOTEXTILE TEST RESULTS**

TRI Client: Waste Management, Inc.
Project: Vista Landfill

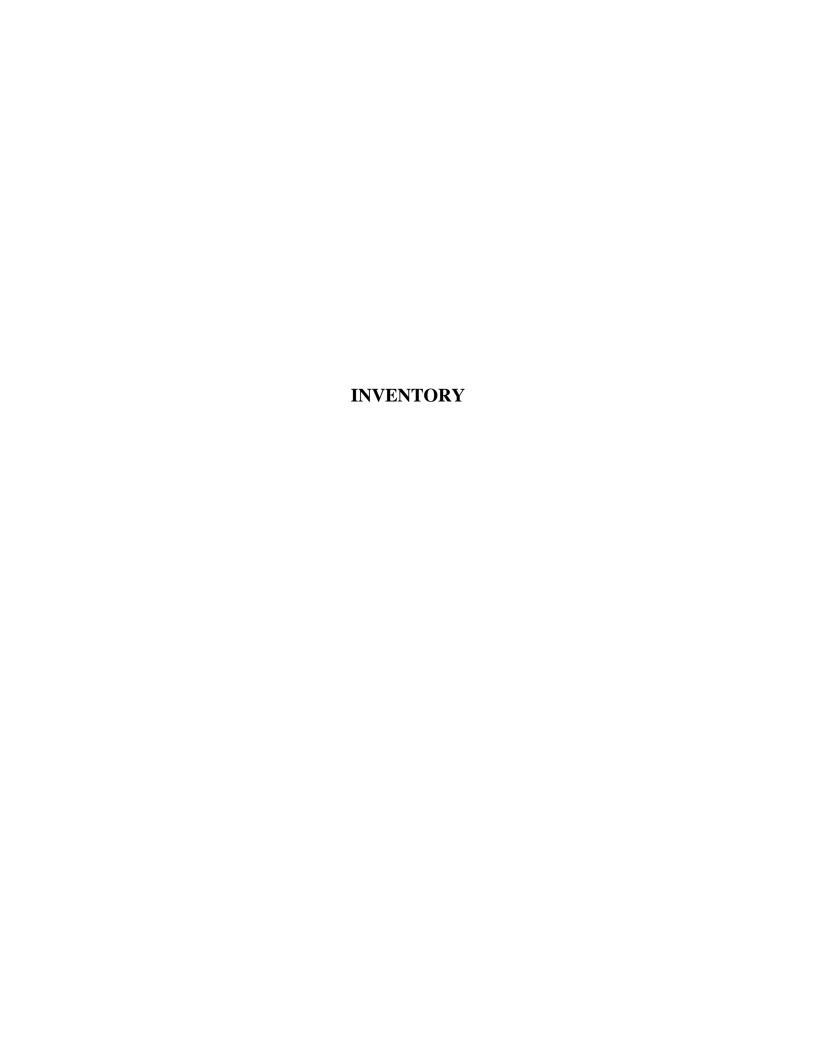
Material: Skaps GE180 Nonwoven Geotextile Sample Identification: 27297.01 TRI Log #: E2372-28-05

PARAMETER	TEST RE	PLICATE	NUMBER								MEAN	STD. DEV.	PROJ SPEC
	1	2	3	4	5	6	7	8	9	10			
Mass/Unit Area (ASTM D 5261)													
5" diameter circle (grams)	4.03	3.76	3.94	3.76	3.68	3.66	4.18	3.84	3.72	4.26	3.88	0.21	
Mass/Unit Area (oz/sq.yd)	9.37	8.75	9.16	8.75	8.56	8.51	9.72	8.93	8.65	9.91	9.03	0.49	8 mir
Grab Tensile Properties (ASTM D 4632	)												
MD - Tensile Strength (lbs)	244	236	240	227	255	263	250	238	245	236	243	11	200 m
TD - Tensile Strength (lbs)	251	306	296	299	273	294	330	247	285	323	290	27	200 m
MD. Flore @ Mov. Lood (9/)	70	70	60	60	04	00	77	67	79	70	75		
MD - Elong. @ Max. Load (%) ITD - Elong. @ Max. Load (%)	73 97	72 95	69 114	69 103	81 87	83 96	77 97	67 108	108	79 93	75 100	6 8	
Puncture Resistance (ASTM D 4833)													
Puncture Strength (lbs)	160	141	156	143	130	129	138	136	143	131	145	14	90 mi
	145	176	158	156	133								
CBR Puncture Strength (ASTM D 6241	)												
Puncture Resistance (lbs)	825	689	743	757	788	726	693	798	745	716	748	45	500 m
Trapezoidal Tear (ASTM D 4533)													
MD - Tear Strength (lbs)	125	96	118	86	87	91	91	115	92	120	102	15	75 mi
TD - Tear Strength (lbs)	111	127	144	127	131	139	124	127	125	123	128	9	75 mi
A													
Apparent Opening Size (ASTM D 4751)													
Opening Size Diameter (mm)	0.107	0.131	0.129	0.136	0.145						0.129	0.014	0.21 m
Sieve No.	120	100	100	100	100						100		
Falling Head Permittivity (ASTM D 449	1, 9-in Upper	Standpipe	; 2 in open	ing)							<u> </u>		
Water Temp. (C):	19.5	1											
Correction Factor:	1.02												
Test Speciemn No. >:			1					2					
Thickness (mils)	98.7	98.7	98.7	98.7	98.7		98.9	98.9	98.9	98.9			
Fime (s)	19.5				30.7	98.9	90.9	30.3		30.3			
	10.0	19.5	19.0	19.0	19.5	98.9 21.6	21.6	21.6	21.6	21.6			
Specimen Permittivity (s-1)					19.5	21.6	21.6	21.6	21.6	21.6			
	1.46 1.48	19.5 1.46 1.48	19.0 1.49 1.52	19.0 1.49 1.52									
Specimen Permittivity @20°C (sec-1)	1.46	1.46	1.49	1.49	19.5 1.46	21.6 1.31	21.6 1.31	21.6 1.31	21.6 1.31	21.6 1.31			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2)	1.46 1.48	1.46 1.48	1.49 1.52	1.49 1.52	19.5 1.46 1.48	21.6 1.31 1.33	21.6 1.31 1.33	21.6 1.31 1.33	21.6 1.31 1.33	21.6 1.31 1.33			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s)	1.46 1.48 110	1.46 1.48 110	1.49 1.52 113	1.49 1.52 113	19.5 1.46 1.48 110	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s) Fest Speciemn No. >:	1.46 1.48 110	1.46 1.48 110	1.49 1.52 113 0.38	1.49 1.52 113	19.5 1.46 1.48 110	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7	21.6 1.31 1.33 99.7			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s)  Test Speciemn No. >:  Thickness (mils)	1.46 1.48 110 0.37	1.46 1.48 110 0.37	1.49 1.52 113 0.38	1.49 1.52 113 0.38	19.5 1.46 1.48 110 0.37	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33			
Specimen Permittivity (s-1) Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s) Test Speciemn No. >: Thickness (mils) Time (s) Permittivity (s-1)	1.46 1.48 110 0.37	1.46 1.48 110 0.37	1.49 1.52 113 0.38 3 102	1.49 1.52 113 0.38	19.5 1.46 1.48 110 0.37	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33 4 101	21.6 1.31 1.33 99.7 0.33	21.6 1.31 1.33 99.7 0.33			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s)  Test Speciemn No. >: Thickness (mils) Time (s)  Permittivity (s-1)	1.46 1.48 110 0.37	1.46 1.48 110 0.37	1.49 1.52 113 0.38 3 102 23.2	1.49 1.52 113 0.38 102 22.7	19.5 1.46 1.48 110 0.37	21.6 1.31 1.33 99.7 0.33 101 20.6	21.6 1.31 1.33 99.7 0.33 101 20.6	21.6  1.31 1.33 99.7 0.33  4 101 20.5	21.6 1.31 1.33 99.7 0.33 101 20.6	21.6 1.31 1.33 99.7 0.33 101 20.6			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s) Fest Speciemn No. >: Thickness (mils) Firme (s)  Permittivity (s-1) Specimen Permittivity @20°C (sec-1)	1.46 1.48 110 0.37 102 23.2	1.46 1.48 110 0.37 102 22.7 1.25	1.49 1.52 113 0.38 3 102 23.2	1.49 1.52 113 0.38 102 22.7	19.5 1.46 1.48 110 0.37 102 23.3	21.6 1.31 1.33 99.7 0.33 101 20.6	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38	21.6  1.31 1.33 99.7 0.33  4 101 20.5	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38	21.6 1.31 1.33 99.7 0.33 101 20.6			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s)  Fest Speciemn No. >: Thickness (mils) Firme (s)  Permittivity (s-1) Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2)	1.46 1.48 110 0.37 102 23.2 1.22 1.24	1.46 1.48 110 0.37 102 22.7 1.25 1.27	1.49 1.52 113 0.38 3 102 23.2 1.22 1.24	1.49 1.52 113 0.38 102 22.7 1.25 1.27	19.5 1.46 1.48 110 0.37 102 23.3 1.22 1.24	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40	21.6  1.31 1.33 99.7 0.33  4 101 20.5 1.38 1.40	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40			
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s)  Test Speciemn No. >: Thickness (mils) Time (s)  Permittivity (s-1) Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2)	1.46 1.48 110 0.37 102 23.2 1.22 1.24 92.9	1.46 1.48 110 0.37 102 22.7 1.25 1.27 94.9	1.49 1.52 113 0.38 3 102 23.2 1.22 1.24 92.9 0.32	1.49 1.52 113 0.38 102 22.7 1.25 1.27 94.9 0.33	19.5 1.46 1.48 110 0.37 102 23.3 1.22 1.24 92.5 0.32	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105	21.6 1.31 1.33 99.7 0.33 4 101 20.5 1.38 1.40 105 0.36	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105 0.36	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105 0.36			0.5
Specimen Permittivity @20°C (sec-1) Specimen Flow rate (GPM/ft2) Specimen Permeability (cm/s) Test Speciemn No. >: Thickness (mils)	1.46 1.48 110 0.37 102 23.2 1.22 1.24 92.9	1.46 1.48 110 0.37 102 22.7 1.25 1.27 94.9	1.49 1.52 113 0.38 3 102 23.2 1.22 1.24 92.9 0.32	1.49 1.52 113 0.38 102 22.7 1.25 1.27 94.9	19.5 1.46 1.48 110 0.37 102 23.3 1.22 1.24 92.5 0.32	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105	21.6 1.31 1.33 99.7 0.33 4 101 20.5 1.38 1.40 105 0.36	21.6  1.31 1.33 99.7 0.33  101 20.6  1.38 1.40 105	21.6 1.31 1.33 99.7 0.33 101 20.6 1.38 1.40 105 0.36	1.37 102		0.5 m

MD Machine Direction TD Transverse Direction

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction: of this report, except in full, without prior approval of TRI.

# **B.3 GEOTEXTILE – 6 Ounce**



# Geoderthe

Project Na	ame Vista MANASAII C	201-3 Date:		9/28/2012	
Client:	WMI	Materia	1 Type: <i>Geof</i>	exfile 8 02 Avd 6 02	
Project No	o.: 101.07.08	Manufa	cturer: 5	KAPS	
CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
	W315-18-300	330068416	300 X 15	Woven centex H14	
		330068417	11	Woven geotextil 4  for RoAd	
	// /)	330068417 330068418	47	( )	
	11	330068392	1/	11	
	17	3300 8394	11	/(	
	/1	330068 393	l1	/ 1	
	GE180-180-690	27297.01	15×680	NONWOVEN geotextile	
		27297.02	U	NONWOVEN geotextile So leachate	
•		27297,03	c l	sxsten.	
					,
	Totals: $\frac{6}{3}$	Rolls Mover Rolls Novemover	$\rightarrow$	Woven fabric = 27, Nonwoven fabric = 31,	000 AZ
Notes:					





SKAPS Industries (Nonwoven Division) 335, Athena Drive Athens, GA 30601 (U.S.A.)

Phone (706) 354-3700 Fax (706) 354-3737

E-mail: info@skaps.com

Sales Office:

Engineered Synthetic Product Inc.

Phone: (770)564-1857 Fax: (770)564-1818

October 1, 2012 Waste Management

PO: 1000024653

**BOL: 32691** 

Dear Sir/Madam:

This is to certify that SKAPS W315 woven geotextile fabrics are woven polypropylene materials offering optimum performance. Produced from first quality raw materials, they provide the perfect balance of strength and separation in styles capable of functioning exceptionally well in a wide range of performance requirements. All properties meet following requirements:

PROPERTY	TEST METHOD	UNITS	M.A.R.V. Minimum Average Roll Value			
Weight	ASTM D 5261	oz/sy (g/sm)	6.30 (214)			
Grab Tensile	ASTM D 4632	lbs (kN)	315 (1.40)			
Grab Elongation	ASTM D 4632	%	50			
Trapezoid Tear Strength	ASTM D 4533	lbs (kN)	120 (0.53)			
CBR Puncture	ASTM D 6241	lbs (kN)	1000 (4.44)			
Mullen Burst Strength	ASTM D 3786	psi (kPa)	600 (4134)			
Permittivity*	ASTM D 4491	I/sec	0.050			
Water Flow*	ASTM D 4491	gpm/sf(l/min/sm)	4 (163)			
AOS*	ASTM D 4751	US Sieve (mm)	40 (0.42)			
UV Resistance	ASTM D 4355	%/hrs	70/500			

### Notes:

### **PALAK PATEL**

QUALITY CONTROL MANAGER

www.skaps.com

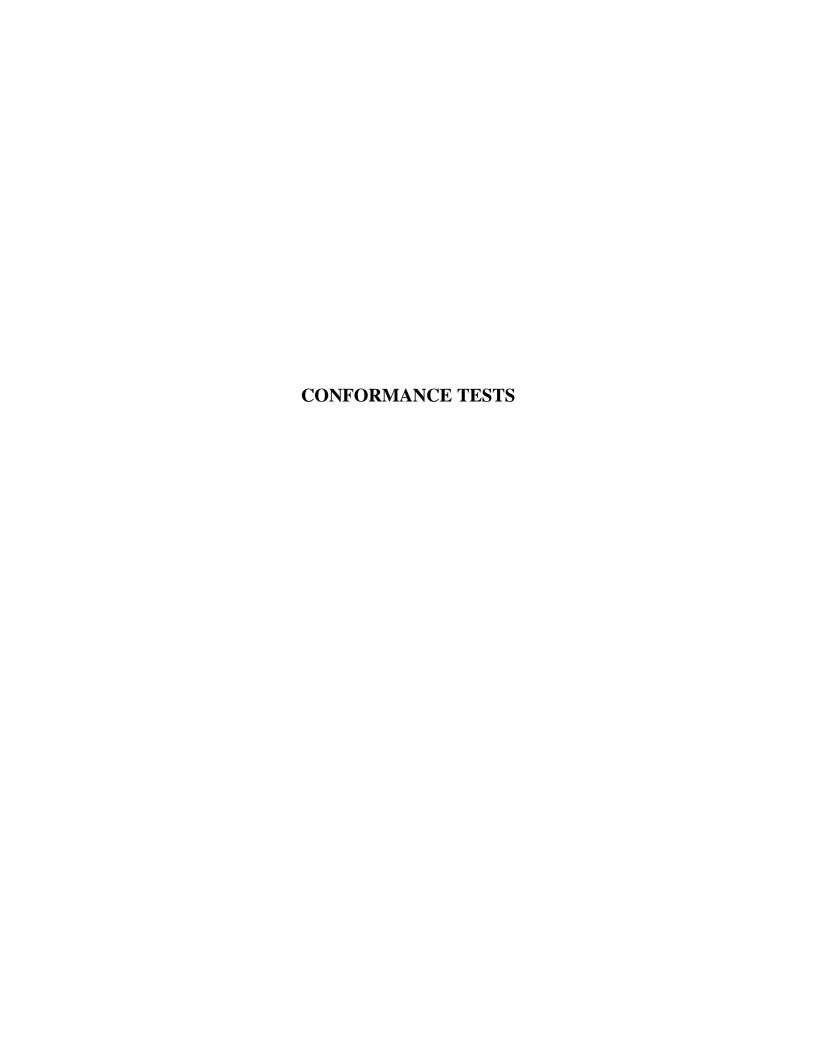
www.espgeosynthetics.com

<sup>\*</sup> At the time of manufacturing. Handling may change these properties.

### Product: W315-180

ROLL# ASTM METHOD	WEIGHT* D5261	MD TENSILE D4632	MD ELONG D4632	XMD TENSILE D4632	XMD ELONG D4632	MD TRAP D4533	XMD TRAP D4533	CBR PUNCTURE D6241	MULLEN D3786	AOS D4751	WATER FLOW D4491	PERMITTIVITY D4491
UNITS	oz/sq yd	lbs.	%	lbs	%	lbs.	lbs	lbs.	psi	US Sieve	gpm/ft <sup>2</sup>	sec <sup>-1</sup>
TARGET	6.30	315	<50	315	<50	120	120	1000	600	40	4	0.050
330068392	6.33	324	22	318	15	134	137	1166	649	40	6	0.078
330068393	6.33	324	22	318	15	134	137	1166	649	40	6	0.078
330068394	6.33	324	22	318	15	134	137	1166	649	40	6	0.078
330068416	6.25	317	17	315	19	126	130	1033	621	40	5	0.067
330068417	6.25	317	17	315	19	126	130	1033	621	40	5	0.067
330068418	6.25	317	17	315	19	126	130	1033	621	40	5	0.067

<sup>\*</sup> Weight is typical. All other values are MARV.



October 10, 2012

Mail To: Bill To:

**Sheree Grant** <= Same

Waste Management, Inc.

email: sgrant@wm.com cc email: snunes@cecenv.com cc email: pwalls@cecenv.com

Dear Sheree:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista Landfill

TRI Job Reference Number: E2372-46-03

Material(s) Tested: 1, Skaps W-315 Woven Geotextile

Test(s) Requested: Mass/Unit Area (ASTM D 5261)

Grab Tensile (ASTM D 4632)

Puncture Resistance (ASTM D 4833) CBR Puncture Strength (ASTM D 6241)

Trapezoidal Tear (ASTM D 4533)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel

Sr. Laboratory Coordinator Geosynthetic Services Division www. Geosynthetic Testing.com

cc: Sam R. Allen, Vice President and Division Manager

### **GEOTEXTILE TEST RESULTS**

TRI Client: Waste Management, Inc. Project: Vista Landfill

Material: Skaps W-315 Woven Geotextile Sample Identification: 330068416

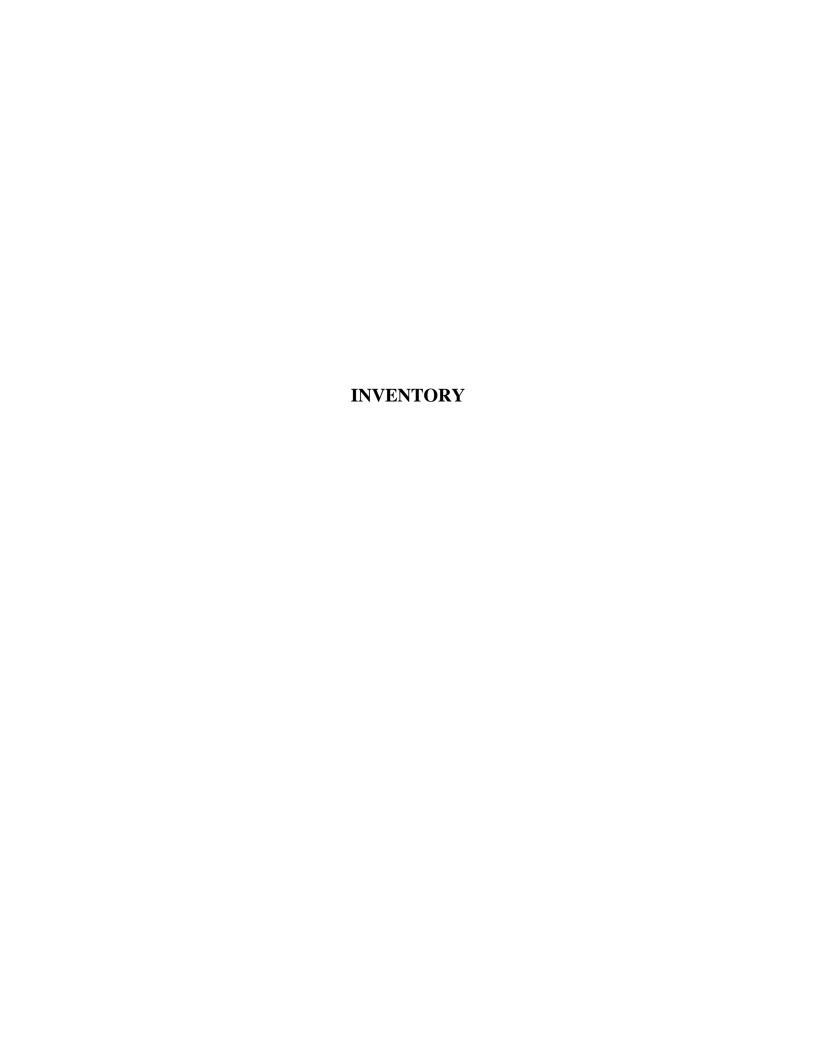
TRI Log #: E2372-46-03

PARAMETER	TEST RE	EPLICATE	NUMBER								I MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
Mass/Unit Area (ASTM D 5261)												
5" diameter circle (grams)	2.65	2.66	2.69	2.67	2.65	2.67	2.66	2.66	2.68	2.63	2.66	0.02
Mass/Unit Area (oz/sq.yd)	6.16	6.19	6.26	6.21	6.16	6.21	6.19	6.19	6.23	6.12	6.19	0.04
Grab Tensile Properties (ASTM D 4632)												
MD - Tensile Strength (lbs)	376	297	383	359	413	361	375	397	358	362	368	31
TD - Tensile Strength (lbs)	336	336	349	358	348	337	324	334	343	333	340	10
MD - Elong. @ Max. Load (%)	34	30	32	31	34	31	32	33	31	31	32	1
TD - Elong. @ Max. Load (%)	25	29	28	28	29	27	25	26	27	25	27	2
Puncture Resistance (ASTM D 4833)												
Puncture Strength (lbs)	180	162	154	132	153	163	156	156	160	145	154	11
	142	158	145	158	153							
CBR Puncture Strength (ASTM D 6241)											1	
Puncture Resistance (lbs)	1263	1241	1235	1264	1325	1304	1306	1236	1225	1300	1270	36
Trapezoidal Tear (ASTM D 4533)												
MD - Tear Strength (lbs)	148	144	155	166	149	161	144	139	148	125	148	12
TD - Tear Strength (lbs)	119	112	112	123	124	114	122	128	116	115	118	5

MD Machine Direction TD Transverse Direction

The testing herein is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction: of this report, except in full, without prior approval of TRI.

## **B.4 GEOSYNTHETIC CLAY LINER**



GLU

# CEC

Project Name Vista LANSFILL 611 3	Date:	08/24/2012
Client: LUM F	Material Type:	GCL Bertomat
Project No.: 101. 37. 38	Manufacturer:	CETCO

CEC ID #	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
	201234CV	6197 6198 6199	15 × 150		
	, 1	6198	į t		
	/1	6199	/1		
	(1	6200	11		
	11	6201	11		
	17	6204	11		
					`
		1.1			

Totals:	6	Poll	
		@ 22	50

13, 3	13,	590	ft	2
-------	-----	-----	----	---

Notes:

Note! 2 Additionte Rells were on Pathing Slip but Not shipped



Ecert 2.0 Page 1 of 6





Date: 8/16/2012

Purchase Order: 1000024652 ORDER NUMBER: 000286293

Waste Managment

Apopka, FL 32703

To Whom it May Concern:

Please find enclosed the MQA/MQC test data package for Geosynthetic Clay Liner shipments to Waste Managment.

The enclosed data package includes results of all the MQC tests required by ASTM D5889, with the exception of index flux/hydraulic conductivity. This test, which is run according to ASTM D5887, is normally performed once per production lot (once per week), unless a higher frequency is required by the project specifications. Because of the GCL's low permeability, this test can take several weeks to complete. The index flux/hydraulic conductivity results associated with this lot of material will be provided under separate cover as soon as they are available.

Although the index flux/hydraulic conductivity test results are not yet available, CETCO accepts responsibility for our GCL should the index flux/hydraulic conductivity tests produce unacceptable results. If, upon delivery and prior to installation, individual rolls of GCL are found to be nonconforming to accepted project specifications, CETCO will replace the nonconforming material at no charge.

Questions regarding this information should be directed to Chris Athanassopoulos, Technical Support Engineer, at (847) 851-1831.

Sincerely,

Maria Martinez
Quality Assurance

**CETCO Cartersville Plant** 

Ecert 2.0 Page 2 of 6



# GEOSYNTHETIC CLAY LINER MANUFACTURING QUALITY ASSURANCE DATA PACKAGE

PROJECT NAME: WM-Vista LF CUSTOMER P.O.: 1000024652 ORDER NUMBER: 000286293

PREPARED FOR: Waste Managment

### **CONTENTS:**

- Product Certifications
- GCL Order packing list and MQA tracking form
- GCL manufacturing quality control test data
- Bentonite clay certification
- Raw material test results

PREPARED BY: Maria Martinez Quality Assurance CETCO 218 Industrial Park

Cartersville, GA 30121 Telephone: (770) 387-7700

E-Mail: as maria.covarrubias@cetco.com

Ecert 2.0 Page 3 of 6



### PRODUCT CERTIFICATIONS

PROJECT NAME: WM-Vista LF CUSTOMER P.O.: 1000024652 ORDER NUMBERS: 000286293 PREPARED FOR: Waste Managment

The GCL manufactured for the above-referenced order number(s) is certified to meet the values listed in the tables below:

### GCL PROPERTY SPECIFICATIONS FOR BENTOMAT ST

<b>Test Method</b>	Test Method Property	Test Frequency	Certified Value
ASTM D 5891	Bentonite Fluid Loss	1 per 50 Tons	18 ml Max
ASTM D 5993	Bentonite Mass/Area	40,000 sq ft (4000 sq m)	0.75 lb /sq ft Min
ASTM D 5890	Bentonite Swell Index	1 per 50 Tons	24 ml/2g Min
ASTM D 6768	GCL Grab Strength	200,000 sq ft (20,000 sq m)	30 lbs/in MARV
ASTM D 6243	GCL Hydrated Internal Shear Strength	Periodic	500 psf typ @ 200 psf normal load
ASTM D 5887	GCL Hydraulic Conductivity	Weekly	5.0E-9 cm/s Max
ASTM D 5887	GCL Index Flux	Weekly	1.0E-8 m3/m2/s Max
ASTM D 6496	GCL Peel Strength	40,000 sq ft (4000 sq m)	3.5 lbs/in Min

### SPECIALLY REQUESTED CERTIFIED PROPERTIES FOR THIS ORDER OF BENTOMAT ST

<b>Test Method</b>	Test Method Property	<b>Requested Frequency</b>	Requested Value	<b>Requested Conditions</b>
ASTM D 5887	GCL Hydraulic Conductivity	100,000 ft	Standard	Standard
ASTM D4632*	Grab Strength*modified with 4-inch grips	Standard	Standard	Standard
ASTM D 4643	GCL Moisture	Standard	25-30%	Standard

Bentonite property tests are performed at a bentonite processing facility before shipment to CETCO's production facility. All tensile testing is in the machine direction using ASTM D 6768. All peel strength testing is performed using ASTM D 6496. Upon request tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.

### NEEDLE DETECTION AND REMOVAL PROCEDURE

CETCO hereby affirms that all Bentomat<sup>®</sup> geosynthetic clay liner material manufactured for this project is continually passed under a magnet for needle removal and then screened with a metal detection device. CETCO certifies Bentomat<sup>®</sup> to be essentially free of broken needles and fragments of needles that would negatively effect the performance of the final product.

Maria Martinez Quality Assurance Ecert 2.0 Page 4 of 6



### GCL PACKING LIST AND MQA TRACKING FORM

Listing of finished and raw materials used to produce certification package number 000286293

			GCL					Geotextiles				Clay
		CV-Bl	ENTOM.	AT ST				N/W-WHITE WOVEN				CV-CG 50
Order	GCL Lot #	GCL Roll #	Length	Width	weight	sq ft	Roll # Tested	Cap Lot #	Cap Roll #	Roll # Tested	Base Roll #	Clay Lot #
000286293	201234CV	6197	150	15	2650	2250	6197	201234CV	00002462	00002460	MDWE022966-1	1085408B
000286293	201234CV	6198	150	15	2636	2250	6197	201234CV	00002462	00002460	MDWE022966-1	1085408B
000286293	201234CV	6199	150	15	2636	2250	6197	201234CV	00002462	00002460	MDWE022966-1	1085408B
000286293	201234CV	6200	150	15	2636	2250	6197	201234CV	00002462	00002460	MDWE022966-1	1085408B
000286293	201234CV	6201	150	15	2636	2250	6197	201234CV	00002464	00002460	MDWE022966-1	1085408B
000286293	201234CV	6202	150	15	2636	2250	6197	201234CV	00002464	00002460	MDWE022966-1	1085408B
000286293	201234CV	6203	150	15	2636	2250	6197	201234CV	00002464	00002460	MDWE022966-1	1085408B
000286293	201234CV	6204	150	15	2636	2250	6197	201234CV	00002464	00002460	MDWE022966-1	1085408B
	Total sq ft: 18000 Total Number of Rolls Certified									ertified: 8		

Ecert 2.0 Page 5 of 6



### GCL MANUFACTURING QUALITY CONTROL TEST DATA

The following rolls in GCL certification package number 000286293 have been tested in our production facility lab.

Product	Lot # Tested	Roll # Tested	Mass Area	<b>Grab Strength</b>	Peel Strength 6496	Grab 4632 Modified	Moisture
	ASTM	I Test Method:	D 5993	D 6768	D 6496	D4632*	D 4643
	R	equired Value:	0.75 lb/sq ft Min	30 lbs/in MARV	3.5 lbs/in Min	Standard	25-30%
CV-BENTOMAT ST	201234CV	6197	0.84	39.0	6.9	156.1	29.3

modified ASTM D 4632 using 4 inch grips.

### BENTONITE CLAY CERTIFICATION

The Bentonite Clay used to produce package 000286293

has been tested by American Colloid Company and yielded the following test results.

Clay Lot #	Moist	Swell	Fluid Loss
ASTM Test Method:	D 2216	D 5890	D 5891
Required Value:	12% Max	24 ml/2g Min	18 ml Max
1085408B	9.10	30.00	17.60

Ecert 2.0 Page 6 of 6



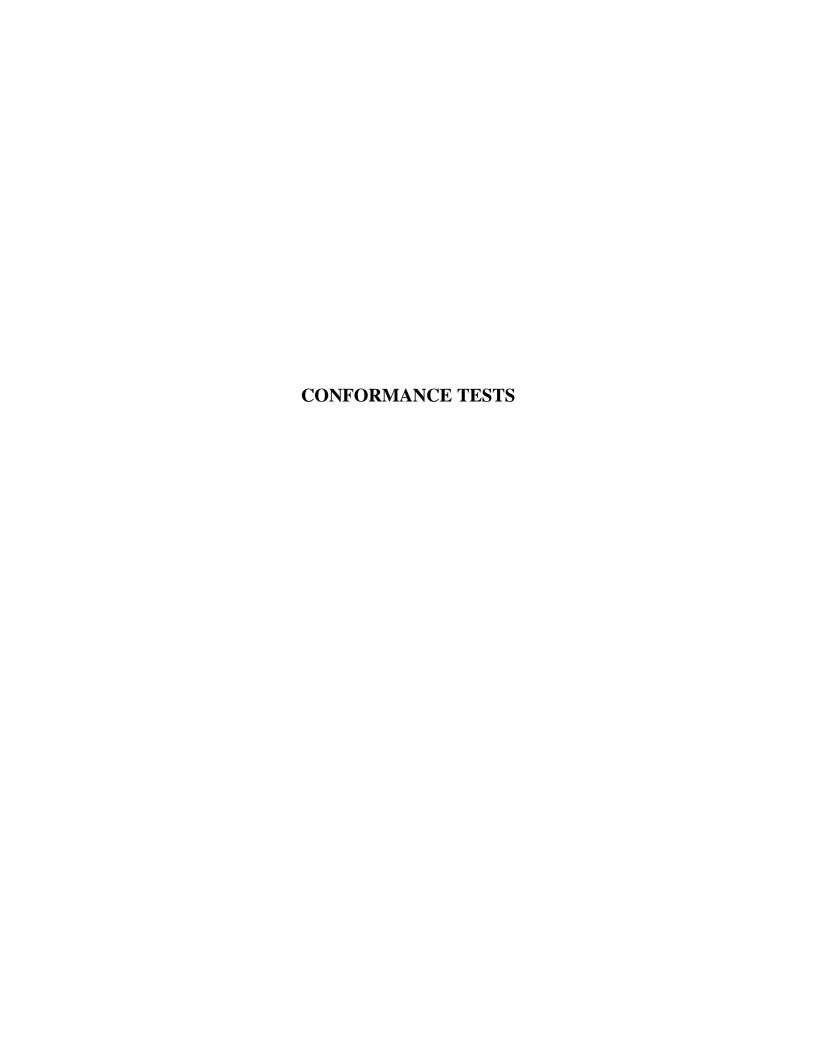
### GEOTEXTILE TEST RESULTS FROM MATERIAL SUPPLIERS

The GCL in certification package number 000286293 was manufactured with geotextiles which were tested with the following results.

BASE GI	BASE GEOTEXTILE			COVER GEOTEXTILE				
Material	Material Roll Number Mass Area oz/yd2 Grab Strength lbs		Material	Roll Number	Mass Area oz/yd2	Grab Strength lbs		
Mattex	mdwe022966-1	3.5	189.1	CV-NON-WOVEN	00002460	6.4	34.4	

Certifications from our suppliers are on file at our production facility.

An '\*' or 'PT' indicates supplier certifications were unavailable prior to shipping so testing was performed at a CETCO lab.



August 28, 2012

Mail To: Bill To:

Sheree Grant <= Same

Waste Management, Inc.

email: sgrant@wm.com

cc email: snunes@cecenv.com cc email: pwalls@cecenv.com

Dear Ms. Grant:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista

TRI Job Reference Number: E2365-77-09

Material(s) Tested: 1, Bentomat ST GCL

Test(s) Requested: Index Flux (ASTM D 5887)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

John M. Allen, P.E. Division Director

Geosynthetic Services Division

www.GeosyntheticTesting.com

### **GCL TEST RESULTS**

TRI Client: Waste Management, Inc. Project: Vista

Material: Bentomat ST GCL

Sample Identification: 6197

Lot: 201234CV

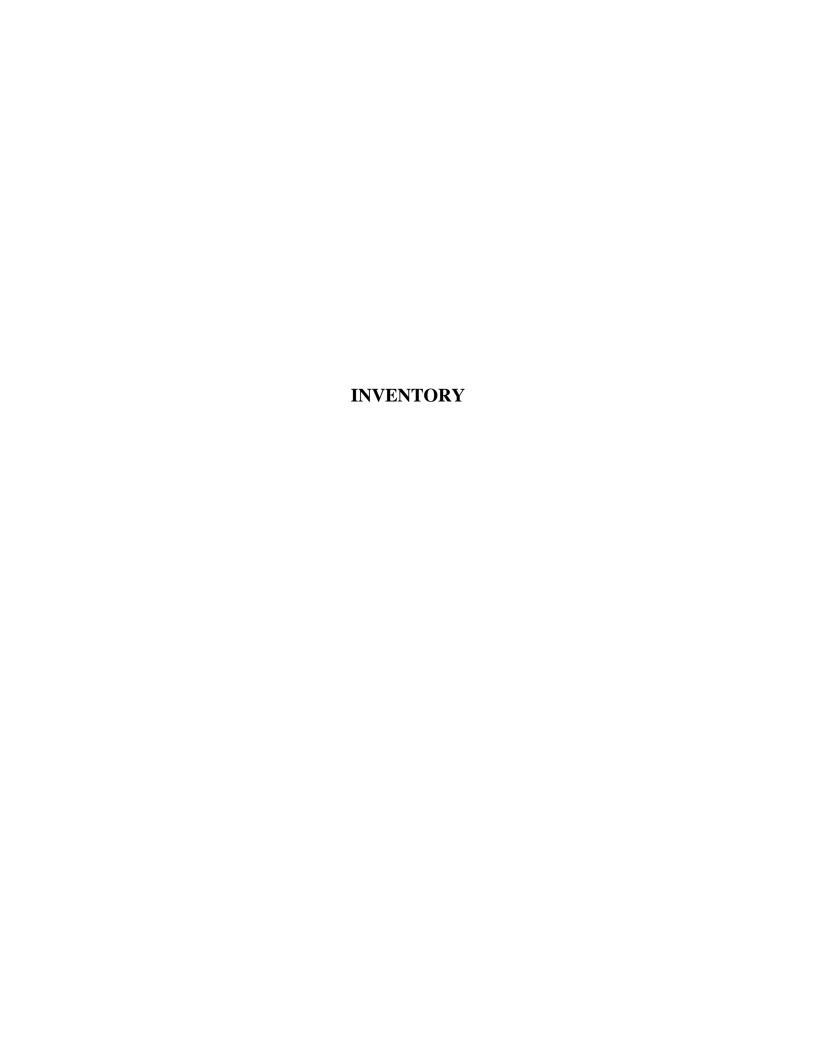
TRI	Log	#:	E2365-77-09

PARAMETER	TEST REF	PLICAT	E NUMB	BER							MEAN	STD. DEV.	PROJ. SPEC.
Index Flux (ASTM D 5887)	1	2	3	4	5	6	7	8	9	10			
Index Flux (m³/m²/sec)	2.5E-09										2.5E-09		
Hydraulic Conductivity (cm/sec)	1.9E-09										1.9E-09		5.0E-09

MD Machine Direction TD Transverse Direction NA Not Available

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.

# **B.5 GEOCOMPOSITE – TN300**



Project Name Vista Landfill GII: 3 Date: 69/18/2012

Client: WM I Material Type: Geocomposite

Project No.: 10/.07.08 Manufacturer:

CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		50281010001	144180		
		5028 10 10002	11		
		502810 0003	/1		
		50281010204	61		
		50281010005	l (		
		5281010006	/1		
		50281010007	(1		
		5028/010008	U		
		50281010009	9		
		50281010010	11		
		50281010011	61		
		5028,1010012	€/		
		5,281010013	t/		
		5028/010014	11		
		5028/0/0015	//		
		50281010016	11		
		502810/0017	61	·	
		50281010018	ll		
		50281010019	1/		
		50281010020	11		
		50281010021	//		
		50281010022	(1		
		50281010023	100		
		59281010024	(1		
		50281010025	14×175		
		50281010026	14 X180		
		50281010027	/1		

Totals: 27 Rolls 67,970 ft2

Notes: + 2 bags of tics

BOL: 1807

Project Name Vista Law Still Q11.3	Date:	09/19/2012
Client: www I	Material Type:	Geocomposite
Project No.:/0/. 07. 08	Manufacturer:	SICAPS

CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		5028/010028	14×180		
		50281010029	14×160		
		50281010030	14 x 180		
		50281010031	1 11		
		50281010032	1		
		50281010033	11 .		
		50281010034	/(		
		50281010035	c l		
		50281010036	U)		
		5028/0/0037	·/		
		50281010038	17		
		50281010039	1/		
		5028/010040	17		
		5028/010041	()		
	·	5028/010042	11		·
		5028/010043	11		
	·	5028/010044	et		
		50281010045	14 X 150		
		5028/010046			
		5028/01 0047	1/		·
		5028/010048	E]		
		50281010049	17		
		5028/010050	u/		
		50281010051	(		
		5028/010052	/(		
		5028190053	4		
		50281010054	14 × 195		

Totals: 27 Rolls 67,550

Notes: + 26Ags fies

BOL-1834

	Vista Laudfill	<i>Coll</i> 3 Date:	08/	21/2012 composite	
	WMI	Materia	Type:	composite	
Project No.: _	101,07,08	Manufa	cturer: S/A	PS	
EC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		5028/010082	14 X180		
		5028/010083	CC .		-
		5028/010084	/1		
		50281010085	<i>(</i> 1 .		
		5028/0100 86			
		5028/010087	4		
		50281010088	4		
		5028/010089	11		
		5028101 0390	((		
		50281010091	(/		
		50281010092	4		
		50281010093	11		
		50281010094	./		
		50281010095	e		
	· · · · · · · · · · · · · · · · · · ·	3028/0/0096	11		
		50281010097	*(		
		50291010098	7 (		
		50291010099	-(		
		50281010100	۷(		
		50281010101	C C		
		50281010102	11	***	
	44-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-	5028/010/03	(1		
		50281010104	11		
		5028/010105	<i>(</i> (		
		5028/0/0/06	r.		
	Philippin delectors and the second se	5028/0/0/06 5028/0/0/07 5028/0/0/08	<b>*</b> (		
		5028/010/08	٠(		
	Totals:	27 RIU		ft	
tes:	7	26x4s tic	)		

Project Nat Client:	me Vista landfill Wm I	Date:  Materia	1 Trme:	0/21/2012 00 mposite	<del>-</del>
Project No.	: 101.07.08	Natura		seo rupos is	_
CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		50281010109	14×150		ватрю п
		50281010110			
	,	5028/0/0111	· r	,	
		5028/0/0112	[(		
		50281010113	Cr		
		5028/018/14 5028/010/15 5028/010/16	14 ×100		
		50281010115	14×180		
		50281010116	14 X/60		
		50281010117	14×180		
		5028/0/0/18	/(		
		50281010119	11		
		5028/010/20	((	W - 7 W - 7	
		502810/0/21	(1		
		50281010122	4		
		5028/01043	11		
		5028/0/0/124	61	***	
		50281010/25			
		502810/0/26	()		
		5028/0/0/27	10		
		5028/010/28	(1		
		50281010/28	1/		
		5028/0/0/30	(1		
		50281010131	cl	* · · · · · · · · · · · · · · · · · · ·	
			( )		
		5028/010/33	<i>l(</i>		
		5028/010 134 5028/010 135	(1		
	Totals: J		65,940	ft2	
Notes:	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		

Client: _	WANT	Materia	l Type: <u>Geoco</u>	21/2012 mposite	
Project No.:	101.07.08	Manufa	cturer: Sk	ed ps	
EC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		50281010055	14×180		
		50281010056	14X175		
		5028101057:1	14×120		
		502801010058	14× 170		
		50280101059	14×180		
		5028/0/ 1060	((		
		50281018061	1 (		
		5828/010062	ε(		
		5028/010063	61		
		5028/0/8069	9		
		50281010065	(1		
		5023/010066	٤ (		
		50281010267	c(		
		5028/0/0168	٤(		
		50281010069	14×195		
		50281010070	14 × 160		
		50281010071	147180		
		50281010072	/ 1	,	
		5028/010073	14X190		
		50281010074			
		528/0/0015	11		
		5028/0/10076	(1		
		5928/012077	(1		
		50281010078	Nr.		
	,	502810/8079	()		
		502810/8079	e /		:
		502810/0081	( j		
	Totals:		67,010	ftz	
otes:	7	2 bags of 1	165		

09/28/2012 Project Name Vista 14N2fill G113 Date: Geocomposite Client: WMJ Material Type: Project No.: 10/207, 08 Manufacturer:

CEC ID	Lot Number	Roll Number	Dimensions	Comments	Conformance Sample #
		502810 10136	14X 180		
		5028/010137	11		
		5028/010138	10		
		50281010139	(		
		50281010140	pl		
		5028/010/4/	((		
		5028/010/42	U		
		5028/010/43 5028/010/44	11		
		50281010144	//		
		5028/010 145	U		
		5028/010 146	(1		
		50281010147	61		
		5028/010148	U		
		5028/010148 50281010149	14×140		
		50281010150 50281010151 50281010152 50281010153	14 X 180		
		5028/010/51	1.0		
		50281010152	e1		
		50281010153	14X133		
	· · · · · · · · · · · · · · · · · · ·				

Totals: 18 Rolls 43, 650 ft

+ 3 6458 of tics Notes:





Ref. : WM Vista Landfill Cell 3, FL Customer P.O. # 1000024653

Product : TN 300-2-8

We certify that the TN 300-2-8 drainage geocomposite, meets the project requirements as stated in the specifications. The properties listed in this section are:

Property	Test Method	Unit	Required Value	Qualifier						
Geonet⁴										
Mass per Unit Area	ASTM D 5261	lbs/ft <sup>2</sup>	0.162	Minimum						
Thickness	ASTM D 5199	mil	200	Minimum						
Carbon Black	ASTM D 4218	%	2.0 - 3.0	Range						
Tensile Strength	ASTM D 5035	lbs/in	45	Minimum						
Melt Flow	ASTM D 1238 <sup>3</sup>	g/10 min	1.0	Maximum						
Density	ASTM D 1505	g/cm³	0.93	Minimum						
Composite										
Ply Adhesion	ASTM D 7005	lb/in	1.0	MARV <sup>6</sup>						
Transmissivity <sup>1</sup> (MD)	ASTM D 4716	m²/sec	9.0 x 10 <sup>-4</sup>	MARV						
Transmissivity <sup>2</sup> (MD)	ASTM D 4716	m²/sec	7.9 x 10 <sup>-4</sup>	MARV						
Geotextile <sup>4 &amp; 5</sup>										
Fabric Weight	ASTM D 5261	oz/yd²	8.0	MARV						
Grab Strength	ASTM D 4632	lbs	200	MARV						
Grab Elongation	ASTM D 4632	%	50	MARV						
Tear Strength	ASTM D 4533	lbs	75	MARV						
Puncture Resistance	ASTM D 4833	lbs	90	MARV						
CBR Puncture	ASTM D 6241	lbs	500	MARV						
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.50	MARV						
AOS	ASTM D 4751	US Sieve	70	MARV						
UV Resistance	ASTM D 4355	%/hrs	70/500	MARV						

### Notes:

- 1 Transmissivity measured using water at 21  $\pm$  2 °C (70  $\pm$  4 °F) with a gradient of 0.02 and a confining pressure of 500 psf between soil and 60 mil textured HDPE geomembrane after 24 hours.
- <sup>2</sup> Transmissivity measured using water at 21  $\pm$  2 °C (70  $\pm$  4 °F) with a gradient of 0.02 and a confining pressure of 12,000 psf between soil and 60 mil textured HDPE geomembrane after 100 hours.
- 3 Condition 190/2.16
- 4 Geotextile and Geonet properties are prior to lamination.
- 5 Geotextile data is provided by the supplier.
- 6 MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.

Sincerely,

Nilay Patel

Nilay Patel QA Manager





Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile Roll Number		Ply Adhesion (lb/in)		Geocomposite Transmissivity
			Side A	Side B	Minimum	<b>Average</b>	(m²/sec)
1	50281010001	50281010001 - N	5028.009	5028.045	1.42	3.16	
2	50281010002	50281010002 - N	5028.009	5028.045			
3	50281010003	50281010003 - N	5028.009	5028.045			
4	50281010004	50281010004 - N	5028.009	5028.045			
5	50281010005	50281010005 - N	5028.009	5028.045			
6	50281010006	50281010006 - N	5028.009	5028.045			
7	50281010007	50281010007 - N	5028.001	5028.015			
8	50281010008	50281010008 - N	5028.001	5028.015			
9	50281010009	50281010009 - N	5028.001	5028.015			
10	50281010010	50281010010 - N	5028.001	5028.015			
11	50281010011	50281010011 - N	5028.001	5028.015			
12	50281010012	50281010012 - N	5028.001	5028.015			
13	50281010013	50281010013 - N	5028.014	5028.030			
14	50281010014	50281010014 - N	5028.014	5028.030			
15	50281010015	50281010015 - N	5028.014	5028.030	1.57	3.09	
16	50281010016	50281010016 - N	5028.014	5028.030			
17	50281010017	50281010017 - N	5028.014	5028.030			
18	50281010018	50281010018 - N	5028.014	5028.030			
19	50281010019	50281010019 - N	5028.016	5028.046			
20	50281010020	50281010020 - N	5028.016	5028.046			
21	50281010021	50281010021 - N	5028.016	5028.046			
22	50281010022	50281010022 - N	5028.016	5028.046			
23	50281010023	50281010023 - N	5028.016	5028.046			
24	50281010024	50281010024 - N	5028.016	5028.046			
25	50281010025	50281010025 - N	5028.039	5028.034			
26	50281010026	50281010026 - N	5028.039	5028.034			
27	50281010027	50281010027 - N	5028.039	5028.034			



Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft²)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
50281010001 - N	NCIX 1151	0.9553	0.348	316	2.39	109	
50281010002 - N	NCIX 1151	0.9553					
50281010003 - N	NCIX 1151	0.9553					
50281010004 - N	NCIX 1151	0.9553					
50281010005 - N	NCIX 1151	0.9553					
50281010006 - N	NCIX 1151	0.9553					
50281010007 - N	NCIX 1151	0.9553					
50281010008 - N	NCIX 1151	0.9553					
50281010009 - N	NCIX 1151	0.9553					
50281010010 - N	NCIX 1151	0.9553					
50281010011 - N	NCIX 1151	0.9553					
50281010012 - N	NCIX 1151	0.9553					
50281010013 - N	NCIX 1151	0.9553					
50281010014 - N	NCIX 1151	0.9553					
50281010015 - N	NCIX 1151	0.9560	0.354	311	2.37	111	
50281010016 - N	NCIX 1151	0.9560					
50281010017 - N	NCIX 1151	0.9560					
50281010018 - N	NCIX 1151	0.9560					
50281010019 - N	NCIX 1151	0.9560					
50281010020 - N	NCIX 1151	0.9560					
50281010021 - N	NCIX 1151	0.9560					
50281010022 - N	NCIX 1151	0.9560					
50281010023 - N	NCIX 1151	0.9560					
50281010024 - N	NCIX 1151	0.9560					
50281010025 - N	NCIX 1151	0.9560					
50281010026 - N	NCIX 1151	0.9560					
50281010027 - N	NCIX 1151	0.9560					



Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile I	Roll Number	Ply Adhesion (lb/in)		Geocomposite Transmissivity
			Side A	Side B	Minimum	Average	(m²/sec)
28	50281010028	50281010028 - N	5028.039	5028.034			
29	50281010029	50281010029 - N	5028.039	5028.034			
30	50281010030	50281010030 - N	5028.039	5028.034	1.60	2.77	
31	50281010031	50281010031 - N	5028.049	5028.023			
32	50281010032	50281010032 - N	5028.049	5028.023			
33	50281010033	50281010033 - N	5028.049	5028.023			
34	50281010034	50281010034 - N	5028.049	5028.023			
35	50281010035	50281010035 - N	5028.049	5028.023			
36	50281010036	50281010036 - N	5028.049	5028.023			
37	50281010037	50281010037 - N	5028.002	5028.051			
38	50281010038	50281010038 - N	5028.002	5028.051			
39	50281010039	50281010039 - N	5028.002	5028.051			
40	50281010040	50281010040 - N	5028.002	5028.051			
41	50281010041	50281010041 - N	5028.002	5028.051			
42	50281010042	50281010042 - N	5028.002	5028.051			
43	50281010043	50281010043 - N	5028.007	5028.036			
44	50281010044	50281010044 - N	5028.007	5028.036			
45	50281010045	50281010045 - N	5028.007	5028.036	1.51	2.52	
46	50281010046	50281010046 - N	5028.007	5028.036			
47	50281010047	50281010047 - N	5028.007	5028.036			
48	50281010048	50281010048 - N	5028.007	5028.036			
49	50281010049	50281010049 - N	5028.037	5028.040			
50	50281010050	50281010050 - N	5028.037	5028.040			
51	50281010051	50281010051 - N	5028.037	5028.040			
52	50281010052	50281010052 - N	5028.037	5028.040			
53	50281010053	50281010053 - N	5028.037	5028.040			
54	50281010054	50281010054 - N	5028.037	5028.040			



Product : TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft <sup>2</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
50281010028 - N	NCIX 1151	0.9560					
50281010029 - N	NCIX 1151	0.9560					
50281010030 - N	NCIX 1151	0.9554	0.343	312	2.54	107	
50281010031 - N	NCIX 1151	0.9554					
50281010032 - N	NCIX 1151	0.9554					
50281010033 - N	NCIX 1151	0.9554					
50281010034 - N	NCIX 1151	0.9554					
50281010035 - N	NCIX 1151	0.9554					
50281010036 - N	NCIX 1151	0.9554					
50281010037 - N	NCIX 1151	0.9554					
50281010038 - N	NCIX 1151	0.9554					
50281010039 - N	NCIX 1151	0.9554					
50281010040 - N	NCIX 1151	0.9554					
50281010041 - N	NCIX 1151	0.9554					
50281010042 - N	NCIX 1151	0.9554					
50281010043 - N	NCIX 1151	0.9554					
50281010044 - N	NCIX 1151	0.9554					
50281010045 - N	NCIX 1151	0.9548	0.355	317	2.26	104	
50281010046 - N	NCIX 1151	0.9548					
50281010047 - N	NCIX 1151	0.9548					
50281010048 - N	NCIX 1151	0.9548					
50281010049 - N	NCIX 1151	0.9548					
50281010050 - N	NCIX 1151	0.9548					
50281010051 - N	NCIX 1151	0.9548					
50281010052 - N	NCIX 1151	0.9548					
50281010053 - N	NCIX 1151	0.9548					
50281010054 - N	NCIX 1151	0.9548					



Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile F	Roll Number	Ply Adi (lb/		Geocomposite Transmissivity
			Side A	Side B	Minimum	Average	(m²/sec)
55	50281010055	50281010055 - N	5028.028	5028.041			
56	50281010056	50281010056 - N	5028.028	5028.041			
57	50281010057	50281010057 - N	5028.028	5028.041			
58	50281010058	50281010058 - N	5028.028	5028.041			
59	50281010059	50281010059 - N	5028.028	5028.041			
60	50281010060	50281010060 - N	5028.028	5028.041	1.41	2.65	
61	50281010061	50281010061 - N	5028.020	5028.013			
62	50281010062	50281010062 - N	5028.020	5028.013			
63	50281010063	50281010063 - N	5028.020	5028.013			
64	50281010064	50281010064 - N	5028.020	5028.013			
65	50281010065	50281010065 - N	5028.020	5028.013			
66	50281010066	50281010066 - N	5028.020	5028.013			
67	50281010067	50281010067 - N	5028.008	5028.018			
68	50281010068	50281010068 - N	5028.008	5028.018			
69	50281010069	50281010069 - N	5028.008	5028.018			
70	50281010070	50281010070 - N	5028.008	5028.018			
71	50281010071	50281010071 - N	5028.008	5028.018			
72	50281010072	50281010072 - N	5028.008	5028.018			
73	50281010073	50281010073 - N	5028.003	5028.048			
74	50281010074	50281010074 - N	5028.003	5028.048			
75	50281010075	50281010075 - N	5028.003	5028.048	1.47	1.94	
76	50281010076	50281010076 - N	5028.003	5028.048			
77	50281010077	50281010077 - N	5028.003	5028.048			
78	50281010078	50281010078 - N	5028.003	5028.048			
79	50281010079	50281010079 - N	5028.033	5028.044			
80	50281010080	50281010080 - N	5028.033	5028.044			
81	50281010081	50281010081 - N	5028.033	5028.044			



Product : TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft <sup>2</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
50281010055 - N	NCIX 1151	0.9548					
50281010056 - N	NCIX 1151	0.9548					
50281010057 - N	NCIX 1151	0.9548					
50281010058 - N	NCIX 1151	0.9548					
50281010059 - N	NCIX 1151	0.9548					
50281010060 - N	NCIX 1151	0.9555	0.342	315	2.67	108	
50281010061 - N	NCIX 1151	0.9555					
50281010062 - N	NCIX 1151	0.9555					
50281010063 - N	NCIX 1151	0.9555					
50281010064 - N	NCIX 1151	0.9555					
50281010065 - N	NCIX 1151	0.9555					
50281010066 - N	NCIX 1151	0.9555					
50281010067 - N	NCIX 1151	0.9555					
50281010068 - N	NCIX 1151	0.9555					
50281010069 - N	NCIX 1151	0.9555					
50281010070 - N	NCIX 1151	0.9555					
50281010071 - N	NCIX 1151	0.9555					
50281010072 - N	NCIX 1151	0.9555					
50281010073 - N	NCIX 1151	0.9555					
50281010074 - N	NCIX 1151	0.9555					
50281010075 - N	NCIX 1151	0.9556	0.351	314	2.65	110	
50281010076 - N	NCIX 1151	0.9556					
50281010077 - N	NCIX 1151	0.9556					
50281010078 - N	NCIX 1151	0.9556					
50281010079 - N	NCIX 1151	0.9556					
50281010080 - N	NCIX 1151	0.9556					
50281010081 - N	NCIX 1151	0.9556		_		_	



Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile I	Roll Number	Ply Adi (lb/		Geocomposite Transmissivity
			Side A	Side B	Minimum	Average	(m²/sec)
82	50281010082	50281010082 - N	5028.033	5028.044			
83	50281010083	50281010083 - N	5028.033	5028.044			
84	50281010084	50281010084 - N	5028.033	5028.044			
85	50281010085	50281010085 - N	5028.043	5028.031			
86	50281010086	50281010086 - N	5028.043	5028.031			
87	50281010087	50281010087 - N	5028.043	5028.031			
88	50281010088	50281010088 - N	5028.043	5028.031			
89	50281010089	50281010089 - N	5028.043	5028.031			
90	50281010090	50281010090 - N	5028.043	5028.031	1.46	2.28	
91	50281010091	50281010091 - N	5028.050	5028.024			
92	50281010092	50281010092 - N	5028.050	5028.024			
93	50281010093	50281010093 - N	5028.050	5028.024			
94	50281010094	50281010094 - N	5028.050	5028.024			
95	50281010095	50281010095 - N	5028.050	5028.024			
96	50281010096	50281010096 - N	5028.050	5028.024			
97	50281010097	50281010097 - N	5028.038	5028.026			
98	50281010098	50281010098 - N	5028.038	5028.026			
99	50281010099	50281010099 - N	5028.038	5028.026			
100	50281010100	50281010100 - N	5028.038	5028.026			
101	50281010101	50281010101 - N	5028.038	5028.026			
102	50281010102	50281010102 - N	5028.038	5028.026			
103	50281010103	50281010103 - N	5028.042	5028.012			
104	50281010104	50281010104 - N	5028.042	5028.012			
105	50281010105	50281010105 - N	5028.042	5028.012	1.48	2.09	
106	50281010106	50281010106 - N	5028.042	5028.012			
107	50281010107	50281010107 - N	5028.042	5028.012			
108	50281010108	50281010108 - N	5028.042	5028.012			



Product : TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft²)	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m²/sec)
50281010082 - N	NCIX 1151	0.9556					
50281010083 - N	NCIX 1151	0.9556					
50281010084 - N	NCIX 1151	0.9556					
50281010085 - N	NCIX 1151	0.9556					
50281010086 - N	NCIX 1151	0.9556					
50281010087 - N	NCIX 1151	0.9556					
50281010088 - N	NCIX 1151	0.9556					
50281010089 - N	NCIX 1151	0.9556					
50281010090 - N	NCIX 1151	0.9559	0.346	322	2.41	106	
50281010091 - N	NCIX 1151	0.9559					
50281010092 - N	NCIX 1151	0.9559					
50281010093 - N	NCIX 1151	0.9559					
50281010094 - N	NCIX 1151	0.9559					
50281010095 - N	NCIX 1151	0.9559					
50281010096 - N	NCIX 1151	0.9559					
50281010097 - N	NCIX 1151	0.9559					
50281010098 - N	NCIX 1151	0.9559					
50281010099 - N	NCIX 1151	0.9559					
50281010100 - N	NCIX 1151	0.9559					
50281010101 - N	NCIX 1151	0.9559					
50281010102 - N	NCIX 1151	0.9559					
50281010103 - N	NCIX 1151	0.9559					
50281010104 - N	NCIX 1151	0.9559					
50281010105 - N	NCIX 1151	0.9550	0.347	320	2.52	105	
50281010106 - N	NCIX 1151	0.9550					
50281010107 - N	NCIX 1151	0.9550					
50281010108 - N	NCIX 1151	0.9550					



Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile I	Roll Number	Ply Adi (lb/		Geocomposite Transmissivity
			Side A	Side B	Minimum	Average	(m²/sec)
109	50281010109	50281010109 - N	5028.047	5028.054			
110	50281010110	50281010110 - N	5028.047	5028.054			
111	50281010111	50281010111 - N	5028.047	5028.054			
112	50281010112	50281010112 - N	5028.047	5028.054			
113	50281010113	50281010113 - N	5028.047	5028.054			
114	50281010114	50281010114 - N	5028.047	5028.054			
115	50281010115	50281010115 - N	5028.022	5028.035			
116	50281010116	50281010116 - N	5028.022	5028.035			
117	50281010117	50281010117 - N	5028.022	5028.035			
118	50281010118	50281010118 - N	5028.022	5028.035			
119	50281010119	50281010119 - N	5028.022	5028.035			
120	50281010120	50281010120 - N	5028.022	5028.035	1.43	2.48	
121	50281010121	50281010121 - N	5028.021	5028.005			
122	50281010122	50281010122 - N	5028.021	5028.005			
123	50281010123	50281010123 - N	5028.021	5028.005			
124	50281010124	50281010124 - N	5028.021	5028.005			
125	50281010125	50281010125 - N	5028.021	5028.005			
126	50281010126	50281010126 - N	5028.021	5028.005			
127	50281010127	50281010127 - N	5028.053	5028.017			
128	50281010128	50281010128 - N	5028.053	5028.017			
129	50281010129	50281010129 - N	5028.053	5028.017			
130	50281010130	50281010130 - N	5028.053	5028.017			
131	50281010131	50281010131 - N	5028.053	5028.017	_		
132	50281010132	50281010132 - N	5028.053	5028.017			
133	50281010133	50281010133 - N	5028.010	5028.006			
134	50281010134	50281010134 - N	5028.010	5028.006			
135	50281010135	50281010135 - N	5028.010	5028.006	1.30	2.29	



Product : TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft <sup>2</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
50281010109 - N	NCIX 1151	0.9550					
50281010110 - N	NCIX 1151	0.9550					
50281010111 - N	NCIX 1151	0.9550					
50281010112 - N	NCIX 1151	0.9550					
50281010113 - N	NCIX 1151	0.9550					
50281010114 - N	NCIX 1151	0.9550					
50281010115 - N	NCIX 1151	0.9550					
50281010116 - N	NCIX 1151	0.9550					
50281010117 - N	NCIX 1151	0.9550					
50281010118 - N	NCIX 1151	0.9550					
50281010119 - N	NCIX 1151	0.9550					
50281010120 - N	NCIX 1151	0.9551	0.357	321	2.66	112	
50281010121 - N	NCIX 1151	0.9551					
50281010122 - N	NCIX 1151	0.9551					
50281010123 - N	NCIX 1151	0.9551					
50281010124 - N	NCIX 1151	0.9551					
50281010125 - N	NCIX 1151	0.9551					
50281010126 - N	NCIX 1151	0.9551					
50281010127 - N	NCIX 1151	0.9551					
50281010128 - N	NCIX 1151	0.9551					
50281010129 - N	NCIX 1151	0.9551					
50281010130 - N	NCIX 1151	0.9551					
50281010131 - N	NCIX 1151	0.9551					
50281010132 - N	NCIX 1151	0.9551					
50281010133 - N	NCIX 1151	0.9551					
50281010134 - N	NCIX 1151	0.9551					
50281010135 - N	NCIX 1151	0.9558	0.353	313	2.74	106	



Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

Roll	Geocomposite Roll Number	Geonet Roll Number	Geotextile I	Roll Number	Ply Adl (lb/		Geocomposite Transmissivity
			Side A	Side B	Minimum	Average	(m²/sec)
136	50281010136	50281010136 - N	5028.010	5028.006			
137	50281010137	50281010137 - N	5028.010	5028.006			
138	50281010138	50281010138 - N	5028.010	5028.006			
139	50281010139	50281010139 - N	5028.004	5028.052			
140	50281010140	50281010140 - N	5028.004	5028.052			
141	50281010141	50281010141 - N	5028.004	5028.052			
142	50281010142	50281010142 - N	5028.004	5028.052			
143	50281010143	50281010143 - N	5028.004	5028.052			
144	50281010144	50281010144 - N	5028.004	5028.052			
145	50281010145	50281010145 - N	5028.032	5028.027			
146	50281010146	50281010146 - N	5028.032	5028.027			
147	50281010147	50281010147 - N	5028.032	5028.027			
148	50281010148	50281010148 - N	5028.032	5028.027			
149	50281010149	50281010149 - N	5028.032	5028.027			
150	50281010150	50281010150 - N	5028.032	5028.027	1.38	2.26	
151	50281010151	50281010151 - N	5028.029	5028.011			
152	50281010152	50281010152 - N	5028.029	5028.011			
153	50281010153	50281010153 - N	5028.029	5028.011			
154	50281010154	50281010154 - N	5028.029	5028.011			
155	50281010155	50281010155 - N	5028.029	5028.011			
156	50281010156	50281010156 - N	5028.029	5028.011			
157	50281010157	50281010157 - N	5028.019	5028.025			
158	50281010158	50281010158 - N	5028.019	5028.025			
159	50281010159	50281010159 - N	5028.019	5028.025			
160	50281010160	50281010160 - N	5028.019	5028.025			
161	50281010161	50281010161 - N	5028.019	5028.025			
162	50281010162	50281010162 - N	5028.019	5028.025			



Product : TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geonet Manufacturer, hereby certify the following for the material sent to the above referenced project :

Geonet Roll Number	Resin Lot Number	Geonet Density (gm/cc)	Mass Per Unit Area (lb/ft <sup>2</sup> )	Thickness (mils)	Carbon Black (%)	Tensile Strength (MD) (lb/in)	Transmissivity (m <sup>2</sup> /sec)
50281010136 - N	NCIX 1151	0.9558					
50281010137 - N	NCIX 1151	0.9558					
50281010138 - N	NCIX 1151	0.9558					
50281010139 - N	NCIX 1151	0.9558					
50281010140 - N	NCIX 1151	0.9558					
50281010141 - N	NCIX 1151	0.9558					
50281010142 - N	NCIX 1151	0.9558					
50281010143 - N	NCIX 1151	0.9558					
50281010144 - N	NCIX 1151	0.9558					
50281010145 - N	NCIX 1151	0.9558					
50281010146 - N	NCIX 1151	0.9558					
50281010147 - N	NCIX 1151	0.9558					
50281010148 - N	NCIX 1151	0.9558					
50281010149 - N	NCIX 1151	0.9558					
50281010150 - N	NCIX 1151	0.9557	0.352	318	2.68	109	
50281010151 - N	NCIX 1151	0.9557					
50281010152 - N	NCIX 1151	0.9557					
50281010153 - N	NCIX 1151	0.9557					
50281010154 - N	NCIX 1151	0.9557					
50281010155 - N	NCIX 1151	0.9557					
50281010156 - N	NCIX 1151	0.9557					
50281010157 - N	NCIX 1151	0.9557					
50281010158 - N	NCIX 1151	0.9557					
50281010159 - N	NCIX 1151	0.9557					
50281010160 - N	NCIX 1151	0.9557					
50281010161 - N	NCIX 1151	0.9557					
50281010162 - N	NCIX 1151	0.9557					



# **ASTM D 4716**

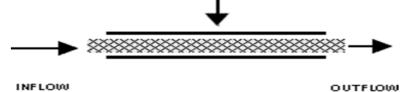
Client: Waste Management

Project: WM Vista Landfill Cell 3, FL

Product: TN 300-2-8

**Job** # 5028

### Test Configuration:



OUTFLOW 12 X 12 Test Surface

**Test Information:** 

**Boundary Conditions:** 

Soil

Geocomposite

60 mil Textured HDPE

Geomembrane

Normal Load: 500

**Gradient:** 0.02 **Seating Time:** 24 hours

Flow Direction: MD

### Test Results:

Roll No.	Droccuro nef	Gradient	Transmissivity, m <sup>2</sup> /sec			
KUII NU.	Pressure, psf	Gradient	24 hours			
50281010001			1.69 x 10 <sup>-3</sup>			
50281010035	500	0.02	1.79 x 10 <sup>-3</sup>			
50281010070			1.46 x 10 <sup>-3</sup>			
50281010105			1.78 x 10 <sup>-3</sup>			
50281010140			1.43 x 10 <sup>-3</sup>			



# **ASTM D 4716**

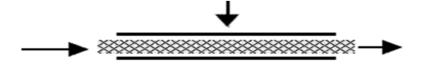
Client: Waste Management

Project: WM Vista Landfill Cell 3, FL

Product: TN 300-2-8

**Job** # 5028

### Test Configuration:



12 X 12 Test Surface

**Test Information:** 

**Boundary Conditions:** 

Soil

INFLOW

Geocomposite

60 mil Textured HDPE

Geomembrane

Normal Load: 12000

OUTFLOW

Gradient: 0.02

Seating Time: 100 hours

Flow Direction: MD

### Test Results:

Roll No.	Pressure, psf	Gradient	Transmissivity, m <sup>2</sup> /sec	
ROII NO.	Pressure, psi	Gradient	100 hours	
50281010001	12000		9.55 x 10 <sup>-4</sup>	
50281010035			9.76 x 10 <sup>-4</sup>	
50281010070		0.02	9.9 x 10 <sup>-4</sup>	
50281010105			9.61 x 10 <sup>-4</sup>	
50281010140			9.78 x 10 <sup>-4</sup>	



### POLYETHYLENE RESIN CERTIFICATION

Customer Name : Waste Management
Project Name : WM Vista Landfill Cell 3, FL

Geocomposite Manufacturer: SKAPS Industries
Geocomposite Production Plant: Commerce, GA
Geocomposite Brand Name: TN 300-2-8

We, the Geonet Manufacturer, hereby certify the following for the material delivered to the above referenced project:

Resin Supplier	Resin Production Plant	Resin Brand Name	Resin Lot Number	Property	Test Method	Units	Resin Supplier Value	Tested Value*
Matrix Polymers	Chevron, TX	HDPE	NCIX 1151	Density	ASTM D1505	gm / cc	0.9497	0.950
				Melt flow Index	ASTM D1238 <sup>(a)</sup>	gm / 10 min	0.35	0.32

(a) Condition 190/2.16

<sup>\*</sup> Data from SKAPS Quality Control

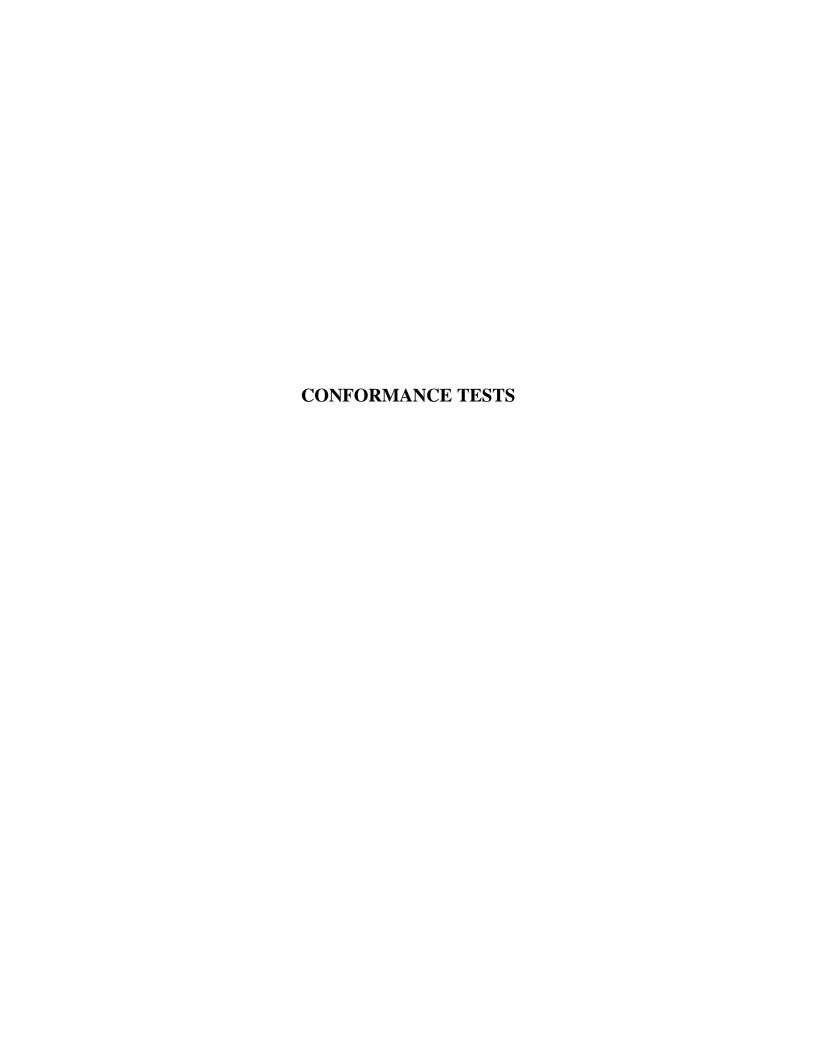


Product: TN 300-2-8

Project: WM Vista Landfill Cell 3, FL

We, the Geocomposite Manufacturer, hereby certify the following for the material delivered to the above referenced project :

GEOCOMP ROLL#	FABRIC ROLL#	WEIGHT oz/sq yd	MD TENSILE Ibs.	MD Elong %	XMD TENSILE Ibs.	XMD ELONG %	MD TRAP Ibs.	XMD TRAP Ibs.	PUNCTURE lbs.	CBR PUNCTURE lbs.	AOS us sieve	PERM- ITY sec <sup>-1</sup>
50281010001	5028.009	8.14	226	72	244	85	100	117	134	684	80	1.39
30261010001	5028.045	8.29	230	69	242	81	98	114	131	650	80	1.39
50281010035	5028.049	8.29	230	69	242	81	98	114	131	650	80	1.39
30261010033	5028.023	8.20	225	71	241	82	105	110	132	690	80	1.39
E0201010070	5028.008	8.14	226	72	244	85	100	117	134	684	80	1.39
50281010070	5028.018	8.58	233	67	238	77	96	108	130	673	80	1.39
F020101010F	5028.042	8.21	235	65	243	76	98	114	131	650	80	1.39
50281010105	5028.012	8.37	229	74	234	78	96	108	130	673	80	1.39
F0201010140	5028.004	8.60	231	66	236	80	100	117	134	684	80	1.39
50281010140	5028.052	8.23	234	70	240	79	104	120	138	670	80	1.36



September 4, 2012

Mail To: Bill To:

Sheree Grant <= Same

Waste Management, Inc.

email: sgrant@wm.com cc email: snunes@cecenv.com cc email: pwalls@cecenv.com

Dear Sheree:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: Vista Landfill

TRI Job Reference Number: E2368-77-07

Material(s) Tested: 2, Skaps TN300-2-8 Double Sided Geocomposite(s)

Test(s) Requested: Transmissivity (ASTM D 4716) - GC

Peel Strength (ASTM D 7005) - GC Mass/Unit Area (ASTM D 5261) - GT Grab Tensile (ASTM D 4632) - GT Trapezoidal Tear (ASTM D 4533) - GT Apparent Opening Size (ASTM D 4751) - GT

Permittivity (ASTM D 4491) - GT

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel

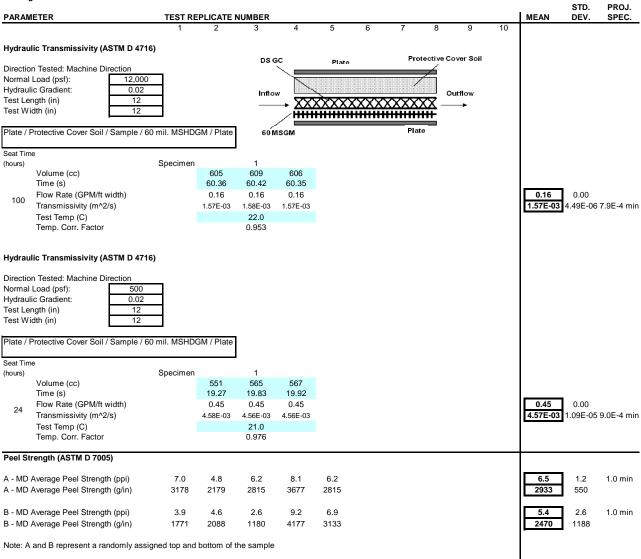
Matel

Sr. Laboratory Coordinator Geosynthetic Services Division www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Skaps TN300-2-8 Double Sided Geocomposite Sample Identification: 0050281010003 TRI Log #: E2368-77-07



MD Machine Direction

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Skaps TN300-2-8 Double Sided Geocomposite Sample Identification: 0050281010003 TRI Log #: E2368-77-07

### **GEOTEXTILE COMPONENT - A**

TRI Log #: E2368-77-07				GEOTEX	TILE COM	PONENT	- A						
PARAMETER	TEST RE	PLICATE	NUMBER								MEAN	STD. DEV.	PROJ. SPEC.
Manager (ACTM D 5004)	1	2	3	4	5	6	7	8	9	10			
Mass/Unit Area (ASTM D 5261)													
5" diameter circle (grams)	3.88	3.76	3.47	4.02	3.39	3.57	3.77	3.62	3.44	3.93	3.69	0.22	
Mass/Unit Area (oz/sq.yd)	9.02	8.75	8.07	9.35	7.89	8.30	8.77	8.42	8.00	9.14	8.57	0.51	8 min
Grab Tensile Properties (ASTM D 4632	)												
MD - Tensile Strength (lbs)	225	291	238	253	254	219	254	281	297	257	257	26	200 min
TD - Tensile Strength (lbs)	285	320	209	288	306	278	262	282	301	254	278	31	200 min
MD - Elong. @ Max. Load (%)	65	73	72	71	71	69	67	61	83	71	70	6	
TD - Elong. @ Max. Load (%)	97	101	111	106	101	102	95	116	106	93	103	7	
Trapezoidal Tear (ASTM D 4533)													
MD - Tear Strength (lbs)	90	109	114	100	106	81	100	84	98	102	98	11	75 min
TD - Tear Strength (lbs)	108	116	101	125	117	109	106	98	123	127	113	10	75 min
Apparent Opening Size (ASTM D 4751)													
Opening Size Diameter (mm)	0.140	0.140	0.146	0.139	0.144						0.142	0.003	0.21 ma
Sieve No.	100	100	100	100	100						100		
Falling Head Permittivity (ASTM D 4491	I, 9-in Upper	Standpipe	; 2 in open	ing)									
Water Temp. (C):	21												
Correction Factor:	0.98												
Test Speciemn No. >:			1					2					
Thickness (mils)	96.4	96.4	96.4	96.4	96.4	112	112	112	112	112			
Time (s)	15.4	15.3	15.4	15.4	15.4	16.4	16.4	16.4	16.5	16.4			
Specimen Permittivity (s-1)	1.84	1.85	1.84	1.84	1.84	1.73	1.73	1.73	1.72	1.73			
Specimen Permittivity @20°C (sec-1)	1.81	1.82	1.81	1.81	1.81	1.70	1.70	1.70	1.69	1.70			
Specimen Flow rate (GPM/ft2)	135	136	135	135	135	127	127	127	126	127			
Specimen Permeability (cm/s)	0.44	0.45	0.44	0.44	0.44	0.48	0.48	0.48	0.48	0.48			
Test Speciemn No. >:			3					4					
Thickness (mils)	108	108	108	108	108	115	115	115	115	115			
Time (s)	16.9	16.9	16.9	16.9	16.9	17.5	17.5	17.5	17.4	17.5			
Permittivity (s-1)	1.68	1.68	1.68	1.68	1.68	1.62	1.62	1.62	1.63	1.62			
Specimen Permittivity @20°C (sec-1)	1.65	1.65	1.65	1.65	1.65	1.59	1.59	1.59	1.60	1.59			
Specimen Flow rate (GPM/ft2)	123	123	123	123	123	119	119	119	120	119			
Specimen Permeability (cm/s)	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.46	0.47	0.46			
											1		
				MDES .=	IDE 1				D 100	16(	4.00		0.5
				MPERATU					Permittiv	,	1.69		0.5 min
				MPERATU CORRECTE VALUES				Flo	Permittivow rate (G	PM/ft2)	1.69 126 0.46		0.5 min

MD Machine Direction

TD Transverse Direction

TRI Client: Waste Management, Inc. Project: Vista Landfill

Material: Skaps TN300-2-8 Double Sided Geocomposite Sample Identification: 0050281010003 TRI Log #: E2368-77-07

### **GEOTEXTILE COMPONENT - B**

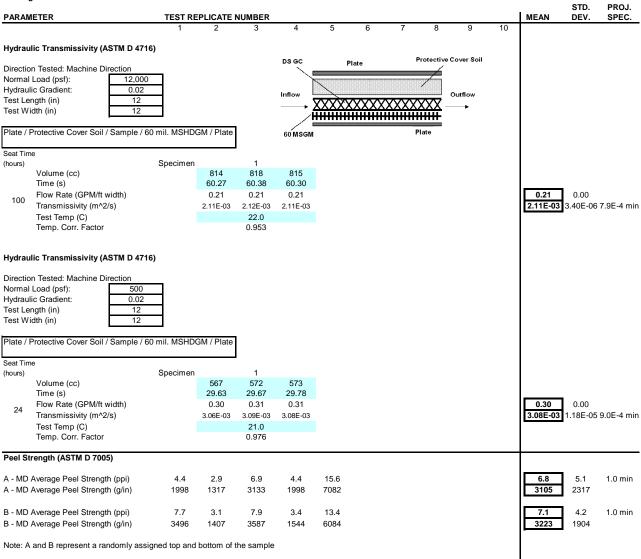
TRI Log #: E2368-77-07				GEOTEX	TILE COM	PONENT	- B					OTD	DDO I
PARAMETER	TEST RE	PLICATE	NUMBER								MEAN	STD. DEV.	PROJ. SPEC.
Mass/Unit Area (ASTM D 5261)	1	2	3	4	5	6	7	8	9	10			
Mass/Offit Area (ASTM D 3201)													
5" diameter circle (grams)	4.07	3.75	3.38	3.50	3.97	3.80	3.70	3.60	3.20	3.89	3.69	0.27	
Mass/Unit Area (oz/sq.yd)	9.47	8.72	7.86	8.14	9.23	8.84	8.61	8.37	7.44	9.05	8.57	0.63	8 min
Grab Tensile Properties (ASTM D 4632	)												
MD - Tensile Strength (lbs)	230	265	231	209	247	267	220	316	239	257	248	30	200 min
TD - Tensile Strength (lbs)	257	266	233	278	307	271	369	223	288	255	275	41	200 min
MD - Elong. @ Max. Load (%)	65	73	63	64	68	69	68	68	70	75	68	4	
TD - Elong. @ Max. Load (%)	100	94	121	99	103	100	97	117	105	87	102	10	
Trapezoidal Tear (ASTM D 4533)													
MD - Tear Strength (lbs)	72	108	107	112	114	86	92	96	96	106	99	13	75 min
TD - Tear Strength (lbs)	119	100	89	115	108	87	104	82	192	122	112	31	75 min
Apparent Opening Size (ASTM D 4751)													
Opening Size Diameter (mm)	0.145	0.137	0.145	0.144	0.137						0.142	0.004	0.21 ma
Sieve No.	100	100	100	100	100						100	]	
Falling Head Permittivity (ASTM D 4491	I, 9-in Upper	Standpipe	; 2 in open	ing)									
Water Temp. (C):	21.3	]											
Correction Factor:	0.97	]											
Test Speciemn No. >:			1					2			1		
Thickness (mils)	126	126	126	126	126	115	115	115	115	115			
Time (s)	20.1	19.5	19.6	20.1	20.1	18.5	18.5	18.5	18.5	18.4			
Specimen Permittivity (s-1)	1.41	1.46	1.45	1.41	1.41	1.53	1.53	1.53	1.53	1.54			
Specimen Permittivity @20°C (sec-1)	1.38	1.42	1.41	1.38	1.38	1.49	1.49	1.49	1.49	1.50			
Specimen Flow rate (GPM/ft2)	103	106	105	103	103	112	112	112	112	112			
Specimen Permeability (cm/s)	0.44	0.45	0.45	0.44	0.44	0.44	0.44	0.44	0.44	0.44			
Test Speciemn No. >:			3					4			1		
Thickness (mils)	99.2	99.2	99.2	99.2	99.2	94.3	94.3	94.3	94.3	94.3			
Time (s)	14.8	14.8	14.8	14.8	14.8	13.7	14.3	13.7	14.2	14.2			
Permittivity (s-1)	1.92	1.92	1.92	1.92	1.92	2.07	1.98	2.07	2.00	2.00			
Specimen Permittivity @20°C (sec-1)	1.87	1.87	1.87	1.87	1.87	2.02	1.93	2.02	1.95	1.95			
Specimen Flow rate (GPM/ft2)	140	140	140	140	140	151	145	151	146	146			
Specimen Permeability (cm/s)	0.47	0.47	0.47	0.47	0.47	0.48	0.46	0.48	0.47	0.47			
				MPERATU	IDE 1				Permittiv	ity (c. 4)	1.68	1	0.5 min
				ORRECTE					w rate (G	,	126	ł	U.S IIIII
					٠.			FIC	wiale (C	, IVI/ILZ)	120		
				VALUES				Po	rmeabilit	v (cm/s)	0.46		

MD Machine Direction

TD Transverse Direction

TRI Client: Waste Management, Inc. Project: Vista Landfill

Material: Skaps TN300-2-8 Double Sided Geocomposite Sample Identification: 0050281010088 TRI Log #: E2368-77-07



MD Machine Direction

TRI Client: Waste Management, Inc.
Project: Vista Landfill

Material: Skaps TN300-2-8 Double Sided Geocomposite Sample Identification: 0050281010088 TRI Log #: E2368-77-07

### **GEOTEXTILE COMPONENT - A**

												STD.	PROJ.
PARAMETER	TEST RE	EPLICATE I	NUMBER								MEAN	DEV.	SPEC.
	1	2	3	4	5	6	7	8	9	10			
Mass/Unit Area (ASTM D 5261)													
5" diameter circle (grams)	3.99	4.48	3.56	4.34	3.50	3.05	4.03	3.50	4.22	3.76	3.84	0.45	
Mass/Unit Area (oz/sq.yd)	9.28	10.42	8.28	10.09	8.14	7.09	9.37	8.14	9.82	8.75	8.94	1.04	8 min
Grab Tensile Properties (ASTM D 4632)	)												
MD - Tensile Strength (lbs)	229	259	270	287	239	196	305	242	254	276	256	31	200 min
TD - Tensile Strength (lbs)	308	317	247	259	288	266	312	215	438	293	294	60	200 min
MD - Elong. @ Max. Load (%)	65	71	64	73	67	57	75	70	71	79	69	6	
TD - Elong. @ Max. Load (%)	106	103	118	108	98	95	102	116	109	101	106	7	
Trapezoidal Tear (ASTM D 4533)													
MD - Tear Strength (lbs)	91	101	114	99	92	90	113	95	129	79	100	15	75 min
TD - Tear Strength (lbs)	121	114	95	134	114	111	127	91	143	120	117	16	75 min

MD Machine Direction TD Transverse Direction

TRI Client: Waste Management, Inc. Project: Vista Landfill

Material: Skaps TN300-2-8 Double Sided Geocomposite Sample Identification: 0050281010088 TRI Log #: E2368-77-07

### **GEOTEXTILE COMPONENT - B**

												STD.	PROJ.
PARAMETER	TEST RE	PLICATE I	NUMBER								MEAN	DEV.	SPEC.
	1	2	3	4	5	6	7	8	9	10			
Mass/Unit Area (ASTM D 5261)													
5" diameter circle (grams)	3.87	3.79	4.18	4.16	3.75	3.67	3.87	3.28	4.26	3.53	3.84	0.31	
Mass/Unit Area (oz/sq.yd)	9.00	8.82	9.72	9.68	8.72	8.54	9.00	7.63	9.91	8.21	8.92	0.71	8 min
Grab Tensile Properties (ASTM D 4632)													
MD - Tensile Strength (lbs)	241	247	244	303	245	283	230	255	254	273	257	22	200 min
TD - Tensile Strength (lbs)	262	312	234	331	309	279	297	279	317	324	294	31	200 min
MD - Elong. @ Max. Load (%)	65	67	65	74	76	85	65	69	67	74	71	6	
TD - Elong. @ Max. Load (%)	106	107	111	103	101	101	91	126	103	102	105	9	
Trapezoidal Tear (ASTM D 4533)													
MD - Tear Strength (lbs)	87	109	92	146	93	102	115	99	114	100	106	17	75 min
TD - Tear Strength (lbs)	118	91	116	103	152	99	141	105	116	102	114	19	75 min

MD Machine Direction TD Transverse Direction

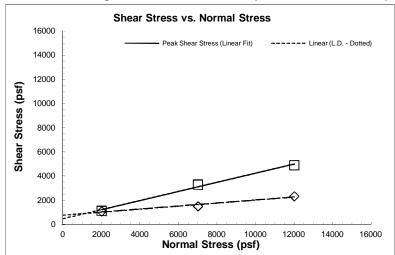
# **B.6 INTERFACE FRICTION TESTING**

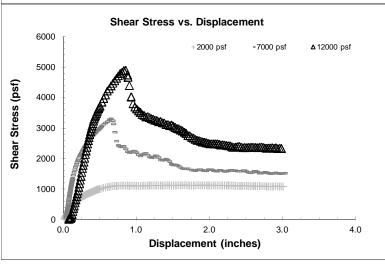
# **Interface Friction Test Report**

Client: Waste Management TRI Log#: E2365-14-01 John M. Allen, P.E., 09/10/2012
Project: Vista Landfill, Cell 3 Test Method: ASTM D 5321 Quality Review/Date

Test Date: 09/07/12-09/10/12

# Tested Interface: Liner Protective Layer (PC-1) vs. Skaps TN300-2-8 Double-sided Geocomposite (50281010050) vs. Agru 60 mil HDPE Microspike Geomembrane (435343.12) vs. Compacted Subbase (SF-1)





Test Results									
	Peak	Large Displacement (@ 3.0 in.)							
Friction Angle (degrees):	20.6	7.1							
Y-intercept or Adhesion (psf):	477	772							

Shearing occurred at the geocomposite/geomembrane interface under all loads.

	Test Conditions
Upper Box &	Liner Protective Layer tamped in place
Floating	Skaps TN300-2-8 double-sided geocomposite
Floating	Agru 60 mil HDPE Microspike geomembrane (shingy side down)
Lower Box	Compacted Subbase (SF-1) remolded to 95% of maximum dry density at optimum or 102.4 pcf at 12.1%
Box Dimensio	ns: 12"x12"x4"
Interface Conditioning:	Interface soaked and loading applied for a minimum of 15 minutes prior to shear.
Test Condition	ı: Wet
Shearing Rate	: 0.04 inches/minute

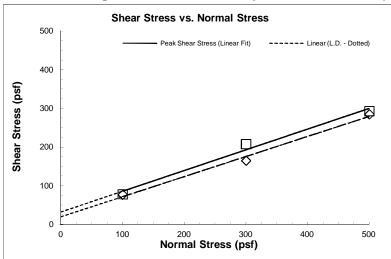
Test Data									
Specimen No.	1	2	3						
Bearing Slide Resistance (lbs)	27	75	122						
Normal Stress (psf)	2000	7000	12000						
Corrected Peak Shear Stress (psf)	1134	3305	4901						
Corrected Large Displacement Shear Stress (psf)	1088	1511	2335						
Peak Secant Angle (degrees)	29.6	25.3	22.2						
Large Displacement Secant Angle (degrees)	28.5	12.2	11.0						
Asperity (mils), dull side	25.4	27.4	26.2						

# **Interface Friction Test Report**

Client: Waste Management TRI Log#: E2365-14-01 John M. Allen, P.E., 09/14/2012
Project: Vista Landfill, Cell 3 Test Method: ASTM D 5321 Quality Review/Date

Test Date: 09/11/12-09/13/12

Tested Interface: Liner Protective Layer (PC-1) vs. Skaps TN300-2-8 Double-sided Geocomposite (50281010050) vs. Agru 60 mil HDPE Microspike Geomembrane (435343.12) vs. Compacted Subbase (SF-1)



Test Results									
	Peak	Large Displacement (@ 3.0 in.)							
Friction Angle (degrees):	28.2	27.5							
Y-intercept or Adhesion (psf):	32	20							

Shearing occurred at the soil/geomembrane interface under all loads.

Shearing Rate: 0.04 inches/minute

			Shear Stress	s vs. Displacer	nent	
	350			+ 100 psf	=300 psf	<b>∆</b> 500 psf
	300					
(bst)	250					
Shear Stress (psf)	200					
hear \$	150				4	
S	100			նորոնանունունունունունուն Աղթունք հենորույնություն		
	50		inii minininii mininii mini	to difficult to a section		
	0					
	0	.0	1.0	2.0	3.0	4.0
			Disp	lacement (inch	nes)	

	Test Conditions
Upper Box &	Liner Protective Layer tamped in place
Floating	Skaps TN300-2-8 double-sided geocomposite
Floating	Agru 60 mil HDPE Microspike geomembrane (shingy side down)
Lower Box	Compacted Subbase (SF-1) remolded to 95% of maximum dry density at optimum or 102.4 pcf at 12.1%
Box Dimensio	ns: 12"x12"x4"
Interface Conditioning:	Interface soaked and loading applied for a minimum of 15 minutes prior to shear.
Test Condition	n: Wet

Test Data									
Specimen No.	1	2	3						
Bearing Slide Resistance (lbs)	9	11	13						
Normal Stress (psf)	100	300	500						
Corrected Peak Shear Stress (psf)	78	208	293						
Corrected Large Displacement Shear Stress (psf)	77	165	285						
Peak Secant Angle (degrees)	38.1	34.7	30.4						
Large Displacement Secant Angle (degrees)	37.6	28.8	29.7						
Asperity (mils), dull side	35.6	36.8	35.0						

# **C.1 TENSIOMETER CALIBRATION**

# Demtech Services, Inc. Placerville, California, USA

# **CALIBRATION CERTIFICATE**

Customer Name:	<b>Environmental Specialties In</b>	ternational, Inc.	
Tensiometer Model:	Pro-Tester T-0100	-	
Device Calibrated: Range: Model No: Serial No:	S-Type load cell 0 - 750 lbs. Tension M2405-750# <b>205327</b>	Calibration App	aratus: cell (S/N 204781)
A/D Module Model No: A/D Module Serial No: Channel No: Indicator reading with no load:		W1 2 W2 152	Reference Cell: R1 2 R2 152 R3 302
Offset:	1.329345 Scale:	4.998566	
Applied Force lbs.	Cell Response:	Deviation Error:	
2 52 102 152 202 252 302	2 52 102 152 202 252 302	0.00 0.00 0.00 0.00 0.00 0.00 0.00	
Temperature at time of calibration: Exitation Voltage:	Total Deviation Error (%):  73 degrees F  5 V DC	0.00%	
This calibration conforms to the stand	ards set by ASTM E4 and is traceab	le to NIST standards	
Note: A/D Module and load cell abov matched pair. In general, calib	re have been systems calibrated and rated A/D Modules and load cells ar		
Calibration Technician:	Mott Han's on	Date: <u>08/</u>	06/12

# **C.2 TRIAL WELD**

# CFC

# Trial Weld Information

		Page of
Date: 89/21/2012 Daily Report No.: 33	Client: Vista LAND 111  Project: 211 3  Project No.: 101.07.08	

			-		Extrusio	n Welds	Fusion	Welds	Pee	.1 F	PPI	Shear			
Time	AMB Temp	Sample ID	Seamer ID	Machine ID	Barrel Temp	Preheat Temp	Wedge Temp	Wedge Speed			**	PPI	Observer	P/F	Comments
13:28	90	#1	ms	1998		_	867	5.00	98	97/12	\	121/12-3	TIB	P	s/s
13:39	90	#2	PV	12483		-	860	5.00		り物	\	124/134	TER	1	5/5
13:43	90	<i>t</i> * 3	FO	1999		~	840	5,20	133	112	~	127/26	713	P	SS
131,15	90	#4	NC	E 5382	550	500	860	5.0)	123	124	`	135/131	TUD	β.	EXAMOSION
15:33	90	45	PV	1483	8th	400	860	400	125	126	<u> </u>	121/127	TIB	P	丁/丁
17:30	90	16	m 5	1998		_	860	500	176	151	\	184/152	TOB	P	=T/S
7,7,70			1112	110											
		+													

Material Peel Extrusion Peel Fusion Shear

# CFC

# Trial Weld Information

	Client: Vista Landfill	Page 2 of 6
Date: 89/23/2014	Project: Cet-E= 3	
Daily Report No.: 35	Project No.: 10/1, 07, 08	

	AMB	Sample	Seamer	Machine	Extrusio	n Welds	Fusion	Welds	Pee	1 1	זממ	Cl	-		
Time	Temp	ID	ID	ID	Barrel Temp	Preheat Temp	Wedge Temp	Wedge Speed	Pee	il 1	PPI	Shear PPI	Observer	P/F	Comments
57.38	76'	17	PV	1483	A		860	5.00	117	127	"	165/29	TB	P	
07:33	760	-5	MS	1998	-	سسر د	860	5.00	144	123	į	152/154	TCB	P	
07:40	763	95	FO	1999		_	860	5.00	128	120	~	154/153	TCB	P	9
87.47	78°	2.30	NC	CX-5382	550	590		_	1/5		J	149/45	TCB	P	Extrusion
13:02	880		PV	1483		,	860	500	110	119		128/127	TIB	P	
13:07	88,	12	10	1999	-		860	5.00	127	123	/	127/25	TCB	P	
13:09	88	£3	MS	1998			860	5.00	Peel				TCB	F)	20 % feel 1 Bonc
13:08	88	14	NC	5382	500	55°O			131	129	1	137/37	TUB	P	Extrusion
13:29	88"	45	ms	1998			860	5,00	113	128	_	132/129	Tes	P	Report Pass
,															

MIN REG. VALUES:

Material
Peel Extrusion
Peel Fusion
Shear

Rev. 02/00

# CFC

# Trial Weld Information

Date:	Client: Vista Landfill Project: Cell 3 Project No.: 101.07.08	Page 3 of 4

	AMB	Sampla	Seamer	Machine	Extrusio	n Welds	Fusion	Welds	Peel	т	PPI	Shear			
Time	Temp	Sample ID	ID	ID	Barrel Temp	Preheat Temp	Wedge Temp	Wedge Speed	Peer	Г	771	PPI	Observer	P/F	Comments
07.50	73	16	NC	5382	500	530	-Chammaga			42	~	156/166	TeB	P	Extrasion
18:00	730	17	FO	1899			860	4.00	130 1	3   139	_	149/	TUB	P	7/5
08770	73	18	FO	1999		***	860	5,00	132 1	39 143	- Andrewson	172/144	TUB	2	s/s
88,25	73	19	IS	EXT 503	550	550	Specialistics	Security Sec		عا لي	-	152/	728	9	The old New
0914	77	20	ms	1998	Winner		860	5,20	125 1	95	_	180/43	TCB	P	5.5
13:00	890	21	Ī5	503	550	550	: summer summer		125 1	30	1	131/131	TB	9	Extrusian THE Old New
13:30	89	22	NC	5382	500	550	-	and the second discountries.		28	, margan	131/134	TUB	P	TT extrusion
13:40	89	23	FO	1999	**General Control of the Control of	gart - differentialistico	860	5.0	31/	13		135/37	TOB	P	3/5
13:43	89	24	MS	1998		<u> </u>	860,	5,0	115 1	1/3	~	123/27	TUB	9	s/s
13:52	90	25	MS	1998	and the Control of th		840	4.0	119	136		134/140	TiB	P	7/
	·	-													7

MIN REG. VALUES:

Material
Peel Extrusion
Peel Fusion
Shear

### Trial Weld Information

	Page
Client: Vista Landfill	
Project: Cell 3	
Project No.: 101.07.08	

	AMB	Commis	C	Machine	Extrusio	n Welds	Fusion	Welds	ъ 1	T)	DI	C1			
Time	Temp	Sample ID	Seamer ID	ID	Barrel Temp	Preheat Temp	Wedge Temp	Wedge Speed	Peel	P.	ΡΙ	Shear PPI	Observer	P/F	Comments
08:25	77	26	FO	1999	-		860	5.00	138 1	124	<del></del>	155/	TeB	P	4-
08:36	フマ	27	MS	1998			860	4.30	137 1	32 - 36	-	147/43	TIB	ρ	1
e8:23	77	28	MS	1998	· ·		860	4.30		19 -		154/	TUB	P	5/7
08.50	77	29	NC	Ex 5382	550	590	g applications.	(Camadador servi	j08 9	30		17/173	TUB	P	The old/New
08:-54	77	30	Is	EX 503	550	500	**************************************	ngstablen 17.	96 1	39	garantes,	167/172	TCB	1	T/T Old/New
08.55	71	31	IS	Ex 503	550	.550	~		78 /	80	-	155/158	TCB	P	17
13:05	90	32	m5	1998	<b>P</b> ggduaren-	Section.	860	4.30	125 13 124 1	31		135/130	TCB	P	7/5
13:20	90	33	NC	Ex 5382	550	500		Name	128 1:	29	_	131/133	TCB	P	T/T Old NEW
13:25	90	34	NC	EX 5382	550	500	quantanina	Yadadayean	123 1,	18	_	133/128	TiB	P	7/7
13:35	90	35	IS	Ex 503	550	500		_	W7 )	23		120/20	TeB	P	T/T old/New
13:38	90	36	Is	EX 503	550	5,00		Section.	W8 10	23	Name of the last o	133/	TCB	P	F/T
14:08	91	91	MS	1998		Jacobson	860	4.3		17		128/121	TOB	P	7/1
14:00	9/	38	MS	1998	*gangements/statum*		860	4.3		16		132/136	TUB	P	55
14:10	91	39	FO	1999	E. COMMISSION PROPERTY AND ADMINISTRATION OF THE PERTY ADMINISTRATION	jaga-rapper—	86)	5.0	117 1.	27	/	127/30	TIB	P	55

MIN REG. VALUES:

Material
Peel Extrusion
Peel Fusion
Shear

# Trial Weld Information

	AMB	Sample	Seamer	Machine	Extrusio	n Welds	Fusion	Welds	D-	_1	DDI	G1			
Time	Temp	ID	ID	ID	Barrel Temp	Preheat Temp	Wedge Temp	Wedge Speed	Pe	eı	PPI	Shear PPI	Observer	P/F	Comments
14/13	91	40	FO	1999	860	5,0	860	5.00	121	115	_	124/125	TUB	P	1/1
14:13	91	41	NC	EX 5382	550	500	- Andrewson Control of the Control o		134	131	· waterplanters on	137/	TO	P	TÝ
						W-40-1-1-1-1		***************************************							
						***************************************									
												:			
					•										
				***										W-N-A-	
						******									

MIN REG. VALUES:

Material
Peel Extrusion
Peel Fusion
Shear

Rev. 02/00

# Trial Weld Information

	Client: Vista Landfil	Page 6 of
Date:	Project: <u>Ceu - 3</u> Project No.: <u>Lo Lo 7 - 88</u>	

	AMB	Campla	Seamer ID	Machine ID	Extrusion Welds		Fusion Welds		D 1 DDI		GI.				
	Temp				Barrel Temp	Preheat Temp	Wedge Temp	Wedge Speed	Peel PPI		PPI	Shear PPI	Observer	P/F	Comments
OF:44	770	42	M C	5382	500	550	-	_	137	135		143/143	TUB	P	<i>5</i> / <i>S</i>
14:00	90	43	NC	5382	520	55°			/1 l	110		120/12/	TCB	P	5/5
														······	
		·													
															- 1 d
	***************************************					•									
														·	
															***

MIN REG. VALUES:

Material
Peel Extrusion
Peel Fusion

Rev. 02/00

# **C.3 PANEL PLACEMENT LOGS**

## Panel Placement Information

Page \_\_\_\_\_ of \_\_\_\_\_\_

Client: 1/5 fq /20165(1)

Project: Coll -3

Project No.: 101. 07. 08 Daily Report No.: \_\_\_

				Station		Deployed				
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage	
PI	ρ	N. Bear	13:12	0+0)	1406	196	475452-12	TOS		
P-2	P	N. Ben	13:29	0+00	1+04	104	//	T.Cb		
P-3	ρ	N. Ben	13.32	0103	1+03	je3	1	TIB		
R4	P	N. Ben	13:36	0 to 0	1703	103	<i>J</i> 1	715		
P-5	P	A. Pen	13:40	ofoo	0+78	78	//	TUB.		
P·k	P	N. B.	13:44	0+00	1tes	105	435678-12	TUS		
P-7	P	N-Bem	14,10	0400	1202	102	1.1	713		
P. 8	P	N. Ben	14:20	0100	1+07	107	7)	700		
P-9	<u>r</u>	N. Ben	14:33	0+00	1+07	107	17	TB		
P-10	P	N. Den	14:50	0+00	1+07	107	435456-12	TUS		
R-11	P	N. Ben	15:00	0400	1+07	107	11	TUB		
P-12	P	N. Bern	15:06	040)	1+08	108	1 /	TUB		
R-13	P	N. Be	15:09	0400	1+08	108	1.7	TUS		
b-14	P	Floor	15:10	0+17	1+05	28'	72	TUD		
1-15	P	N. Ben	15'115	0400	1+04	104	435573-12	TUS		
					Total	1	1000			

Total Length  $1477 \times 22 = 33,971$ 

Rev. 08/00

l:/work/solid/fieldforms/panelplacement

### Panel Placement Information

Client: 13+4 Januaril

Project: 611-3

Project No.: 101.07.08

Page 2 of 9

	Layer	Location	Time	Station		Deployed			
Panel Number				Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
P-16	P	N. Bem	15:25	0-603	H05	105	435573-12	TCB	
P-17	P	W. Ben	15:30	Otos	1+05	105	11	T13	
P-18	P	N. Ber	15,35	0 000	HCH	104	)/	TEB	
P-19	P	N. Ben	15:40	@ to)	0+75	75	Λ	TUB	
P 20	P	N. B.	15.50	0400	0.+51	51	435698-12	71b	
P-21	P	N. Ban	15:55	0400	0132	32	435456-12	TUB	
P-22	P	E Ber	16:00	0+26	0+58	32	435678-12	TIB	
1-23	P	N. Ben	16:10	040	0+54	54	435676-12	TUB	
P-24	P	E Bun	16:15	0+00	0+26	26	11	743	
P-25	<u></u>	E Beran	16:20	0+00	0+85	85	7 7	TIB	
1.26		E Bern	16:30	0+00	1+08	108	17	TIB	
P-27	P	EBun Flor	17:10	0+00	4+70	470	435570-12	TUB	
***************************************									
lev. 08/00					Total Length	1247	x23 = 28	,681	-C+2

Rev. 08/00



#### Panel Placement Information

Vista I andfill	Page <u>3</u> c	of

Client: Vista Landfill
Project: Cell 3
Project No.: 101.07.08 Date: 09/23/20/2
Daily Report No.: 35

				Sta	tion	Deployed	/ / / / / / / / / / / / / / / / / / / /		
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
P-28	P	EBern Floor	07:30	0+00	A+64	464	435564-12	713	
P-29	P	E. Bein Floor	07:55	0400	4+65	4.65	435675-12	TUB	
P-30	P	E. Ben Flor	08105	0+00	4+165	465	435565-12	TCB	
p-31	P	F Bern Flow	08:10	0+00	4+63	463	435 569-12	ICB	
P-32	P	EBen For	09.00	0+00	4+64	464	435568-12	TCB	
P-33	P	E. Ben Floor	09:25	0+02	4+64	464	435566-12	TCB	
P-34	ρ	E Ben Flor	10:00	0+00	4+64	464	435455-12	TCB	
1-35	ρ	EBem Floor	10:15	0400	4+64	464	435459-12	TCB	
P-36	P	E Bea Hos-	11:05	0+00	4+63	463:	435561-12	TUB	
P-37	P	E Ben Flor	12:50	0+0	4+66		435563-12	TUB	
P-38	P	E Ben Floor	13:15	Oto	4466	466	435677-12	YB.	
P-39	P	E Born Flori	14:15	0100	4463	463	435450-12	TUS	
P-40	P	E Ben Floor	18:20	0400	4+63	463	435454-12	TCB	
1-41	P	E Bein For		0+00	4+63	463	435451-12	TCB	
1-42	P	E Benn Flow		9100	4163	463	435344-12	TOB	
					Total	,	· · · · · · · · · · · · · · · · · · ·		C+2-

Total Length  $6960 \times 23 = 160,080$  ft<sup>2</sup>

Rev. 08/00

l:/work/solid/fieldforms/panelplacement

#### Panel Placement Information

Date:	04/23/2 t No.:33	0/L S		Page of					
				Sta	tion	Deployed			
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
P-43	P	E. Berm Floor	16:40	0400	4+63	463	435453-12	743	
<b>-</b>									
			<u> </u>	<u></u>	m . 1				
					Total	463	X23 - 10 1	145	

Rev. 08/00

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#### Panel Placement Information

	Client: Vista Landfill	Page
	Client: Vista LANDE, 11	
Date: 09/24/2012	Project: <u>Coll = 3</u>	
Daily Report No.: 36	Project No.: 191.07.08	

				Sta	tion	Deployed			
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
P. 44	P	E-Ben Flor	07:15	otoo	20123	233	435676-12	TCB	
P-45	P	f-100 V	07:20	2+23	2461	38	435453-12	TCB	
P-46	ρ	Floor	07.25	2t6 1	2495	34	435 563-12	703	
P-4-1	P	Floor	07:33	2+95	3+22	27	435569-12	710	
P-48	P	F/200	07:35	3+22	3+56	34	435344-12	TLB	
P. 49	ρ	J=(00,	07:40	3+56	3187	31	435451-12	TUB	
P-50	P	F102V	07:45	3+87	4+22	35	435454-12	TCB	
P-51	P	FIDDY	07:50	4122	4156	34	435 450-12	713	
1-52	P	F100V	07:55	4+56	4+77	21	435677 - 12	TUB	
P 53	P	Floor	08:50	4751	4+68	17	435561-12	TB	
1-54	ρ.	Flor	08.15	4+22	4+51	29	435459-12	TCB	
P 55	P	Floor	08:10	3+86	4+22	3k	435455-12	TIB	
P-56	P	E Bem Flow	09:00	0-100	3186	386	435862-12	Top	
P-57	ρ	Floor	09:30	3+36	4+56	120	43 5562:12	763	
P-58	P	I. Bein floor	13:15	0 too	3+36	336	435449-12	TiB	
Pay 08/00					Total Length	1401	X21=3222	3	1-/work/golid/fieldforms/gonalple.comout

Rev. 08/00

#### Panel Placement Information

Date: Daily Report	09/24 :No.:	/2012 36		Client: <u>Vis</u> Project: <u>Ce</u> Project No.:	11 3	÷	Pa	age <u>6</u> of <u>7</u>
			Time	Station	Deployed		 ~	

				Sta	tion	Deployed			
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
P-59	P	EBer Floor	13:30	0103	1+64	164	435449-12	TOB	
P-40	P	Floor		1+64	4754	290	435567-12	TB	
P-61	3	F/2= V		2504	4+54	250	435447-12	TIS	
8-67	T'	E Birm flow		0 100	2013-1	204	435567-12	76B=	gos Remose o
				**************************************					
	-							-	
			-						
					Total Length	908	20,884		

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Rev. 08/00

l:/work/solid/fieldforms/panelplacement

#### Panel Placement Information

Page \_\_\_ of \_\_\_

Date: 99/25 /20/2	Client: Vista Landfill
Date:	Project: Cell 3
Daily Report No.: 37	Project No.: <u>101.07.08</u>

				Sta	tion	Deployed			
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
9-62	P	5.W. On-	08:45	210)	2+04	204	435447-12	700	
P-6-3	P	Saw Corner	08:48	0100	0+30	30	435447-12	TIB	
P-64	ρ	56. 6m-	08:50	0100	0+29	29	//	TCB	
P-65	P	Suc Coro	08:53	0100	0+28	28	( /	7613	
P-66	P	Swame	\$:57	Ofor	0425	25	1/	TUB	
1-67	P	SiBorn west	09:05	2400	0158	58	()	763	
P-68	P	S. Bern West	09',10	0400	0+58	58'	43557/-12	700	
P-69	P	S. Ben west		0700	0+57	57'	4.1	74	
P-70	P	S Ben west	09,25	0-100	0 t55	55'	′1	TB	
P-71	0	s Ben West		ı	0+54	54'	//	TIB	
P-72	A	s Ben hest	09:40	0+0)	0 +52	52'	11	7477	
P-73	P	S Bemblow	99:42	0+00	0+50	50'	11	70	
P-74	P	5 Beng Wearn	09:46	0+32	0+57	25	/ 1	703	
P-75	P	5 Bin 10. 6m	09:49	0400	0+85	85	435460-12	Tis	
P-76	P		09:55	000	0+58	98	435 571-12	TUB	

Total Length 208 × 23 = 20,884 8+ ~

#### Panel Placement Information

Page 8 of 9

Client: Vista Landfill

e: 09/25/2012 Project: Cell 3

ily Report No.: 37 Project No.: 101.07.08

				Sta	tion	Deployed			
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
1-77	P	5 Derm	10,00	0 100	0+48	98	435571-12	TUB	
P- 78	P	S. Bern	13:05	0+0)	0798	<i>58</i> `	435460-12	TUB	
P-79	p	5.Bem	10210	0702	0+98	98	435460-12	TIB	
1-80	P	S. Bern	10:15	0+00	0+98	98	435460-12	TCB	
P-81	P	SE Com	10:20	0+0>	0+27	27	435460-12	TUS	
9-82	P	Floor	10:25	3415	4153	138	435 460-12	TIB	
P-83	P	S. Dear	10:30	0.40.2	0+98	98	435445-12	TCB	
P-54	P	5 Ban	10:45	oto;	0+98	98'	435 445 12	713	
P-85	P	Floor	10:55	2+97	3015	18		TEIS	
1-86	V	EBE- Flor	15:00	0 +00	2+43	243	435445-12	TB	
P-87	P	5 Benz	16:10	0100	1+19	119	435446-12	Tes	
P-88	P	S. Bern	16:17	0+00	1+19	119	435446-12	703	
P-89	P	Si Ben	16:20	0100	1+19	119	435446-12	TIB	
P-90	P	S. Der	16:30	0+00	0+96	96	435446-12	TCB	
P-91	P	S. Berm	16135	0+00	0+95	95	435572-12	TUB	
-					Total	1 0			

Total Length 1443

33,189

l:/work/solid/fieldforms/panelplacement

#### Panel Placement Information

				Sta	tion	Deployed			
Panel Number	Layer	Location	Time	Beg.	End	Panel Length	Batch/Roll Number	Observer	Comments/Damage
P.92	P	S.Bein	16:45	0 +00	0.492	92	435572-12	703	
293	P	S, Bea	161,50	0+00	0194	94	435 572-12		
P94	P	S. 3000	17:00	0+03	0194	24	435572-12		
P95	P	S Ben	17:15	0 +00	0494	94	435 572 - 12	TCB	
P-96	P	S. Bein	17:35	0000	0+69	69	435343-12	TUB	
0.97	P	SE, COAVE	18:33	0100	0144	44	435 343-12	72B	
98	P	SE Corner	18:05	0-10-	0+25	25'	435343-12	TUS	-2
P-49	P	SECONE	19:10	0 +12	0746	34	435 354-12		
0400		SE amer		0+03	0170	70	4353 43-12	TCB	
201	P	SE Covar	18:25	D+0-	0+92	92	435 343-12	TCB	
P-102	P	SE GON	18:30	0000	115	115	435343-12	700	·
-103	V	St Come	18735	0.400	0+22	22	435343212	704	
. 08/00					Total Length	845	X=23:0 -	19,43	35 st2

l:/work/solid/fieldforms/panelplacement

#### **C.4 PANEL SEAMING INFORMATION**

# GEG

2	Client: Wista Landfill	Page $\underline{\hspace{1cm}}$ of $\underline{\hspace{1cm}}$
Date:	Project: <u>@11-3</u>	Machine ID: 1483
Daily Report No.:33	Project No.: 10 1 07. 08	Seamer ID:

Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P1/P2	N.B	/3:53	2702	1004	104	74	
P6/p. 7	N Ber	14:31	0400	1702	102	TUB	
R-S/P-9	N. Bon	14:52	Otoo	1707	107	70	D5-1
P.11/P.12	W. Ben	15:14	0+00	106	106	74B	
P-5/P-14	FLOV	15:41	afos	0+23	23	MB	
P-4/P-14	F100~	15:48	0+77	1+01	24	743	
P6/14	Foor	15153	0+78	1405	27	TUB	
P-18/P-19	Floor	16:19	0400	010	75	TIB	
P-22/P24	E Bern	16:53	000	0423	23	TLB	Standarden.
1-21/1-24	E Brand	17/10	0+00	0+17	17	TUB	•
P21/P-22	E Ber	17:15	o+17	0+23	4	TUS	
P-23/P-2+	E. Bern Corner	17122	0431	0 +55	24	TUB	
P-20 /10-22	Eben Corne	17:41	0523	0753	20	TUB	
P-19/ 1-22	E. Ben Corner	17:41	0553	0457	4	50B	16-2

Date: Daily Report No	38/21/2012		Client: _ Project: Project l	V,5+2 Call. No.: 10	1 Landfil -3 407 88	Page $2$ of $2$ Machine ID: $1483$ Seamer ID: $PV$	
Seam ID	Seam Location	Start Time	Sta Beg.	ation End	Seam Length	Observer	Comments
P-19/P-25	N.E.Con-	17,48	0+57	ets!	<i>j.</i> 9	TIB	
P-18/P-25	NE CONC	17.52	0.156	0489	3	70	
P48/ P-26	NE CONC NE CONC NE CON	17:53	0189	1+22	33	TCB	55

#### Panel Seaming Information

Date: _	09/21/2012	

Client: Vista Landfill

Page <u>3</u> of <u>23</u>

Daily Report No.: 33

Project: Cell 3 Project No.: <u>101.07.08</u> 

Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P-3/P-4	No Berm	13755	0,100	1+03	103	TCB	
P5/P6	N. Bern	14:25	もそのう	0778	78	TUB	The second secon
P9/P-10	N Bein	15:00	0400	1407	107	TEB	
P12/P-13	N. Ben	15:28	0700	1+08	/o8	TRB	
P-15/P-16	N. Ben	15:55	0700	1703	103	TCB	
P-21/P-23	N. Bern	16:57	0+00	0+3/	37	TUB	
P-24/P-25	E Bein	17715	0+00	0+26	24	TCB	·
P.22/P-25	In Bern	17/20	0/26	0+58	32	TOB	
P-26/R27	E Ben	17130	0400	1408	108	TCB	
P-6 / P-27	Tie in	17:33	3+36	3+59	23	TUB	
P-14/P-27	Tie ja	17136	3.159	3+8/	22	TCB	
P-4/P-27	Tie ia	17:40	3181	4+04	23	TO	
P-3/P-27	Tre in	17:45	4+04	4+26	22	TCB	
P-2/P-2-7	Tre in	17:50	4426	4+32	(	TeD	790
							,

Date: Daily Report No	04/21/2012 o.: 33		Project:	Vista Landfi Cell 3 No.: 101.07	Page 4  Machine ID: Ex 5383  Seamer ID: NC			
Seam ID	Seam Location	Start Time	Sta Beg.	etion End	Seam Length	Observer	Comments	
Existing P-1	west Tie in	14:00	1+06		106	TCB	. 106	
****			•					····
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<del></del>								
					NV.			
		·						

#### Panel Seaming Information

Page  $\frac{9}{2}$  of  $\frac{23}{2}$ 

Client: Vista LANGA II

Project: 611-3 Machin

Date:  $\frac{68/21/20/2}{20}$ 

Project No.: /01.07.08

Seamer ID: \_\_\_\_\_\_S

Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P2/P=3	N. Bem	13:57	0 to0	1103	103	700	
P-4/P5	N. Beam	14:16	0+0~	0+77	フフ	TIB	
P-7/18	N. Berm	14:37	OTER	1+02	102	70B	
P10/P-11	N. Ber	15:04	0+0 2	17-27	107	763	
P-13/P-15	N. Bern	15:34	0,500	1704	104	TB	
8-16 /P-17	N. Bern	15:50	010~	1705	105	TEB	
P-17/P-18	N-Ber	16:20	040 s	1+04	104	TB	
P-19/P-20	N. Bern	16718	0400	0451	51	TOB	
P-20/P-21	Nr Ben	16128	0+02	0+32	32	TID	
P-25/P-26	E Bern	12:55	o-to o	0+85	85	TUB	
P-17/P-21	Tierin No	1714	1408	17-31	23	TUB	
P-16/P-27	TO IN N.	17:43	1+31	1+54	23	TCB	
P-15/P-27	Their N.	17146	1754	1977	23	TUB	
P-13/P-27	Tie in N	17:49	1+17	2,400	23	TUB	967

# GEC

,	Client: Vista Landfill		Page <u>6</u> of <u>23</u>
Date:	Project: Cell 3 Project No.: 101.07.08	Machine ID: Seamer ID:	1998
	110,000110 101.07.00	Seamer ID.	/// )

Seam ID	Seam Location	Start Time		tion	Seam	Observer	Comments
			Beg.	End	Length	Obscivei	Comments
P-12/P-27	Trend	17:52	2/00	2+22	22	TCB	
P-11/P-27	Tie in	17:55	2+22	2+45	23	TOS	
P-10/P-27	Tre-in	17:58	2+45	2+68	23	TCB	
P-10/P-27 A9/P-27	Tie ja Tie ja	18:01	2+68	2+91	23	703	Statement of the statem
P-8/P-27 P-7/P-27	Tie-in	18104	2+91	3+14	23	73	
A-7/P-27	710-12	18:07	3+14	3+36	22	TUB	137
				:			
							·
							·
		`					

Daily Report No.: \_

### Panel Seaming Information

Client: Vista Landfill	Page $\overline{2}$ of $\underline{2}$
Project: Cell 3	Machine ID:
Project No.: <u>101.07.08</u>	Seamer ID:

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
	South Bookson	Start Time	Beg.	End	Length	Observer	Comments
P-28 /P-29		08:07	0+00	4+64	464	TEB	
P.31 /8-32		09:09	0+83	4463	463	TB	
	E-Bern Floor	10:26	0+00	4+64	464	700	~
P-37 P-38	EBe- Floor	13:38	0,000	4+66	466	TOD	
P-35/P-36	Floor	11:12	2+98	4+63	165	7CB	
P38 P-39	EBen Floor	14:30	0+87	4+63	463	TCB	
P. 40 / p.41	EBen Floor	15:47	0+00	4+63	463	TCB	
P-+2/P-43	EBen Floor	16150	0+00	4763	413	70	3411
, '							
	-						
	A CONTRACT STREET, STR	<u> </u>					

### GEG

	Client: Vista Landfill	Page $8$ of $23$
Date: <u>S</u> 9/23/2012	Project: Cell 3	Machine ID:
Daily Report No.:35	Project No.: 101.07.08	Seamer ID: PV

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
Scam 1D	Scam Location	Start Time	Beg.	End	Length		Comments
P.29/P.30	EBerns Floor	08:34	0+00	4+65	465	TIB	
P-32/P-33	EBern Floor EBern Floor	10:00	0+03	4+64	464	TEB	·
1-27/1-28	EBera For	13:29	Otov	0+92	92	TIB	1021
7.0							
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	Client: Vista Landfill		Page <u>9</u> of <u>23</u>
Date: 59/23/20/2	Project: Cell 3	Machine ID:	1999
Daily Report No.: 25	Project No.: <u>101.07.08</u>	Seamer ID:	FO

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
			Beg.	End	Length	Ouserver	Comments
P-30/P-31	EBern - Floor	08:45	0+03	4+63	463	73	
P.33/P.34	E. Bern Floor	1040	0+00	4164	464	TCB	
P.35/P-36	E. Bem Floor E. Bem Floor E. Ben Floor	11:25	0400	2+98	298	TUB	
P.36/P.37	E. Bern From	13:15	0+30	4-16-3	463	TOS	
P27/P28	E. Ben F100-	14:39	0492	4+64	372	TCB	
P.39/p-40	EBen Floor EBen 5-122V	15:30	0.703	4/63	463	TB	
p-41/p-42	E Ben 5-122V	16:50	0+00	4+63	463	TB	2986
		·					

Date:	9/23/2012		Client: \( \frac{1}{2} \) Project: Project \( \frac{1}{2} \)	Page <u>10</u> of <u>23</u> Machine ID: <u>EX. 5382</u> Seamer ID: <u>W</u> C			
Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P-2/P-27	Tie in	08:33	4+32	4449	17	TIB	
P-1/P-27	Tie in	08738	4+49	4+70	21	703	38
/							
*****							

#### Panel Seaming Information

		Page <u>//</u> of 23
Client: Vista Landfill	-	_
Project: Cell 6	Machine ID:	1998

 Date:
 C9 / 24 / 2012
 Project: Cell 6
 Machine ID: 1998

 Daily Report No.:
 34
 Project No.: 101.07.08
 Seamer ID: M 5

Seam ID	Seam Location	Start Time		tion	Seam	Observer	Comments
			Beg.	End	Length		
P.43/P-44	EBER Floor	09:45	otos	2+23	223	TCB	
P.43/ P.45	F100-	10:20	2+23	2+61	38	718	
p.43/p.46	Floor	10238	2+61	2+95	1/	TCB	
P43/ P.47	Floor	10:46	2+95	3722	21	TER	
P.43/P.48	F100V	11200	3+22	3+56	34	TCB	
P143/P-49	Floor	11:09	3+56	9+87	3(	TIB	
P. 43/8-50	Floor	11:18	3187	4+22	35	TCB	
P-43/P5)	Floor	1125	4+22	4156	34	Ting	
P. 43/P52	F100-	11:29	4+56	477	2(	TeB	
P-59/P60	Floor	14:42	0400	0+23	23	763	
P-59/P-62	E Ben Floor	15:21	0700	1+6cf	164	TIB	
P62/P-60	F1,006	15.40	1+64	2104	40	745	
P-62/P-61	FINEL	15:12	0102	0+23	23	TCB	
P-61 P-60	F10°1	15:50	2+04	4+54	250	TCB	954

Date:  $\frac{99/24/20/2}{200}$  Daily Report No.: 36

#### Panel Seaming Information

Client: Vista Landfill		Page 12 of 2
Project: Cell 6	Machine ID:	1999
Project No.: 101.07.08	Seamer ID:	FO

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
			Beg.	End	Length	Observer	Comments
P44/P-45	F100×	08;25	0+00	0+23	23	TLB	
P.45/P.46	Floor	08:30	0400	0123	23	TLB	96-
P.46/1.47	FIGOR	08;40	0+00	0+23	23	TLB	
P.47/P.48	Floor	08:50	0400	ot23	23	TCB	
P.48 /P.49	Flore	09:00	0.700	0123	23	TCB	
p.49   P 50	F 100 V	09:15	0+03	0+23	23	772	
P-50 /851	F/00V	10:30	0400	0+23	23	TUB	
P-51/852	F100.	10:40	900	0+2)	2-3	71	
P55/P-56.	Floor	14,00	2500	023	23	TUS	per
P-56/2-44	EBern Flor	11:20	0100	2+23	223	TUB	
P-56/P-45	P1031	11:27	2+23	2+61	38	TEB	
P-56/P-46	Floor	1):31	2+61	2+95	34	TOB	
P-56/P-47	F100V	11:35	2+95	3+22	27	TOP	
156/1-48	P 190 V	11:38	3+12	3+56	34	700	
P=56 /P. 49	Flor	11:43	3+56	3+86	30	TUB	<i>5</i> 93

#### Panel Seaming Information

Page <u>13</u> of <u>23</u>

Client: Vista Landfill	
Project: Cell 6	Machine ID

Daily Report No.:

Project No.: <u>101.07.08</u>

Machine ID: 1999
Seamer ID: FO

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
South 15	South Document	Start Time	Beg.	End	Length	Ouserver	Confinence
P-55/P-49	Floor	11:46	3+86	3+87	1	TB	
P 65/P-50	F-(004	11:47	3+87	4422	35	703	
7-54/ P-51	Floor	11:52	4+22	4151	29	708	
P-53/P-61	F100-	11:55	4+51	4+56	5	TCB	
P-53/15	F1=0~	12,00	4+56	4+68	1 2	TUB	t
P.56 1.58	E Bern Floor	13:50	0100	3+36	33k	TIB	
P-57 /P-58	Floor	14.33	0100	0+23	23	7CB	
P56/P-57	F/00-	14:32	3+36	3+16	30	TIB	
P-55/P-57	Flori	14:37	3+76	4+11	35	TCB	
P-54 P-57	F10=x	14'.42	4+11	4+40	29	TOB	
A53/P-57	F100V	14:46	4+40	4+56	/9	700	
158/159	E Ben F100~	15:03	0+0?	1764	164	TB	
P38/P-60	Floor	15-37	1764	3+34	170	TUB.	
P-57/P60	F 102	16:00	3134	4754	120	703	
P-54 P 55	F1921	16:25	9400	2423	23	743	1028

			war at his control of the same				
Date: <u></u> <i>ら</i> り Daily Report No.	124/ 2012		Project:	Cell 6	08		Page 14 of 23  Machine ID: 1998  Seamer ID: MB
Seam ID	Seam Location	Start Time	Star Beg.	tion End	Seam Length	Observer	Comments
1-53/1-54	Plan	16:30		0+23	23	TCB	93
35) 11							
			-				

#### Panel Seaming Information

	. /	200		
Date:	09/	24/	2012	

Client: Vista Landfill

Page 15 of 23

Daily Report No.: 36

Project: Cell 6

Machine ID: 503
Seamer ID: 15

Project No.: <u>101.07.08</u>

Seam ID	Seam Location	Start Time	Sta Beg.	ation End	Seam Length	Observer	Comments
Exis+ / P-41	Tic-in	08:50	Heg. 4+3/	4+2°	( /	TCB	
Exist/ p.40	Tie - IN	08:56	4+20	3+9-7	23	TCB	
Exist/1-39	Tie-ja	09:07	3197	3+74	23	TCB	
Exis+ /P-38	Tie-in	09:11	3+74	3+52	22	TCB	
Exist /P-37	Tie -in	09,38	3+52	3129	23	TOB	
Exist/P-36	Tie in	09:50	3+29	3707	22	70B	
Exist/1-35	TieriH	10:10	3/01	2+84	23	700	
Extist/ 8.34	Tie-ja	10:16	2784	2+61	23	7Lp	
EXXX 8.33	Tie - in	10-25	2+61	2339	22	TCB	
E-VIG+ /0-32	Tic-jN	10:45	2+39	2716	23	TUB	
Exist / p-31	Tie-ja	10:50	21/6	1493	23	TIB	
EX15-1 /p-30	Tre-ja	11105	1+93	1+71	22	700	
EXIT / P 29	7) = 100	11:15	1+71	1748	23	TCB	
Exit/P-28	The -in	19:30	1+48	1425	23	TCB	
Exist/Pa7	Tie ia	11:50	1725	1+03	22	TO	328



#### Panel Seaming Information

	Client: Vista Landfill		Page $16$ of $3$
Date:	Project: <u>Cell 6</u> Project No.: <u>101.07.08</u>	Machine ID: Seamer ID:	1959 FO
	-		

Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P.64/. P.65	S.W. Corner	08:50	0400	0-128	28	TEP	
P. 65 P. 66	Suc Cerval	8:55	000	0424	24	703	
P. 4 /267	510 6/NC1	08:58	0+24	8 ts8	34	Tug	
P.66/P.67	sw Corser	09:05	0400	0125.	25	TID	
P.72/P-73	EN side Sher	11:00	0 400	0420	50	Top	
P.73/P-76	W. Corner S. Ben	11:10	0 fo s	0+06	6	70	
P-73/P-15	W. Covan S. Boun	11:11	0106	et 32	24	TCB	
P.75/ P.76	w. am S, B	11:20	000	0785	85	700	·
P.78/p.79	3 - 2 - S. Ben	1/200	040 v	0498	98	Tes	
P-80/ P-83	S, Ben	14:45	ptoo	0+98	98	Ten	
P6118-82	12/02/	11:50	3445	4453	108	TUS	
P87/188	5 Bem Somp	16:30	atos	1014		163	
P-88/P89	s. Bern	16:55		1+19	119	TCB	
190/191	S. Ben	17:10	0.f00	0+8	93	TB	
1.92/1.93	5.13cvm	17:30	0+90	0494	94 1	PU	1009

**%**-

	Client: Vista Landfill		Page $17$ of $33$
Date:	Project: Cell 3	Machine ID:	1999
Daily Report No.:	Project No.: 101.07.08	Seamer ID:	T= 0

Seam ID	Seam Location	Start Time	Sta	ition	Seam	Observer	Comment
			Beg.	End	Length	Ouserver	Comments
P-94/ P-95	S. Bem	17:55	0+00	0.494	94	763	
P. 95/P.96	S. E. (Corner	18:20	0+00	0769	69	TIB	
R96/P-97		18:40	0 700	0744	44	7677	
P97 198	SE Com	18142	0,400	0416	16	T6B	
P-62/P86	E Berm Floor	15:30	0 100	2+04	204	Ter	
P62/P61	F 600-	16552	0400	0+23	23	7CB	
P.89/P61	Floor	16:06	2+43	2751	8	763	
P-88 P-61	Flasv	16:08	2451	2+74	23	TB	6.
P87/P61	F1001	16,20	2+74	2+97	23	703	
P.85 / P.61	follow	16,29	2+97	3 HS	48	743	
186/R61	Floor	16:44	2007	2+4]	3 8	TB	59/
,							



#### Panel Seaming Information

	Client: Vista Landfill		Page $18$ of $3$
Date: 08/25/2012	Project: Cell 6	Machine ID:	1898
Daily Report No.: 37	Project No.: 101.07.08	Seamer ID:	M5

Seam II	)	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
,	-	~ 00000		Beg.	End	Length	L/ /\	Comments
P67/26	8	WSGK, S Ben	08:55	0700	0458	58	TIS	
P.68/P.6	9	w. Side S. Ben	59:09	200	0157	57	703	
P69/P.7	0	40 Side S. Born	09:25	6+100	0755	55	7CB	
P. 70/P-7	7 /	W. Side S. Ben	09:35	0+33	0154	54	TIB	
P71/P-7	72	w. side S. Ben	09/33	0 400	0452	52	TeB	
P-74/P-		W.G. VNB. Ben	11:190	0-132	0.443	1)	TCB	
P-73/P-	14	wo Consu S. Ber	11215	0102	0122	22	768	
P-7+/P8	71	w. Covier S. Ba	11:20	0443	0+57	14	TIB	4.
P-76/p.	-77	S. Bern	10:40	0100	2785	9.8	T.C B3	
A77/P.	. 78	5,30	10:56	0400	0498	28	TOB	
P-79/P	180	S. Ben	11:17	0100	0198	98	743	
P-83/P-	84	5. Berm	14,44	8f.00	edsa	28	TOD	
P-82/P	76	Floor	13:20	8-500	对马	23	Te3	
P-82/P-	-71	Floor	13:24	0123	0+46	23	TCB	
P-82/0	.78	Flori	13:28	D+46	0+69	2)	TeB	784



### Panel Seaming Information

Client:	Vista Landfill	

Page 19 of 23

Daily Report No.:

Project: Cell 3

Machine ID: 1998 Seamer ID: \_\_\_\_\_\_

Project No.: <u>101.07.08</u>

Seam ID	Seam Location	Start Time		tion	Seam	Observer	Comments
			Beg.	End	Length	0 0001 7 01	Comments
P.82/p-79	Floor	13:32	0469	a(92	23	708	
A82/1-80	Flori	13/36	0492	1+11	19	703	·
P.85/ P.80	5,000	15:35	1+11	1+15	4.	743	
P85/1-83	[ilan	16:30	HIS	1 +38	23	Tev	
85/84	F/00>	16:34	1+38	1460	22	TLB	
8.82/085	Flar	15:35	0 <del>J</del> 00	0423	23	76B	
P-85/187	Floor	16;46	0+00	0+23	23	70	
P-84/P-87	S. Bem Sung	18:30	0400	0496	9/6	Tes	
1.89/190	s. Ben 12	16:25	0 +0-2	0496	%	743	
P-91/192	5. Bem	17:12	0+0)	0-995	95	TUD	-
P-93/P.94	S. Bern	17:44	0 400	ofgy	94	703	
P-86/P-89	Floor	17:30	0100	0+26	26	TIB	
P-86/ P.90	F1031	18:02	2+29	2107	22	70	,
P. 86 P.91	Floor	18105	2-107	1184	23	TOB	
P-86 192	Floor	19:09	1184	1461	23	TUB	589

	Client: Vista Landfill		Page $\frac{20}{}$ of $\frac{23}{}$
Date: 99/25/2012	Project: Cell 3	Machine ID:	1998
Daily Report No.:	Project No.: <u>101.07.08</u>	Seamer ID:	ms

Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P-86/P93	F/02-	18; 13	1461	1438	23	763	
P-86/P94		18:18	H38	1+5	23	TOB	
P.86/P.102	Eben Floor	18735	0-100	けば	115	703	
P-75/1-81	5000. Colar	16100	0405	0127	27	745	
8101/1-1-2	5 E Com	16:20	0470	0192	82	TUS	280
8-97/1-100	SE Gran SE Gran		0125	0+57	32	70B	
P96/P101	SE Gran	18:29	0+57	0+89	22	TIB	
1-95/1-102	SEGON	18:35	0189	1121	32	700	
				·			
							·

CEU

Date: O Daily Report No	9/25/2012 :: 37		.08		Page 21 of 23  Machine ID: Ex 5382  Seamer ID: UC		
Seam ID	Seam Location	Start Time	Sta Beg.	tion End	Seam Length	Observer	Comments
P-63/P-64	S. EU, Co. xx	\$8:37	0+00	0129	29	TCB	ANGO.
,							
	01lla						
		3*	•				

#### Panel Seaming Information

Page <u>22</u> of <u>23</u>

	4	Client: <u>Vista Landfill</u>
Date:	126/2012	Project: Cell 3
Daily Report No.:	<u> </u>	Project No.: 101.07.08

Project No.: <u>101.07.08</u>

Machine ID: \_\_\_\_\_5382\_\_\_\_\_

Seamer ID: \_\_\_\_\_\_

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
	South Bookhon	Start Time	Beg.	End	Length	Obscivei	Comments
Exist / p-41	w. Tie jo	08:53	4+31	4+44	13	703	
Grist / p. 42	W. Tipin	08,57	4+44	4+16	22	703	
EX15+ /p-43	w. Tiein	09:06	4+66	4188	22	TCB	
Exist/P.52	w. Tic in	09:13	4188	5+13	22	Tes	
EXIST / P-53	W. Tie in	09-21	5+10	5+33	23	TeB	
Exis+ / 8-57	Wi Tie in	09,28	5+33	5+56	23	TeB	
Exist/P-60	W-712 ,2	0936	5156	5+78	23	TUS	
Exit /P-61	W. 714 , N	08:44	5+78	6+02	23	TUB	
EX3+/0-82	w. The in	09:56	6+02	6+25	23	TCB	
Exist P.75	au-Tie in	10:18	6+25	6+52	27	Tes	
Gxist/P-81	W: TE W	10:29	6+52	6+75	23	T0	
Exist /P-74	w. Tre in	10:49	6+75	6+98	23	TeB	
EX 15+ /P-13	W. The in	11:01	6498	7+21	23	70B	Executed <sup>11</sup>
Exist /p-12	a tit in	11:17	7+2(	7444	23	7cB	
Exist/Pull	w. Tie i~	11126	7++4	7+61	23	TUB	

### Panel Seaming Information

Client: Vista Landfill		Page $\frac{23}{2}$ of $\frac{23}{2}$
Project: Cell 3	Machine ID: _	5382
Project No.: 101.07.08	Seamer ID:	NC

Seam ID	Seam Location	Start Time	Sta	tion	Seam	Observer	Comments
			Beg.	End	Length	OUSCI VCI	Comments
Exist/ P-70	W. Tic.io	11:33	7+67	7490	23	TUB	
Exist/p-69	cu Tie ia	11541	7+90	8+13	23	TIB	
EXIST/P-68	WITTEIN	11:46	8+13	8736	23	743	
EXIST / P-67	W-Tie in	11:58	8+36	8+39	3	TUS	
Exist/P-64	W-Try ja	15:04	8+39	8+44	5	TIB	
Exist/8.63	W. The	15:16	8744	8174	30	TUB	
P-100/P-101	West Corner	15:36	0,00	0173	70	TAB	
P89/P-103	west Gon	16:04	0402	otll	22	EB	
P-103/P-100	West Coner	16218	Ofo:	0+12	12	TEB	
P-88/100	aust Come	16:22	9112	0442	34	TCB	
P-98/P-99	West Come	16:47	ajos	0125	25	TUB	
,							·

### **C.5 NONDESTRUCTIVE TEST LOGS**

### Nondestructive Seam Testing Information

Date: 09/21/2014 Daily Report No.:

Client: Vis.fa Lindfill
Project: 611 3

Project: \_\_\_\_

Project No.: 10/207,08

		Location		Test		A	Air Testing	5		Vacuum		
Seam ID	Seam ID Seam Location		Station		Time		Pres	sure		Test	Observer	Comments
		Beg.	End	Crew	Beg.	End	Beg.	End	P/F	P/F		
P1/P2	N. Bern	Bos	0458	VP	14:15	14:20	30	30	P	second	TCB	b .
p1/p2	N. Ben	0+53	EOS	VP	14:15	14.20	30	30	P	**Programme**	TUB	
P2/P-3	N. Bem	Fos	BeS	νP	14:17	14:22	30	30	P	velanor***	743	
P3/24	N. Ba-	E0 5	Bos	VP	14:27	14:32	30	30	P	· · · · · · · · · · · · · · · · · · ·	7CB	
P4/p.	ar Bon	EOS	Bos	VP	14:42	14047	30	29	P	****	TEB	
P.5/p.14	Floor	B-05	E95	vľ	15:55	14:00	30	29	P		TCB	
Q4/p. 14	Floor	B35	Eos	vt	14:01	16:06	30	28	P	, gang tanan	TCB	
P-5/P-6	N. Bern	Eos	0+60	VP	14:45	14,49	30	30	P	* mag <sub>max</sub>	700	
P5/P-L	N. Born	0160	Bos	VP	14:45	14, 49	30	30	P	Мисерия	703	
8.6 /p-7	N. Ban	Eos	BOS	VP	15:00	15:05	30	30	P	Stephenson	TUB	
P-7/P-8	N. Ben	Eos	Bos	VP	15/12	15:17	30	30	P	Commen	TED	
P-8/0-9	a. Ben	Eos	0+70	VP	15:30	15:00	30	28	P	. account	TEB	
P8/pg	N. Be-	0170	1305	VP	15113	15118	30	30	P	_	TCB	
P9/P-10	N: Ber	BOS	BOS	VP	15:25	15:30	30	28	P	_	TCB	
010/010	N. Ben	Eos	Bos	VP	(5:28	1532	30	29	P	***************************************	TCB	
KEV.	B.O.S. = Beginning	of Seam	EOS	S. = End of Sea	m		and the land		- 25	144.		

**KEY:** B.O.S. = Beginning of Seam

#### Nondestructive Seam Testing Information

Daily Report No.: 33

Client: Vista (Audfill

Project: Coll 3

Project No.: (01-07. 08

Page 2 of 19

		Location		Test		P	Air Testing	,		Vacuum Test		
Seam ID	Seam ID Seam Location		Station		T	ime	Pres	sure			Observer	Comments
		Beg.	End	Crew	Beg.	End	Beg.	End	P/F	P/F		
P-11/212	N. Bern	EOS	Bos	VP	15:40	15:45	30	28	P	Commenter,	70B	k.
P12/213	N. Ben	FOS	BOJ	VP	167/5	16:20	30	28	P		TCB	
A13/P15	N. Ben	Eas	Bos	VP.	16:16	16:21	30	29	P		743	
A15/P16	ar Bew	Eos	Bos	VP	1617 7	16:22	30	28	P		TUB	
f-16/P-17	NIBen	Eos	Bos	VP	14512	16:23	30	28	P	<b>C</b>	TOP	
P-17/P-18	N, Beim	EOS	Bos	VP	16:33	16:38	30	28	P		TIB	
A-18/P-19	W. Bern	Bas	Eos	v P	16:40	16:45	30	28	P		TUB	
P19/20	M Ben	Bos	Eos	v P	16:45	16:46	Jo	28	P	and residence.	703	
P-20/P-21	N. Ben	Bos	Eos	vſ	16:50	16:55	30	28	P	-	TUB	
R21/R23	N. Ben	Eos	Bos	v P	17:07	17/12	30	28	P		T13	
P-23/224	6 Ben	Bos	Eos	v f	17:23	57:28	30	28	P	Name -	ZCB	
221/024	N. Elown	80)	Eos	VP	17:15	17;20	30	28	P	•	TUB	·
P21/222	N.E., Corner	Bas	60	VP	17:15	17120	30	28	P	***************************************	TOB	
P-22/P-24	E Ber	Bos	E OS	Vſ	16:55	17,00	30	28	P	- extrademoner	TUB	
P-24/P-25	E. Berm  BOS = Reginning	Bos	0/20		17:30	17:35	30	28	P	. J. 5000mm	TOB	

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Daily Report No.:\_\_

Page 3 of 9

		Location		_		. <i>P</i>	Air Testing	5		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	T	ime	Pres	sure		Test	Observer	Comments
		Beg.	End	Cien	Beg.	End	Beg.	End	P/F	P/F		
P24/25	E' Ben	0720	کم	VP	/7:3°	17.35	30	28	P	٠	TUB	·
P22/225	E Bem	Bos	EOS	VP	17530	17:35	30	28	P	-	TLB	
P.7/P27	Floor	B05	205	ms	AMAGANI (n	*****		reguere or .	_	p	TUB	= Repair R-24
P6/P14	E Bem Floor N-Bem	Bos	505	VP	16,07	16.12	30	29	P	1	一個	
									-			
	DOG - Designing		<u> </u>	7 - E-d of Coo				<u> </u>				

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date: 04/22/20/2
Daily Report No.: 34

Client: Vista LA, USFi?!

Project: 611-3

Project No.: 101, 07. 88

Page 4 of 19

		Location		<b>m</b>		F	Air Testing	3		Vacuum Test Observer		
Seam ID	Seam Location	Sta	ntion	Test Crew	Time		Pres	sure			Observer	Comments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
P-6/P-27	Tieno	B 93	E 0)	VP	o733	07;38	30	29	P	<b>"p</b> rompydanov"	TUB	
1214/P27	712 in	Bos	EOS	VP	07,31	07:36	30	30	P	E. Carrier	743	
14/227	Tie ia	Bos	E05	Vρ	07:33	07:35	130	29	P	and the second	TCB	
P-3/P-27	The in	Bas	EOS	VP	07:29	07.34	30	30	P	d Appendiente	74B	No.
P-2/P-27	70'e-10	BOS	4+32	ms.	_					P	TCB	Repair R-33
P-2/P-27	Tie-in	4+32	EDS	MS		Allentangeness	-	_		P	TOB	Extuded Seam
P1/P-27	The in	BOS	60S	MS			3millioner-		78hbayan eri	P	TB	Extraded Seam  Extraded Seam
i i i i i i i i i i i i i i i i i i i	r	5,										
				****								
											***************************************	
	· · · · · · · · · · · · · · · · · · ·											
L. TZEXZ	BOS = Beginning		L FOR	= End of Sec								

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Page <u>5</u> of <u>19</u>

Date: <u>09/23/20/2</u>
Daily Report No.: <u>35</u>

Client: VISTA LANCFILL

Project: 611-3

Project No.: 10/107, 08

		Loca	ation	<b>T</b>		F	Air Testing	g		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	. Ti	me	Pres	sure		Test	Observer	Comments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
P-11/27	Tieja	BUS	Ess	vP	08,00	08:05	30	28	P	**Doministrations	TCB	
P-13/2-27	TO IN	B9S	Eos	v P	08100	08:05	3⊅	29	P	,,,,,,,	TCB	
P9/227	Tie ia	Bos	EOS	VP	17:50	07:55	30	28	P		TCB	
P8/P-27	Tie in	BOS	Eos	v P	0750	07:55	30	28	P	and the same of th	TCB	
1-7/227	Tip iN	BOS	کوی	ms	Pageman and T		**************************************		and the second second	9	700	Repair R-24
827/228	E Barn	Bos	0492	VP	15:46	15:51	30	28	ρ	Magazin	TOB	
P-27/128	ļ	0492	EOS	VP	15:46	15:51	30	28	P		10	
P28/229	Floor & Ben	EOS	B05	VP	09115	09:20	30	28	P	•	TOB	
P.29/230	Floor G. Bern	Eos	Bos	Vρ	39)35	09:40	30	28	P	_	TIB	
P30/P-31	Floor E. Born	Ess	B98	VP	11110	11:15	30	29	P	45 Stewarter	TIB	
P31/232	Flow E. Bem	Eos	Bos	VP	11:12	15:17	30	28	P	***************************************	TUB	
P-32/P-33	Floor	Eos	4415	VP	11:25	11:30	30	28	P		703	· 1 Fest
P-32/p.33	F-130x	4715	3438	VP	11:25	11:30	30	28	P		7B	, )
P-32/P-33	Floor	3+38	BOS	VΡ	11:25	11:30	30	28	P		TB	()
1	Floor E. Bern	Eos	Bos	V P	11:37	11:42	30	28	P		TB	

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Daily Report No.: 35

Client: Vista Landfill

Project: Cell-3

Project No.: / 0 /. 07, 08

Page <u>6</u> of <u>19</u>

		Loc	ation	<b></b>		P	Air Testing	;		Vacuum			
Seam ID	Seam Location	Sta	tion	Test Crew	Ti	ime	Pres	sure		Test	Observer	Con	nments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F			
125/126	E Ber-	Bes	621	v P	08543	08:48	30	28	P		103		
1.26/227	- D.	Bos	0+22	VP	08.44	08:49	30	28	P	1	TEB		
126/P27	E Ben	0122	0710	V P	08:45	08:50	30	28	P	n programme de la companya de la co	ZCB		
P20/22	NEE CONNET	BOS 0+23	01-28	MS		)	**************************************		pagement and a second	P	TIB	Repair	R-121
1.20/222	NE COM	04.28	جعد	V P	ar137	08/42	30	28	P	- page-	70B	g .	
P19/P22	NE CONC	BOS	EOS	MS	-	agramani.				P	TIB	Republ	2:122
P-19/	ALE COLLEY	BeS	EUS	UP	08:37	08542	30	28	P		TOB	<b>V</b>	
P-18/p-25	NE Come	Bos	205	M5			2000			P	TUD	Reposi	R,126
P-16/p.	N/F-Come	Bos	EUS	VP	08135	08:40	30	28	P	~	TIB	Warre .	
1827	F. Bon	0360	E05	V P	08:50	08:55	30	29	P	mentil <sup>000</sup> n-	7CB		
P.17/22	TRESON	Bos	Eos	VP	08:25	0833	30	28.	P	Marganian	TB		
P-16/P-27	Tre ia	BOS	100 S	VP	08130	08135	30	28	P	_	TUB		
P-15/P-29	The will	898	Ess	VP	08115	08,20	30	28	P	40Qualities***	Tip		
P-13/P-27	Tie - N	BUS	E05	V P	08;0	08;15	33	29	P	and the second s	TCB		
P12/227	BOS = Beginning	Bos	Eng	$\bigvee P$ = End of Sea	08:10	08715	30	28	ρ	)	TB		

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Client: <u>Vista Landfill</u>

Project: <u>Cell 3</u>

Project No.: <u>131.27.28</u>

		Loc	ation			F	Air Testing	3		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	T	ime	Pres	sure		Test	Observer	Comments
		Beg.	End	0.0	Beg.	End	Beg.	End	P/F	P/F		
P.34/A35	Floor E. Den	EOS	BOS	νP	11:38	11743	30	28	P	-	7 B	
13/196	F/292	EOS	2+98	VP	12:56	13:01	30	28	P	sic sections.	TEB	t design
R-35/236	Floor E. Bem	2458	BOS	VP	12,56	13:01	30	28	P	. William and	7 CB	
P.36/237	F/00 E. Bon	EOS	BOS	νf	14:25	14:30	30	28	P	_	TLB	
P.38	Floor E Bem	Eas	300	VP	1	15137		28	P		TCB	
P39	Floor E Ban	EBS	Bos	VP	18.30	16:35	30	29	P	•	7 CB	
P-40	Floor EBen	Eos	BOS	νP	16:45	16:50	30	29	P	***************************************	T(0)	
P40/241	Floor E Bern	ES	B05	VP	16:47	16152	30	28	P		TCB	
			,									
	,											
		Ŷ										

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date: 9/24/2012

Client: Vista Landfill

Project: Cell 3

Project No.: <u>101.07.08</u>

Page <u>8</u> of <u>19</u>

		Loc	ation	TT		I	Air Testing	Ţ		Vacuum		
Seam ID	Seam Location	Sta	ation	Test Crew	Т	ime	Pres	sure		Test	Observer	Comments
,		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
P41/042	Floor	EOS	Bos	V P	07:3°	07,33	30	28	P		773	
P42/843	F105-	Eos	Bos	VP	07.32	07:37	30	29	ρ		TaB	
PLO/261	F(s)	Eos	Bos	NP	16:18	16:23	30	29	A		743	
P61/P62	Floor	BOS	E25	VP	15:33	15:38	30	29	ρ.	**Management**	TOB	
P-60/P62	Florid	EOS	Bos	VP	16:18	16-23	30	29	P		73	
P59/012	F1 .	EOS	Bas	VP	1678	16:23	30	29	P	_	TUB	
7P86	Floor	EUS	BIS	VP	16:10	16:15	30	29	P		TIB	
P. 61/286	Floor	Bos	Eos	VP	16:08	16:13	30	30	P	_	TCB	
P61/pgg	Flour	B05	Cos	(P	) 7:38	17:43	30	29	P		703	
P-61/P88	Floor	Bos	EDS	VP	17:40	17.45	30	30	P	**	TUB	
10 /p 87	5/22	Bos	60	VP	17:43	17.47	30	38	P	·	TUB	
P-85/P87	Fin	Bos	601	VP	16.50	16:55	30	29	P		TIB	
P-L1/P85	F/87-	BOS	3-10-2	VP	15 28	16:33	30	30	P	_	TCB	
0-61/085	F1900	3.700	EUS	VP	15:28	15:33	30	28	P	Annual Control	TO	
8.877285	Floor BOS = Beginning of	Bos	1505	= End of Sear	15:38	1543	30	28	P		TeB	

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Page 9 of 9

Client: Vista Landfill

Date: <u>69/24/2012</u>
Daily Report No.: <u>36</u> Project: Cell 3

Project No.: 101.07.08

		Loc	ation	_		A	ir Testing			Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	Ti	ime	Press	sure		Test	Observer	Comments
		Beg.	End	C10#	Beg.	End	Beg.	End	P/F	P/F		
P= 44/2-45	Floor	Bos	EOS	VP	08:20	B 25	30	28	P	,,,,,,,,,,,,	ている	
P. 45/2-41	Flagy	Bas	Eos	v P	69:93	09:25	35	28	P	Humo-	703	
R46/047	Flori	Bos	とのう	V P	09°,03	09.08	30	28	P	l.dom	TOD	
P-47/248	Floor	Bes	Gos	v P	09:07	09:12	30	29	P	,	TB	
P.48/P.49	Floor	Bos	EOS	VP	09;10	09:15	30	28	P		TCB	
9.43/0144	Floor	Bos	EOI	Vρ	1423	14:28	30	29	P	_	Tes	
P.43/p.45	Ho>	Bos	ED	VP.	14:23	14:28	20	29	P		TON	
8-43/246	FIOOR	Bes	Eas	VP	14:23	14:28	30	29	P		700	
P.47/	Floor	Bas	605	VP	المدابع	14:25	30	29	P	**************************************	TEB	
p43/p.48	Floor	Bos	EOS	VP	14:13	14:18	50	30	P		TCB	
P.43/949	Floor	Bas	Eos	vP	13:58	14:03	30	28	P	_	TB	
P.43/P50	5.600	Bas	805	v P	11:48	11:53	3 D	30	P	***************************************	70	
P-43/P31	Floor	Bos	EOS	νP	11:37	11:42	30	29	P	-delegation	73	1 2 7
P43 852	F160V	Bos	EOS	V	11:05	11711	30	29	P		TCB	
P-52/p53	Floor	Bar	Eos	VP	1334	, 13/39	30	29	ρ	-2000	TCB	3

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date:  $\frac{69}{24} \frac{40/2}{20/2}$ Daily Report No.:  $\frac{36}{2}$ 

Client: Vista Landfill

Project: Cell 3

Project No.: <u>101.07.08</u>

Page <u>10</u> of <u>19</u>

Seam ID	Seam Location			<b>T</b>	<u> </u>		Air Testing	7		Vacuum		
1 1		Sta	tion	Test Crew	Ti	me	Pres	sure		Test	Observer	Comments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
P53/p54	Floor	B 25	Ea	VP	13:35	13:40	30	30	P	- Same	73	
P.51/P.524	Flos.	BUS	EO)	VP	B:35	13:40	30	78	P		TUS	
P-51/P-53	Floa	Bos	609	MS	bases		J		and the second	P	TU7	Redai- R-81
P-54/255	Fleor	Bos	EOS	VP	13:45	13:50	3 <sup>2</sup>	30	P		TB	
P-51/PS5	Fron	B3)	ET	ms		Million Colomo	A CONTRACTOR OF THE PARTY OF TH	/		P	TUB	Repair R-82
	Flos	Bas	Ess	VP	13'.46	13:51	30	30	P		TOB	
P.49/0-	F100-	Bos	£05	M5			and the second s		and the second s	P	TCB	Regard R-83
055/P56	Flor	B.95	20	V P	13544	13549	30	29	4	e e	TCB	
1 49ps6	F/00v	Bos	£ 05	VP	13:54	13:59	33	28	P		TIB	,
100 G	Floor	Bos	EOS	VΡ	14/25	14:30	30	29	P		713	
P47/ P56	Floor	Bos	EOS	vr	14535	14:40	30	29	P	•	TCB	
P.46/256	Flori	Bos	E-OS	VP	1435	1440	30	30	P	,	TCB	
Pr45/256	Floor	Bos	Eos	VP	14:36	1441	30	29	P	• Carrier or	TCB	7
P-44/256	Floor	B>5	EX	VP	14:45	14.50	30	30	P		768	
P56/257	Ploo 1	Bos	Eas	VP	14/55	15,00	30	30	P		TIB	Bayes and the second se

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Date: <u>59/24/2012</u>
Daily Report No.: <u>36</u>

Client: Vista Landfill

Project: Cell 3

Project No.: 101.07.08

	Loc	ation	<b></b>			Air Testing	5		Vacuum		
Seam Location	Sta	ntion		Ti	ime	Pres	sure		Test	Observer	Comments
	Beg.	End	Cien	Beg.	End	Beg.	End	P/F	P/F		
Floor	305	ES	VP	15:03	15:08	30	29	P		T43	
Floor	B55	EOJ	VP	15:00	15:05	30	30	P		TCB	
Floar	BOS	E0)	VP	15:01	15:06	30	30	P	Antiference	703	ψ.
Floor	BOS	Ess	VP	15,01	15,06	30	30	P	-	703	
Floor	Bos	Eos	VP	15:01	1506	30	30	P		TeB	
Floor	Bos	605	VP	16:16	16721	30	30	P	_	TLB	Ę,
Floor	BOS	EOJ	VP	16:25	16:30	30	<b>a</b> 9	P		703	g.
Flon-	Bs	EDI	VP	16:25	14:30	30	29	P	Service .	TCB	No
F103-	Bos	[50]	v P	15:40	15:45	30	28	P		783	
Floor	Bos	ESS	VP	11:10	11:15	30	29	P	_	TUS	
Most	B55	Ers	VP	11:12	11.17	30	29	P		TUS	#Kitan
Flor	1305	Eas	VP	11:16	11:21	30	30	P	(	TUS	
		-									
3,											
	Floor	Seam Location         Sta           Beg.         Beg.           Floor         Bos           Floor         Bos	Beg. End  Floor Bos Eos  Floor Bos Eos	Seam Location  Beg. End  Floor  Beg. End  Floor  Bos Eos VP  Floor  Bos Eos VP	Seam Location   Beg.   End   Beg.	Seam Location   Beg.   End   Beg.   End   Beg.   End	Seam Location         Station         Test Crew         Time         Pres           Beg.         End         Beg.         End         Beg.           Floor         Bos         Eos         VP         15:05         30           Floor         Bos         Eos         VP         15:00         15:05         30           Floor         Bos         Eos         VP         15:01         75:06         30           Floor         Bos         Eos         VP         15:01         15:06         30           Floor         Bos         Eos         VP         16:16         16:21         30           Floor         Bos         Eos         VP         16:25         16:30         30           Floor         Bos         Eos         VP	Seam Location         Station         Test Crew         Time         Pressure           Beg.         End         Beg.         End         Beg.         End $Floor$ $BoS$ $FeS$ $VP$ $IS.03$ $IS.08$	Seam Location   Beg.   End   Beg.   End   P/F	Seam Location   Station   Test   Crew   Beg.   End   Beg.   End   Beg.   End   Beg.   End   P/F   P/F	Station   Station   Test   Crew   Beg.   End   Beg.   End   Beg.   End   Beg.   End   P/F   P/F

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date:  $\frac{09/25/2012}{2012}$  Daily Report No.:  $\frac{37}{2012}$ 

Client: VISTA LANSFIV
Project: Cd/ 3

Project No.: 101, 07, 08

Page 12 of 19

		Loc	Location Station			F	Air Testing	ŗ		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	T	ime	Pres	sure		Test	Observer	Comments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
P.64/ PLS	Sw. Griver	Bas	EOS	V.P	08:53	08154	30	29	P	AMERICANIA CONTRACTOR	705	
P65/P66	Swar ColNer	Bos	E03	VP	09:25	09.30	30	29	P	military to the	TEB	
127/169	Sur Course	Bos	E0)	VP	ł	09.25	30	28	P	Management .	763	
117/267	SW-COME	BUS	Ess	VP	19:30	09:35	30	28	P	***************************************	763	
P67/P68	Sw 5/20	Bos	605	VP	09:35	09:40	30	30	P	<b>Water</b>	TUB	
P68/P69	CALS As	Bos	605	v P	0-9:36	09:41	30	28	P	along a constant	TUB	
P-19/P-70	50 52	Bos	EOS	VP	09:55	10:00	33	24	P		TUB	
P70/271	sw.,5.76	Bos	E03	VP	09.58	10:03	30	30	P	- Commence of the Commence of	TB	
P-71/P-72	SW 8, Zz	Bos	E05	VP	10:00	10:05	30	28	P	1	Tes	
8-72/273	sw side	Bas	Eos	VP	10:10	19:15	30	29	P	-	703	
P73/P75	5 cu s.d-	1305	E35	VP	13:03	13:08	30	30	P	- All Market Spenner	TUB	
P-73/294	sw. side	Bos	Eos	VP	10,11	10:16	30	30	P		703	
1.74/275	Su. Sele	B0>	EO	VP	13:23	13:08	30	28	P		TUB	
P74281	su side	Bo>	EOS	VC	131.00	131,05	30	29	P		TLB	
P-75/P-81	5 pr. 5, 2 e	B 05	EOS	Vl	ルル	11:47	33	30	P	NEEDER OF STREET	TUB	

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date:  $\frac{-9/35/2112}{2112}$ Daily Report No.:  $\frac{37}{2112}$ 

Client: Vista Landfill

Project: Cell 3

Project No.: 101.07.08

Page <u>13</u> of <u>19</u>

		Loc	ation	m			Air Testing	<u>r</u>		Vacuum		
Seam ID	Seam Location	Sta	ition	Test Crew	Т	ime	Pres	sure		Test	Observer	Comments
		Beg.	End	0.011	Beg.	End	Beg.	End	P/F	P/F		
P75/276	5 bon	395	(FD)	VP	/1:35	11:40	30	29	V	Section 1-	TCB	
P.76 /277	C 2. 10	Bes	Ess	VP	10:55	11:00	3 =	29	P		Tes	
P-77/278	S Bem	Bos	605	VP	11/12	11:17	30	28	P		TUB	
P-18/P-79	5 Den	B-05	EOJ	VP	11:15	11.20	30	29	P	apparatur-	700	
19/290	C 20-	Bas	Eos	VP	(1.30	11:35	30	29	P	· Same	TCB	
P 80/83	S. Ben	BUS	Ess	V.P	15:12	15:18	3=	30	P		TB	
P-83/284	5 Ben	Bos	0+82	UP	15,25	15:30	30	29	9	_	70B	
P-83/p84	5 Ben	0+82	0+92	v P	15:15	15:20	30	28	P	/	708	
P83/p.84	S. Be~	0492	E0)	VP	15:17	15,22	30	30	P	~	TCB	
P 54/287	S Ben Sump	BOS	3 +82	VP	16130	16:35	30	29	0		TCB	
P.84/201	C2. C	0182	60)	VP	14:33	16:38	30	28	P		TB)	
P86/p.89	Firel	B95	E05	VP	18:13	18:18	30	29	P		TB	
VEV.	$B \cap S = Beginning a$	of Soam	FOS	= End of Sea	m							

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date: <u>09/25/2012</u>
Daily Report No.: <u>37</u>

Client: Vista Landfill

Project: Cell 3

Project No.: 101.07.08

Page 14 of 19

		Location Cation Station				F	Air Testing	g		Vacuum		
Seam ID	Seam Location	Sta	ition	Test Crew	T	ime	Pres	sure		Test	Observer	Comments
		Beg.	End	3,011	Beg.	End	Beg.	End	P/F	P/F		
P61/P82	F-100-	Eos	BOS	VP	13:15	13:20	33	29	P		703	
P37/P88	5. Ben	ESS	Bos	v P	16:55	17:00	30	29	P	-wage-	Tes	
P88/P35	5 Ben	EOS	Bes	v P	17:00	17:15	3	29	P		Tes	
R89/pgs	S, Dem	Eas	Bes	VP	17:11	17:14	30	29	P	- Therese	700	
186 pg0	P100-	Bas	[E9)	VP	18312	18:17	30	28	P	-	TUB	
199pg1	5 Ben	30	Eos	VP	17:46	17:51	30	29	P	-	703	
(86/pg)	F/00 ~	Bes	ED	VP	18:12	18:17	30	30	P	- Company	100	
P41/P92	S Be~	Bas	Eos	VP	17:50	17:55	30	29	P	- Approximate to the second se	TIB	
186/192	Flore	Bos	Eos	VP	18:15	18:20	30	29	P		TB	
P92/P93	S Ben	Bos	Eos	VP	1355	18100	3=	30	P	,,,,,,,,,,	Tes	
186/pg3	Floor	BOS	605	VP	18:20	18:25	30	28	P	-	7CB	
P-93/94	5. Ben	Bos	EDS	VP	1759	1806	30	29	P		TiB	
P86/294	Floor	Bos	Bos	VΡ	13:25	18:30	30	28	P	- substitution of the second	TCB	
P86/P102	E Bem	Bos	Eas	VP	18153	1904	30	29	P	y gameny and a second	TUB	# C
P98/P102	Stor Come	BUS	Ess	- End of Soo	19:,90	19:05	30	29	P		TUP	operated.

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Date: 09/25/20/2
Daily Report No.: 37

Client: Vista Landfill

Project: Cell 3

Project No.: 101.07.08

Page <u>15</u> of <u>19</u>

		Loca	Location Station			F	Air Testing	Ţ		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	T	ime	Pres	sure		Test	Observer	Comments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
P94/p.95	S Beam	B75	EUS	VP	18:03	18,58	30	28	P	: Marie	TUB	
P95/P96	SE COME	B95	EDS	VP	18.35	13:40	30	29	P	4000.0	700	
P96/205	St. Corner	Bos	FOJ	VP	19:50	(9:55	30	29	P		TCB	
1 76/P-97	SECONE	Bos	En	VP	18155	19:00	30	28	P	also and	T.C.5	
1 P100	SE-Corner	BOS	EOS	VP	19:05	20:00	30	28	P	-	70°	year.
P-100/P/01	5 E Coner	0+33	605	VP	20,500	20!05	? 3	28	P	Constitution	703	
197 19.98	SE Come	B05	೯ಲ	VP	19:57	20,02	30	29	P	Militaria	700	
176/182	Flan	Bos	ES	it:P-	17:15	17:20	30	28	4	640000	708	et contact
P77/282	Floor	B05	EDJ	V. P -	17:16	17:21	30	29	R	Lector	70	
F78/82	Floor	Bis	EOS	WP.	17720	1725	30	28	P	Commencer .	TUB	
P79/P82		13.05	Eos	VP	17.22	17:27	30	28	P	_	Tes	
P39/182	Floor	Bas	Fos	vp	17:29	17:34	30	28	P	gonesanden	TIG	
P80/P85	Floor	B05	EOS	MS	, management	gamente di	ganapanan		estimated to	P	724	Repair R-112
P83/185	Floor	139)	EOJ.	rf	17:36	17:41	30	28	P		795	,
P84/P85	Flor	Bes	Ess	Find of Sea		17:43	30	29	f		TUS	

**KEY:** B.O.S. = Beginning of Seam

### Nondestructive Seam Testing Information

Date: <u>9/26/20/2</u>
Daily Report No.: <u>38</u>

Client: Vista Landfill

Project: Cell 3

Project No.: 101.07.08

Page 16 of 19

		Loc	Location Station				Air Testing	5		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	T	ime	Pres	sure		Test	Observer	Comments
		Beg.	End	Ciew	Beg.	End	Beg.	End	P/F	P/F		
PARAGG	SE COUNT	BOS	£ 5.5	MS		responsable and the second	_	annenne de la companya de la company	Constitution of the Consti	P	TB	Extraced Sean
P.49/103	S& Com	305	500	ms	_		/	/pilon	account.	P	703	.1 (/
P-100/103	56 Coin-	Bes	E-33	200	o Magazini.			~	/	P	TIB	n 4
199/2200	S/2 (3 mm	Buj	(2)	ms				÷		P	TIB	( ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
P1001	SEGNE	Bos	0+33	ms	~	garganies."	profession .	Manager	40000	P	TUS	1, 10
1011	S.E. Com	095	503	VP	08:08	08113	30	30	P		TUB	
	3								,	,		
					. 19							
			-									
			* .	10								
						Verne					1.	

**KEY:** B.O.S. = Beginning of Seam

E.O.S. = End of Seam

2

### Nondestructive Seam Testing Information

Date:	9/27/2012
Daily !	Report No.:

Client: Vista Landfill

Project: Cell-3

Project No.: 101.07.08

Page <u>17</u> of <u>19</u>

		Loc	ation			A	Air Testing	5		Vacuum		
Seam ID	Seam Location	Sta	ition	Test Crew	Ti	me	Pres	sure		Test	Observer	Comments
		Beg.	End	0.10,11	Beg.	End	Beg.	End	P/F	P/F		
EXIST 1238	W The in	Bos	(4)	m S	· ************************************	- Marie Mari	And the contract of the contra	the page of the same of the sa		P	TUB	
exist/	ING TIC IN	305	ESS.	mS	Carrier conservation of the Conservation of th	-			1	P	TUS	
EXIST PHO	We The Fal	Bos	ES	m S	ndere (menter)		- September 1	Aggrants	Market Street	P	TEB	
EX IST	W. TIE IN	B0)	ESS	MS		Name of the last o	dedenor-	-		P	TID	
EXIST/	W. The IN	BOS	Eas	en S						P	TIA	
EXIST/	<	B=5	ESI	ms			-100	ontoletikonom	_	P	TID	
545+p52	w- Tre in	BOS	Eas	mS				w <sub>m</sub> ,	Married Control	P	TeB	
GAS# 1953	W. Tie in	Bos	Eor	Pu 5	"Nothing consistence"		/mmoramature	, and discount of the	**	P	700	
EXIST P57	W. Tre in	BSS	EUS	m S	_	_	- American Control of the Control of	_	material .	P	TB	
Exist/ PloD	W. Tre in	Bos	605	m S		Management		nondendament.	Ú	P	703	
CXUST P-61	W. Tre in	Bos	Ess	PmS	**************************************	- Management of the second	_			P	703	
EX.5+/	W. The in	BOS	Fol	ms.	No. dillionaries and	1	nonestativi de la constanti de	_	Magazine	P	7CB	
Exist 15	W. Tre IN	Bas	EUS	ms	_		- managang malamat	· Programmer'		P	TCB	
6x13/p81	W. Tre in	Bos	Eos	MS	*Autobio***********************************					P	TB	
Exist/P74	Lor Tie Ja	Bos	EOS	ms	and fillerance.	and the second		and the second		P	TLB	

**KEY:** B.O.S. = Beginning of Seam

Nondestructive Seam Testing Information

Date:	9/24/2012
Daily Rep	ort No.:

Client: Vista Landfill

Project: Cell-3

Project No.: <u>101.07.08</u>

Page <u>18</u>	of	19
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		Loc	ation	m .			Air Testing	<u>,                                      </u>		Vacuum		
Seam ID	Seam Location	Sta	tion	Test Crew	Ti	me	Pres	sure		Test	Observer	Comments
		Beg.	End		Beg.	End	Beg.	End	P/F	P/F		
Exist P-1	WITTLE	BOS	5-33	ms	_ , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					P	TCB	
EX:5/P27	w. Tie in	Bos	E0)	ms	and the delication	_	AND THE PARTY OF T		_	P	TUB	
EXII+ /-28	W. Tie in	Bos	Es	MIS			egggerede i <sup>1748</sup>	) pagaganan mini	- marin	P	TIA	
Gx1429	W. TR IN	BOS	865	ms	*	_	ge mentale en en		No. of Contract of	P	Wh	
exist/030	W. T.Z in	BOS	563	M 5		-	, processor to	*Annagement*	_	P	-11B	
Gxist/p31	W. Tre in	BOS	E05	ms	p. and the second			~	ages parameter.	P	TIB	
P-32	W. Tic in	Bas	Eas	m S		_	~	_		P	713	
EX157p-33	W. Tie in	B05	605	Ms	_		Standard Standard			P	TOB	
ELIST 34	111 70 101	Bus	EUS	m S		**************************************	and the second			P	Toly	
exist p35	W. Tie in	BOS	ESS	MS	Section 1	_		_		P	Jul	
EXCST/P-36	W. Tie in	Bos	E05	ms	- And the state of	- Application of the Control of the	**************************************			P	143	\.
Exist p 37	W- Tie in	Bus	Ess	m5	response de la filia de la fil	- Andrews			-	P	7.B	
											,	
KEV.	B.O.S. = Beginning of	f Seam	FOS	= End of Sear	——————————————————————————————————————			<u> </u>				

**KEY:** B.O.S. = Beginning of Seam

Λ	Von	destructi	ve Seam	Testing	Inform	ation

Page <u>19</u> of <u>19</u>

Date: 9/21/2014	Client: Vista Landfill
Daily Report No.:	Project: Cell-3

Project No.: 101.07.08

		Loc	ation			1	Air Testing	3		Vacuum			
Seam ID	Seam Location	Sta	ition	Test Crew	T	ime	Pres	sure		Test	Observer	Comments	
		Beg.	End	CIOW	Beg.	End	Beg.	End	P/F	P/F			
EXVIST/ P13	Witteld	BS-5	EOS	ms	and the second second		_		September	P	TUB		
27-13 EXT SY/ P-12	with	B95	ED	m S	**************************************	and the same of th	entered -			P	TUB		
シネフリ	W- Tre IN	Bus	Eos	an S	Name of the last o					P	TUB		
EXIST 70	W- Tro IN	B05	Eas	MS			**************************************	~		P	TIB		
GXIST PEG	W- Trein	Bos	EO)	m S		-		Ü		P	700		
EX. 53/p68	W- Toe i~	Bos	Es	ms	, magazina and m	Application of a		***************************************	Santana de Caración de Caració	P	TUB		
CX /P-E1	W- THE IN	Boj	EOS'	ms		Name of the last o		-		P	TB		
Ex1 5+ 19-64	W- Tot in	BS)	ESS	ms			~		_	P	TB		
Ex15463	w-Tit in	BOS	EOS	en S	- comment	<b>L</b>	- magazine	**************************************	_	P	TIB		
P-63/P64	west conve	B93	EN	ms	-					P	TUB		
/											<i>y</i>		

**KEY:** B.O.S. = Beginning of Seam

### C.6 DESTRUCTIVE TEST DATA



Client:	Vista Landfill	Project:	11-3	Page of Project No.: /01.07.08	
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Sample Number	Date Sampled	Seam ID	Location	Seamer ID	Machine ID	Field Test (PPI)		Shear (PPI)	Lab Test P/F	Sample Reason/Comments
D5-1	09/21	P8/P-9	0+25	PV	1483	119/116 133/115 100/97	130/128	143,151,137	P	
Ds -2	09/21	P-4/P-5	.0750	mc	1998	121/127 116/96 98/02 121/10	1498	154/137/141	P	Tie-iN ST
Ds-3	09/21	P-14/P17	0+45	me	1958	124/125 124/133	96/138	137,148,141	P	
Ds-4	04/21	P-12/8-13	0+70	FO	1999	199/407103/111	113/115	154,156,144 151,146 151,156,147	P	
D5-5	09/21	P-18/P-21	0+93	PV	1483	129,127 125,112	117/11	139, 140	P	
D5-6	09/21	P-26/P-27	0+19	FO	1999	113,119 118	in/pc7	139, 140 151,156,147 139, 140	P	
D5-7	04/21	P-12/P-27	2151	mc	1998	130/16/07/104		145,148,137 142,156	P	
D5-8		Existing/	2151	NC	EX 5383	134 113 106 118	124	129,131,142	P	Expusion
						2				
					,					
					-					



Client:	Vista LANSfill	Project: Cecl = 3	Project No.: 101.07, 08
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Sample Number	Date Sampled	Seam ID	Location	Seamer ID	Machine ID	Field Test Peel (PPI)	Shear (PPI)	Lab Test P/F	Sample Reason/Comments
Ds. 9	9/23	P-28/P-29	3+45	MS	1998		146,139,252 147, 136	P	
D5-10	9/23	P-29/P-30	4+25	PV	1483	114/106 109/105	139,141,144	P	
D5-11	9/23	P-30/P-31	0+60	FO	1999	96/131 802/120	154,138,142 127,131	P	
D5-12	9/23	P.31/P.32	3+20	m5	1988	134/20 118/24 131/126	140,125,141	P	
DS-13	9/23	P.32/P-33	2+40	PV	1483	128/111 121/113 109/112	146,139,131 136, 142	P	
DS-14	9/23	P.33/P.34	4+35	FO	1995	129/14/18/105/105/114	131,137,125	P	
DS-15	9/23	P-34/P-35	1+05	MS	1998	117/107 121/126	136,142,148 139, 128	P	
D5-16	9/23	P-35/P-36	2+80	FO	1999	124/120112/116	13/147/134	P	
DS-17	9/23	P.35/P.34	4+50	m S	1998	114/07 112/119 104/112	137,134,141	P	
DS-18	9/23	0-36/0-37	3 + 90	FO	1999	120/137 116/112 127/120	147,144,131	P	
D5-19	9/23	P-37/P-38	3-130	MS	1999	132/109 12/118 116/129	143,140	P	
DS-20	9/23	P27/P28	3750	Fo	1999	105/15 AU/14	146,151,137	P	
D521	9/23	P-88/P-39	205	ms	, , , , -	117/11 104/12 118/21	146,157,138	P	
DS-22	9/23	P39/P140	1+10	FO	1477	112/12/110 123/16	131,136,142	P	
05-23	9/23	P.40/P.41	0+45	ms	1998	118/116 110/124 11/107	143, 146, 131 137, 144	P	

										De	structive Seam Sample Lo
Client: <u>l</u>	/istA	Lotord fill	Projec	t: <i>C&amp;l</i>	1 -3				Pro		Page of
Sample Number	Date Sampled	Seam ID	Location	Seamer ID	Machine ID		d Test l (PPI)		Shear (PPI)	Lab Test P/F	Sample Reason/Comments
DS-24	9/23	P+4/P-42	1+95'	Fo	1999	106/105	118/121 118/121	116/1/2	129/133,127 129/134 144,138,132 144,146	P	
15-25	9/23	P-42/P-43	1+95'	MS	1998	116/15	194/198 194/113	11/124	144,138,132	P	
							·				
							-				
									W-1		

Client: Wista Jandfi'll	Project:	Cel 1 3	Project No.: 10/07/07

Sample Number	Date Sampled	Seam ID	Location	Seamer ID	Machine ID	Field Test Peel (PPI)	Shear (PPI)	Lab Test P/F	Sample Reason/Comments
2526	9/24	P-31/R-61	2+10'	ÎS	503	102 121 131	132,126,137	P	
DS-27	9/24	P.43/p-44	0+80	ms	1998	18/121 113/121 113/132 126/131 126/119	145,138,129	P	
DS-28	9/24	P.45/P56	3 4 7 5	FO	1969	18/135 127/119	137,131,142	P	
0529	9/2+	P-54/ P 37	4+15	FO	1999	118/122 111/12	154, 148, 141	P	:
DS-30	9/24	P.58 /P 59	1+55	FO	1989	130/118 114/107 121/113 122/127 128/114	148, 141, 134	P	
Ds-31	9/24	P-61/P-62	0+10	ms	1998	134/120/124/134	145, 136	P	
DS-32	9/24	P-60/P-61	4+40	ms	1988	13\$142 117/128 115/127 133/11 9 131/136	136,149,146 137,143	P	
	/	,							

Client: Vista LANChill Project:	0:11-3	Project No.: 10/107108 of
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Sample Number	Date Sampled	Seam ID	Location	Seamer ID	Machine ID	Fiel	d Test (PPI)	Peel	Shear (PPI)	Lab Test P/F	Sample Reason/Comments
DS-33	89 hs	P-75 / P-76	0 t 30	FO	1995	136/189	110	104/106	151,146 141 156, 143	P	
D5-34	9/25	P-79/P80	0+70	MS	1998	113/12-1 128/119	112/125	121/119	164, 139,146	P	
DS-35	9/25	P-62/286	1740'	FO	1999	130/126	114/124	12/12	152,154,146	P	
25-36	9/25	893/194	0450	m 5	1998	109/116	117/18	121/112	150, 154, 145 138142	P	
DS-37	9/25	Exist/P82	6 417.	MC	53.82	118	119	132 133	132/127/129	P	
DS-38	9/26	P-99/p-100	0+39	jsc	5382	113	107	200	1331 1241	P	
							·				
										-	
											·
	.,										



#### TRI/Environmental, Inc. A Texas Research International Company

Date: 2012-09-25

Mail To:

**Sheree Grant** 

**Waste Management Inc** 

Bill To:

**Waste Management Inc** 

101.07.08

e-mail:

sgrant@wm.com snunes@cecinv.com pwalls@cecinv.com tommybradford@bellsouth.net

Dear Ms. Grant,

Thank you for consulting with TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project:

Vista Landfill

TRI Job Reference Number:

9534

Material(s) Tested:

(24) Heat Fusion Weld Seam(s)

(2) Single Extrusion Weld Seam(s)

Test(s) Requested:

SAME DAY Peel and Shear

(ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

Codes:

Adhesion Failure (100% Peel)

BRK

Break in sheeting away from Seam edge.

SE

Break in sheeting at edge of seam.

AD-BRK

Break in sheeting after some adhesion failure - partial peel.

Separation in the plane of the sheet (leaving the bond intact).

SIP . FTB

Film tearing bond (all non "AD" failures).

NON-FTB

100% peel.

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Jennifer Tenney Project Manager

Geosynthetic Services Division

Jennif T. Tennuf

http://www.geosyntheticstestinc.com



### DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS TRI Client: Waste Management Inc

Project: Vista Landfill

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

	IESI REPLICATE NUMBER							
PARAMETER	1	2	3	4	5	MEAN		
Sample ID: DS-1   Weld: Heat Fusion								
Side: A						Peel A		
Peel Strength (ppi)	145	117	113	124	122	124		
Peel Incursion (%)	<5	<5	<5	<5	<5	***************************************		
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Side: B						Peel B		
Peel Strength (ppi)	122	120	114	112	129	119		
Peel Incursion (%)	<5	<5	<5	<5	<5	<b>.</b>		
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Shear						Shear		
Shear Strength (ppi)	171	171	171	177	171	172		
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50			
Sample ID: DS-2   Weld: Heat Fusion								
Side: A						Peel A		
Peel Strength (ppi)	114	123	116	113	116	116		
eel Incursion (%)	<5	<5	<5	<5	<5			
eel Locus Of Failure Code	SE	SE	SE	SE	SE			
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
iide: B						Peel B		
eel Strength (ppi)	110	119	117	117	114	115		
Peel Incursion (%)	<5	<5	<5	<5	<b>&lt;</b> 5			
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
hear						Shear		
hear Strength (ppi)	163	163	164	164	170	165		
hear Elongation @ Break (%)	>50	>50	>50	>50	>50			



### DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS TRI Client: Waste Management Inc

Project: Vista Landfill

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

		1521	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-3   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	131	139	119	138	132	132
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
eel Strength (ppi)	129	114	133	117	139	126
Peel Incursion (%)	<5	<5	<5	<5	<5	L <del>,,</del>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
hear Strength (ppi)	173	174	174	175	182	176
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
sample ID: DS-4   Weld: Heat Fusion						· · · · · · · · · · · · · · · · · · ·
ide: A						Peel A
eel Strength (ppi)	127	125	111	115	126	121
eel Incursion (%)	<5	<5	<5	<5	<5	<u> </u>
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
ide: B						Peel B
eel Strength (ppi)	116	117	115	116	119	117
eel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear						Shear
hear Strength (ppi)	159	161	163	165	167	163
near strength (ppi)	100			100	,	

#### TRI/Environmental, Inc. A Texas Research International Company

#### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS**

TRI Client: Waste Management Inc Project: Vista Landfill

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### TEST REDITCATE NUMBER

		TEST	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-5   Weld: Heat Fusion	•					
Side: A						Peel A
Peel Strength (ppi)	115	132	104	148	114	123
Peel Incursion (%)	<5	<5	<5	<5	<5	· · · · · · · · · · · · · · · · · · ·
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	152	155	135	153	146	148
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	167	164	173	167	168	168
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
Sample ID: DS-6   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	118	119	116	124	124	120
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppl)	148	114	147	115	149	135
Peel Incursion (%)	<b>&lt;</b> 5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	178	171	173	177	175	175
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	



TRI Client: Waste Management Inc **Project: Vista Landfill** 

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### TEST REPLICATE NUMBER

	TEST REPLICATE NUMBER							
PARAMETER	1	2	3	4	5	MEAN		
Sample ID: DS-7   Weld: Heat Fusion			, , , , , , , , , , , , , , , , , , , ,					
Side: A						Peel A		
Peel Strength (ppi)	141	143	134	147	143	142		
Peel Incursion (%)	<5	<5	<5	<5	<5			
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	,		
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Side: B						Peel B		
Peel Strength (ppi)	132	130	135	139	139	135		
Peel Incursion (%)	<5	<5	<5	<5	<5	<u> </u>		
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Shear						Shear		
Shear Strength (ppi)	145	146	151	152	147	148		
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50			
Sample ID: DS-9   Weld: Heat Fusion								
iide: A						Peel A		
Peel Strength (ppi)	120	132	126	125	134	127		
eel Incursion (%)	<5	<5	<5	<5	<5			
Peel Locus Of Failure Code	SE	SE	SE	SE <sup>.</sup>	SE			
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
iide: B						Peel B		
eel Strength (ppi)	115	116	128	107	123	118		
Peel Incursion (%)	<5	<5	<5	<5	<b>&lt;</b> 5			
eel Locus Of Failure Code	SE	SE	SE	SE	SE			
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
hear						Shear		
hear Strength (ppi)	166	165	173	172	171	169		
hear Elongation @ Break (%)	>50	>50						



### DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS TRI Client: Waste Management Inc

**Project: Vista Landfill** 

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

State   Strength (ppi)   119   122   118   116   143   124   124   124   125		TEST REPLICATE NUMBER							
Peel A   Peel Strength (ppi)   119   122   118   116   143   124     Peel Incursion (%)   <5   <5   <5   <5   <5   <5   <5     Peel Incursion (%)   <5   <5   <5   <5   <5   <5   <5     Peel Incursion (%)   <5   <5   <5   <5   <5   <5   <5     Peel Incursion (%)   <5   <5   <5   <5   <5   <5     Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB   PTB     Peel B   PTB   PTB   PTB   PTB   PTB	PARAMETER	1	2	3	4	5	MEAN		
Peel Strength (ppi)   119   122   118   116   143   124     Peel Incursion (%)   <5   <5   <5   <5   <5   <5     Peel Locus Of Failure Code   5E   5E   5E   5E   5E     Peel Bidde: B	ample ID: DS-10   Weld: Heat Fusion	1							
See   Incursion (%)	Side: A						Peel A		
SE	Peel Strength (ppi)	119	122	118	116	143	124		
Peel NSF Failure Code	Peel Incursion (%)	<5	<5	<5	<5	<5			
Peel B   Peel Strength (ppi)   133   138   122   119   121   127	Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
133   138   122   119   121   127	Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
See   Incursion (%)	Side: B						Peel B		
SE	Peel Strength (ppi)	133	138	122	119	121	127		
Shear   Shea	Peel Incursion (%)	<5	<5	<5	<5	<5	L		
Shear         Shear           shear Strength (ppi)         176         170         168         176         167         171           shear Strength (ppi)         550         >50         >50         >50         >50         >50           ample ID: DS-11   Weld: Heat Fusion           ide: A         Peel A           eel Strength (ppi)         122         137         119         132         117         125           eel Incursion (%)         <5	Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
hear Strength (ppi) 176 170 168 176 167 171 hear Elongation @ Break (%) >50 >50 >50 >50 >50 >50 >50 >50 >50 >50	Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
### Peel A Peel Strength (ppi)	Shear						Shear		
ample ID: DS-11   Weld: Heat Fusion         Peel A         eel Strength (ppi)       122       137       119       132       117       125         eel Incursion (%)       <5	hear Strength (ppi)	176	170	168	176	167	171		
ide: A         Peel A           eel Strength (ppi)         122         137         119         132         117         125           eel Incursion (%)         <5	shear Elongation @ Break (%)	>50	>50	>50	>50	>50			
eel Incursion (%)	Sample ID: DS-11   Weld: Heat Fusion Side: A	! ·			•		Peel A		
seel Locus Of Failure Code         SE         SE <th< td=""><td>Peel Strength (ppi)</td><td>122</td><td>137</td><td>119</td><td>132</td><td>117</td><td>125</td></th<>	Peel Strength (ppi)	122	137	119	132	117	125		
eel NSF Failure Code         FTB         Peel B	eel Incursion (%)	<5	<5	<5	<5	<5	· · · · · · · · · · · · · · · · · · ·		
Peel B           eel Strength (ppi)         135         140         116         143         116         130           eel Incursion (%)         <5	eel Locus Of Failure Code	SE	SE	SE	SE	SE			
eel Strength (ppi)       135       140       116       143       116       130         eel Incursion (%)       <5	eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
eel Incursion (%)       <5	ide: B						Peel B		
eel Locus Of Failure Code SE SE SE SE SE eel NSF Failure Code FTB FTB FTB FTB  hear  hear Strength (ppi) 172 169 172 171 177 172	eel Strength (ppi)	135	140	116	143	116	130		
hear Strength (ppi)         FTB	eel Incursion (%)	<5	<5	<5	<5	<b>&lt;</b> 5	, , , , , , , , , , , , , , , , , , , ,		
hear         Shear           hear Strength (ppi)         172         169         172         171         177         172	eel Locus Of Failure Code	SE	SE	SE	SE	SE			
hear Strength (ppi) 172 169 172 171 177 <b>172</b>	eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
	hear						Shear		
hear Elongation @ Break (%) >50 >50 >50 >50	hear Strength (ppi)	172	169	172	171	177	172		
	hear Elongation @ Break (%)	>50	>50	>50	>50	>50			



### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS** TRI Client: Waste Management Inc

**Project: Vista Landfill** 

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

	TEST REPLICATE NUMBER							
PARAMETER	1	2	3	4	5	MEAN		
Sample ID: DS-12   Weld: Heat Fusion								
Side: A						Peel A		
Peel Strength (ppi)	128	121	114	120	123	121		
Peel Incursion (%)	<5	<5	<5	<5	<5			
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Side: B						Peel B		
Peel Strength (ppi)	138	146	138	140	145	141		
Peel Incursion (%)	<5	<5	<5	<5	<5			
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Shear						Shear		
Shear Strength (ppi)	174	177	172	172	181	175		
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50			
Sample ID: DS-13   Weld: Heat Fusion Side: A						Peel A		
Peel Strength (ppi)	124	132	131	135	144	133		
Peel Incursion (%)	<5	<5	<5	<5	<5			
Peel Locus Of Failure Code	SE	SE	SE	SE	SE			
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB			
Side: B	116	110	110	110	110	Peel B		
	124	115	128	132	129	126		
Peel Strength (ppi)				<5	<5	120		
Peel Incursion (%)	<5 SE	<5 SE	<5 SE	<5 SE	<5 SE			
Peel Locus Of Failure Code		SE FTB	SE FTB	SE FTB	FTB			
Peel NSF Failure Code	FTB	FIB	LID	ΓID	LID	Shear		
Shear	1.50	1.67	1.00	. 176	176			
Shear Strength (ppi)	169	167	168	176	176	171		
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50			

#### TRI/Environmental, Inc. A Texas Research International Company

### DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS

TRI Client: Waste Management Inc Project: Vista Landfill

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

		1521	REPLICATE N	IOMBEK		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-14   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	125	121	129	124	125	125
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	147	129	130	131	140	135
Peel Incursion (%)	<5	<5	<5	<5	<5	<u></u>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	167	165	172	164	166	167
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
Sample ID: DS-15   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	136	119	133	116	131	127
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	146	140	138	133	139	139
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
hear Strength (ppi)	159	166	164	161	160	162
hear Elongation @ Break (%)	>50	>50	>50	>50	>50	



#### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS** TRI Client: Waste Management Inc

**Project: Vista Landfill** 

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

PARAMETER	1	2	3	4	5	MEAN
iample ID: DS-16   Weld: Heat Fusion	1					
Side: A						Peel A
Peel Strength (ppi)	126	129	121	126	130	126
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	136	131	129	143	142	136
Peel Incursion (%)	<5	<5	<5	<5	<5	<u></u>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
hear Strength (ppi)	178	166	176	170	170	172
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
sample ID: DS-17   Weld: Heat Fusion						Peel A
eel Strength (ppi)	124	117	125	120	127	123
eel Incursion (%)	<5	<5	<5	<5	***   <5	123
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
ide: B				. 15		Peel B
eel Strength (ppi)	148	145	143	146	140	144
eel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear		<del>-</del>	<del>-</del>	<b>.</b>		Shear
	271	170	177	170		
hear Strength (ppi)	171	172	177	170	167	171



TRI Client: Waste Management Inc **Project: Vista Landfill** 

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

		TEST	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-18   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	131	133	126	127	131	130
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	142	155	152	146	143	148
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	167	166	168	168	168	167
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
ample ID: DS-19   Weld: Heat Fusion						
iide: A				,		Peel A
Peel Strength (ppi)	124	125	118	117	125	122
Peel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
eel Strength (ppi)	133	123	140	114	143	131
eel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear						Shear
hear Strength (ppi)	166	167	166	172	164	167



TRI Client: Waste Management Inc Project: Vista Landfill

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

		1231	REPLICATE N			
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-20   Weld: Heat Fusion	1					
Side: A						Peel A
Peel Strength (ppi)	133	123	134	129	127	129
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	124	123	131	118	130	125
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	168	174	168	170	174	171
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
ample ID: DS-21   Weld: Heat Fusion	<b>)</b>					
Side: A						Peel A
Peel Strength (ppi)	124	115	127	118	133	123
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
iide: B						Peel B
eel Strength (ppi)	134	131	139	135	112	130
eel Incursion (%)	<5	<5	<5	<5	<b>&lt;</b> 5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	· FTB	FTB	FTB	FTB	FTB	
hear						Shear
hear Strength (ppi)	166	166	163	163	165	165



TRI Client: Waste Management Inc **Project: Vista Landfill** 

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534 ·

#### **TEST REPLICATE NUMBER**

	TEST REPLICATE NUMBER					
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-22   Weld: Heat Fusion	1					
Side: A						Peel A
Peel Strength (ppi)	112	128	118	121	119	120
Peel Incursion (%)	<5	<5	<5	<5	<5	<u> </u>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	133	144	134	138	137	137
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	163	159	163	162	161	162
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
Sample ID: DS-23   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	125	130	118	121	136	126
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	136	147	138	134	145	140
Peel Incursion (%)	<5	<5	<5	<5	< 5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	162	165	163	163	159	162
Shear Elongation @ Break (%)		>50				L'



#### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS** TRI Client: Waste Management Inc Project: Vista Landfill

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

		TEST	REPLICATE N	UMBER		
PARAMETER	1	2	3	4	5	MEAN
iample ID: DS-24   Weld: Heat Fusion						
Side: A		,			,,,,	Peel A
Peel Strength (ppi)	135	126	126	120	120	125
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
eel Strength (ppi)	145	104	138	132	109	126
Peel Incursion (%)	<5	<5	<5	<5	<5	<u> </u>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
shear Strength (ppi)	165	164	163	164	161	163
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	<del></del>
· · · · · · · · · · · · · · · · · · ·						
ample ID: DS-25   Weld: Heat Fusion						
ide: A						Peel A
eel Strength (ppi)	134	125	117	117	129	124
eel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
ide: B						Peel B
eel Strength (ppi)	128	137	137	137	131	134
Peel Incursion (%)	<5	<5	<5	<5	<5	· . ,
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear						Shear
haan Chuanabh (mui)	163	163	162	168	158	163
hear Strength (ppi)	103	103	102	100	#20	203



### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS - SINGLE TRACK**

TRI Client: Waste Management Inc **Project: Vista Landfill** 

Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9534

#### **TEST REPLICATE NUMBER**

PARAMETER	1	2	3	4	5	MEAN	
Sample ID: DS-8   Weld: Single Extrus	ion						
Side: Peel						Peel	
Peel Strength (ppi)	152	152	129	152	139	145	
Peel Incursion (%)	<5%	<5%	<5%	<5%	<5%		
Peel Locus Of Failure Code	SE	SE	SE	SE	SE		
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB		
Shear						Shear	
Shear Strength (ppi)	166	168	166	.168	173	168	
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	<del></del>	
Sample ID: DS-26   Weld: Single Extru Side: Peel	sion					D1	
						Peel	
Peel Strength (ppi)	166	144	149	151	154	153	
Peel Incursion (%)	<5%	<5%	<5%	<5%	<5%		
Peel Locus Of Failure Code	SE	SE	SE	SE	SE		
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB		
Shear						Shear	
Shear Strength (ppi)	151	157	154	153	147	152	
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50		



#### TRI/Environmental, Inc. A Texas Research International Company

Date: 2012-09-27

Mail To:

**Sheree Grant** 

**Waste Management Inc** 

Bill To:

**Waste Management Inc** 

101.07.08

,,

e-mail:

sgrant@wm.com snunes@cecinv.com pwalls@cecinv.com tommybradford@bellsouth.net

Dear Ms. Grant,

Thank you for consulting with TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

**Project:** 

Vista Landfill Cell 3

TRI Job Reference Number:

9554

Material(s) Tested:

(10) Heat Fusion Weld Seam(s)

(2) Single Extrusion Weld Seam(s)

Test(s) Requested:

SAME DAY Peel and Shear

(ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

Codes:

Adhesion Failure (100% Peel)

AD BRK

Break in sheeting away from Seam edge.

SE

Break in sheeting at edge of seam.

AD-BRK

Break in sheeting after some adhesion failure - partial peel.

SIP

Separation in the plane of the sheet (leaving the bond intact).

FTB

Film tearing bond (all non "AD" failures).

NON-FTB

100% peel.

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Melissa Hunter

Project Manager

Geosynthetic Services Division

http://www.geosyntheticstestinc.com

olioso Hunter

### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS**

TRI Client: Waste Management Inc Project: Vista Landfill Cell 3

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9554

### TEST REPLICATE NUMBE

		TEST	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-27   Weld: Heat Fusion						- 1 - 1111
Side: A	, 10 At 10 A					Peel A
Peel Strength (ppi)	140	130	129	139	124	132
Peel Incursion (%)	<5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	137	130	123	141	124	131
Peel Incursion (%)	<5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	154	161	157	160	159	158
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
Sample ID: DS-28   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	132	133	137	137	148	137
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
eel Strength (ppi)	153	150	152	159	157	154
eel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear						Shear
hear Strength (ppi)	175	175	177	177	176	176
hear Elongation @ Break (%)	>50	>50	>50	>50	>50	·····

### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS**

TRI Client: Waste Management Inc Project: Vista Landfill Cell 3

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9554

### **TEST REPLICATE NUMBER**

		TEST	REPLICATE N	UMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-29   Weld: Heat Fusion			, , , , , , , , , , , , , , , , , , ,			
Side: A						Peel A
Peel Strength (ppi)	129	121	136	127	127	128
Peel Incursion (%)	<5	<5	<5	<5	<5	<del></del>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	133	143	149	139	130	139
Peel Incursion (%)	<5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	171	175	173	172	173	173
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	<u> </u>
Sample ID: DS-30   Weld: Heat Fusion						
Side: A						Peel A
Peel Strength (ppi)	126	122	123	119	124	123
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	106	137	140	140	144	133
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	160	157	155	157	158	157
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	L



### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS**

TRI Client: Waste Management Inc Project: Vista Landfill Cell 3

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9554

### **TEST REPLICATE NUMBER**

		TEST	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-31   Weld: Heat Fusion	n					
Side: A						Peel A
Peel Strength (ppi)	148	151	148	148	142	147
Peel Incursion (%)	<5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	128	128	137	130	138	132
Peel Incursion (%)	<5	<5	<5	<5	<5	<del></del>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	163	161	153	157	155	158
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	<del></del>
Sample ID: DS-32   Weld: Heat Fusion	1		· · · · · · · · · · · · · · · · · · ·			
Side: A						Peel A
Peel Strength (ppi)	116	120	129	118	120	121
Peel Incursion (%)	<5	<5	<5	<5	<5	· · · · · · · · · · · · · · · · · · ·
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
lide: B						Peel B
eel Strength (ppi)	133	148	148	139	128	139
eel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear						Shear
hear Strength (ppi)	174	167	166	168	176	170

### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS**

TRI Client: Waste Management Inc Project: Vista Landfill Cell 3

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9554

### TEST REPLICATE NUMBER

		TEST	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-33   Weld: Heat Fusion	1					
Side: A						Peel A
Peel Strength (ppi)	121	122	127	132	122	125
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	116	145	136	138	146	136
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	174	185	173	177	181	178
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	<u> </u>
iample ID: DS-34   Weld: Heat Fusion	l					
iide: A						Peel A
Peel Strength (ppi)	146	118	142	137	120	133
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
iide: B						Peel B
eel Strength (ppi)	126	114	126	122	125	123
Peel Incursion (%)	<5	<5	<5	<5	<5	
eel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
hear						Shear
hear Strength (ppi)	177	181	183	177	181	180

### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS**

TRI Client: Waste Management Inc Project: Vista Landfill Cell 3

Material: 60mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9554

### **TEST REPLICATE NUMBER**

		TEST	REPLICATE N	IUMBER		
PARAMETER	1	2	3	4	5	MEAN
Sample ID: DS-35   Weld: Heat Fusion	n					
Side: A						Peel A
Peel Strength (ppi)	121	119	122	122	125	122
Peel Incursion (%)	<5	<5	<5	<5	<5	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Side: B						Peel B
Peel Strength (ppi)	118	144	116	118	140	127
Peel Incursion (%)	<b>&lt;</b> 5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	156	160	160	159	161	159
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	
Sample ID: DS-36   Weld: Heat Fusion	1					
Side: A						Peel A
Peel Strength (ppi)	146	128	142	136	145	139
Peel Incursion (%)	<5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
iide: B						Peel B
Peel Strength (ppi)	133	138	138	143	137	138
Peel Incursion (%)	<5	<5	<5	<5	<5	L
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
eel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
		170	100	175	173	175
hear Strength (ppi)	173	176	180	175	173	1/5

### **DESTRUCTIVE SEAM QUALITY ASSURANCE TEST RESULTS - SINGLE TRACK**

TRI Client: Waste Management Inc Project: Vista Landfill Cell 3

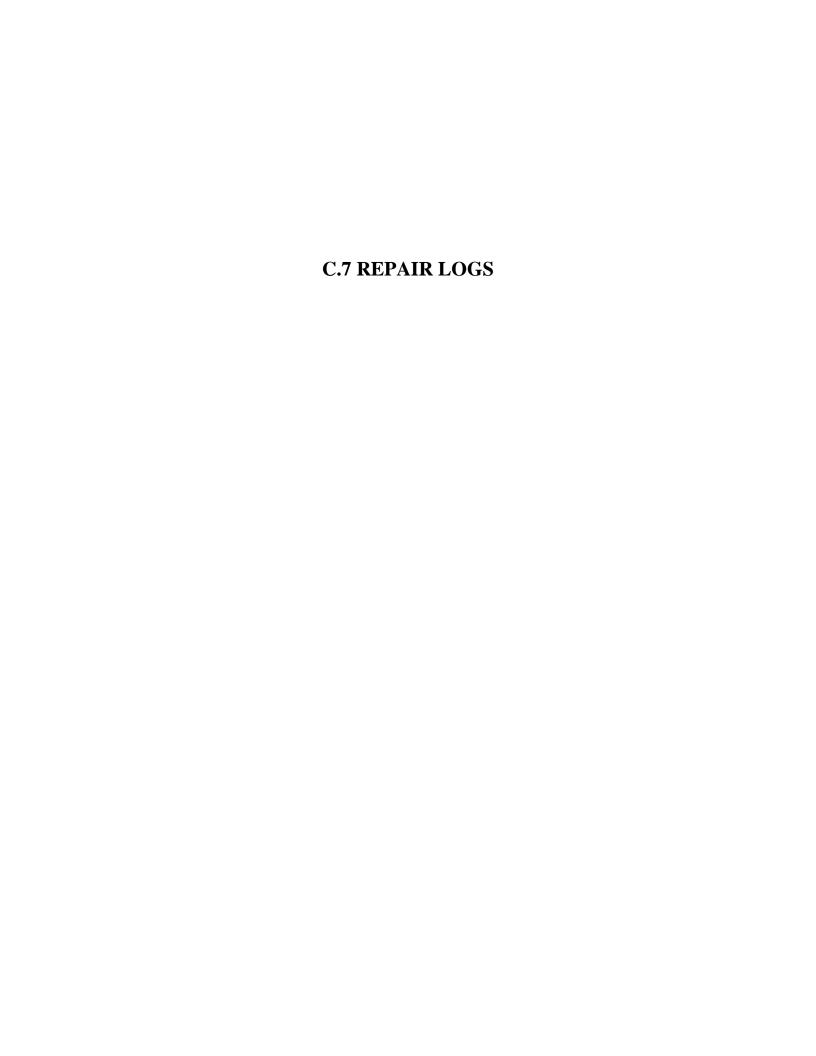
Material: 60 mil. HDPE

SAME DAY Peel and Shear (ASTM D 6392/GRI GM19/D 4437/NSF 54/882 mod.)

TRI Log#: 9554

### **TEST REPLICATE NUMBER**

		1531	REPLICATE N	UMBEK		
PARAMETER	1	, 2	3	4	5	MEAN
Sample ID: DS-37   Weld: Single Extrusion				· · · · · · · · · · · · · · · · · · ·		
Side: Peel						Peel
Peel Strength (ppi)	148	141	150	159	155	151
Peel Incursion (%)	<5%	<5%	<5%	<5%	<5%	<u> </u>
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	160	162	155	174	167	164
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	<del>L </del>
	,			-3-,		
Sample ID: DS-38   Weld: Single Extrusion						
Side: Peel						Peel
Peel Strength (ppi)	114	148	128	133	132	131
Peel Incursion (%)	<5%	<5%	<5%	<5%	<5%	
Peel Locus Of Failure Code	SE	SE	SE	SE	SE	
Peel NSF Failure Code	FTB	FTB	FTB	FTB	FTB	
Shear						Shear
Shear Strength (ppi)	167	177	163	172	171	170
Shear Elongation @ Break (%)	>50	>50	>50	>50	>50	L



Geomembrane Repair Log

Client: Visto Landill Project: Coll 3 Project No.: Lol. 07. 08

Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-1	09/21	P-3/	3 4	0405	Bad Sean edge	Postah	NC/5382 17:05	9/26	m s	PAG	CAPACE by R-39
R.2	09/21	Guisting P-1	exist and pr	otos to otos	Hola	Patch 2X4	NC/5382 16:35	9/26	ms	1/203	,
R-3	924	Existin P-1	EKISH'M	0+55	DS-8	P-2×6	JS/503	9/26	ms	Places	
R-4	09/21	Gristin P1	Existing P-1	0+69	1+01e	P.0 ten 7' X 8'	NY5382 14,27	- / .	m s	Plas	
R-5	09/21	existing P-1	oxinia P-J	0+75	111	Patch 1.5×1.5	NC/5382 14:15	9/26	MS	PECA	
R6	09/21	Exist'	6434r	1+05	7	Pates 2+2	M/5382 14,50	9/26	MS	Plan	
R-7	09/21	P-41 P5	4 15	0+06	No Elge	B-1'	NC/5382	9/26	M5	Plan	
R-8	09/21	8-5 1-6	5 6	0 160	Ho (e	Projek 1.5×6°	NC/5382	9/26	ms	P/TOP	
R-9	09/21	P-6 P-14	5 6	0+78	7	Parci	17:25	9/21	mŚ	P/TED	
RP	09/21	\$ -14	4 5			Posch 1.5x4	NG/5382 17:15	7/21	ms	7/1B	

KEY:

P=Patch

B=Bead

C=Cap

DS= Destructive Sample

O=Other and describe in Comments

Geomembrane Repair Log

Client: _	Vis	ф <sub>4</sub>	20~6 f	11/	Project:	Ce11 -3		PageProject No.: 101,07,08				
Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments	
R-11	09/23	P-5	9 55	0+50	DS-2	P-2×5	N45382 1-0525	9/26	ms	PTIB		
R-12	9/23	P.26 P.21	Ø	0+19	D5-6	8-2×8	N95382 1612	9/26	ms	8/2/3	* **	
R-13	9/20	P-24 P-25	15 24	0+20	Hole	ロルを大い	15:45	9/26	ms	P/TCB		
R-14	9/3	P-22 P-24 P-25	25 22	o+26	7	p-1.sxL	15:40	9,56	MS	P/TUD		
R-15	9/23		24 21	0+17	T	P-2×2	15:34	9/26	ms	P/.TCB		
R-16	9/23	P-21 P-21 P-22	1 20	0+23	T	P-4x5	15:33	2/26	nis	PITCAS		
R-17	9/23	P-27 P-24	21 23	0+31	7	P-3516	15:142	91/26	MS	PITCB	, 2	
R-18	9/23	P-20 P-22	20/22	0+28'	Hole	PJXZ	NY538L	9/26	ms	P/T0)		
R-19	9/23	P.18	18 26	0193	DS-5	p-2x6	14:00	9/26	ms	PTCB		
2-20	09/23	B-37	3 4	4+04	T	P.1.5×25	Ne/5382 08:40	9/26	to S	1/100		
KE	Y:	P=Pato	h	B=Bead	C=Cap	DS= Destru	ctive Sample	(	)=Other ar		in Comments	

Rev.8/00

1:/work/solid/fieldforms/geomembrane

Geomembrane Repair Log

Client: _	Vist-	q /	ardf.1	/	Project:	Ce11-3			Project No.: 101070 CF			
Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments	
R-21	×/23	P-27	2/3	4+26	T	P. 2X2	NC/5382 08133	9/26	MS	Prog		
R-22	9/23	8:44 p:27	4 14	3+81	7	P-2×5	NC/53\$2	9/26	M5	PTUB	1	
R. 23	9/23	P-64 P-27	14 6	3+59	7	P-2X5	NC/5382 09:25.	9/2k	ms	Plas		
R-24	9/23	P-7 P-8 P-27	27 8	3+13 to 3+37	T'S E Recov Se An	25x24	NC/5382 09:45	9/26	mS	PTID		
2-25	9/23	P-8 P-9 P-27	27	2+91		P. 1.5X2.5	10:30	9/26	ms	Pfan		
R.26	9/23	P-27	9 10	2+68	7	P-2×3	10:34	1	m S	1/203		
R-27	9/23	P-10	27	2+45	7	P-2×3	NC/5382	9/26	ms	PTUB		
R-28	9/23	PIL-	11/12	2+22	7	P-15/2.5	NC/5382 13:50	9/26	ms	Plans		
R-29	9/23	P-12 P-13 P-27	12 13	2+00	T	P-115X215	NC/5382	9/26	ms	P/TCB		
R-30	9/23	P13.	13/15	1+77		P-2×2.5	NC/5382	9,/26	ms	1/103	-	
KE	Y:	P=Patc		B=Bead	C=Cap	DS= Destruc	ctive Sample	C	Other ar		in Comments	

Rev.8/00

l:/work/solid/fieldforms/geomembrane

Geomembrane Repair Log

Client: Visto Lyndfill Project: Cell 3 Project No.: 101.07.08

Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-31	9/23	P-12 P-13	12/13	0+09	Seth ede	P-1,5×2	NC/ 5382 91:15	9/26	mS	PTEB	
R-32	9/24	1-31	3° 3(	0+60	DS-11	P2x5	N 65382 08:07	9/26	m Ś	P/76B	
R.33	9/23	P.27	2/3	Overs Start of SCAM- 4+32	Hole	P-2X4	NC/5382 08:30		m S	PILB	
R-34	9/23	P-8	8 9	0+70	H=(e	P-2×3	NC/5382	9/26	mS	Plas	
R-35	9/23	P-8	8 9	0125	DS-1	P-2x5	NC/5382 10:45	1	1115	P/TeB	
R-36		P-31	3: 32	3+20		P2×6	NS/5382 09:20	9/26	M5	8/1013	
R=37	9/23	P-12	27	2+15		P-2x5	NC/ 5382 09:23	9/26	ms	Plan	
R:38	9/23	P13	12/13	0+70	* /	1	NC/cour	9/26	ms.	P/703	
	9/20	P3-	3 4	0+09	oneseret 1+5/e	P-1,5x2	NG5382	1	ms	PIJUB	
R40	9/24	P-32	32 33	2+40	DS-13	8-276	NC/5232	9/26	ms	1/700	

KEY:

Rev.8/00

P=Patch

B=Bead

C=Cap

DS= Destructive Sample

O=Other and describe in Comments

Geomembrane Repair Log

Client: Vista Lander Project: Q11-3 Project No.: 101.078 Project No.: 10	4	
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Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID		Tested By	P/F & Initials	Comments
R-41	9/24	P-33 P-34	33 34	4+35	DS-14	p 2x5	13/907 10:45	9/26	MS	Plan	
R.42	9/24	P-34 P-35	3 35 TS	1+05	DS-15	P.2X5	NC/5382 08:55	9/26	ms	Pub	
R.43	9/24	P-35	35/36	2+80	DS-16	P-2×5	NC 5382	8/2s	ms	8/700	
R-44	09/24	P35	35 36	4+50	DS -17	P-2×6	IS/503 10:05	9/26	MS	P/=8	
R-45	9/24	P36 P37	36 37	3+90	DS-18	P-2 X S	NC/5382	9/26	MS	P/ TCB	
R.46	9/24	P-37 P-38	37 38	3 <del>1'3</del> °	DS-19	P2X6	10:05	9/26	MS	PIER	
R-47	9/24	P27 P-28	27 28	3+50	DS-20	P-2X5	NZT.	9/26	ms	P/TOB	
R.48	9/24	P-38	38 39	205	DS-21	P-2×6	NU/5382 10:25	9/26	ms	Play	
R49	9/24	p.39	39 40 <b>1</b>	1710	DS-22	P-2×5	PC/638U 0955	721	MS .	1/18	
R-50	9/24	P-40 P-4	4)	0+45	DS-23	P2X5	10135	9/26	ms	P/MB	

KEY:

P=Patch

B=Bead

C=Cap

DS= Destructive Sample

O=Other and describe in Comments

Geomembrane Repair Log

l:/work/solid/fieldforms/geomembrane

Client: _	Vista	LA	udfil	]	Project:	Q11-3			Proje	ct No.: <u>/0/</u>	Page <u>6</u> of <u>17</u>
Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-51	9/24	P-42		1+95	DS-24	P-2X5	NC/5382 10:53	9/26	ms	P/715	
R52	9/24	P-42 P-43	42 43	2 495	DS-25	P-2x5	NC/53/2	9/26	Ms	8/10	1
R-53	9/21	P-1 P-2	4	0+58	Ho (c	P.24215	17:00	9/24	ms	For	
R-54	9/24	P.32	32 33	4+15	140 (c	P-2X3	NC/5382	9/26	ms	P/113	
R-35	9/24	f-33	32 33	3+38	Hole	P-2×2.5	NC/5382 09:15	9/27	ms	1/100	
R-56	9/24	Exist P-37 P-38	38 37	3 t52	1-1018	P-3×3,5	15/503	9/27	ms	8/100	
R-51	9/24	P.28	28 251	3+45	D5-5	P .2X5	NY. 5381 09:45	9/26	ms	Plas	
R-58	9/24	P.29 P.30	24 3-	4+25	D5-10	P.246	NC/9382 09:50	9/26	ms	TCB;	
RF9	9/24	935	35 36	2+98	Ho Le	P-2x25	NC/5382	9/20	MS	P/TUB	•
R-60	9/24	FX:57 P-34 735	8×13+	2 +8 4	1-to 1e	P-ix3	10:15	9/24	MI	Pas	-
KE D8/00	Y:	P=Patc	ch /	B=Bead	C=Cap	DS= Destru	ctive Sample	(	O=Other ar	nd describe	in Comments

Rev.8/00

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Client:	Vjsta	) /AH	udfill		Project:	Co11:3			Proje	ect No.: 🚁	Page 7 of 1/17
Repair Number	1		Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-61	964	P-31	GXIST 31	on tie in 1493 to 2416	Recoi Seam	P-2×23	15/503	9/26	M5	P/W	·
R-62	9/2+	R-61 P-31	R-61 P-31	2+10	DS-24	P-2×5	IS / 523	9/26	ms	PITCIS	
R-63	9/23	P15	16/17	0-145	ĎS-3	P.275	NC/ 5382 14,15	9/26	m 5	Pace	
R-64	9/24	P31 P32	3(/32	0+33	BAL Sea-	PRXT	08:15 08:15	9/20	MS	8/	
R-65	101	p-30 p-37	3€ 37 Ø	0 t28	19012	P 2-x25	NC 6382 08:35	9/20	MS	Plan	
R-66	9/25	p. 43 p. 44	43 44	0+80	DS-27	P-2X5	IS/503	9/26	ms	P/TUB	
2-67	9/25	p. 49 P. 56	49/56	3+75	DS-28	Paxs	IS/503	9/26	m S	1/103	
R-48	9/25	7.57	54 57	4+15	D5-29	1.2xL	IS/503 09150	9/26	ms	1700	
2.69	9/25	P-58 P-51	28 28	1+55	DS-30	P2XS	NC/5382	9/26	ms	Plea	
R-70	17)	P-61	61 62	0+10	DS-31	P-2×22	15382	9/26	MS	0/10	cap station from 0+00-0+22'
<b>KE</b> ! Rev.8/00	Y:	P=Patch	1	B=Bead	C=Cap	DS= Destruc	tive Sample	0	=Other and		n Comments

Client: Vi=+4 Landfill Project: Coll=3 Project No.: 1010708 Project No.: 1010708

Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-71	9/25	P60	60 E1	2+40	)s-32	P.ZXC	IS/503 69:45	9/26	ms	P/TCB	
R-72	9/23	P.28	27 28	· 0+92	H0/e	P-2X4	17:05	9/26	ms	Plays	
R.73	9/24	6.42 644	45 43	2+23	7	P-115×2	NC/5382 15:35	9/26	Ms	Tres	
R74	9/24	P-43 P-45 P-46	45 43	2+61	T	P.1.5x1.5	N 5382 15:30	9/26	ms	Pap	
Q-75"	9/24	P43 P-46 P-47	47 43	2+95		P-1,5×1,5	15-12	9/26	MS	1700	
R-76	9/24	P-43 P-47 P-48	48 43	3-12-2	7		WC/5382 14:49	9/26	m s	1703	
R-17	9/24		45 43	3+56	7	P.1.5X2	NC /5382 14:40	9/26	pr5	P/5012	
R-78	9/24	A-43	50   43 49	3 +87	7	P2x6,5	NC/5382 14:35	9/26	M5	Proh	
2-79	9/24	PM3	51 43	4+22	T	P.1.5X1.5	NC/5382 13:47	9/26	ms	1103	
R-80	9/24	P-43 P-51 P-52	52 43 51	4+56	7	P.1.5X2,5	13:22 13:22	9/26	ms	PEB	

KEY:

P=Patch

B=Bead

C=Cap

DS= Destructive Sample

O=Other and describe in Comments

l:/work/solid/fieldforms/geomembrane

The Breeze Charles

Geomembrane Repair Log

Client: _	Vis	FIP 1	4NI fi	11	Project:	211-3			Proje	ct No.:/ <u>0/.</u>	Page 9 of 17
Repair Number	Date Repaired		Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID		Tested By	P/F & Initials	Comments
R-81	9/24	ASI P54 P53	51 54	4+50 +0 4+6/	Recon'Sum and T's	P-2X1)		9/20	MS	Man	
R-82	9/24	P50 P51 P555	50 55	4+22	7	P2x3	NC/5382 14:23	9/21	MS	Place	
R.83	9/24	P49 P50 P556	49 36 50 35	3485 to 3489	Reion Setn Art .T'	P-2X+	NC/5382 14:30	9/26	MS	Pris	
R-84	9/24	P-48 P-48 P-48	48 56	3+56	T	P.2x2	N5/5382	9/20	MS.	Pacis	
R-85	9/24	P47 P-48 P-56	47 51	3+22	7	f.15x15	NC/5382	9/26	m5	) TB	
R-86	4/24	P-46 P-56	47	2+95	<i>T</i> :		NCI	9/26	pr 3 5	Play	
R-87	9/24	P. 4.5	45 56 46	2761		Paxas	NC/5382 15:20	9/26	ms	Prop	
R.88	9/24	P45 P56	44 51	2+23	<i>T</i>	P. 2×1	NC/ /5382 14:12	9/20	ms	1700	
	1 .	2	E7 (1			<del></del>	2/1	1	, ,	V '	

KEY:

P=Patch

B=Bead

C=Cap

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P1.5 X 9

O=Other and describe in Comments

# GFG

Geomembrane Repair Log

Client: _	1/93	Ju .	Jan I	LAŽI.	Project: <u>C</u>	<u>e// 3</u>			Proje	ect No.:/ <u>/</u>	Page 10 of 17
Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-91	04/24	P54 P55 P57	57 54	4+11	Ť	P-2×2	IS/503	9/26	MS	Plan	
R-92	9/24	P53 P54 P57	57 53 54	4440	T	P 2XZ	+5/503	9/26		173	
R-93	9/24	EX157	Exist 57 53	5763	HO10 AF	P-1.5×1.5	Is/503	9/26	MS	PLECES	
R.094	9/24	Exist PSO PGO	6455+	5+59	Hole 15T	P-3x 6	IS/503 09:35	9/26	ms	PEAR	
R95	9/25	P-60	L	4+49 9'from P57/P-60		P.1.543.5	IS/03 05:40	9/26	mr	CLOS	
R-91	9/25	P57 P58 P63	58				15/-03		m 5	Plan	
R.97	9/24	P54 P59 P-60	58 59	1+64	T	P.1.5 X1.5	NC/5382 16:05	9/20		Plas	
R.98	9/24	P59 P-63 P-62	59 62	1+64	7	P 15×15	NC/5382 16510	9/26	NS	Plas	
	9/26	P75 P76	75 76	Ø +3⊃	DS-33		21/2	9/26	MS	8/sch	
R-100	9/26	P-79	2 74		. 1 .		NE 5382 08:25	9/2/0	MS	1/100	

KEY:

Rev.8/00

P=Patch

B=Bead

С=Сар

DS= Destructive Sample

O=Other and describe in Comments

Page // of 17
Project No.: 10/07-06 Project: Gu-3

Repair Number	Date Repaired		Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID		Tested By	P/F & Initials	Comments
R-10)	9/26	P62	£2 80	1+43	DS-35	P-2-X6	NE/ 5387	ape	MS	P/TCS	
R-102	9/26	P54	94 93	0+50	DS-76	P-2×5	NC/5382	9/26	ms	P/503	
R-103	94/26	Existor P.82	EX.S+ 	6+17	Ds -37	P-2x6	NC/5382 09537	9/26	M S	Plan	
R104	9/25	01550 P-76	15 Ex 551	lo + 4-3	1-101e	P-1.5x1	13:47	9/27	m S	P/TUS	
R-105	7/25	Ex1547 P73 P74	24/72 EXC31	7+11	ida (c	P · /×2	NE 382		ms	PLEB	
R106	9/25	Gx 155	71)69	S+03	146	P-1X13	NC/ 5382 101.13	9/27	M3	Plas	
R.107	9/25	27/5+ P-87	82 61	6+05	T	P-1×2	IS	9/27	m5	Has	
R-108	9/25	P82 P-76 P-77	77 76	0 t.23	7	P-1,5x25	I5/503 14:05	~/	m.s	Place	
R-109	9/25	P-82 P-17 P-78	78 97	0+46	7	P.1.542.5	I \$/503	9/21		Place	
R-11.0	9/25	P.82 P.73 P.78	94/78	0+69	***	P2×3	I-4/503 14:15	9/27	ms	Place	

KEY:

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Rev.8/00

Client: _	Vis	tua.	LANO	Lfi) I	Project: <u>(</u>	211-3			Proje	ct No.:/ <u>0/</u>	Page 12 of 17
Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-111	09/25	P-82 P-79 P-80	80/79	0492	Ť	P-2×3	15/503	9/21	MS	PTEB	
R-112	9/25	P. 335	83 80	1+28 + 1+16	TÉ. Recon Sean	P-2×8	NC/3822	9pc		Plas	
2-113	9/25	P-61	35 82 	3+15		P.2.5×3	NZ	9/27		P/as	
R 114	9/25	f. 61 f. 85	85	3+00	Hole	P. 1.5×25	16535 16535	9/27	ms	Pas	
R.115	9/ /25	P.61 P.85 P.87	87 85	2+97		P-3×4	WC/	9/27	ms.	Pars	
R-116	9/25	P.84 P.87	87 85	0+96	7	P-4X6	NCL	9/21		PTRB	
R-117	9/25	P84	50-1 ?87 8'4-	0+32	cit	P-3×8	17:35	9/21	mS	PTUS	
2:118	9/25	P-61 P-87 P-88	88   87	2174	. 7	P-dx3	NC/53X2	/		Pros	
R-119	a. /	9-61 9-85 8-85	89/88	2+51	T	P-2×2	Nelanos	1,	ms	Plas	
R:120	9/25	Butel	86 89	2+43	Vaccionistrici	P-4X6	No lando	9/27	MS	Pho	

**KEY:** Rev.8/00

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lient: Virta LANSFII	Project: <u>6/1-5</u>	Project No.: 1060200 of 12
----------------------	-----------------------	----------------------------

Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID		Tested By	P/F & Initials	Comments
R-121	39/23	P22	丰	0+23 +0 2+2 8	Recon	Bert ? 5'	NC/5382	9/26	ms	8/7013	
R122	9/23	P-(9 P-20 P-22 P-25	19 2	otsillatiss	Recor	1-2×5	NC/5352	9/20	pr s	P/71B	
R-Q3	7/24	1.28	678 bri	6' Fm- P28/229 4 + 125	Hole	P-1X/	IS/ 500 13:10	9/26	m5	P/103	
R-124	9/26	P-12	12/1/3 DE31	Otos to etes	Ketan Sean	P-1,5-X5	NV/5382	9/26	$n_1 \leq$	1/1110	
R-125	9/	P-18	18 25 Pb	G-189	- 7	P-2X2	NE/ 15382 11:15	9/26	ms	· P /	
R-126	9/27	P.18 P-19 P-25 P-26	70 26	0+85 to 2489	Recon	P-2×4	NC/382	9/26	ms	PI	
R. 127	9/23	e 24 P-27	24 27	0172	Hole	P-2x6	17:15	9/26	m5	P) TIB	
R.128	9/23	18 p.25	27	1-70-8	7	P-5X6	NG/382 13145	9/26	ms	9/20	
R-123	9/23	100 Pi27	27	1+31	7	P.2x3	13:42	9/20	ms	17:23	
R-130	9/23	P-15 P-16 P-27	16 16	1+54	7	p. 2x3	NC/5362- 13:35	9/24	ms	P/EW	

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l:/work/solid/fieldforms/geomembrane

Project No.: 101-02 St of 170 Client: Vista LAN 18-71 Project: 611-3

Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-131	9/25	6xist P-63	P163 45	0400 40 16	Hole	P.5×16	N 45382 09:09	9/21	NIS	Ptus	
R-132	9/25	P.63	P-tes	Across to st well	No les	P-8X8	NC/5382 18:35	9/21	m5	Plas	
R-133	9/25	ex1530m p.63 p.64	63 64	8+83	7	P1.5x2	09:05	9/2	ms	8/200	
R=134	9/25	P.64 P.65 P.67	66. 65	9+28	7	P-etX7	NC/5382 09:35	9/27	m s	P/c13	
R-135	9/25	P65	64 65	0+00 to 0+05	Recou Sem	8-2×5	NC/5382 04:40	9/27	MS	Plan	
R.136	91/25	P-67 P-68	bi 768	0+0> +0 0/05	Recon Sepa	PZXS	Ne/5382	9/27	ms	P/215	
R:137	925	P-73 P-75 P-76	75 73	ctos f. ctob	Reion	P-2x+ B-2	N C/5382	9/27	MS	1/103	
R.138	9/25	P-73/ P-74 P-75	75/73	0+32	7	P- 1.5x2	NY 382 14:05	9/21	mS	PHY	
R-139	9/25	P74 P-75 P-81	75 74	0144	7	P2×2.5	NC/5382 14:00	9/27	MS.	PTIB	
R-140	9/26	Elist.		2 for ht 12 Alous tic, 12 8+44	Hole from Backhoe	P-3×3	NC/5382 16:07	9/27	me	PITUS	

KEY:

Rev.8/00

P=Patch

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O=Other and describe in Comments
l:/work/solid/fieldforms/geomembrane

# GEG

Geomembrane Repair Log

Project No.: 101,07-0P of A Visity LANAFOU Project: 6/1/3 Repair Crew Repair Date Type / Size Seam Description P/F Date Tested Panel(s) Location Comments Number Repaired ID of Damage of Repair Mach-Tested By & ine ID **Initials** Existit DAYLAGE GO-09/26 P.64 3×3 R-141 Brearistor NC/5382 0 P-1.5\*15 P83 9/25 R-142 MS 140/1 16/12 153×2 83 P-83 R-143 MS 0-493 16% P.J.SXJi 146 5453 P83 15382 MS Phix Hola P-84 R-144 0492 P83 P84 1+38 ms 1743 R145 P-7,5X2 25 90/80 9/25 Rº/46 TUB P3,5X4 2+29 MIC 86 91190 P86 P90 P91 NC/5382 R.147 P2x2 2+07 86 MS p.91 92/91 P.2x+ R-148 MS 86 93/92 P92 P93 NC/5382 TB R.149 P 86 P.1.5x2 86 NC/8382 1/26 P93 94/93 1+38 P-86 19:05 2×2 ms

KEY:

Rev.8/00

P=Patch

B=Bead

C=Cap

DS= Destructive Sample

O=Other and describe in Comments

Geomembrane Repair Log

Client: _	Vis	tio f	and f	?(/	Project:	Poll-3			Proje	ct No.:/ <u>0(</u> ,	Page 16 of 17
Repair Number	Date Repaired	Seam ID	Panel(s)	Location	Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
R-15)	9/26	P-87	87	3' Fr 87/88 0+18	14 1c	P)X1	NC/5382 09',18	9/26	MS	Play	
R.152	9/26	Po102	86 1036	1+15	T	13×6	09-10	9/26	ms	1/ans	
R.153	9/26	P95 P101 P1P2	102 95	0189	7	P.3.5×6	N C/5382	9/20	ms	PIEB	
R154	9/26	PG6 PG7 100	10/ 91	0757	7	P.3X5	N 45382 14:15	9/26	ms	PTER	
	9/26	R97 R99 R199 R10)	99 98	0+25	<del></del>	P. 2x2	NC/6382 15:35	9/20	ms	Play	
	9/26	P-100	125 95	0+39	D5-38		NC/5382 15:00	2/26	Ms	Plus	·
R-157	9/26	P101	123 (2)	0+33	Riconi SiAm		1		ms	P/105	140
R-158	9/26	p227	21/20	otos to otas	Reco	P-2x5	NC/5382	9/26	ms	PAB	
R-159	2/26		331 34	10° from 33/34	mo le	PUIXZ	NY5382 11:40	9/26	MS	PIB	
R160	16	P-34	33 34	0+ 10 10 for 33/34 0+13	Ho18	PIXZ	N-44	9/26	MS	18/200	
KE	Y:	P=Patc	h	B=Bead	C=Cap	DS= Destruc	ctive Sample		=Other an	d describe i	in Comments

Rev.8/00

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Geomembrane Repair Log

Client: Vista LANShi) Project: Cul-3 Project No.: 106.07.08

Repair Number	Date Repaired	Seam ID	Panel(s)		Description of Damage	Type / Size of Repair	Repair Crew Mach- ine ID	Date Tested	Tested By	P/F & Initials	Comments
D-16/	09/26	P-34	33 34	10' From 33/34	40 E	P-1X2	12:00	og pe	ms	Pas	
R-162	09/26	P-35	34 35	0+20' 10' From 34/35 0+10'	Hole Hole		NC/5382 14,05	9/26	'ns	1/00	
RF63	2/26	P-35	35 36	6' From 35/36 0+10' 9' From 41/42	Hole	1.5×1.5	14.05 Mc/1583	9/24	ms	PTUS	
R-164	9/26	p /2	41 42	9' From 41/42	140/1	P-1 X1,5	NC/1583	9/26	m3	9/7/3	
						/				, ,	
		-									

KEY:

P=Patch

B=Bead

C=Cap

DS= Destructive Sample

O=Other and describe in Comments

Rev.8/00

l:/work/solid/fieldforms/geomembrane

### **D.1 CERTIFICATE OF COMPLETION**

Representing:

Type:	Partial	Substantial	Final
Project Nar	ne: <u>Cell-3</u>		
	•	C/455 111 LANDEU	<del></del>
		2	
Description	of Work Certified	Completed subgrade and su	b base Soil for
<u>Cell-</u>	3 Covern	di Completed subgrade And sus setion for pitcement of geomen and contrication survey is	brave Liver , AC
20105	TESTEC	AND DESTITION SUNCY IS	Complete,
4-20-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			
***************************************			
I hereby cert required test its intended	ing has been com	identified work has been inspected and that it has been properly inspleted and the results have been deemed acceptable by the CQA En	stalled. I further certify that all ngineer—The work is suitable for
	ſ	2 CQA ENGINEER	
<b>«</b>			1.1
Signature:			126/12
Name (print)	: SETH A	NUNES	
Title: C	ERTIFYIN	L ENGINEER	·
Representing	CARLSON	ENVIRONMENTAL CONSULTING, PC	
		CONTRACTOR'S REPRESENTATIVE	
G:	De la		0 536
Signature: 2	Jany -	Date:	9-26-12
Name (print)	- SAU	R. W:59 150/	
Title:	oft.	ERC Gen. Cont.	-
Representing	: CRC	Gen. Cont.	
	/	OWNER'S REPRESENTATIVE	
Signature:	the same	Brokel Date: 08	120/2012
Name (print):	Tes ma co	C Bradford	
Title: Links	Truction Cy	Duglity Assurance Menita C	EC

Type:	Partial	Substantial	Final 6
Project Name	e: <u>[e1] -</u> -	3	
Site Name:	Vista C	1455 111 19Ndf; 11	<b></b>
Date:	29/26/20	3/2	_
Description of	of Work Certified:	EST camplated All la mi	
Liker	installa	EST completed All 60 mi	Le Carre local
passed	. LA borato	passed, CEC AND EST W.  Cell -3 engaing prior to cover	Lesting LEAS
perto	rmed and	passed, CEC AND ESI W.	Alked All Lide
insta	Hed in	cell -3 engaing prior to cover	inc ANY Liver
	**************************************		
Their terms of the	و وراون		
required testin	y that the above ide g has been complet	entified work has been inspected and that it has been properly insta ted and the results have been deemed acceptable by the CQA Eng	alled. I further certify that all
its intended us	e.	and the contract of the contra	ulcci. The work is suitable for
_	<del></del>	CQA ENGINEER	
Signature:	In (	Date: 9	126/2012
Name (print):	SETH A.	NUNES	
Title: CEA	TIFYING	ENCINEER	
		ENVIRON MENTAL CONSULTANTS PC	
		CONTRACTOR'S REPRESENTATIVE	
Signature:			1
			126/2012
Vame (print):	SOULIGI	UA PHINTHISENE	
itle:	supt		
Representing:_	E-S.1		
	1	OWNER'S REPRESENTATIVE	
ignature.	5727 C	Bradfel Date: 199/	36/2012
ame (print):	Tommy (	Bradford	
tle: Low	striction	Quality Assurance Mountains	CFC
epresenting:		1	

Type:	Partial	Substantial	Final
Project Nar	me: <u>Ce [ [</u>	· 3	Andrews
Site Name:	Vista	Class III Landfill	mona
Date:	09/29/	20/2	
Description	of Work Certifie	ed EST Compatalat	
Liver	Coveri	ed: EST completed geocomposition	E OVEV 60 M
duria	11 INSTA	NG COIT-3, All geocomposite All+tion, tying and sensing, is comolote	All agains
And	Co11-3	is Comoloto	na geocompo
	·		
**************************************	- <del> </del>		
I hereby cer	tify that the above	e identified work has been inspected and that it has been properly inst	salled. I further certify that all
required test	ting has been con	npleted and the results have been deemed acceptable by the CQA Eng	gineer. The work is suitable for
	1	2 CQA ENGINEER	
Signature:	Tw.	Date: 9	129/12
	): SETH 1	1. NUNES	15112
	_	INC ENCIN GER	
	•		
Representing	g: CANLS 61	N ENVINONMENTAL CONSULT ANTS	PC
		CONTRACTOR'S REPRESENTATIVE	
Signature:		Date: 9	1/24/2012
Name (print)	: 200Ll	IGNA DHINTHISENE	
Title:	SUPT		
Representing	: E.S	3.1	
	2.1	OWNER'S REPRESENTATIVE	
Signature:			120/2 13
	John C	Date: 04	129/2012
Name (print):	, , , , , , , ,	y CBradford	
Title: COL	ustruction	V QUALITY ASSULANCE Movitor	CEC
Representing:			

# OGEC

Туре:	Partial	Substantial	Final
Project Name	e: <i>Cell</i> · 3		
Site Name:_	Vista Cla	ess III LAND fill	
Date:			The Market Control of the Control
Description of	of Work Certified:	Completed the Locality	to collection and
draina	ice Stone	system including sump	riser pipe complete
the	2 foot la	yer of protective	te collection pipe and riser pipe. Complete.
<del> </del>			om til deligen som til se se stationers og se stille specifier for danners og sette en en stilpes og i en beskenne
I hereby certi required testi its intended u	ng has been completed :	ied work has been inspected and that it has b and the results have been deemed acceptable	een properly installed. I further certify that all by the CQA Engineer. The work is suitable for
Signature:	1/	CQA ENGINEER	Date: // / 09 / 12
Name (print)	: SETH A. NO	INES	
		ENGINEER	
Representing	CARLSON E	NUI RON MENTAL CONSULT	ANIS PC
	1 0	CONTRACTOR'S REPRESENTAT	IVE
Signature:	may -		Date: 11/09/12
Name (prim)	SACK R.	Wiggins	
Title: Su			
Representing	ERC G	en. Cont.	
	1	OWNER'S REPRESENTATIVE	
Signature:	hones C	Brafel	Date: 11/09/12
Name (print)	معمشست	C Bradford	
		Gutlity Assurance 1	Portor CEC
Representing			

# GEG

Representing:

Type: Partial	Substantial	Final
Project Name: Coll-3		and displayed and in the second displayed the secon
Site Name: Vista Class 11,	1 LANDAIL	
Date:		
Description of Work Certified: Lemp	leted All force ma	cin pipe 3"SDRII AND
6" SDR-11, AND	corrie- pipe for 7	the 3" force main and
10" carrier pipe for	the 6" force main	. All force main pipe
for COH- 3 13 COM	plate Add pressure	the 3" force mair and the 3" force mair pipe tested.
		on properly installed. I further certify that all y the CQA Engineer. The work is suitable for
	CQA ENGINEER	
Signature:		Date: 11/09/12
Name (print): SETH A. NUNE	5	
Title: CERT, FYING ENG		
Representing: <u>CARLSON</u> ENU	LOW MENTAL CONSULTA	NIS PC
2	CONTRACTOR'S REPRESENTATIV	∕E
Signature:		Date: 11/09/12
Name (print): JACK R. Wise	9145	
Title: Supt.		
Representing: ERC Gen.	Con the acting	
	OWNER'S REPRESENTATIVE	
Signature:	Bulpel	Date: 1/09/12
Name (frint): Journ J C	Bradford	
Title: Construction Quali-	to Assuvance Mour	6

### **D.2 LEACHATE FORCEMAIN TESTING**



LANDFILL GAS, AIR PERMITTING, AND REGULATORY COMPLIANCE SERVICES

Site: Vista Class III fandfill Cell-3
Contractor: ERC
Test Performed By: Jack Wiggins
Date: 11/05/2012
Time: 17:30
Description & Location of Test Segment: Force Main 3" from N.E. Corner &
S.E. Corner And 6" Force Main Rom SE Corner to the sump
Diameter & SDR of Test Segment: 3"is SDR-11 and 6" is SDR-11
Length: 3" SDR-11 is 560" AUD 6" SDR-11 is 260'.
Start Time: 16:30 End Time: 17:30
Start Temperature: 90° °F End Temperature: 89 °F
Start Pressure: /30 psi End Pressure: /29 psi
Start Pressure: 130 psi End Pressure: 129 psi Pass/Fail: PASS Retest (yes/no): 100
Comments:
Test was Hydrostatic, Checked the pipe for
looks, The pipe was left overnight with any
pressure lass.
Record Prepared By: Say C Ball Date: 11/05/201



LANDFILL GAS, AIR PERMITTING, AND REGULATORY COMPLIANCE SERVICES

Site: Vista Class III Landfill.	Ce11-3
Contractor: ERL	
Test Performed By: Tack Wiggins	
Date: 11/06/2012	
Time:	
Description & Location of Test Segment: Containment	pipe 6" from N.E. Corase-
to SE. Corner And 10" from SE Corner to Sump	<i>v</i>
Diameter & SDR of Test Segment: 6" SDR-17 AM	
Length: 6" SDR-17 is 560' AND the 10"	SDR-17 is 260 feet.
Start Time: 10:15 End Time:	11:15
Start Temperature: 85 °F End Temperat	ure: <u>85 °    °                              </u>
Start Pressure: End Pressure:	psi
Pass/Fail: PASS Retest (yes/no)	:NO
Comments:	
Containment Pipes tested with Air	only.
Record Prepared By: 1000 CB out	D / / -
Record rrepared By:	Date: ///06/2012



LANDFILL GAS, AIR PERMITTING, AND REGULATORY COMPLIANCE SERVICES

Site: Vista Class 111 /	ANDFILL COL	1.3	
Contractor: ERC			
Test Performed By: Jack Wiggio	US		
Date: 11/06/2014			
Time: 14:45			
Description & Location of Test Segment:	Force Maju D	ipc 6" fre	om the
N.E. Graver to tie in At	611.2,		
Diameter & SDR of Test Segment: 6			
Length: 6"5DR-11 590'			
Start Time: /3:45		4:45	
Start Temperature: 92° °F	End Temperature:	92"	<u>° F</u>
Start Pressure: /30 psi	End Pressure:	126	psi
Pass/Fail: PASS	Retest (yes/no):	NO	
Comments:			
Test WAS Hydrostat	ic, Checked	Abay P.	ise for
ANY leaks,			
	Relle		,
Record Prepared By:	12 py	Date: _//	6/2011
//			



LANDFILL GAS, AIR PERMITTING, AND REGULATORY COMPLIANCE SERVICES

Site:	Vista C/A	ss 111 L	andfill	Cell - 3	
	tor: <u>ER</u>				
		Tack Wig	GINS		
		12012			
	17:30				
Descript	tion & Location	of Test Segment	: Ga tain	rest pipe 10	"-from
the	NE Corne	- to tie	-IN A+	Co11-2.	
				- 17	
		R-17 3			
				e: /7/3 o	
				perature: 82	
				sure:	
Pass/Fail	l: <i>P.</i> 4 <i>s</i>	~	Retest (ye	es/no):	
Commer	nts:				
<u>Lo</u>	ENtoinmen	t pipe	LUAS A	ir tested.	
		1			
	_	1/		71	
Record I	Prepared By:	tomy	/15n/ <sub>11</sub>	Date:	11/06/2012

# **D.3 DAILY FIELD LOGS**

Owner: V/S +A LAND fill       Report No.: / mon         Project: Cell 3       Cell 3       Date: U8 / 13 / 20 / 2         Project: No.:
Project: No.:
Project: No.:
Temp.(EF): High Low _74 Rain
Contractor(s)ERC
Contractor Super(s)
Number and Function of Contractors' Personnel, Hours Worked (Identify Subcontractors Separately)
Contractor No. of People Major Constr. Equip. Description Size/Capacity No. No. in Use
ERC 8 DOZER CAT NG / /
LRC 8 JUZEV CAT D6 / /
Visitors Representing
Daily Notations:
05:00 Depart Palm City Pl for Vista Landfill. Mobilized to Site.
Site.
08:00 ON site. Met with Sherce, Checked equipment should &
the kandfill for CEC.
10.30 Attended the pre-construction meeting for cen. 3 Construction
Please See minuster of meetings,
12:30 ERC personnel Are grubbing the cell 3 sortace with a
DI Dozer The Surveyer is on site And set beach me
tor ERC.
14.30 I picked equipment needed for soil testing on site.
I Am checking A Storage Area.
1
Signature: 2/2//

# Daily Field Report

Project No.:	:	01,57	108		,	<del></del>	Report 1	No.:/	·		Mon
Date:	08/ 13 ERC Thic	/ 20	12				Page: _	2	of	2	
16:00	ERC	wil	( was	t span	+ wo	Je ux	itil	ton	10-10-10	mo	NING
	Thic	v 5u	perio	tenden	+ ;	s Not	ov	site	yet.	I d	es. Acc
	the	site	to	locate	B	hose 1					
					·····	· · · · · · · · · · · · · · · · · · ·					
			hwasan a . mbp., ma'n a t			· · · · · · · · · · · · · · · · · · ·				······	
	**************************************				<del></del>	<del></del>		<del></del>			<del></del>
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	<del></del>	<del></del>	<del></del>					<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		······	
	**************************************		<del></del>	<del></del>		<del></del>			<del></del>		<u> </u>
		<del></del>	· · · · · · · · · · · · · · · · · · ·			<del></del>		······································	<del></del>	·-····································	
	· · · · · · · · · · · · · · · · · · ·	<del></del>		·	<del></del>					<del>~</del>	
			<del></del>	y de l'anti-particular de l'anti-particular de l'anti-particular de l'anti-particular de l'anti-particular de l		· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	<del></del>	<del></del>
<del></del>	<del></del>	•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		···		<del>, , , , , , , , , , , , , , , , , , , </del>	, , , <del>, , , , , , , , , , , , , , , , </del>			
		<del> </del>	· · · · · · · · · · · · · · · · · · ·			<del> </del>	<del></del>	<del></del>			
			· · · · · · · · · · · · · · · · · · ·				<del>agasta ya sanata ya sana kayanta</del>	······································			
		·			<del></del>	<del></del>			***	<del></del>	<u> </u>
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		***************************************			·			····	······································	····	
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and the second s		*****		tan Maring day of the same of the same		h	حيا كالمراب والمراب والمراب والمرا	··		····	
· · · · · · · · · · · · · · · · · · ·											
		•				Signature		71	1/1	2	12/

	Class III	ANSAIL	Report No	).: <u>2</u>		Tue
roject: Vista	bandf.)1	Co11 3	Page	08/14/20 PC	of	Tue
roject: No.:		Weather:	Date:	PC-	772	00
ontractor(s)			High	94° Low _	P.M	Rain
ontractor Super(s)	Jack Wiggir	JS				
umber and Function	of Contractors' Perso	onnel, Hours Worked (Identify S	Subcontracto	are Companials	<del></del>	<del> </del>
Contractor	No. of People	Major Constr. Equip. De	· · · · · · · · · · · · · · · · · · ·	Size/Capacity	No.	No. in Use
ERC	8	Dozer	CAT		1	/
		Excavator 1			1,	/
		End Dump Trushs	Volvo	25 for	2	1
		Roller Ingerso	il RANd	50100		1
		Roller Dugerse	AT	563	/	0
		water Tanker	CAT	5000 SAL	,	0
	Visitors		Represe	nting	1	
				-		
Shu Bitana d						
lly Notations:					<del></del>	
yet,	77768 85	site at Vista	19~3 411	. ERC x	sot o	n site
	personnel	Are on site. The	7			
1:00 ERC		1,10 00 3,76.	rev si	spect the	Sick	in Shi

Yellow Copy - Owner

Pink Copy - Employee's Field File

White Copy - Library File

LOCATION ,

12:00

# CEC

Project No.:		Report No.:	2	Tue
Date:	08/14/2012	Page:	2of	2
13:30	ERC used a bonded vol	vo end dump	to proof	roll the
	east bem great I mon	sitored the	Prostrolling	. They
	started out and fill to	level the b.	em Auch.	
15:30	ERC personnel me having			
	ARA At the North end o			
	They are compacting with			
	having problems with the			
	ERC Stopped work. Th			
	eguipment.			
	I deposted the site.		**************************************	
				-
	Fill Hauled & Placed to de		Average 18	C.Ys 104d
	121 1040	ک		
*************************	2.178 C.	stic Yards	and the second s	·
		. *		
				,
		1	7	
<del></del>		Signature	n C Re	h

Dink Come - Employee's Field File

Owner: Vista	C/455 111	19Ndfill	-	Report No.:	.3		wed
Project: Vista ha	udfill e	Ce11-3	····	Page	/ 8/15/20	of	2
Project: No.: /0/							
		Ten	np.(EF):	High	Low _	75	Rain
Contractor(s) $ER$	<u>C</u>	,	····				
Contractor Super(s)	TACK W	iggins		Maria de la composição			
Number and Function of	Contractors' Perso	onnel, Hours Worked	(Identify S	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr.	Equip. De	scription	Size/Capacity	No.	No. in Use
ERC	8	Dozer		CAT	D6	i	/
		Excavator	his	k Belt	330	1	1
		End Dump	·	VOIVO	25 AN	2	2
		Roller	Ingerso	11 RAND	50,00	/	1
		Ruller		CAT	563	/	Ű
		Ruller Water Tanker	<u>,                                     </u>	500017	5000 gm	1	1

Visitors

Representing

Daily Notation	ons:
07:00	Arrived ON Site ERC ON Site
07:30	Completed sign in Sheet. ERC started having fill from the
	old Access pad, worth side to the east bern grea.
10:00	ERC persounds are placing and grading fill on the east
	side of con-3. Fill is from the old access road at
	the North end. They are having problems with the
	GPS on the D6 Cozer. They are working on it.
13:00	ERC Confinues to place fill from the old access road
	At the east side where the berm is located. They are
	Compacting fill to make the bern level.
14:30	We chaked the Liner plong the cell-2 tie in where
	Signature: Josey C Broeffel
	White Copy - Library File Yellow Copy - Owner Pink Copy - Employee's Field File

Project No.:	Report No.: 3	wed
Date: 08/15/2012		
holes were excavated		
was Cut 16 to 18 a		
5.8. This coas in the	bern 4xe4	<del></del>
17:00 I received the Pod ou		res to place
and compact fill At		
They are operating		
18i20 ERC personnel stopped	work. They are pert	forming service
on thier equipment.	The D6 dozer contic	Les de grad
iv 611-3.		
19:00 ERC stopped with fo	u dozer I departel	He s, In
ERC placed 123	loads today x 18 cys=	2214
	and the same of th	
		797-20
v.		267

Signature

Dink Come - Employee's Field

Owner: Vista	C/455 111	1-1~ Jill Report No.:	: <u>4</u> /	<del> </del>	77,005
		Page		of	2_
Project: <u>Cell</u>	/-3	Date:	08/16/2	0/2-	
Project: No.:	1.07,08		<b>_</b> .		
_	- 0 0	Temp.(EF): High	Low _	76	Rain
Contractor(s)	_			· · · · · · · · · · · · · · · · · · ·	
Contractor Super(s) _	JACK W	GgiNS	······································		
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC	8	DOZE CAT	<i>)</i> ) 6	/	
		EXCAPAROR LINK BUIL		/	
		End Dump Value	25 50	2	2
		Roller Insersoll Rand	f .		1
· · · · · · · · · · · · · · · · · · ·		Roller CAT		1	0
		Water TANKER CAT		· <b> </b>	
		wife in the	1 200 5/12	<u> </u>	
Daily Notations:		Suddreth C	<i>E-</i> C		
06:30 I	pieland	UP items for texting	Soil aw	ر ام	cived on
3,	te. ERC	of tens for testing personnel one on site.	ERC pers	ONW	"1 ON 5.H.
$\mathcal{I}$	set up t	he soils lab at the	Pod.		
07:15 EI	RC Derson	vel are placing and	Compaci	HUG	fill on
the		•			
09:00 1	Am perto	orming moisture dea	Isity to	st o	~ Compac
Sec	tions of	the east berm. E	ERC has	2	trucks Mul
fill	to the	born. The south	end of	the	e45+ be
WA		ERC will got the			•
		el are placing fill			
Com	pacting (	ou the south exit	flour and	0	st bern
		Signature:	my EV	Biz	1/6/
	White Copy - Library	File Yellow Copy - Owner Pink Copy	- Employee's Field F	ile	

Project No.: 101.07.08	Report No.: 4	Thous
Date: 08/16/2012	Page:	2
I retested the failed Sec	tion of east be	m and it
passed.		
14:00 ERC CONTINUES placing, gra	ding and compact.	ing fill on
the east herm and flow		•
Dozer to Control Lift.		
16:30 Edwin Suddreth with CE		the offeroom
I continue to perform		
the esst bern and so		
18:30 ERC Continues placing		
They will work outil	19,00 today.	·
19:00 The crew stopped wor	k except for th	e dozer
grading, I am com	•	
Drive Cylinders.		
19:30 ERC Stopped work for	The day. I dep	anto d the site,
ERC hauled 250 lands	× 18 c4 = 4500	C. Ys,
	·	
· · · · · · · · · · · · · · · · · · ·		
	- A	
	Signature The Market	Suple

Owner: U1374	C1455 111	LANDFIL	Report No.	5 /	·	FRI
Project:	- 3		Page	117/20/2	_of 2_	2
Project: No.:		Weath Temp.	er: A.M. / (EF): High /			
Contractor Super(s)		1:49,25				<del></del>
		onnel, Hours Worked (Id	lentify Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr, Eq	uip. Description	Size/Capacity	∖No.	No. in Use
ERU	الم	Dozer	CAT	DG	(	1
		Exchaser			1	/
		End dump	Volva	25-60	2	2
		Compactor	Ingerial Res	50100		
		Comparta	CAT	543	/	0
		Compactor Compactor inster Tarker	CHT	5000 GAL	,	/
	Visitors		Represe			
aily Notations:						
	arrived on	site at 1	listy pull	11. ERC	реч	oned 1

06:45	I prived on site at vista partful. ERC performed the
	val site.
07:15	ERC personnel Are placing And compacting fill at the
	exit bern sien Fill is from the old road and to
	the North road area.
09/00	I Am performing moisture density tost on compacts
	sections of the bern. They are using the water
<del></del>	tacker to wet the soil prior to compacting. The
	soic is mostly sound.
11:30	
	At the east beam And South and beam much. I

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Yellow Copy - Owner

Pink Copy - Employee's Field File

Project N	6: 101.87.08	Report No.:	FRI	_
Date:	08/17/2012	Page:	of	<del>,,,</del>
	Am observing the place	coment and gr	radiay, compacti	ìz
-de Alexandra	and I am performing	moisone der	sizy test.	-
1450	There are thursen storm			ي و
	here get. ERC cont			
<del></del>	AND compact structur	,	<u> </u>	
	AND South bem of a			
	devi, ty test.		•	-
16:15	ERC Stopped placing +	fill at the b	ems. They A	e
	Stockpilling fill At ?	the south we	st sile of all-	3,
	They stopped grading			
17:00	ERC Stopped work to			
	until monday.			_
17:05	I departed the site-			-
				-
	Note! ERC hould 168	loads Loday = C	218 PM =3024 05	/
				-
		**************************************		_
				-
				_
	,			_
		. //		_
		Signature Signature	1 CBn/2	
				-

Owner: Vista  Project: C11-		MNEXII		Page	<u>b</u> 8/ 20/20/	of	
Project: No.: //	1,87,08	V	Veather:	A.M. $\frac{\rho}{g}$	6 1 8/ 20/20/2 4 Low 2	P.M. 1	nc Rain
Contractor Super(s) Number and Function	JACK W	iggins.			rs Separately)		
Contractor	No. of People	Major Const	tr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	Ó	Dozer Excavator Excavator		CUT VOIVO Linkbelt	D& 33° 33°	1	1
		End dum				2	2
		Compactor	Ingers	on RAND	53/00	1	1
		compactor		CHT	5000 gal	/	10
		Water TAN	leir	CAT	5000 gal		1
	Visitors			Represe			

Daily Notati	ions:
07:10	I Arrived ON site At Vista LANDfill. ERC personnel Ave
<del></del>	on site working ou thier equipments They are making
	repairs to this dozen They do Not have the exceptor
	an site yet.
09:00	I picked up proposite for the store to day soil samples. The
· · · · · · · · · · · · · · · · · · ·	excreator is on site. EAC has not started work yet.
10:33	ERC personnel Are placing, grading, adding moisture and
	compacting fill on the east beam. I am performing
	moisture dousity test on compacted scritions of Lifts,
13:00	The dozer kincked out the pipe near the worth toe of
	Slope, The GPS located the pipe. They will relocate the
	Signature: 100 C.Bull

White Copy - Library File

Yellow Copy - Owner

Pink Copy Employee's Field Fife

Project No.: 101, 07, 08	Report No.: 6 Man
Date: 08/20/20/2	
pipe of her they excavate the	AVER, I Continue to perform
moisture deusity test on	compacted sections of the Rust
Slope.	
16:00 ERC has ANother excavator	
excavators at this time in	They removed the out compretor
from the site.	
17:25 ERC Stopped Hauling Fill.	They are servicing thier equipmen
17:45 I departed the siter	

Project:	3 01.07.08 RC	Weather: Temp.(EF):	Page Date: A.M High δ	:_7 _/ 08/21/21 PC 'S' Low_;	of v/2_ P.M. <u>/</u>	nc IRain Rain
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERE	G	DO 2 Ar	CAT	D6	1	/
		EXCAVALAN	Volva	<i>33</i> 0	1	1
		End Dump	Volvo	25 700		
		Compactor Ingers				/
		Water TANICIN				/
	Visitors		Represe	nting		
Daily Notations:						
06:55 I	Arrived	ON SITE AT	Vista	landfill.	<i>[-</i> ×	20 person
		· · · · · · · · · · · · · · · · · · ·				• •
Are	Adding mei	sture AND compace	ting +1	he east a	berm	AreA.
08:00 I A	n perform,	ing moisture a	lensity	test on	Com	packed Sec

rn. I am performing moisture density

Signature:

West floor with continued Proof volling.

Are placing fill

White Copy - Library File Y

Yellow Copy - Owner

Pink Copy - Employee's Field File

Project No	o:: 101.07.08	Report No.:	Tuc
Date:	08/21/2012	Page:of	2
	test on compacted Lift	sections.	1 01 - 1
14:00	I Am performing moisture	density test with	drive cylind
	on compacted sections of	Lifts At the east	berm. ERC
	continues placing, Adding mois		
	fill on the east bean. I	: /	,
	Fedex,		
	Thunder storms are movin		There is
	rain, ERC continues to los		
	ON the PAST 5/ope,		, , , , , , , , , , , , , , , , , , ,
	ERC personnel stopped work		ice equipment
	RAIN continues.	· · · · · · · · · · · · · · · · · · ·	
	ERC has stopped work except	- Lo. the GAS dozer	grading the
	North Stope and inside slope		
	ERC Stopped work Art		
		,	
<del></del>			
		and the state of t	/1
			2

Owner: Vista C/A	ss 111 far	1dfill	Report No.	: <u>8</u>		we
		df:11	Page	/	of	2
			Date:	08/22/0	2012	
		Weather:	A.M	mc	_ P.M	RAIN
				<u> </u>		
ontractor(s) <u>ERC</u>						
ontractor Super(s)	Ack Wigg	ins				
	•	onnel, Hours Worked (Identify				
	No. of People	Major Constr. Equip. De		Size/Capacity	No.	No. in Use
	TO: Of T copie	Wajor Consu. Equip. De	Scription	Size/Capacity	INO.	No. in Ose
ERC	المنتخب المنتخب	DOZEV EXENUATO LIA	CAT	330	1	/
		EXCANATON	Volvo	330	1	1
		ENd drup		25 TON	2	2
		compactor Ingers			/	(
		Water Tunker				0
				/		
	Visitors		Represe	nting		
nily Notations:						
6:55 I AVI	red on	site, ERC	DEVSONA	rel pre	o~ S	lite of
WAS S	ome raid	site; ERC	jut wa	te- has	been	pumpec
ate ti	· floor	of all 3.				,

pushed to the flow. They started excavating the by pipe At

grading the inside slope of the east bean. Excess soil is

Signature:

White Copy - Library File

Yellow Copy - Owner

Pink Copy - Employee's Field File

Project No.: 101, 07, 08	Report No.: 8	Wed
Date: $O(3/22/20/2)$	of	
11:00 ERC CONTINUES to grade the	e inside slope of the e	4st bein who
it was overbuilt Br Garp	Action, They continue to	excurre the
4" drain pipe Along the sou	the toe of slope,	
13:00 ERC personnel Ave placin	g fill from the borrows	WEA ACKNOSS for
the site office. They Ar		
13:40 Rain started. ERC contin		
water to drain! They conti	•	
the of the south stope.		
15:00 ERC Stopped work excep	+ Lov excurations the	the &" pipe
At the south slope.		
16:30 ERC stopped work become	e of the vain. I do	parted the
site.		
· · · · · · · · · · · · · · · · · · ·		
	1	17
	Simple College	Radel

Owner: <u>Vista</u> C	1/455 /// /AN	H,(1		9		
			Page		of	2
roject: <u>Cell -</u>	3	Weather: Temp.(EF):	Date:	8/23/201	2	
roject: No.: /º/.	07.08	Weather:	A.M	2	P.M	PC
		Temp.(EF):	High	88° Low 7	75	Rain
Contractor(s)	lc		· · · · · · · · · · · · · · · · · · ·			
ontractor Super(s) _	Jack Wigg	ins				
lumber and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ELC	9	As to pro-	C10-F	λ (	/	/
	1 -	Dozer Exchuator Link Exchuator	Beit	33° 33°	1	1,
					<del>                                     </del>	1
		ENd dump	Volvo	25 Tow	3	3
		Compactor Lugars	OII Rand	50/00	1	/
		Compactor Ingers Water Tanker	C47	5000 5 M		0
	·					
	Visitors		Represe	nting		
			1	<i>b</i>		
N 11 - NT. A - A						
Daily Notations:				,	(	±1, 5,0
96:43 L	AMILE DN	morning but No	perso NNE	AR ON	57	e, L+ 13
Ove	exast This	MOUNTAL BOX NO	FAINI			
07:30 ERC	personnel	are hauling till	from th	e West bo	rrow	Ave 4 f
the	floor of	Coll-3, They gr	c prosf	rolling A	5 640	ch truck
Crosse	es the coll.	****				
19:30 ERC	Started of	filling the hole	At the	toe of	He s	south s
		pipe was removed				
ب		Jost Side. Fill			•	-
	•	atinues placing,				
		de of the south				
	10 10000 31	65 84 7NC 38034	7000	- 3/-pr/	10)	) //C M

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Yellow Copy - Owner

Signature:

Project No	o: 101.07.08	Thus	Report No.: 2	Thous
Date:	08/ 23/2012		Page:2	of2
	west floor of Gul-3			
15:00	FRC personnel Are c	compactives 12	Lifts At the	french cut at
	toe of south slope			
	Continue to place fil	I on the we	est floor	
18:00	ERC continues to p	lace fill on	the west flo	or sun of and
	They are grading	All Along th	e toc of sour	a slope, west
	side.			
19:15	ERC Stopped Work	for the day	They ALL	servicing ther
	eguipmenti Jack			
	this Saturday Bu			
	I departed the			
			A	
			$\mathcal{L}$	
				P

Owner: Vista Class III Landfill			Report No.:         10         F&I           Page			
Project: Call -	3	·	Date: 6	08/24/2	01 7_1 /2/	
Project: No.: /0/		Weather:	A.M. 19	16	P.M.	PC
			_	/ Low _ Z		
Contractor(s)						
Contractor Super(s) _	Tack Wigg.	ins			···-	
		onnel, Hours Worked (Identify S	ubcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. Des	scription	Size/Capacity	No.	No. in Use
ERC	5	DOZCV	CAT	DG	j	
		DOZEV EXCAVATOR Lin	rol vo L Belt	330	2	2
		End dump		25 700	3	2
		Compactor Engriso			1	1
		Water Tarker			1	0
	Visitors		Represe	enting		
			•	C		
Daily Notations:	<del> </del>					
06;45 I	arrived on	sife At Vista	land fi	II. ERC	perso	ownel Ave
					······································	
	V	Started placing				
	,	acting fill At				pe, west
	•	erforming motst				1
		- Arrived ON SI		•		
	., , , ,	and Sheree, ERC	, ,			hit ha
	,	p for the GCL		,		2000000
Moisd	,	ty test	<u> </u>	20,017,000		270
		ork for Lunch	except	Le the	track	Los Working
	1,7					11
		Signature:	107	y B	ndf,	
	White Copy - Library I	File Yellow Copy Owner	Pink Copy	- Employee's Field Fi	ile	
			•			

Project No.: 101, 07, 0	8	Report No.:	FRÍ
Date: 08/24/20	12	Page: of	
At the south			
the Db dozer			
13:15 ERC personnel Are	_	N the east bern	and at the
South foe of Sh	•		
16:00 ERC personnel	Ave placing		compacting
19:00 ERC personne	1 Stopped in	sorking IN Cal	3. They used
		Roll),	
19:15 I deported of	he site.		
· .			
			***************************************
		10.000	

Signature

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Pink Copy - Employee's Field File

Owner: VistA	Class III 1	4vdf/1	Report No.:			SAT
			Page		of	2
Project: Cell-	3	Weather:	Date:	8/25/20	12	
Project: No.: _/U/.	07.08	Weather:	A.M	nc '	P.M	MC
		Temp.(EF):	High	9 Low <u>7</u>	140	Rain
Contractor(s)	RC	·				
Contractor Super(s) _	JACK W	iggins			<del></del>	
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify S	ubcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. Des	scription	Size/Capacity	No.	No. in Use
ERC	4	Dozer	CAT	26	1	/
<u> </u>		Dozer Vo Exervator Linu	1V =	330	2	/
		End dump	Volus	25 ton	3	0
		Land to Tuesday	10 80.1	50,000	1	//
		Compache Ingerson	CA-	501044	/	0
		Water factor		Je siegus L		+ -
				L	<u> </u>	
	Visitors		Represe	enting		
Daily Notations:						
06:50 I	arrived o.	U Sife At Vist	ta Ital	LAIL, ER	c p	ersonnel
Are_	ON SINT-					
07:15 ERC	personnel	Are Compaction	vg fil	1 on the	e ea	st been
AND	CLEANING U	ip the coll. FRC	will	Not p	1400	Ary fill
today						
09:00 ERC	personnel 1	in grading the	floor s	of G11-3	کی ریز (4	compact
They	A.C pucpo	wing the surface	- tor	FAIN:	<i>f</i> /	
11:30 ERC	personne	Are compact	-INC 1	1UC 5m	OOT	1 drons
rolli	us the	floor of call.	-3,	They A	z M	oving
ex cc.	u soil	At the south	-Ploor	ERC	5/4	Ace grad
- the	south	road And to	d-AN	1741N WA	ter	toward
					$\mathcal{D}$	
		Signature:	JÚ)	y Of	) N.C.	efC()_
	White Copy - Library	File Yellow Copy - Owner	Pink Conv	- Employee's Field 1	File	

Date: 08/25/2012 Page: 2 of 2  the cells to keep rain water on site.  12:40 ERC stopped work for the day. They will a  on site Monday even with rain. I depart	be_
12:40 ERC Stopped work for the Cay. They will	be_
12:40 ERC Stopped work for the Cty. They will	be_
and cite monday even with wains I donard	<u></u>
10 SITE 11/1800/9 2010 101/11 121 CARINIS	
the site,	
	-
	<del></del>
	<del></del>
	<del></del>

Owner: Vista C	LASS III LAND	Report No.  Page  Date:  Weather: A.M	12	of	MON /
Project:	3 ~	Date:	1 1 = 1   SE	DMR	in ok
Project: No.: _/O/_	07. 08	Weather: A.M. 7 Temp.(EF): High 7	4 Low R	7.1VI.1 <u>~</u>	Pain
	TACK Wig	nnel, Hours Worked (Identify Subcontractor		·	
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC		NOZEV CAT	26	1	
		Executor Link Bilt	320	2	0
		DOZEV CAT WILL EXCHATOR LINE BILT END Dump VOLVO Compactor Jugaran Rand	2560	3	0
		Comenciar Tuccocal Rand	50700	(	0
		ante Tinker CAT	5000 ga -	/	0
	Visitors	Repres	enting		
Daily Notations:	100 1001	and site At Victor	1+01/5 is	ndfi	11. Then
<u>06.50 I</u>	A Stad	y moderate rain ;	this morni	ر م	JACK Wi
ER	C 15 00	ov site at virta y moderate rain:		/	
08:00 ER	C WILL	prup water are	7 1.29	$\omega_{III}$	grace-u
Wes	+ bornon	) Area, I will	check	Wite	L ERC
Late	v. Rai	à confinses			
10:00 t 1	am checki	'us moisture density	fest res	50145	with to
dual	Ujugi A	RAIN CONTINUES			
15:00 The	VAIN	has stopped. The	e Cell	3 /	aver 15

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Yellow Copy - Owner

Signature:

Pink Copy - Employee's Field File

hous

(4)

Owner: Vista Ci	lass 111 6	andfill		Report No.:	/3	of	Tre 2
Project: Cell.  Project: No.: _/o(.	. 07.08			A.M	1 08/28/20 0 Low 7	P.M/	C41~
Contractor(s) <u>ER</u>							
Contractor Super(s)	JACK Wig	9115					
Number and Function of	f Contractors' Perso	nnel, Hours Worke	d (Identify	Subcontractor	s Separately)		
Contractor	No. of People	Major Constr	. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	6	10201		CAT	D6	(	1
		DOZEV EXCNAJON	V 5 L. N	k Belt	330	2	1
		ENd Dun			25 10 ~	4	2
					50100	1	
·		INAKO TANKE		CAT	50,00g xc	1	0
		MINI EXEMPLE	ov	Komatsu	50,00g K-	/	/

Visitors

White Copy - Library File

Representing

Daily Notation	
06,45	I arrived on site At Vista LAND fill. ERC personnel
	Are ON site. The weather is Partly Cloudy but No Vain
07:15	ERC personnel are morking on this Dozer. They are compacting
	The east bergs. The Cell floor is wet,
08:30	I am performing moisture deusity test, soil on the
	bern is not wet. Moietur density test are passing.
09,00	ERC has a mini excavator on site and started exposing
	the tie in liner At the west edge of Cours.
10,00	ERC started harling fill from the west borrow great to
	the east beam, They have 2 trucks harling, I
	Am performing moisture dowsity test
	Signature: Frank
	Signature: 15 mg C / Oracle y

Yellow Copy Owner Pink Copy - Employee's Field File

Project No	o.: 101.07.08	Report No.:	Tue
		Page: 2 of	<u> </u>
	Rain started ERC person	INEL Started gradians	the top of
	the east berm. They Stop	pped houliars fill.	
14:00	RAIN has stoped. ERC pe	WONDER AVE Using the	mini excavator
	to chan the edge of liner A	of the west fie - in	North Side
	ERC completed the 6" pip	e removal at the sous	the end.
15:30	They are building A Larger	roug just the south	end of the coll
	ERC will replace the primp	That they are having	g problems with
16:00	RAIN STARTED ASAIN ERC	continues to have fill	to the ramp
	At the south end of Gil.	3,	
18:00	ERC personnel Ale having		up At the
	Sung med. They will ha	•	
	raid off and only	,	***************************************
19:00	ERC replaced the pump but	it has No Automatic	start. They
	Will repair the pump tous		
,			
		/	
		Signature Sny ()	Bulled

### $\mathsf{CFC}$

Owner: Vista C	1455 111 LAN	Afill		Report No.:	14		Wed
·				Page	/	of	2
Project: Cell 3	3			Date: 0	8/ 29 /20	R	
Project: No.: 101. 0		. ,	Weather:	A.M	<u> </u>	P.M	C RAIJ
			Temp.(EF):	High	} Low	75	Rain
Contractor(s) Ex	.C						
Contractor Super(s) _	JACK Wigg	ins			· · · · · · · · · · · · · · · · · · ·		
Number and Function			orked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Co	onstr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	13	DOZEV		CIA	<b>D</b> 6	/	/
		Excavator	V Lin	10 Belt	330	2	2
			-ρ		25 ten	4	3
		compact	or Engers	11 Rand		/	1
		alater 7	anker	COT	5000 gab	/	0
	+	600			i	T	1

Visitors

Representing

88

Daily Notati	ions:
06:45	I Arrived ON site At vista LANDfill. ERC persound are
	ON site.
07:10	ERC started excavations lines, Along the west tie in ARD for
	Cell 3, They Are excavating using the mini excavative and by hand.
08:00	ERC personnel Are placing fill on the south berm,
	They are pumping water from the all floor At the
	S'Junf 1
10:00	I am performing moisture density test on The south
	beam AS ERC personnel compacts Lifts Fill is from
	The west burpow that,
11:00	ERC continues placing, grading And compacting fill on
	Signature Bunda
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Project No.:	Io.: 101.07.08 Repor	t No.:	4	Wed
Date:	08/29/2012 Page:		of	2
	the south bern. They are repla	cing -	the pu	mp At the
	Some Again. ERC CONTINUES to cle	AN Sol	6 04 t	he tic in
	Liner,	والمرافقة والمحاوة والمحاوة والمحاوة والمحاوة		
14:00	ERC personal are placing And comp	Actin	g fill	At the
	south bern treat. I Am perform			
	test. Fill is from the west borrow	Aveni	ERC	CONTINES
	to excavate soil from the tic. in At	G11	-3 Wes	it edge.
16:00	ERC CONTINUES PLACING SOIL ON the			
	observing And performing majstur	dens	city tes	+ ON Compacti
	Lift sections,			
18:30	ERC has stopped work in cen-3, 7	Tuy AV	re fuling	Micr
	eguipment. I departed the site.			
	There was vain lak!			
			**************************************	
		· · · · · · · · · · · · · · · · · · ·		
			1	<i></i>
<u> </u>	Signature	1/20 m	161	Bull

Owner: <u>V15+4</u>	1455 111 L	andfill	Report No.:	15		Thus
Project: <u>Call</u> - 3			Page	1 8/30/.	of 2/ 2	2
Project: No.: /5/		Weather: Temp.(EF):	A.M	ρς	P.M 76_	Rain
Contractor(s) $\angle$ $\wedge$ Contractor Super(s) $\angle$ Number and Function of	Tack Wiggi	nnel, Hours Worked (Identify	Subcontractor	s Separately)		
Contractor	No. of People	Major Constr. Equip. D		Size/Capacity	No.	No. in Use
ERC	9	Dozer	C 47	۵ ۵	1	1
		DOZEV EXCANATON Lis	101VO	<b>33</b> 3	2	2
		End dump	Volvo	25 ton	3	3
		Compactor Injersoll	Raud	SDIOS	/	/
		Compactor Injersoll Water Tanker	CA	500 ° 546	1	1
		mini Exemportal A	Comunità	88	1	/

Visitors

Representing

Daily Notations:
06:45 I arrived on site At vista LANSFILL ERC personnel Arc
ON Site, There was rain oversight, The sump area of Gell-)
has standing water. The Automatic pump did Not work. ERC
truck the pump on,
OT: 30 FRC graded the haul road And Started hauling fill from the west borrow and to coll-3. I am observing and perform
the west borrow men to coll-3. I am observing and perform
moisture devisity fait.
10:00 I continue to perform moisture density test and compacted
Lists on the south berge ERC personnel are locating
Linco at the south wast owner of Oll-3 for tie in.
13:00 ERC personnel are placing fill on the east born. The
Signature: Signature: Signature:
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Project No.:		Report No.: 15	<u> </u>	Thurs
Date: 08/30/2012		Page:2	of	2
continue to exc	gyate at the	Livar tie-	W 5007	h west
Side of Gil. 3.	I Am perform	ilus moi	sture dr	ensity test
ON compacted 1	lift sections,	I shippe	.d S.F-4	1 for
Laboratory testin	15, The SOIL	Change	<u>a</u>	· ·
15:30 ERC personnel a				
on the east	berni I am	observing A	nd perho	rming mais
density test on	V Compacted L	ft section	15	
16:55 ERC stopped hav	ling to the east	+ bern. 7	Ley are b	auling to
The slope of the	e Active Cell 1	vo.th side	to const	ruet A
bein to stop	VAIN WATER From	getting i	who 011-3	. They are
preparing the be				
19:00 ERC Completed	the berm A	cross the	ditch, N	orth Side
of the Active	Call Awd Sex	A 6" pc	impo Th	er stopped
Work for the	day. I dep.	arted the	Site (	
				<u>-</u>

12.0

Owner: Vista	Class III Lx	ind fill	Report No.:	16		FRI
			Page	1 20	of	
roject: <u>Coll</u> .	3		Date:	18/31/20	12	· · · · · · · · · · · · · · · · · · ·
Project: No.: 101	. 07,08	Weather:	A.M	0 c	P.M	PC
		Temp.(EF):	High	<u>O</u> Low	74	Rain
Contractor(s)	ERC					
ontractor Super(s) _	JACK L	hagins				
lumber and Function	of Contractors' Perso	onnel, Hours Worked (Identify S	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	scription	Size/Capacity	No.	No. in Use
FRC	6	Dozer	CAT	ی د	1	)
		Bud domp v	VOIVO KBelt	<i>73.</i> 5	2	2
		End domp	19/100	25 60	3	3
		Compacto. Ingerso	oll Ranz	50100	1	
		cuate. Tanker	C47	7095 9AL	/	1
		Compactor Ingerso water Tanker Minit Excavator	Komass	88	)	0
	Visitors		Represe			
	VISITOIS		Keprese	nung		
Daily Notations:			, . (	1. 1 T. 0		0 0 - (4)
		Site At vista	LANG	51V1 , C-R	/	0-2 VS 3 XXV
# ^e	04 Site.	1 1 1 1 1		Li		<u></u>
,7,20 ERC	Started	hauling fill	from	The wo	-5 + 2	DOVION
		- bern, I	An p	performin	5/	noistu
	city test,					
10:30 EAC	persondel	Are placing go	ading.	and com	npac	ting Si
		berm, I Am				
9/4	liars, Ada	ling maisture	and a	ompacting	. 7	4m A15.
200	forming n	10 isture density	Jeso	tow Go	mpA	And Lo
,	tions,				1	
		/	ľ	Λ =	<del></del>	. /

Signature:

Yellow Conv - Owner

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Project No	o: 181,07,08	Report No.: //	FRI
Date:	08/31/2012	Page:2	of
	F.II is from the west borro		
	ERC personal are pulling It		
	performing moisture density		
	I continue to perform mo		
	Sections of east bermi		, ,
	fill. They are grading of	/	
	side to drain water je		
17:00	ERC has the Die doz		At the south
	road South boung And	•	
	if then is vain. The		
	site entir Tresday m		,
18:00	1 departed the site.		
		<u> </u>	

Signature

Owner: 1/15-1-14	Class 111	Land fill Weather:	Report No.:	17		Tue
			Page		of	
Project: Cell	- 3		Date: 09	104/20	/2	
Project: No.: 101.	07.08	Weather:	A.M	<u> </u>	P.M	PC
		Temp.(EF):	High	3 Low <u>7</u>	7.2	Rain
Contractor(s)Er	2 (	· · · · · · · · · · · · · · · · · · ·				
Contractor Super(s)	JACK Wigg	ZW!				
Number and Function o	f Contractors' Perso	onnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	8	Nozer	COT	DC		1
		Excanssor Li	VK Belt Volvo	300	2	2
		Dozer Lin	volvo	25 Lan	3	3
		Compactor Logers water Toucker Miara Excurstor R	ollRand	50/00	ſ	/
		water Tooken	CAT	500098-	/	/
		Miari Exceptor K	ComMsu	58	/	
	Visitors		Represe			
	Seth N	unes	e EC	<b>ン</b>		
Daily Notations:						
•	Arrived en	V site At vist	a Lan.	LA,71, EX	20	personne
		2 (			<i></i>	
		Nel Arc gradia	ic the	haul road	15 A	or fruct
		the west bor				
07:45 ER	c started	placing fill o	N the	east be	m	from t
INFO	+ hoursy	ARY, There A	ire Dic	es of DI	dstic	- iv th
		will remove the				
		el Are placing			as t	berma
		picer of plas				
Pen	forming	moisture densitiv	test		<u> </u>	
11'a T	a Hended	noistru density	(a,b)	attax 1	a/ C	211 8-50
11.00	<i>71     -7 - 10</i> 00 C		1110	~( ) /· ~\	<i>v</i> ~	

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Signature:

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Project No.:	101,07,08	Report No.: 17	Tves
Date:	09/04/2012	Page: of	
	With WMI, ERC, CEC	and the city of A	sopkar Please
	see minutes of mectings,		· · · · · · · · · · · · · · · · · · ·
13:00	ERC personnel are placing	fill of the south	bern pad
	they are cleaning the so		
	Liner, They are using the	minie exceptatory I	an observing
	And performing moisture den		
16:00	I continue to perform m	oistue density tes	1 on
	compacted Lift sections	on the south bern	; FRC
- the part of the later of the	started cutting the wort	h slope of the sout	h born.
	They are also cleaning LI	wer At Cell-2 when	e Cell 3 will
	tie-in At the south ed	Ç,	
18/00	ERC personnel has stoppe	I work for the d	ay. I Separted
	the site.		
			· · · · · · · · · · · · · · · · · · ·
<del></del>			
<del></del>			***************************************
<del></del>			
<del>-, -, -, -, -, -, -, -, -, -, -, -, -, -</del>			

Owner: Vista	Class III LA		No.: 18		
	·7		/ / = /2		
Project: Cil	-3	Date:	09/05/2	0/2	0/
Project: No.:	1001.00	Weather: A.M Temp.(EF): High _			
Contractor(s)	ے م	Temp.(EF): High _	Low _		Rain
		241		· · · · · · · · · · · · · · · · · · ·	
Contractor Super(s) Number and Function	,	onnel, Hours Worked (Identify Subcontr	actors Separately)		<del>The confidence of the confide</del>
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC	8	202e- CA	7 26	1	(
		DOZE CA VOLVA EXCAVATOR LINK BEL	330	2	2
		End Dump Volve		3	3
		Compador Ingersall Run	1		1
		WATER TANKER CA	1	1	/
		Mini Excoversor Komas	4	/	1
	Visitors		presenting		
		Site, ERC person	Nel me o	N Si	te preparing
	haul fill.	4			1
		1 Are having fill			
		with the GPS doze	, Adding	moi	stue and
	pacting.			<del></del>	
		excurring soil of			
		of con-3, I An			
mo	isture d	ensity test on co	upacted L	iff.	sections,
		Are placing, gradi			
		I on the south b			
ANd	perform	ing moisture den	rity testi	ERC	- Shipped
		Signature:		/3	
	White Copy - Library		Copy - Employee's Field	File /	and the second
					•

Project No.: 10/, 07, 08	Report No.: 18	wed
Date: 09/05/2012	Page: of	2
the Volvo excavator of site	P	
14:00 I portinue to perform m	oistur density test o.	a compact
sections of Lists on the	e south berm + ERC .	continues
placing, fill from the co	ust borrow quel At a	115. The
Are using the mini excave	ator to excavate soil a	off Line-
in G11-2 At the south in	sest conver of G11-3	
17:00 ERC stopped having fill.	They are using the Line	Ebelt
excavator to move soil	At the west side or	f the soc
berm.		
19:00 ERC Stopped work for 1	the day. I departed	the site.
· · · · · · · · · · · · · · · · · · ·		
		·
		<del></del>
		<del>*, *:</del>
	Signature Signature	

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Owner: Vis +4	C/485 111	bondfill	Report No.:	_19		Thus
Project: <u>Cell</u>	3		Page	1 / 06 /2 AC	of	2
Project: No.: 10/a	07.08	Weather:	A.M	PC	P.M/	PC/RAIU
		Temp.(EF):	High	3 Low 2	73	Rain
Contractor(s)		and the state of t				
Contractor Super(s)	JANE W	iggilis			···	· · · · · · · · · · · · · · · · · · ·
Number and Function o	f Contractors' Perso	nnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	٦	Dozer	CAT	.) 6	1	
		Dozer Excavator L'i	~kBelt	330	1	
		ENd dump	Volvo	25 Tov	3	
		Compache Dagerco			1	
		water Tarker	CAT	5000 GR	)	
		Mili Excavator A	Komatsu	58		
	Visitors		Represe	_		

Daily Notatio	ns:
06:45	I Arrived on site At Vista LANDfill. ERC personnel
	Ave on site.
07/20	ERC personnel Are placing fill on the south berm.
	I Am observing the lift trickness And compacting,
	Exc has a personnel removing pices of plastic from
· · · · · · · · · · · · · · · · · · ·	the fill.
10:00	ERC personnel continues to place, grade AND compact fill
	on the south berm. Fill is from the west borrow Aver At
	Call-5. They are using some fill excavated from the fieth
	Avea south side between alls 2 and 3, They have personnel
	removing pieces of plastic from the fill. I Am observing
	Signature: Dry (   Signature
	White Copy - Library File Yellow Copy - Owner Pink Copy - Employee's Field File

Project No.:	: 10/207.08	Report No.: / 9	Thus
Date:	1	Page: of	
	the gradians, adding moisture	and compacting, I An	n Also
	performing moisture density	test,	<del> </del>
13100	ERC CONTINUES PLACING,	grading and compacting	£:11
	on the south berne I	Am performing moisture	densiti
	fest.		
15:05	RAIN started, ERC pe	reconnel continues to	014ce
·	fill on the south Germ.		
16:00	The rain has stopped.	ERC personnol Ava	cutting
	up trees at the works end	of the cell They c	vill wot
	haul may fill to keep fl	y roads from turning	to
	mod.		
17733	ERE Stopped work for +	he day. I departed	the
	Siter	,	
		1/2	

Signature

Owner: <u>Vista C/4</u>	155 III L		Page	20	of	2
Project: <u>611-3</u> Project: No.: <u>1910-</u>	7. 08		Date:	PC Low Z	2012 P.M. <u></u>	oc / Tra
Contractor(s)	RC					
Contractor Super(s)						
Number and Function of Co	ontractors' Perso	nnel, Hours Worked (Identi	fy Subcontractor	s Separately)		
Contractor N	lo. of People	Major Constr. Equip.	Description	Size/Capacity	No.	No. in Use
ERC	6	Dozev	CAT	DC	(	
		DOZEV EXCAVATOR	Link Belt	330	(	<i>j</i>
		End dump	Valvo	25 TON	3+1	4
		Compactor Irge.			1	- 1
		Water Tanker Mini Excavasor	EAT	5000 ggc	1	1
					,	0

Visitors

Representing

Daily Notations:
06:50 I Arrived on site At vista LANdfill. ERC personne
AIC ON SITE,
07:20 ERC personnel Arc hauling fill from the west borrow
pit to all-3 south berm. They Are grading and
compacting Lifts on the south bern.
08:30 ERC moved the ANA they me loading from This soil
has a yellow tent. I am performing moisture density
test,
11:00 ERC continues to place, grade, add moisture and compact
fill on the south bern. I Am observing And performing
moisture dentity test,
Signature: 274 Staff

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Project No.:	101,07,08	Report No.: 20	FRI
Date:	09/07/2012	Page: 2	of2
13:00	ERC persound Are placin	us grading and	compacting fils
	on the south berm. I		
	moisture density test.	ERC brought	in A loader and
	Another truck to haul	<b>V</b>	
	end of au-3,		
16:00	There is a sprinkle of r.	in of and on,	ERC CONTINUES
	placing, guading, adding		
	on the south berm. I		
	moisture density test. Ex	•	
	from the worth side of	G11-3,	
17:30	ERC Stopped placing fill.	I Am Completin	ig moisture densit
	test.	, 	
18:00	I departed the site of	20 r the duy,	
			Annual Control of the
			· · · · · · · · · · · · · · · · · · ·
			PAGE PART IN THE PAGE IN THE P
		ورواء المناور والمرواء والمناور والمناو	de la contraction de
		N-Min-stance - N-Min-stance - Advance - Advanc	

White Copy - Library File

Yellow Copy - Owner

Owner: $V_i + A$	Class 111 6	and Dill R	Report No.:	21		<u> </u>
		P	age	_/	of	
Project:	/ <sup>-</sup> 3	I	Date:	108/20	0/2	
Project; No.:	1.07.08	Weather:	A.M	°C	P.M	PC
		Temp.(EF): I	ligh	2 Low _	73	Rain
Contractor(s)	ERC	,			···	
Contractor Super(s) _	JACK Wigg	7/~5				
Jumber and Function	of Contractors' Perso	onnel, Hours Worked (Identify Su	bcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. Desc	ription	Size/Capacity	No.	No. in Use
ERC	6	Dozer	CAT	D6	1	/
		EXCAVATOR LIN	ı		1	j
		End dump v			4	1
		Compactor Enger			1	
		water Truck	CAT	5000 GAL	1	0
		V014 17 11 UCC		J.C. 710		
	Visitors		Represe	enung		
Ave	avrived or	u site At vista				
		at on one of				
		ERC WILL OU				
At	Ine south	side to grade A	SIOPE	TOWARD T	ne s	the lie
		the excreptor to		ne 2015 2	rom	The CINO
A++	he south	west side of a	<u>,, - 3                                 </u>	- 0 / (1/1)		the co-
U8,00 ERC	personne!	Are cutting sous	10 00 0	- marily of	hi st	e in Av
Nesa	COUNCE S	Gell - 3 At the	South	1 Mact C	arser	· They A
	housing		<u> </u>	4 400		
		er-j initia	1	<u> </u>		
		Signature:	1	4/	Bu	affel
	White Copy - Library		Pink Conv	- Employee's Field l	File //	
				,		

Project No.:	101.07.08	Report No.:	21	SAT
Date:	09/08/2012	Page:	2_of	2
	ERC continues to remove			
	the south west tie-in,	•		
<del></del>	was on site and obs	erved the	south w	est corner
400	work,	.,		non-landon de la colonia de
13:30	ERC personnel removed lin	ver and gee	composide	10" LONG
	this is the tie-in show	v on the	dvawings	, They sville
	excess Lines up the slop	e. Scrup 1	iver And	g cocomposit
	was hauled to the get			
14:35	ERC personnel Are placing			IN the south
	west corner of G113 to			
	Corner,			May 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
16:30	ERC personnel stopped work	for the day	1. The	dozer will
<del></del>	grade the road and avour	d the berns	to drai	- water it
	grade the road and avour	a Hed the	Sitei	
	/	· · · · · · · · · · · · · · · · · · ·		
		with the second	······································	
·				
<del></del>			·	
			1	
		Signature 1	n, C/3.	ref
		· / / / /		

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Yellow Copy - Owner

11:00

Owner: Vista	C/455 111 .	Landfill	Report No.	<u> 22</u> /		MON
Project:	-3		Date:	9/10/20	77_	
Project: No.:			A.M P		P.M	PC
		Temp.(EF):	High _	<u> </u>	7.73	Rain
Contractor(s)	ERC					
Contractor Super(s) _	JACK Wit	GiNS	'			
		nnel, Hours Worked (Identify				
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	7	Dozer	CUT	D6	1	/
	/	Excavator 4		b	1	1
		End durp	Volvo	as to	4	4
		•		!	/	1
		Compactor Iuge.	CAT	Soogac	/	/
·					<u></u>	
	Visitors		Represe	enting		
				•		
Daily Notations:						
06:35 I	Arrived 0	N Site At Vi	st4 /	4 def./1,	ER	C pers
		•				,
		started placing		on the o	00+6	bern
D.+	the Avea	where the Lin	iet was	remove	ط ,	They
	trudes.	, , , , , , , , , , , , , , , , , , ,				
		Are placing,	oradia	10 Allia	e ma	91 Set 200 2
Can.	Activale Ci	1 on the sou;	to har	71 7 8	) reli	chise win
COM	TACTING TIL	oisture density		my f at 17	in U	/

Signature:

Yellow Copy - Owner

Pink Copy - Employee's Field File

11.9

Project No.:	Report No.: 22	MON
Date: 89/10/20/2	Page: of_	2
13:30 ERC personnel continu	ies to place fill	on the south
bern I Am observing	•	
moisture And Composition	-	
density test on comp	•	
16:00 ERC personnel continues		
fill on the south ber		
moisture density test.	· ·	
17:00 ERC Started placing the		ve south bevan
of a1-3, I AM observi		
18:00 ERC has stopped work	, .	
the site,		
	······································	
		///

Owner: Vista (	Class III LAN	1911	Report No.:	23		Tue
		·	Page	/	of	
Project: <u>Ce 11</u>	1.3		Date:	09/11/20	/2	
Project: No.: _/O/	1.07.08	Weather:	A.M	PC /	P.M	PC
		Temp.(EF):	High	8 Low 7	75	Rain
Contractor(s)	ERC	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·		,- stee	· · · · · · · · · · · · · · · · · · ·
Contractor Super(s)	JACK Wig	gins				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC		Dozer	CAT	DE	ı	/
		EXCAVATOR Lia	KBeH	330	l ·	/
		ENd DUMP	volvo	25 TON	4	4
		END DUMP compactor tage water Tanker	SOI RAND	5D/00	1	/
		Mater Tanler	047	5000gg (	1	/
			;	ŕ		
	Visitors		Represe	nting		
			_			
Daily Notations:						
06:45 I A	rrived on s	ite At Vista L	andfill,	ERC Pe	SON	lel Au on
		Are placing +	ALL ON	the soci	th &	berm, I
Am	observing .	and performing	moiste	ic densit	is to	s+ a~
		tions of 474				
•	( G11-5,					
		ing moisture d	ensi'ty	test on	Com	racted 1
		he south bear				
		Adding moist				
	south be	_			<del></del>	
		of fill At t	he road	ARA.	Tlex	ar in
			_			_
		Signature:	121	71, C	2/.	Sruff

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Project No	0.:	Report No.: 23	Tro
Date:	09/11/2012	Page:o	
	white sand. They will	more thier but	in to get
	£71,		,
15:00	The Db dozer is down	a They are world	ng on it,
	Erc continues to more s.		
	the exervator. They		
	They Ave marking ON A re	· ·	•
17:00	ERC Stopped work for t		
	Orange soil At the borns w		
	I departed the site,		TO AC
			·
	the state of the s		
· · · · · · · · · · · · · · · · · · ·			
<del></del>		· · · · · · · · · · · · · · · · · · ·	
			<del>*************************************</del>
<del> </del>			/

Owner: Vista (	1/455 111 J	and fill	Report No.:	<u>84</u> /	of	2 2
Project: $Q/I^-$ Project: No.: $IQI$ Contractor(s) $I$	1,07,08	Weather:	Date:	6 Low _	<u> 20/2</u> P.M	PC
Contractor Super(s)	JAUC Niggi		ubcontractor	s Separately)		
Contractor	No. of People	Major Constr. Equip. Des	cription	Size/Capacity	No.	No. in Use
ERC	6	DOZPK	CAI	D6	1	(
		Excavator L'a			1	/
		ENd dump			3	3
					1	/
		compactor Inges	CAT	as tow	1	
						,
	Visitors		Represe	nting		

aily Notations:
06:50 I Arrived ON Site At Vista LANdfill, ERC personnel
Are ON site, They do not have a dozer on site yet.
07:20 ERC started placing fill in stockpilles, They still do not
have A doze yet.
18:45 ERC has thier dozer on sife. They started grading
the borrow Aven, They continue to stockpile fill At
the south bem Area,
11:00 ERC personnel Are placing, grading, Adding moisture And
compacting fill at the south And west side of the south
berm, I Am observing the trucks leaded as they drive
Across the berus. There is No soft spots, I am performing
Signature: 10 Mg C LS Mg/
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Project No	o.: 101.07.08	Report No.: 24	Wad
Date:	09/12/2012	Page: 2 of	2
	moisture density test on	compacted Lift see	etions -
14:00	ERC CONTINUE PLACING 9	-	
	At the south slope. I Am		
	deurity test.	·	
17:00	ERC personnel Arc place	ing fill on the so	oth bern.
	They placed fill in		
<del> </del>	This five will be used for	•	
	I continue to perdora	moisture density to	est on compacto
	sections of the south t		
	observed work in progr	ess ,	
18:25	ERC Stopped placing fill		
	on the south bern,	I Am testing SAMP	105.
19:00	ERC has stopped work	. They are fuling +	hier equipmed.
	I departed the site,	·	,
* 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,		
· · · · · · · · · · · · · · · · · · ·			····
.,			
			·
<del>,</del>			······································
······································			
		- A	
		Signature Signature	3 hel

#### $\mathsf{CFC}$

Owner: Vist	4 C1455 111 LA	indfill	Report No.:	25 1 09/ 13/		Thurs
			Page		of	2
Project: <u>(è</u> 1	1-3		Date:	13/	2012	<u>'</u>
Project: No.:/	01.07.08	Weather:	A.M	<u>C</u>	P.M	PC
		Temp.(EF):	High Se	Low <u>7</u>	3	Rain
Contractor(s)	ERC	<u></u>				
Contractor Super(	(s) Jack Wigg	9125				
Number and Fund	etion of Contractors' Perso	onnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	7	DOZEV	CAT	DC	/	/
:		Excavator Lin	1c Belt	330		/
		ENd Dump			3	3
		Compactor Inger.			1	1
		Water Tooker			1	/
				-		
· · · · · · · · · · · · · · · · · · ·	Visitors		Represe	ntina	•	
	VISIOIS		Represe	nung		
1						
Daily Notations:						
•		U site at Vist.	a LAND	fill. ER	c 0	ersonnel
		1 Started placin			outl	berm A
		ut in the sou				
		ing moisture de				500-th
		personnel co				·
		continues to	•			moisture
	•	fill on the s				
		ing moisture a				<del></del>
13:00 E1	RC continues	placing gradin	g And	compactio	<u>v</u>	fill on
		on They An				
13:00 E1	RC continues	placing grading	g And	compactio		

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Signature:

Pink Copy - Employee's Field File

11.5

Project No.:	101,07-08	_ Report No.	: 25	Thors
Date:	09/13/2012	Page:	of	2
	liace was removed at the	e south w	est corn	or of all 3,
	I am observing the trucks	s operating	ON Comp	acted fill m
	performing moisture dens			
	ERC continues to place			
	bern. They me sperating	•	· ·	
	I Am observing And part			•
18:00	ERC Stopped harling			
	with the D6-doze-			
18:30	ERC personnel DR servici		egvipmer	A. I departe
	the site.	/ 		
	Note! ERC will over.	fill the so	oth west	bern Aven
	And excavate th			
	compaction in the			
	,			
				**************************************
			/	

Signature

#### $\mathsf{CFC}$

12:00 1

			21		TO T
Owner: Vista Class III La	vdfill	Report No.:	26		7
		Page	1	of	<u></u>
Project: <u>Ce// - 3</u>		Date:	09/14/2	<u> </u>	00
Project: No.: 101,07,08		A.M	<u>C</u>	. P.M	10
4	Temp.(EF):	High	S Low _	14	Rain
Contractor(s)					
Contractor Super(s) ack Wigg	i) NS		<del></del>		
Number and Function of Contractors' Pers	onnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
FRU 7	Dozer	CAT	26		f
	EXCAVATOR LIV			1	,
	•			3	3
	End dump	ersoll Rue	563 - 80100	(	P
	water Tanker	CAT	5000 GAL	1	1
	MINI EXCAVATOR		88		/
Visitors		Represe	enting		
Daily Notations:					
06:40 1 prived on	site at vist	a land	P711, ER	Cp	CUSONNO
are on eite					
07:20 FRC started	placing grading	, Addin	y Mosstu	e An	2 compa
fill on the s	auth bern 7	Tier Ar	e worlein	/g ε	on the o
Aveu At the	south west cora	rev of a	11-3.		
19:00 I Am person	ring moisture	ENRITY	test on	co.	mpactic

De Attendags only, PC-1, 2, 3, 4, 25,

ERe personnel graded the sides of the south bern

Signature:

shipped the following samples at Fedex

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placing and compacting fill.

Pink Copy - Employee's Field File

10,0

Project No.:				Report No.: 26			FRJ			
	€-9 /	14/2010				Page:	2	of		2
	and	moved	Js.	the	Noth	berm,	Th	D pro	g v	yding
	top of	slope	AF	the	Nort	h bem	,			
17:00	ERC	Person	Nel	5 Fopp	ned w	ork der	The	day		
					<del></del>					
	····		· · · · · ·							
					······································	· · · · · · · · · · · · · · · · · · ·		<del>, ,</del>	·	4
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Owner: Vista	0/ASS 111 1	earch 11	Report No.:	27		JAT
			Page	/	of	2
Project: <u>Ce //</u>	- 3		Date:	9/15/	20/2	
Project: No.:	1,07,08	Weather:	A.M	PC/RAIL	P.M	
	_	Temp.(EF):	High _S	5 Low _	73_	Rain
Contractor(s)	EXC					
Contractor Super(s) _	JACK W.	551N S				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify S	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	scription	Size/Capacity	No.	No. in Use
ERC	5	DOZEV Hy	undri CAT	760-7A D6	/	1
		Excauator lia	16Belt	330	/	/
					3	/ /
		END dump Compactor Ingerso	CAT	563	1	
					,	0
		MINI EXCHAFER 16	(15)	3055 440	,	/
		MINI EXCHUATON 1	comattu	88	<u> </u>	/
	Visitors		Represe	nting		
Daily Notations:	Arrived p	N site At V	istu L	4ndf;11,	ER	c persoum
A ve	on site				·, ·	
07:15 ERC	Personne	el Are Moving	EXCESS	Soll from	+ne	south beim
to t	he North b.	erm,	<del></del>			
		1 Ave grading				
		er. They Are	•			
	-	. with the min				
	•	Are grading th				,
		The GPS dozen,		•		. /
	•	on with the A				
The	x Also ins	Stalled A silt	force	Around	th	· drainage
		Signature: 💆	/ T	1 124 ()	Za,	ash)
	White Copy - Library		Pink Copy	- Employee's Field F	ile	)
	=====,					1

Project No.:	101,07.08	_ Report No.	: 27	SAT
Date:	89/15/2012	_ Page:	of	2
	structure At the ditch			
11:20	Ruin started ERC pe			
	inside Slope of the east		<u> </u>	
13:30	ERC personnel continues		he sides a	A the east
	berm and the top of	_		
	moving excess soil to the			
	A ramp to get in And	lout of.	the 011+	Rain has
	stopped.			
16:00	ERC personnel are remove	Ng excess o	(1) from +	he floor
	Of CUI-3, They Are gr	•		
	The GPS dozus			
18:30	ERL stopped work for	the day	I dep 40	ted the
	Si'tt,		·	
			· , ·	
		· · · · · · · · · · · · · · · · · · ·		·
			1	- 1A

Signature

Yellow Copy - Owner

Owner: Vist4	01455 111	LANCTIL	)	Report No	: 28		SUN
				Page		_ of	2
Project: Cell	-3		······································	Date:	09/16/2	012	
Project: No.: /o	1,07,08		Weather:		PC		
		7	Temp.(EF):	High	88 Low _	73	Rain
Contractor(s)							
Contractor Super(s) _	JACK Wigg	ins					
Number and Function	of Contractors' Person	onnel, Hours Work	ced (Identify S	Subcontracto	ors Separately)		
Contractor	No. of People	Major Cons	tr. Equip. De	scription	Size/Capacity	No.	No. in Use
	_	Londer-	1.1	10Ndri	760-74	1	/

Contractor	No. of People
ERC	5

Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
Loader Hyundri	760-74	/	7
Dozer CAT	06	- (	1
EXCHUATOR LINK Belt	330	1	O .
Mini Excavator Komatsu	88	1	0
Compactor Ingercoul RAND	50/50	1	] ]
Compactor CAT	<i>5</i> 63	)	1
End Dump Volve	25 TON	3	3
water TANKER CAT	5000 g th	1	<u> </u>
		1	
		<u> </u>	

Visitors

Representing

Daily Notations:
06:50 I Arrived ON site At vista LANdfill. ERC personnel
Are on site.
07:15 ERC personnel are fine grading And removing excess fill
from Cell-3 floor And south bern.
10:30 ERC personnel Are using the CPS dozer to fine grade
the surface of Q11-3, They are using the loader and
trudes to remove excess fill. It appears that about oil.
is being made on the surface.
11:30 ERE Are pulling A fice of fence with the ATV to smooth
the suffect the floor, They confinue to fine grade And
remose excess soil,

Signature:

Yellow Copy Owner

Pink Copy - Employee's Field File

White Copy - Library File

#### $\mathsf{CFC}$

Project No.:	101.07.08	Report No.:	28	500
Date:	09/16/2012	Page:	2of	2
14.00	ERC personnel are fine go	ading the es	st floor of	001.3 -
	They started static rolling			
· · · · · · · · · · · · · · · · · · ·	Walking the floor aved a	thedeing for	any stones	or hyrd
· · · · · · · · · · · · · · · · · · ·	dist cods.			
16,00	ERL personnel Are smooth	ing the floo	v of Cell-	3 with
	A pice of chain time for	ence pulled	by the AT	V ANZ
	smooth drom relling,	,		
<del></del>	south bern with the at	os dozer.		
16:55	ERC Stopped work for 7	the day, 1	departed	He site.
	ERC did Not complete t	the subgrade	for surve	y. They
	have more work formorro	w mowing,	·	
	·. ·			
	·	······	<del></del>	
	· · · · · · · · · · · · · · · · · · ·	···		
·				· · · · · · · · · · · · · · · · · · ·
<del></del>				
·····				
······································	, ·			
	· · · · · · · · · · · · · · · · · · ·			
· · · · · · · · · · · · · · · · · · ·		·		
	<del></del>			

Signature

Owner: Nista	C1455 111	LANdfill	Report No.	:: <u>2</u> 9	·	Mow
		Weather:	Page	1	of	2
Project: <i>Ce1/-</i>	- 3		Date:	09/17/5	1012	-
Project: No.: / 0/	07.08	Weather:	A.M. <u>P</u>		_ P.M	<del></del>
		Temp.(EF):	High	Low	73	Rain
Contractor(s)	ELC		· · · · · · · · · · · · · · · · · · ·			<del></del>
Contractor Super(s) _	JACK W	iggi Ns		9		
		onnel, Hours Worked (Identify				
Contractor	No. of People	Major Constr. Equip. D		Size/Capacity	No.	No. in Use
ERC		LOADER HYD DOZER EXCAVATOR Lis	radii	760 -7A	4	1
LICO		EXCAVATOR Lie	~ KBc1+	D 6 330 88	î	1 /
		MIND EXCAVATOR	Kom4ts	20100	1	1
		Compactor	C4T	563	j	<u> </u>
		mini Excavator Compactor End Dung Water TANKER	VOLVO	25 10W 5000 GHL	3	',
				<u> </u>	<u> </u>	
	Visitors		Represe	enting		
Daily Notations:			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
06;45 I	Arrived or	I site At Vi	5+4 lo	Ndfill. E	RC	PEVSONN
						<b>,</b>
		dieg the storage				erial she
	t arriving					
		Ling fill At.	the eac	+ nu ou	L A.	ed eact
		in. They Are a				<del>-4, (.)</del>
	_				£.	A + 1 - 1 40
		micro spike Li				
		ERC personnel.				
		ering alms on si-				
		Two test on the				
re des	sted, tree	modded the	义二 10日	te of hin	ren to	C47. 71

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Signature:

Project No.: 101.27.08	Report No.:	29	//	700
Date: 09/17/2012	Page:	2	of	
Ave smooth drum polling				
13:30 The sourcy crew is ON	site to As-b	wilt	the insid	<u>e</u>
section of en-3. The en	AST LINEY FUN	out A	rea is suco	replate
ERC CONTINUES to have fill	to the run	vout	Area of H	<u>«</u>
east bein.				
14:10 ERC stopped having fitt.	They Ave we	rking e	~ thier D	l doze
And they do not have to				
Are using the mini excaugator	to shape the	: South	west tien	Ar EA
16:00 ERC Stopped work for +	he day, The	ry do	Not have	the
curter tanker on site.	I departed.	He Si	te.	<del>_</del>
	·			
			····	
<del></del>		······································		
·				<del></del>
<del></del>				
			···	
		<del></del>		<del></del>
				<del></del>
	11	/	7//	<del></del>
	Signature	n /	Ser Hell	

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#### $\mathsf{CFC}$

Owner: Vista (	2/ASS 111 LANC	15711	Report No.:	<u> 30                                    </u>		Tue
			Page	/	of	-2
Project: Ceij	- 3		Date:	09/18/2	012	
Project: No.:	1,07,08	Weather:	A.M	= 1 RAIN	P.M.	RAIN
,		Temp.(EF):	High	88 Low_ <u>_</u>	77°	Rain
Contractor(s)	ERC					
Contractor Super(s) _	JAde Wi	ggins			<del>, —</del>	
	/	onnel, Hours Worked (Identify				
						T
Contractor	No. of People	Major Constr. Equip. Do		Size/Capacity	No.	No. in Use
ERC	10				1 /	
ESI		DOZEN EXCAVATOR LIN	1k Beit	330	1	ŀ
<u> </u>	13	MINI EXCAVATOR K	ematsu Proul RANd	5000	+	¥
		Compactor Exc Dump		563	1	<u> </u>
				25 700	3	2
		skid Steer	Con	5000 gAL	-'-	<del>                                     </del>
					ļ	
			T.V1			·········
	Visitors		Represe	nting		
**		•				
Daily Notations:						
- ·		·/ c'/ 4 4 4 4 5		1001 F	-20	0.30 (0.44
		N site A+ Vis	74 LAW	CT111.		per juic,
17:00. ER	c has the	water TANKER GA	ck or -	sik but	the	removed
CA-	T 563 Com	pactor from the	site, E	FRC has	extua	persone
<i>o</i> ~	sik today					
		Eleaning the Line	- tie-	in by has	vd A	+ +he s.
	+ corner	7(41-)05				) ),,,,
		15.		( .	- 6	//-
		biner Arrived a		_		
ERC	personnel.	I took in render	y. They	Are Add	<del>، مَن ح</del>	morstv-
Comp	acting the	e esst berm.	ESI	Arrived ,	ر م	Site,
,	,	ing moisture der				

Signature:

Yellow Copy - Owner

Pink Copy - Employee's Field File

11,0

White Copy - Library File

Project No.: 101.07.08	Report No.: <u>30</u>	Tuc
Date: 09/18/2012	Page: of	
And on the run out,		
11:30 A thouder storm moved	through the Aver, Th	eve is hight
raid, ERC CONTINUE to	haul fill to the run	out area At
the east bein.		
13:00 A lord of grocemposite	Arrived. I took inser.	Lowy AS ERC
unloaded the truck, ER		
Line Along the west to		
14:00 RAIN CONTINUES. FRC COM		fre run of
Area of east bern. T		
for tiein.		
17:00 EQC built A Suit berm	At the roll Aven word	h of the work
berm to divert water		
placing fill on the 1	•	
PAIN CONTINUES.		, 
18:00 ERC Stopped work +	Por the day. ESI w	ins on site
and Started filling	sand bas but depart	rd the site
when vain started.		
,		
	·	
	Signature 2009	<u> Bru/10/1 - </u>

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Yellow Copy - Owner

Owner: Vista (	C/1.195 111 6	1,0 d.Gil Re	port No.: 31		<u>tVec</u>
		Temp.(EF): Hi	port No.: 3/ ge/ nte:/	of   P.M   • ) ^	Rain
	• •	onnel, Hours Worked (Identify Subo			
Contractor  ERC  ES J	No. of People	Major Constr. Equip. Descritory of the Construction of the Compactor of th	201 7607A 17 56 1801 330 150 88 And SDIED 100 05 TON	No.	No. in Use
	Visitors		Representing		1

Daily Notations:
06:40 I Arrived ON site At Vista HANDFILL. ERC personnel An
on site,
07:00 ESI personnel Arrived on site. They started filling
87120 ERC personnel are hand raking the worth slope. The started hasling fill to the run out bred of the east
started hasling fill to the run out area of the east
been.
08:30 Soth Nones is on site. He walked the Cours work Area,
ERC continues placing fill At the east run out Auch.
09:30 I Attended the Preconstruction meeting for Hivery Please
See minutes of meetings

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Signature: \_

Project No.: _/0/, 07, 08	Report No.: 3/	wed
Date: 09/19/2012	Page:of_	3
10:30 There is a wet spot		
About 75' from the No		
the C'subbase to the		
5056Ase, The Arca Will a		
more water Appensi		
And was unloaded by	•	
12:30 I shipped seil samples	<i>r</i>	
Are placing grading AN		
east rought Alrea, 7		
through the Aven.		
14:00 Rain Stanfed. ERC pers	sonvel are stand,	ing by RAIN
is heavy at times.		
15:30 RAIN has stopped, ERC	personnel are h	iand raking
the North slope,		
16:30 I spoke to Seth Nunes.	The control poi	nto Are Not
At 50' intervals, Some		
me know About the so.		
The worth Anchor trevel		
North west come, Th	•	
of the east bern wit	,	
17:30 ERC only excavated Abo		
uncovered the tier,		
B+ the worth west	·	
	Signature C	Beff

Project No.:	Repor	t No.: 3/		wed
Project No.: /0/. 07. 08  Date:	Page:	3	_of3	
May more Anchor trench				
upother They Continue	to 90	ade th	ess-s	de of
the first bern,				
18:00 ERC stopped worke for 1	the day.	I dep	grated the	site
			<del>,</del>	
,				
		· · · · · · · · · · · · · · · · · · ·	······································	
				····
		<del>, ,</del>		
		· · · · · · · · · · · · · · · · · · ·		
		1/	7 7	<i></i>

Signature

Owner: Vista	C/455 111	Lordfill		: 32		
0	2		_	7		
Project:	3		Date:	08/20/21 C	0/2	•n 4
Project: No.: <u>/0/</u>	0708	Weather:	A.M	<u> </u>	P.M. <u>/</u>	mc_
		Temp.(EF):	High	88 Low _	76	Rain
Contractor(s) <u>ER</u>	$\mathcal{C}$					
Contractor Super(s) _	Title My	-gins				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	ors Separately)		
Contractor	No. of People	Major Constr. Equip. Do		Size/Capacity	No.	No. in Use
ERC		LOAder H	VUNETI	760,14	1	1
FRE		DOZEV EXCAMATON LA	CAT NEBELT	733	1	<del>                                     </del>
		m. W. Excavator	COMATSU	88	ſ	/
		Compactor ING	SON RANG	50100	1 2	$\bigcirc$
		Mini Excavation ) Comparison Enge Conc dump Water Tance	Cari	25 TOA 5000 GAL	1	$\frac{1}{2}$
		or After more		3-50 9	<u> </u>	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>
	Visitors		Repres	enting		
Deily Mototiones						
Daily Notations:				(0), 5	1 6	
06.43 1	MICINAC CI	er morning sa	1 Lotor	CAIP, E	<b>火</b> (	PERSONNE
Ar	CON Sife					<u></u>
17:00 ERC	- held thi	er morning 5th	fety 1	neeting,	ESI	personn
ALC	ived on si	to And held of	hier s	Afesty med	sivo	The
AVEA	is too	wet to depley	Lines	from r	ا سن بو	yes denda
		ite FSI will				
		check condition				
				ch de C	- m	/ئا ۾ جور
		d. The certifi				
De 1	reshet & E	RC PERCONNEL E	ve Mal	cing report	10-5	40 2121
		from erodud ru				*v=.*. **
09:00 The	Concrete .	nnau hoks Arrived	ک کده	rite. They	iver	unby
						-i /

Yellow Copy - Owner

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Project No.: 101.07.08	Report No.: 32	Thus
Date: 09/20/2012	Page:	2
south of the south to.	Ad. ERC personnel A.	re removing
trash Liver from the sou	· · · · · · · · · · · · · · · · · · ·	
10:30 ERC has thier GPS c		
Are cleaning the fice in		
ay = 3.	·	
11:00 ERC Started building A	diversion bern Accross	the Active
LANGFILL to divert rain		
side at the Active LAW		
AND HILD C dozer.		
13:00 ERC personnel Continues		ion bevan At
the active Landfill.		
tie-in along the was		
Chacking grades with th		
15:00 ERC personnel are rakin		
They are pumping ovater		
They have I truck how		di .
16:00 ERC completed the di		
·	south bern And su	
17:00 ERC has supped woll	k for the day, I d	ep. 1/ ted the
Site,		
	·	
		***
	Signature 1	3/4/

White Copy - Library File

Yellow Copy - Owner

Owner: Vista	C/ACS 111	LAND-FILL	Report No.:	33		FRI
			Page	33     34   21   20	of	2
Project: Ce//	-3		Date:	09/21/20	ê /2	
Project: No.: / C	1. 27.08	Weather:	A.M	L	P.M	
				9 Low _		
Contractor(s)	RC			ESI		····
Contractor Super(s)	TACK Wig	19,NS		Ariz	ONA	
Number and Function o	f Contractors' Perso	onnel, Hours Worked (Identify	Subcontractor	s Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
FAC		Loader H	yundr)	760-71	1	/
ERC	<del>                                     </del>	DOZER EXCAVATOR LIV	CHT IL Beit	<u>.D.G.</u> 330	+ +	+
ESI	14	mini Excavator Enger	Kematsu	50100	<del>                                     </del>	',
		End Dung Water Tanker	Vel Va	25 TON	2	. ',
		water Tanker	CA T	5000 SKL	l	0
				- <del></del>		
	Visitors		Represe	nting		
Daily Notations:			·			
		N site At 1.	ista los	Addill E	=RC	Agista ingl
100	.,,		1917	NOTITIES C		75 (3.33.1.6)
ME	ON S.KI	site, Myself				1.1 5/10
07100 ESI	15 00	31761 /1148e1 F	Hrizo	ONH, DA	داد ۱	4Nd shere
		worth slope				
		AND ESI W				
Slope	AND OU	+ yo' from 7	The fee	I Calle	d Yv	ies And
	ned hera		· · · · · · · · · · · · · · · · · · ·			
		Are excopyting	the me	off, And	ice.	torench An
		he worth slope				

Signature:

Yellow Copy - Owner

Pink-Copy - Employee's Field File

/12

- 00190

Project No.:	Report No.: 33	FRI
Date: 09/21/2012	Page: of	2
99:30 ELC personnel Are unloading		
geocomposite Arrived ON S	ite,	
10:45 GRC UNloaded the 2 loads	of geolomposites. A	lord of
Drainage pipe 30" avrived on	v s, u.	····
13:00 ESI persouvel Are on sit	e preparing fier equip	oment for
placing panels.		
13:15 ESI Started panel placemen	it on the worth .	berm start
At the west end ERC		,
anchor trench. I walked		,
Slope And Floor out 50'		
of Acceptance.	•	
16:00 EST Continues placing AN		w the worth
berm of Gol-3. They so	re Air festing sorAn	is as they
Complète Seams.		
18:00 Light (Ain Started, ESI		+ sealing
patients over holes in t	he Liver. They has	a completel
welding,		
18:50 ESI AND ERC has	stopped work for f	he day.
I departed the site.	y	
<b>,</b>		
	1 1	_4.
	Signature 3	

ommen Kicka	110 71	611-3	D., (N	2 <i>4</i>		Count
Wner: 11 74	13 a dtill	Co11-3	Report No.	: <u> </u>		<u> </u>
Project: CIII	7		Page	19/10/	_ of	
Project:	0706	Washan	Date:	(	D)(	
Toject. No.: 75/2	27.08	Weather:		0 Low _		
Contractor(s)	FR C	remp.(Er):				
Contractor Super(s)	TAck MAIS	اله ١٠٠٧		0117	OHA	
	•	•			<del>- 0 .,</del>	
Number and Function of	f Contractors' Persor	nnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC		Loader Hyund	( 4 <del>-</del>	760-74	1	Ö
665	4	Exemplo-Mini K compactor Trige End drup Water Tankor	K Bilt	330	)	120
ESI		Exemple - Mine K	South CANS	88 50/03	1	<del>                                     </del>
		End domp	rolva	25 702	2	0
		Water Tankor	C14 7	5000 94	/	
				,		
					Ĺ	<u>L</u>
	Visitors		Represe	enting		
aily Notations:						·
16:50 I	grived on	Arc on site.	ista 1.	sudfill.	Tack	wiggin
and	Arizowa	Arc on site.	Wea	valked J	the	Floor A
	4.	damp spot				
		orge area. ER				
		to day. The				
		t the east b				
	Lia thi					7
		Are grading	the fi	lance Th	ly A	م) بلاد در قع می
the	wet soot	+ A+ the toe	of PA	c+ hor	ـــــــــــــــــــــــــــــــــــــ	1.1+ 100'
the	worth east	Caraler.		3(141)	1. 198	,0,700
			L LI		`aŁ	The
· · · · · · · · · · · · · · · · · · ·	CAPIPIETE C	the repair r	TN	LUCT 3	pag.	· rey ext

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Yellow Copy - Owner Pink Copy Employee's Field File

Project No.: /0/, 07, 08	Report No.: 34	54+
Date: $\frac{9/22/12}{}$	Page: of	2_
AN Area 80' LONG AND 15		
was dry ofter excavation, Rec		
Over the repair Area, ESI		
site yot,		
13:33 ERC PERSONNEL AR Checking	s grades with the	GPS rover
nord aps dozer,		
14:00 ERC has rolled and check		
200' South from the No.	th bern. ESI W	ill not stan
panel placement variet to	smorrow morning,	They will No-
deplay tomorrow if there i	c rain tonight.	
14:30 I departed the site.	· · · · · · · · · · · · · · · · · · ·	
		·
·		· · · · · · · · · · · · · · · · · · ·
· · · · · · · · · · · · · · · · · · ·		
		<del></del>
Sią	gnature 1977 C	Brefil

Owner Vist	-4 Landfill	Calra	Renort No	. 35		SUN
CVIIICI.			Page	: 35	of	2
Project: Coll	3		Date: Ø	8/23/201	2	
Project: No.:	1,07.08	Weather:	A.M	٥	_ P.M	PC
				90 Low _		
Contractor(s)	FRC		· · · · · · · · · · · · · · · · · · ·	ES	t	
Contractor Super(s) _	Jack Wigg.	ius		Ariz	on A	
		nnel, Hours Worked (Identify				
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC		houder Hyun	dri at	760-71	,	4
E'S I	14	DOZE C. EXCAVATOR DIWI EXCAVATOR MINI Compactor Tugo	1cBelt	33.2	1	90
	+ //	Compactor Inst	TOMATS U	50/00	-	<u>C</u> 0
		after Taken	Cut 7	53,5044	1	0
			, 		y .	
•						
	Visitors		Represe	enting		
Daily Notations:	· 1			1	· · · · · · · · · · · · · · · · · · ·	
86:50 I	Arrived	on site Es There was y. ERC gers	A	Nd ERC	per	rough
AVC	ON Site.	There was	NO VA	in yester	d4y	and the
ALA	was du	y. ERC gers	ownel	Are roll	10 g -+	he bern
5/0	pes And +1	2001	<del></del>			
07:30 ES	L Started	placing panel	's jiu c	2011 3,	They	Are placi
PA	ucls over	placing panel the east berny	And	floor.	I A.	n WALK
ナト	x 5566450	in front of	PANEL	P/Ace me	wt,	ESI And
My	self Sign	ed A Subgrade	AC ceg-	tower for	in,	EST pers
AVR	Also Air	testing seams	,			·
		ses to place A.		am panel	5 00	the co
beri	n and f	Place, They A.	1c mak	ing rep.	4105	to the
			4	7		13

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Yellow Copy - Owner

Project No.: / 6 /, 0 /, 0 6	Report No.: _35	SUN
Date: 09/23/20/2	Page:2of	2
Liver, I Am observing,		
SAMPLES ON completed Se	4m3,	
11:00 ESI personnel are pl	telni GCL in the Co	enter of au-6
AND PLAYING PANEL ACCO	ses the coll, I Ar	a observing,
recording And marketing	dostructive seam	Samples,
ERC PAUSONNEl Ave Sm	ooth drum rolling	IN front
of ESI placing pane	ls ,	
14:00 I continue to Obsers	•	,
AND SEAMING PANELS		- marking
destructive SUAM SAM	·	
17:00 FSI Stopped work for		are Not tested
Any destructive SAMP	les yet,	
		•
		<u> </u>
		,0.
·		
	Signature	

Owner: Vista	Landfill	Cell-3	Report No	:36		mon
			Page	1	of	2_
roject: Cu	3		Date:	09/24/2	2012	
roject: No.: /O/	1,07.08	Weather:	A.M.	PC	P.M.	PC
				2  Low _		
ontractor(s)	ERC			ESI		
ontractor Super(s)	JACK W.	`491U5		Aviz	zow4	
		onnel, Hours Worked (Identif				
Contractor	No. of People	Major Constr. Equip. 1	Description	Size/Capacity	No.	No. in Use
FRC	17	Loader HyU	Ndvi	760-7A	7	1
ERC ESI	14	EXCHATOR MINICOMPAGES ENGENT	nk Belt	7330	<del>     </del>	6
631	177	CAMPACION THERE	Konzota al Ruz	5000		+ +
		Ed Dung Water TANKE	Notro	25-100	1.2	D
		WHEL TANKS	CAT	50591	/	Q
	1					-
					1	
	Visitors		Repres	enting		
ily Notations:						
:50 ]	Arrived on	Site At Visto	f budf	ILL ERG	C 141	LESI
0100	DALAND AVOIL	CAG OU SITU				
7:30 ESI	Sersonne	ERC personn	105 DA	nels on-	fle.	500+11 C
e£	Cell - 3.	ERC APUSONA	el av	fine grad	leve.	Hu 50
\$100	e At the	tie - IN Aver	<i>f</i> ,		~	
2'01 T *	im observe	ins and reco	dies	ESI DENS	I WYC I	1 1015-101
n A .	ele Som	ue pauls no	d m.4	Kine MA	+1>0	La the
1.100	v/1	ng pavels An	a And	La cotisio	ריייייייייייייייייייייייייייייייייייי	Cotivation of the
	, , , , ,	LUIJI	· > ~ ~ ~ ~	76371.00	u.e	۷ ازشهان ۱۰ ر

Signature:

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Yellow Copy - Owner

Project No.:	101,07,05	_ Report No.:	36	9 .	moo
Date:	09/24/2012	_ Page:	.2	of	2
	330 excavator is down.	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
13:00	ESI personnel are fin	eld testing	des	tructiv	c Seam
	SAMPLIS, installing panels				
	to the Liver And Air	testing 5	CAM	en Ex	'C CONTINUES
	fin grading the south	bern!		<del></del>	<del></del>
16:00	ESI CONTINUES SEAMING	MALCING	repa.	in to	the Liner
****	And Air festing Scan		•		
<del> </del>	Liarer As far As they	CAN GO UN	til.	the s	ump is
	excavated, ERC cont	juver to fin	ure g	iradec	
17:30	ESI AND ERC MAS.	Stopped Wa	nt.	by the	d+y. I
	took 26 destructive	Seaus Sh	Jung/	es to	ficex for
	shipment to TRI for	laboratory	, -le	esting,	I stoppe
<b>)</b>	work to the day,				·
			·		
		·			
			/		

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JWHEI	LANDFILL		Report No.	:: <u>37</u>	····	To
			Page		of	2_
roject: <u>Cell' 3</u>	3		Date:	9/25/20	1/2	
roject: No.: 10/	07,08	Weather:	A.M	ic	_ P.M	PC
Contractor(s)	ERC	Temp.(EF):	High	88 Low 6	57	Rain
ontractor Super(s)	JACK Wi	GGINS		AVIZO	NA	
		onnel, Hours Worked (Identify				
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	8	Londer Hy	undri	760-71	1	<b>(5)</b>
ESI	114	EXCAVATOR LIN	ic Best	330	1	i
	+ / / -	Londer Hy Dozer Excavator Mini k Compactor them End Juna (ol Water Tarker	SII Regard	50100	1	
		WATER TANKE	V3 CAT	35 76 W	1	1
			- ' (			
	Visitors		Represe	enting		
aily Notations:						
aily Notations:	vrived ow	site at vista	LAND F	il. Eac	Per	SINNOI
6.40 E A	vrived on on site	site at vista	12pd 11	III. EAC	ρον	SWNO
6.40 E A	on site personne	site at vista UN(UADING A	Mand fi Bod 8	III. EAC T Pipe. A+ the S	per o oth	west
6:40 E A AVE 7:30 EST	personne)	THE PLACES	PANCIC	At The S	O oth	WEST
6:40 F A AVE  7:30 FST  COVNE	- They	Are working 1	routh A	At the S and will	dep	loy AG
E'40 F A AVE  7:30 FST  Corne  the	- They	Are working A see FRC person	routh A	At the S and will	dep	loy AG
6:40 F A  AVE  7:30 EST  COVNE  The  ANCLU  0!00 EST	south Slop or trenche personne	Ave mortetey A le FRC person	savel  ANd	At the S and will Ave excan	def Matin	loy AGO
Corne the Ancho Oloo ESI The	personner  They  south Slop  or trenche  personne  south be	AND WORKING A Der FRC person El Are placing Erm And South	AND AND	At the S and will Ave excan Seaming	dep nation par	loy Act
Are  Are  27:30 FSI  Corne  The  ANOLU  OLOO FSI  The  EXCH	south Slop or trenche personne south be	Ave working A er ERC person	AND AND AND AND	At the s and will Ave excan Seaming vi. ERC	dep matin pan per dit	loy Act

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Signature:

Project No.:	101,07,08	Report No.	.: <u>37</u>	Tre
Date:	09/25/2012	Page:	: <u>37</u> _2of	2
	ESI personnel Continues			
	make repairs and they a	TR Air to	esting seam	15, ERC
	personnel ar excavating	the sur	uf. The	survey once
	is on site.		<b>V</b>	
16:00	ESI has covered the sum	p grest.	They instal	lad the
	GCL and Sentanite . They	CONSTINUE.	to place or	od seam
	panels. Ere personnel p			
	At the south berm			
18:00	ERC Personal has stoppe	d work	for the day	Est
	continues to place and	1 seam p	anels,	
19:45	EST Stopped work for t	he day.	They Comple	Hed placing
	panels for Cell-3. We			
	floor to insure All holes	Are pate	thed to p	roteste the
	Sump if there is raini			
20:90	I printed out destrouti	ve lest	results A	ud stopped
	work for the day,			
			· · · · · · · · · · · · · · · · · · ·	<del></del>
				<del></del>
, , , , , , , , , , , , , , , , , , ,		·		
		A	/ / A	$ A_{1}$
	Sig	gnature	7017	WHI

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Owner: Vista LANDEIII		Report No.: 38 We d
		Page of
Project: Cell-3		Date: 08/26/20/2
Project: No.: 101.07.08	Weather:	A.M. MC Fx P.M.
	Temp.(EF):	High <u>9.2</u> Low <u>70</u> Rain
Contractor(s) ERC		ESI
Contractor Super(s) Tacle Wiggins		ÁrizONA

Number and Function of Contractors' Personnel, Hours Worked (Identify Subcontractors Separately)

Contractor	No. of People
ERC	7
ESI	14

Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
Loader Ayundri	760-74	ſ	0
DOZE CAT	06	1	
Excavator Line Belt	370	/	/
EXCAVATO MINI ROMATSV			<u> </u>
Conpactor Ingcissil RANG	50103	1	$\mathcal{O}$
	25/02	_	<u> </u>
WATER TANKER CAT	50009AL	İ	Ø
		<u> </u>	· · · · · · · · · · · · · · · · · · ·

Visitors

Representing

Daily Notation	ons:
06:30	I provided on site At Vista Landfill, ERE personnel
	Are ou site. I checked the 22 destructive samples set
	to the laboratory, All passed.
07:30	ESI personnel are performing detail work on Liver
	At the south site, ERC prosonnel are working on
	the overflow At the south east conver, ESIPILE
	The liver back to Allow them to gryde the corner,
10,00	EST personnel started geolomposite, They will do
· · · · · · · · · · · · · · · · · · ·	the fiction At PANEL I And then move to the EAST
	bern work ground the worth ben to the west tie-in
	I Am walking the Liver in front of feccomposite placement,
	Signature: 19 19 (1) Sulled
	White Copy - Library File Yellow Copy - Owner Pink Copy - Employee's Field File
	11,5

Project No.	: 101, 27.08	Report No.: 38	Wed
Date:	09/26/2012	of	2
13400	EST personnel are v	Acron Lesting repair	is in from
·	EST personnel are v	M. They AR WOLF	king ow
	savels in the south w	est corner where I	ne backho
	parels in the south w Lit the biner while clear	wing the sand, 71	LY AR
· · · · · · · · · · · · · · · · · · ·	Working on liner At H	a south east overflo	ow e
16:30	I shipped destructives	Ansles At Fedex.	EST NS.
	continue to place ge	exampled the a the	e sit day
	of 011-3.	e significant of the significant	<u> </u>
17:15	I Attended A meeting	place the sched	U/e, FRC
	will start sand tonorme	W. ESI Will Com	alot Hu
	geocomposite on Evide	11/2	The state of the s
15:00	I departer the site.		
			<del></del>
	· · · · · · · · · · · · · · · · · · ·		<del></del>
·			
			11
		- / / A 13.	
		Signature	<u>" [ ]</u>

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Owner: Vista	Landfill	·	Report No.	: <u>39</u>		Thur
	- /		Page		_ of	2
Project:(e//_	3			09/.27/.2	0/2	
Project: No.: 101	1.07.08	Weather:				
		Temp.(EF):	High	92 Low 7	72	Rain
Contractor(s)	FRC			Es	I	
Contractor Super(s) _	JAck Wig	gins	<del></del>	Ariz	ONA	
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	ors Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ELC	7	LOACEV 440 Do ZEV EXCAVATOR MINE EMPLYOR  EMPLYOR  EMPLY  EMPLYOR  EMPLY	UNDVI	760-7A	1	1
FET	14	excavator Lin	I Bell	330	1,	1
		Compactor "	1 Committee	5B130	1	0
		EN LUMP	VOI V3	25 TON	2	سد ا
	Visitors		Represe	entina		
	VISITOIS		represe	anung .		
Daily Notations:						
06 242 I	Action of the	V syleAf Vist	11116	Call. F.	1	100000000000000000000000000000000000000
B se	ou eiter		4 DATE	TILY LI	( )	16.1010
				ever Napl	Aug	aradica
i	harrow soe	Are ON site. 19 4 to get protec	Circo Co	VS SUPET	7700	91401149
£11	At Collins	TI JET PISTE	JIVC C	, de - y / 1 ()	y zza	- Prisone
	At GIVY		4 - 6	1 - nf 11	···	
eida	of Cours	Placing geoco. I Am obser	11/ 02/7	to Alana	20 L	- 1. 1º
- Line	AND SPECIE	T and	JALV.	LI IS	160	DIASTIC
7185	PROCESSES	to almandat	L	The His	non	A L OF
D 1 2	No don	to placement.	TO IN	30/C 7/10	1700	7 15 (18
10:00 FCT	· Martin	res placing,	C. 18. 10 5	is mossiele	A.L -	the cont
, , , , , , , , , , , , , , , , , , , ,	2007110	10 10 10 G	<u>- 7 6 06</u> 1	1	147	110 5004
		C:		my C	13/	

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Project No	:: 101, 07, 08	Report No.: 39	Th sus
Date:	09/27/2012	Page: of _	2
	side of GU-3. I and	inve to walk the	iver in front
	of geocemposite		
13:00	ESI personnel Are place	ing, tring and see	ving grocomposis
	in 611-3. They are usin		,
	Front of the placement,	· ·	
	build a ramp vouto all-3		
15:00	ERC dumped A load of p		
	Are removing the load.		
	geocomposite. I Am wa		
	The geocomposite being f	· ·	
	ERC personnel has 51		he day. ESI
-··-·	personal are placing sa		
	of geocomposite.		, 
18:15	I departed the site		
	,		
	· · · · · · · · · · · · · · · · · · ·		
,			
	•		
		Signature 527	Buff

Owner: $Vista$	9 LANCSITI			: 40	· · · · · · · · · · · · · · · · · · ·	FR
Project Coll	- 3		Page	1 08/28/20 1C	_ of	2
Project: No.: _/O			AM P	) C	DM	
Contractor(s)			High	<u> 20</u> Low _	<u>74</u>	Rain
		1) sins				
		onnel, Hours Worked (Identify				
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	G	LOACEV HY DOZLY	UNEVI CAT	760 - 7A D6	/	1
ESI	13	DOZEN EXCAVATON MINI	Link Best Komateu	320 320 308	1	0
		Excavator mini Compactor trager End doug	-1/ RANC	25 ton	2	2
**************************************				· · · · · · · · · · · · · · · · · · ·		
			·			
	Visitors		Represe	nting		
			•	<b>.</b>		
Daily Notations:	***			**************************************	·······	
06:50 I 9	mived on	site At VistA	(andfil	1. ERC	persi	onne/ A
ort.	site.		<u>-</u>	······································		· · · · · · · · · · · · · · · · · · ·
oros EST	personnel,	are on site,	FRC,	personvel	5441	Fed hav
protec	tive cover	to the south	vest C	Darwer4	They	ail the
		ell 3, Soiz is	UNIOS	ded At	611-2	2 die
A. ra	, \					
ANE ANE	graded in			0		<b>*</b> >
ANE ANE		to cell-3, composite and go by ERC.	Restext	le Aroves	d en	1 sik A

Signature:

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13:00

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Project No.:	101.07.08	_ Report No.:	40	FRI
Date:	09/28/2012	Page:	2 of	2_
	· section of collis. The	Electricial	- rrew	A1 43 00 517
	AND ran conduit Accre			
	from North to South, I			
	for Insoratory testing.			
	protective Come At the so			
	ERC persouvel stopped w			
***************************************	continues to install goo			V
17:30	ESI completed most	t of the	gesco	aposite in
<del></del>	Coll 3. They have A	Lew reption	s for m	the to the
<del></del>	goocomposite, They so	topped wo	ik Lov	He 24%.
····	I departed the s.	ite:	<del></del>	
			······································	
**************************************			······································	
		**************************************	<del></del>	
		·		
<del></del>				
<del></del>		<del> </del>		
		n managan da ang ang ang ang ang ang ang ang ang an	······································	
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<u> </u>		/-		
		Signature	~//	12/

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#### $\mathsf{CFC}$

11 <b>\</b> 1			es e		
Owner: 71577	4 LANCESII)	Report No.	: <u>47</u>	• • • • • • • • • • • • • • • • • • • •	SAT
	<del>ن</del> -	Page	2/22/22	of	0-
Project:	- 3	Mage            Date:            Weather:         A.M.	9/29/20	) ( <u>L</u>	0 -
Project: No.: / 97.	01,08	Weather: A.M.	00	. P.M	16
	·	Temp.(EF): High		-	
Contractor(s)	FILL	Flore		<del> </del>	
Contractor Super(s) _	Dile Wig	510h	AVIZOR	14	
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ESI	/3	LOADER HYUNERI DOZER CAT  EXCAVATOR MINI KOM STEU  COMPACTOR THEORY RANK	760-74	1	0
ERC		Excapator Link Belt	330	1	Ø
Erc		Compactor Trigersoll Rank	58700		1 0
		End Dump Volvo	ds tow	1	2_
		VIII VIII VIII VIII VIII VIII VIII VII			ļ
	Visitors	Represe	entin a	·	<u></u>
	VISITOIS	кергезе	anung		
Daily Notations:	· · ·		(0.1		
06:50 1	AVIIVEC ON	King to duty.	dfill, E	ec p	Jevso WNE
Are	- Not wor	terry to daty.	_	, ,	
		the on site. The			
10 T	geolompo.	site And Cleaning -	the coll-	<u>-3 (</u>	Warka
		the grocomposite +			
geo	fextile Arc	complete. ESI per	ouncl A	ive	Cleanio
		en AND MOVING Left	tour ma	ter,	415 to
Star	Age Area.				
		· · · · · · · · · · · · · · · · · · ·			
12:00 ESI		of materials shore			

Signature:

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Project No.:	101.07.08		Report No.: 4/	SAT
		A		2
	/			
14:00			mode Acop to	
			of the grationed	
14:30	EST person	wel removed	Hyer equipment	Jusilou from
	the site.	I depart	thick equipment	
			,	
				71
				·
· · · · · · · · · · · · · · · · · · ·				
·				
·				
				3
				<i>9//</i>
		S	ignature / //	Je//

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Yellow Copy - Owner

Owner: Vist4	LANdfill	Weather:	Report No.:	42		Mor
-	· <b>¬</b>		Page		_ of	2
Project:	7-3		Date:	10/01/2	012	
Project: No.: 10/	07,08	Weather:	A.M	<u>C</u>	_ P.M	mc
Contractor(s)	FRC			7/ Low _		
Contractor Super(s)	TACK Mica	( AS		· · · · · · · · · · · · · · · · · · ·		<u></u>
	,					
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontractor	s Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	6	Loade H Dozer Excavator Mini Compactor Mini Compactor Dujerto Excluded Ding	yundri	760-7A	,	U
	Ψ	Excellator Lin	C47 L Be1+	330	1	//
		Excauttor mini	Komatsu	88	1	1
		End Ding Stifferto	11 RANG	25 4N	2	2
					<del> </del>	
	······································				<u> </u>	<del>, I</del>
	Visitors		Represer	nting		
Daily Notations:				·		
06:45 I	Aurived	ON site At V	ista Lin	dfill,	ERC	Dersonue
AV	Arriving	ON Site At V ON site,				7
07:15 FR	CARYSONIA	(1) Sharked Co.	12 DA CLI	the	a cola	ar Linux
11	LA SULL	in a silver	T	5 / 6	ANCOL	1
		west side,	I An	1 OBJERN	1NS	and per
	siture densi	,	,		· ·	
08:00 ER	c started	placing prote	Hive a	OVER SANG	d . 7	They Abe
		of up the save				
11:00 ERC	Continues	to place and	1 grade	profective	ve o	Gover SAN
, w (	Cell-3, Th	ey constructed	Aram	, W and	74	, cooyh
Class	The L	ichi an't to	C 11	1010		<u></u>
2 10 /12	( ) ost TV.	icks exit the	00	· · · · · · ·	orn.	/, / i.e

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Signature:

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Project No.:	Report No.: $42$ $MoN$
Date:	Page: of 2
to perforn moisture deus	ity test on sections of the
Awchor treach as they	compact the treach.
14:00 ERC CONTINUES to Compace	+ fill in the Anchor treach
At the North side, The	continue to place protective
Gover soil on the west.	floor of GU-3.
15:20 A rain shower moved th	rough the Aved, ERC continue
placing protective cover	SANd,
17:00 ERC CONTINUES to Place	protective Cover Soil At the
west floor of 611-3,	They are keeping trucks on
3.5 feet of soil, ERC	has 2 trucks hauling protection
Cour soic,	
18:00 ERC stopped work for to	he day. I departed the site
•	
	Signature Sufful

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#### $\mathsf{CFC}$

wner:	MNCfill	Re	oort No.: <u>43</u>			Tue
		Day	ro /	01	e	2
oject: <u>Ce11 - 3</u>	3	Da Weather: A.I	te: /0/	02/20	12	
oject: No.: <u>/0/</u>	07.08	Weather: A.I	A. MC	F	P.M	MC
		Temp.(EF): His				
ntractor(s)	ERC					
ntractor Super(s)	TAck Wig	19/NS		<del></del>		
mber and Function	of Contractors' Perso	onnel, Hours Worked (Identify Subc	ontractors Separ	ately)		
Contractor	No. of People	Major Constr. Equip. Descrip	otion Size/	Capacity	No.	No. in Use
FRC	7	Loader Hyundri	760	-7A	1	Ü
Exc	<del>                                     </del>	DOZEY CAT  EXCAVATOY MINI KON  COMPACTOY MINI KON  FALL NUMBER  FALL NUMBER  CONTRACTOR  C	elt 3	,30°	1	/
		EXCAVATOR MINI KON	1945) 501	58	<u>/</u>	<del>/</del>
		END DUMP VOIVS	25.	ton	2	2
				,		
		L		L		<u> </u>
	Visitors		Representing			
lly Notations:		· · · · · · · · · · · · · · · · · · ·				
	rived on	site at Vista LAM	sdfilli	GRC ,	oers-	o was I
140 I A	` .	1		•		
AVCIV	ING ON ST	te,				
AVIIV 100 ERC	personnel	started bauling	protec	dive a	20VC	V SANO
100 ERC	personnel	started hauling	protei	dive a	20VC	V SANO
100 ERC	personnel ell-3. Th	started hauling	protes	13,5 .	20vc fee+	V SANO
to C	personnel ell-3. The Continues	started hauling ex are keeping to to place prote	protective co	ctive a 3,5.	feet Ind	V SANC - pf S- IN Cel
to c	personnel ell-3. The Continues y Are buil	started hauling  ex are keeping to  to place protections  I ding is roud to	protes crucks ov crive co ward f	edive a  3,5  over Sa  he Nor	feet nd Hu	v SANCEI IN CEI berm
to co FRC The	personnel e11-3. The Continues y Are buil west side	started hauling  ex are keeping to  to place prote  Iding A road to  ERC personnel	protes	edive e 3,5. over Sa he Nos	ebyc feet ind th to	v SANO of Si in cer berm differen
to control the	personnel e11-3. The Continues y Are buil west side ions in the	started hauling  ex are keeping to  to place prote  Iding A road to  ERC personnel  Le Borrow Area to	protective co cfive co count f me me stay in	yive of 3,5.  were Some No.  wing  I the	feet wd th to	v SANC pof S- in Cei berm different
to C  to C  The  the  boxt	personnel eil-3. The continues y pare buil west side ions in the styrted u	started hauling  ex are keeping to  to place prote  Iding A road to  ERC personnel	protective concepts of me man	Hive in the North	feet wd th to	v SANO IN COL Berm different down

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Project No	: 101107,08	Report No.: 43	Tue
Date:	10/02/2012	Page: of	2
	the west floor AVER, ERC	moved the p	lywood Alox
	the west edge to the slop	1 Aves of G11-2	<i>te</i>
16,00	ERC personnel are placing	sand on the	floor of
<del> </del>	Coll-3. They are buildin	19 A road Wes	it to east
	Accross the North end of	611-3.	
17:15	Rtin Started. ERC continu	ves placing and	grading
	protective cover sand in a	in-3 At the A	with side ,
18:00	ERC personnel stopped we	ork for the day	, I departed
,	the site.	***	
			······
		***************************************	· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·	
· · · · · · · · · · · · · · · · · · ·			
· · · · · · · · · · · · · · · · · · ·			
<del></del>			

	- PAUCTIII		Report No.	: 44		Ne
A			Page	: 44	_ of	2
roject: <u>Cell</u>	1-3		Date:	10/03/2	012	1
roject: No.:	1.07,08	Weather: Temp.(EF):	A.M ///	( )	_ P.M	mc
ontractor(s)	-RC	Temp.(EF):				
	•	onnel, Hours Worked (Identify			,	
Contractor	No. of People	Major Constr. Equip. De		Size/Capacity	No.	No. in Use
ERC	6	Loader is Dozer Excavator Lin	yundri	760-74	(	0
		EXCAVATOR LIN	IK Beit	330	+	1
		Compactor Inger	comatsu	88 50100	-	9
		ENE Dump	Volvo	25400	2+	4
	Visitors		Represe	nting		<u></u>
	Visitors		Represe	nting		4
Market			Represe	nting		
•						
6:45 I	Avrivet e	on site At V	ista (A	Ndfill a	ERC	person
6:45 I 4re	assived e	-	îsta LA	Ndfill me		
1:15 The	Avrived e on site e clockician	V is on site of	ista LA	Ndfill in ete the	treve	4 for
7:15 The	avrived e on site e electrician iduit, ER	-	ista LA	Ndfill in ete the	treve	4 for
7:15 The	Avrived e on site e electrician duit, ER	V is ON site of C started hour	Sta LA O Compl	ete the cotective	freve Cover	the for
1:15 The CON 7:30 ER	Arrived e on site e electrician duit, ERO	is on site of c started hour	Sta LA  S Compl  ing pr	ete the cotective the End I	freve Cose	the for
7:15 The  CON  Coll  7:30 ER  have	Avrived e on site e electrician duit, ERO -3, C has a f	Is on site of started hause  It fire on one hausing sand	ista (A o compl ing pr e of a	ete the cotestive in the End I	freve Coser Junps	- signed
17:15 The  CON  Coll  7:30 ERC  have	Avrived e on site e electrician duit, ERO -3, C has a f e 1 trucke - had a o	V is on site of started hause  Plat tire on one hausing sand and flat tire	ista (A)  o compl  ing pr  e of n  At the	ete the cotective in time, he other	treve Coser Dungs tio	- signd - signd - The
4 ve 17:15 The CON COL 17:30 ERC hav 8:30 ERC shill	Avrived e on site e electrician duit, ERO -3, C has a f c I truck have I	Is on site of started hause  It fire on one hausing sand	o Compling property	ete the cotedire his time, he other	treve Coser Dungs tio	- signd - signd - The

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Signature:

Pink Copy - Employee's Field File

12,0

Project No.	: 101,07,08	_ Report No.:	44	We
Date:	10/03/2012	Page:	<u>2</u> 0	f2
	SAND, They Are placing pro	stective cover	sand	in 1211-3 A
	the west side and worth			
14:00	ERC continues to place p		,	
	They have 4 took hauling			
	SAND At the west side,			
16:00	ERC has the 2nd D6	Lozer on	site	They conti
	placing protective cover so	and, They	Mosco	The house
19:15	ERC stopped work for	the day,	t de	engited the
	Site.			
-				

Signature

Owner: <u>Vista</u>	Landfill			: 45		
Project: Cell	-3	Weather:	Date:	10/04/2	0/2	A
Project: No.:	1,07,08					
				90 Low		
Contractor Super(s) _	JACK Nig	9/105				4
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De		Size/Capacity	No.	No. in Use
ERC	8	DOZEN BYUN	id a CAT	760-7A	1	2
		excavator link			,	/
		END DUMP			4	4
		Compreder Ingers			,	
		7/1030 1/0/01	M NANC	29/0-		
					l	
	Visitors		Represe	enting		
Daily Notations:		site At Vist	a Land	Silli ER	2c /	)essemme!
AVE	on site	ε				
77:15 ERC	personnel	started halling	g pro-	tective a	sver	SAND to
G11-	3, They	have 4 trucks	At Hh	is time.	SAA	1d is
PlAC	ed At th	re North Exst	side.	of @11-3,		
0:00 I A	Hended +1	le progress me	eting	for Coll	-3	Construd
Pleas	e see mis	vutes at meetin	195 , E	RC person	wel	moved
to A	INother loca	stion in the l	orrow	Are4, 7	hey	continu
to p	olace protec	tive cover soil	4+ the	North &	45+	Side of
Cell	3. They	acretime to use	4 1	rucks.		
3:00 ERC.	personnel.	Are excavating "	restectiv	eflour s	SANd	from
		Signature:	/m	, 1 C/2	7 7 . N	
7	White Copy - Library Fi	_ /_	Pink Conv.	· Employee's Field Fi	le//	/

Project N	(o.: 101,07.08	Report No.	: 45	-	Thous
Date:	10/34/2012	Page:	2	of2	
	the south side of the	borrow aver	Th	ey have	4
	trucks havling protective	Coversand.			·
15:00	ERC has 2 trucks	hauling cover	~ Mgs	wise for	winj
	AND 2 trucks haulin				
	Call 3, They continue	•			
	01 611-3.	*			
17:00	Rain started, ERC 00	utinues to p	1/4ce ,	protective	- Cover
	SAND IN COUTS,	/			
17:30	s ERC stopped havling	SANd, They	Arel	oumping	Water
	From Cell-3, Hard rain	V continues.	I o	Leparted	the
	site,			7	
				, , , , , , , , , , , , , , , , , , , ,	
				<u> </u>	
- 1					
		W. H. Change	/-		

Signature

						FRI
D :	9			1		
Project: No.:		Waathan	Date:	10/05/2 150gg	012_	AC.
110jeot. 140				8 Low _		
Contractor(s)	ERC	Temp.(L1).	Ingii	<u> 5                                   </u>		Kam
Contractor Super(s) _	TACK Wigg	ius				
		onnel, Hours Worked (Identify			i	
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	9	lagder 14,	widi	760-74	. (	0
		Dozer	CUT	p6	2	2
		Excavator him			1	/
		End domp			2	2
		Compactor Ingers			(	0
	Visitors		Represe	nting	<b>I</b>	
				A.Y.		
06:45 I A	arrived on	site At Visra				
06:45 I A	arrived on	They are pumpil	ug w	Ater from	n +1	ie somp
06:45 I A LAST	grived on Night, -	They are psmpi, an some ev	eded ,	Ater from	n H	e south
06:45 I A LAST Cell:	Avrived ON Night, - J. There	They are psmpi, are some ev has no erode	eded ,	Ater from	t th	e south
06:45 I A  LAST  COM-  17:30 ERC	Avrived ON Night, - J. There d. all-3 personnel	they are pumping see some ever has no erodice are grading ac	eded pred	Ater from  Aven's An  S.  Ads At	t the	e south
106:45 I F LAST COM- 17:30 ERC to 9	Avrived ON Night, - 7. There d. an-3 personnel set saud	they are pumping sue some ever has no eroder are grading ac trucks into	ded pred	Ater from  Aven's At  S.  Ads At	the	e south
106:45 I A  LAST  LAST  1040  17:30 ERC  TO 9  8:00 ERC	quived on Night, -  7. There  3. QH-3  personnel  set saud	they are pomping are some ever has no eroder are grading are trucks into placing protects	ded pres l pres cess vo Coll : 3.	Ater from  4 ved S At  4 ds At  ver SANd	the	e south. souths.
06:45 I A  LAST  COM-  7040  7:30 ERC  To 9  8:00 ERC  They	Avrived ON Night,  7. There d. Cell-3 personnel set saud started have 2 Stopped	they are pomping are some ever has no eroder are grading are trucks into protects having protects having protects	ded press vo Coll 3. Live co	Ater from  4 ve4 s At  4 ds At  ver sand  tective  rer sand	the the	e south sofths. Cen-3. SANde
LAST  CELL:  1040  7:30 ERC  To 9  8:00 ERC  They  81:00 ERC  Work	Avrived ON  Night,  7. There  1. Con-3  personnel  set sand  started  have 2  stopped  ing on	they are pomping are some ever has no eroder are grading are trucks into placing protects	ded of press vo Coll = 3. Wive co we cov	Ater from  Aven's And  S.,  Ads At  Ver saud  Chective  CL CONH	the the couper	softis.  Cell-3.  SANde  ey Are  Lugara

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Project No.:	Report No.: 4	ERI
Date: 10/05/2012	Page: of	2
11:00 ERC CONTINUES to hauf		
They are keeping from		
sand, They have 2 ;	trucks hading protective	Cover SANC.
14:00 ERC personnel continues		
Ce11-3 I Shiffed prote		
7 And 8 for laborator		
15.15 ERC Stopped work for 7	the day. They will a	sot work
this weekend, I depa	isted the site.	
•		
		10000
	/ 0/	- //

Owner: //sf	A LANSFIL	<i>j</i>	Report No	:: <u>47</u>		NON
				- C		
Project: Oell	3		Date:	13/08/20, PC	1	
Project: No.: 106	07. Of	Weather:				
		Temp.(EF):	High	86 Low 2	140	Rain
Contractor Super(s) _	TACK ASig	gills				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	ors Separately)		
Contractor	No. of People	Major Constr. Equip. Do	escription	Size/Capacity	No.	No. in Use
ERC	6	hodder Hyo	veri	760-714		1
		10200		1	1	1
**		Exchiptor Lin				1
		Eld Dump V			2	2
		Compactor Isger		1	/	0
		/				
	Visitors		D			<u> </u>
	VISITOIS		Represe	snung		
Daily Notations:						
	Arrived on	site at Victa	LANde	M. FRC	DOC	comme
ON	site	site at Vista			1	7000.0
		I started haulin				
EAS 1	+ side of	- C11-3. The	1 hace	2 truck	c h	suline sa
#da	ty, ERC	personnel Arc	Ollma	No VA A	618	Les from
011		,	7 - 7	<del></del>		
		continues to	2 14 C	2 protect	i he	Covr - St
At	the east	side of Cell-	3, Th	ey se b	wild.	inc ros
		v 911-3. They				
		3 feet of SAN		7 /		
		started drilli		les in the	ر کے ج	ray rise
	0		/	1 /		
		Signature			10	

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Project No.: 181, 07, 08	Report No.: 47	Mon
Date: 19/08/2012	Page: of	2
pipe. Holes Ave 5/8", 6" A	party 4 rows 4	+ 90° .
ERC continues to have		
sand in 911-3, They h	•	
this time, ove two has		
15:30 ERC has the 2rd truck		
to place And grade pro		
- Are keeping trudes on A M	inimum of 3 fleet	of sand,
15:45 Rain started. ERC Co.	NJINUES hading	projective
cover sANd to CHI-3		
16:00 ERC has the 3rd truck	on site. RAIN C	onstinues and
they continue to place	and grade protecti	be cover gare
ja cen-3,		
17:15 ERC Stapped work AND	are fueling thier	egaipment.
I departed the site,		
,		
		· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·

Signature

Owner: Vista	Landfill	Report N	Vo.: 48		Tire
		Page	/	_ of	2
Project: <u>Cell-</u>	3	Date:	10/39/201.	2	
Project: No.:	. 07. 08:	Weather: A.M	PC/1099	_ P.M	PC
		Temp.(EF): High	86 Low _	7.3	Rain
Contractor(s)	ERC				
Contractor Super(s) _	JACK Wi	91 NS			
Number and Function	of Contractors' Perso	nnel, Hours Worked (Identify Subcontrac	ctors Separately)		
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC		Coader Hyundri	760-74	l	0
		DOZEX CAT		(	1
		Excavator Link Bels	1	/	(
		END Dump VOLVO	i	3	. 3
		compactor Ingersall Re	ŀ	(	0
	Visitors	D	esenting		<u></u>
	VISITOIS	Керг	esenting		
Daily Notations:					
06:40 I	Arrived on	( site at victa ban	Leill = Fi	ec 0	e (SONSA)
AVC	Arriving	site at vista LAN			
17:15 ERG	C persoune	I started hauling	AND DIA	cing	protec
		v Cell 3, They ha			
ANd	Ave bui	Iding reads towar	d the so	uth	east
Side		,			
10:30 ERC	personnel	Are placing prod	tective au	~~~ .	sand a
	,	st side of cell-			
trucle	s hauling	sand and are lea	eping truc	les A	MINUM
o L	3 feet A	bore the Livers			
3:00 ELC	persound	has 3 trocks have	ling protes	ctive	Cover
	/		//		/
		Signature:	m, C	- 4	Sup/19

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Project No	o.: 101,07. 88	Report No.:	7 Tue
Date:	10/09/2012	Page:	of
	sand to coll-3. The	ey started pushi	to up the south
	slope and the have I t	· · · · · · · · · · · · · · · · · · ·	•
	grea of the cast becom.		
	ERC personnel continues		
	IN G11 3, They have 1		
	rox out area and 2 trucks	-	
17:35	ERC Stopped harling 5		
	equipment. I departe		
*/			
		w to the same of t	
			-A
***************************************			
		Signature Signature	C/30/12/

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Owner: <u>Vista</u>	LAND FILL		Report No.:	+9		ivec
			Page			
			Date:	1/0/201	2	4.6
Project: No.:/o/	.07.08	Weather:	A.M. PC		P.M	PC
	names - de	Temp.(EF):	High 86	Low _	69	Rain
Contractor(s)						
contractor Super(s)	JACK Wigg	INS				
lumber and Function	of Contractors' Perso	nnel, Hours Worked (Identify	Subcontractors Se	eparately)		
Contractor	No. of People	Major Constr. Equip. D	escription S	ize/Capacity	No.	No. in Use
ERC	7	Loader h	yundri 7	60-7A	1	1
		D0281			1	2
		EXCHUATOV Li			l	1
		END Dump	1		3	3
		Compactor Targer			(	0
		7				
	TT: '.					
	Visitors		Representing	g		
ailer Matatiana						
•	4-1	u site At Vis	1. 1. 10	)*// 5		200.46
		ou site,				
	/					
		Are hauling 3. They have				
					011109	123121
		trude to the				
1190 EXC	nas a s	record D6 dozer	100 SITE	c. The	2-y A	uc grade
<u> </u>	borna Ave	4. They contin	ive to pi	te pro	tecti	ve Cosev
		3. They Are g	rading 50	ind up	the	e west
bern						
2:30 ERC	personnel	have 3 to	voles ha	· ling p	rotec	dive co
•			B A			
SAN	to the		A CIII			

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Project No.	101.07.08	Report No.	: 49		Wed
Date:	10/10/2012	Page:	2	of	
	soud up the east bern				
	INSTAlled A rub sheet Accord				
	North of the some to b				
<del></del>	east side of Gu-3.				
	ERC personnel continues	HACING Dro-	te of ive	e cover	sand
	in car-3. They started				
	east slope. They are		2		
	grade the bornw Aver				·
16:00	ERC CONTINAS PLACING.		11-3.	They Av	e pushlino
	sand up the worth eas				,
	Cover sand over Liner				
	be 1×10-4 or greate				
	WAS LOV COVER FOR F;				
18:10	ERC personnel stop				The day.
man de la companya d	They continue to grade	- the borr	OW A	rea, I	departed
	the site.				
-~_	Note! I took I hour o	I today ti	ne for	v pideja	CUP
	A replacement si-	te Vechicle			· · · · · · · · · · · · · · · · · · ·
			, /		

Signature

Owner: Vist.	4 HANDfil	(		.: <u>50</u>		
,						
			Date:	10/11/20	12	
Project: No.: _/ Ø/	. 07,08	Weat				
a	5° 0 6		o.(EF): High		05	Rain
						·
	,	gi NS				
Number and Function	of Contractors' Perso	onnel, Hours Worked (I	dentify Subcontracto	ors Separately)	T	1
Contractor	No. of People	Major Constr. Ed	quip. Description	Size/Capacity	No.	No. in Use
ERC	6	Londer	Hyundri	760 - 7A	1	/
			CAT	3	1	,2
			LiNE Belt	1	l	/
			volv			3
		compactor		l .	,	0
		7,0	- 1 - 9C- 3 - 11 K - 1 - 1			
	Visitors		D		L	
	VISITOIS		Represe	enung		
Daily Notations:						
06:40 I	acrived o	V site At	Vista la	adfill. E	RC	person
Ace	Arrivino	g on site				
07:15 ER	c person,	vel starte	d placin.	e AND g	rad	ing prot
Cove	er sand	in Cell - 3.				
18:00 I	in formed	Shever th	at the a	onduit o	w H	e east
bern	n pulled ,	aport, She a	1111 CALL +	he electro	CHE	/
		ves placing				
They	y have 3	trucks A	Nd 2 de	ozers u	jorle	inside
the	G11, TI	hey Are gra	dias SANd	up the	e	tst an
	th slopes			v		
13:00 ER	C DESSONN	el Are pl	Acing prof	Lective Cov	rer S	AND ON
	/	r	1/			11

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Signature:

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Hoo

Project N	Io.: 10/,07,08	_ Report No.	:50	Thor
	10/11/2012			
	the North Slope And th	ne floor o	A CU1-3	. They are
	moving around in the boo	ccow Aved	to stay	in good 5AN
15130	ERC personnel Are using 3	trucks to	s haul pro	tedire que
	sand to GII-3, They has	ve a doze	os with	Cops guadi
	the sand. The section of Adding A I fort soction.		,	
	ERC personnel are fueling t	nier equip.		
			· · · · · · · · · · · · · · · · · · ·	**************************************
A				
-				
<del></del>		**************************************		
			7	

Signature

Owner: Vic+4	Landfill		Report No.	: <u>51</u> !		FRI -7
)	2		Page	1 1 1 2	_ of	2
roject:/0/	1.07.08	Weather:	A.M	0/12/2	_ P.M	
		Temp.(EF):	High	87_ Low_	67	Rain
Contractor(s)	ERC	,	<del>/</del>			
ontractor Super(s) _	JACK Wigg	SINS.		<del></del>		
Jumber and Function	of Contractors' Perso	onnel, Hours Worked (Identify S	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	scription	Size/Capacity	No.	No. in Use
ERC		Loader Hy	undri	760-7A	1	1
		Dozel X	at	D6	2	2_
		Excavator link	Belt	330	1	/
		Trucks V	olds	25 100	3	3
		Compactor Tagers	4 RAND	87/00	/_	0
	Visitors		Represe	nting		
	rrived on s	ite At Vista L	and fill	, ERC p	verso i	unel Av
			<del></del>			
		started haulin				
			,	·	-6	YUN AU.
Cell-		have I truck				
Call- Ave	A AND I	trucks haulin	g to 1	the Jusid	<u>e</u> e n	st s/0
Coll- Ave. 19:30 The	A AND I	trucks havling force	les A	the justed to the bo	e en	st slo
Coll- Ave. 19:30 The A h	A AND I except Afor yeraulic ho	trucks haulin	les s	the justed the bo	e en sand	st s/o Area b

Signature:

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Pink Copy-Employee's Field File

5.5

Project No	o.:	Report No.:	FRI
Date:	10/12/2012	Page: of	2
	is still down.		
12:00	ERC Sent All their p	personnel home except	for the
	2 dozer operators,		· • • • • • • • • • • • • • • • • • • •
12:30	Ere has stopped All u	look except for freling	thier
	equipment, They will	( Not work this were	kend. I
	departed the site.		
****			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	·	. /	
		1/2/ 0 +	3///

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Owner: Vista	LAND FILL			52		
Project:	07.08	Weather: Temp.(EF):	Date:		P.M	RAT PC
Contractor(s)	ERC			*		
Contractor Super(s)	TACK Miggi	15	,			
Number and Function of	Contractors' Perso	nnel, Hours Worked (Identify	Subcontractor	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	7	Conder Hy	ivbdvi	760-7A	(	0
		DUZEV			/	1
		EXCAVATOV L			/	/
		Trucks v	10/100	25 754	3	3
		compactor tugor			0	0
	Visitors		Represe	nting		
Daily Notations:					· · · · · · · · · · · · · · · · · · ·	
06,50 1	arrived o	on site one o	to LAN	1911. E.	RCA	Personne/
				16 doza	ذر ک	doux
	•	it of site t	, , , , , , , , , , , , , , , , , , , ,		\	- · · · · ·
1		grading protective			4 7	
Aver	of 611-		<u> </u>	×41. C	<i>)</i>	10.000
09:30 ERC		Glens with ove	e of	thier ha	4/ 7	trudes.
,	. /	trudes hou			2 6	ent. The
Ave	grading	sand inside	of 611	-3.		
11:30 ERC	CONTINUE	s placing pros	tective	Cover SAN	<u> </u>	Cell-3,
They	Are Usin	is 2 fracks.	Ŋ			
***	hite Copy - Library Fi	Signature:  Yellow Copy - Owner	Dink Conv	Employee's Field Fi	e fra	

Project No.: 101,07,08	Report No	n: <u>52</u>			mor
Date:	Page:	2	of	2	-1
13:00 ONC load of #57 S	JONE Arrived	ON_	574c	I +	380
A Sample for Laboratory	testing, El	RC G	autin	ves =	40
place AND grade protect	tive cover soic	in	Ceri- 3		
13:45 Rely Started, EXC Co					
IN all-3, ERC has	,		-		
14:15 The vain has stapped, E					
studia en -3. They					
sand at the east floor					
16:30 ERC personnel continu					ctive
Cover SAND IN COLL-3.	*			,	
AND 2 dozens grading		·			
17:40 ERC has stopped work for		ey Ave	fuel	ing the	eV
equifment. I departe				J	
			· · · · · · · · · · · · · · · · · · ·	,	
					·
		2			

Signature

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Owner: Vista	Landfill			: <u>53</u>		
Project: Cell-	-3			10/16/5		
		Weather:	A.M	<u> </u>	_ P.M	PC
		Temp.(EF):		84 Low_		
Contractor(s)	RC .					
Contractor Super(s) _	Jack Wiggi	NS	-			
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. Do	escription	Size/Capacity	No.	No. in Use
ERC	6	poder H	iundri	760 14	/	1
		Dozer	CAT	06	2	2
		BYCAVAJOT LIA				)
		Toucks	Volus	25 Tox	3	1
		Compactor Inger	soll Rand	50100	1	0
	Visitors		Represe	enting		
Daily Notations:	· · · · · · · · · · · · · · · · · · ·	was a second of the second of				
06755 I	Arrived.	on site At	VistA	LANDEIII	, E	RCperson.
AV	e on st	te,			,	
		- haul sand f				
		3 to see how				/
,		rt fusing pipe				

Signature:

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10.5

Project No	D.:	Report No.: 53	2
Date:	10/16/2012	Page: of	<del></del>
	At the east row out A		_
		fusing the sumprisor pipe an	<u>_</u> d
		gad in Coll-3,	
13:30	ERC personarel Ave gra	ding protective cover sand in	_
		the excavator And I truck to	
	,	the east side of Q11-3 to to	
	west side i		
		pipe for the sump, They said	<u>-</u>
		FRONAL 5 feet of 18" SAR	
	4	sipe and it will be here tomos	
		floor of GIL-3 to close to	
		ed excess sand to the wo	
	side of 1611-31		-
		the day. I departed the si	ite.
			- 1
	Note: ERC said to da	y that they will work on	6
		eele Until Call-3 is Comple	
	Tack said he show	uld complete the sand AN	11
		ext week.	
			-
			-
			•
			-4

Signature

Owner: Vist	1 LANDETT	7/	Report No	: 54		live.
			Page		of	2
			Date:	<u> 10 [17 [</u>	2012	a a decree
Project: No.:	1,07,07	Weather:	A.M	00 '	P.M	mc
		Temp.(EF):		81 Low	68	Rain
Contractor(s)	<u> </u>					
Contractor Super(s)	JACK Wiggi	NS.			<u></u>	
Jumber and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	ors Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	6	Loader	yvvndri	768-7A	/	
		Dozer	Cut	1 .	2	1
		Excavator link	Belt	330		/
		Trucks	rolvo	25 TOW	2	2
		Compactor Ingers				0
	Visitors		Repres	enting		
			_	_		•
·						
aily Notations:						
26.45 I	Arrived	ON Site At	Vista	Gardfill.	ERC	PERSON
Are	Arriving	ON Site.				/
7:30 ERC	personnel	Are gradings	and or	the we	st f1	bor of
They	nee push	ing piles up AN	d mor	ing piles	wit	4 the 3
		y are Also work				
19:30 ERC	personnel .	continues pushing	excess	r sand i	Vto p	iles. T
	ytor is 64.				-	
		testing with -	CHU NU	ves. The	force	main u
	,	4d At 130 PSI				
		At 10 PSI				
11:00 A S	foot section	v of 18" SDR1	1 pinc	was deli	vered	ou si
				7		
				4 -1	77 /	// //

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Pink Copy - Employee's Field File

10,3

Project N	No.: 10607.08	Report No.	54			Wod
Date:	10/17/2012	Page:	2	_ of	2	
	ERC CONTINUES Moving excess	SANd from	the	west	side	of
	Ce113.					
13:00	ERC personnel are removin	's excess pro-	tective	COVYV	CAN	d from
	Cell-3, They An placing					
<del> </del>	They are also fusing the	e 5' section	ON	the	18" v	isev
	pipe,					
15:30	ERC personnel are grading	protective	Cover	SAND	120	<u> 211-</u> 3
	They are fusion blind fla	Nges ON SOI	id 6°	pipe	for	the
	North And South clean ou			•		
17:30	ERC personnel stopped wor	k for the	day.	The	y h.	4 V e
	AND ther excavator that	will be on	site	tomol	row.	<u> </u>
	· · · · · · · · · · · · · · · · · · ·					·
				· · · · · · · · · · · · · · · · · · ·		
W				****		
			711-744-747-1	/ <del></del>		
				**************************************		
			74		***************************************	
				***		
					<del></del>	
					Donner I	
			J			
			1			<del></del> .
		Signature	neg	0.13	n/f	

Owner: VistA	LANdfill		Report No.	: <u>55</u>		Thurs
			Page	: 55	_ of	2
roject: <u>Cell-</u>	3		Date:	0/18/20	12	
roject: No.:	1.07.08	Weather:	A.M	C	_ P.M	PC
	-		-	37 Low _		
ontractor Super(s)	JACK Wigg	GINS				
umber and Function	of Contractors' Perso	onnel, Hours Worked (Identi	fy Subcontracto	ors Separately)		
Contractor	No. of People	Major Constr. Equip.	Description	Size/Capacity	No.	No. in Use
ERC	6	Logder H	ivadri	760-7A	1	,
		D0281		i e	2_	1
. <del></del>	,	Exeavator Li	VE Belt	330	1	i
		EXCAVATOR KO	belco	235	1	l
		Trucks		25 tow	2	/
		Compacts ( Two		1	l	0
	Visitors		Represe			
aily Notations:						• • • • • • • • • • • • • • • • • • • •
6:40 I	prived	g on site at ;	115tA 1	audfill . «	ERC	person
						/

06:40	I prived on site At Vista LANDRILL ERC personne
,	Are Arriving on site,
07:30	FRC personnel are grading protective cover sand on
	the south slope to get the slope ready to install the
	Simp riser pipe. They are creating the sump.
08.30	ERC Classed the sump And trends up the south slope.
	They graded sand to withen 6 fret of the sunp
	AND French, ERC sewed geofertile for the sump AND
	French up the south bern.
11:30	ERC installed the sump geotextile, I" thick HDPF plate
	ANE the 18" Sump riser pipe. The pipe was held
	Signature: Signature: Braffel
	White Copy - Library File Yellow Copy - Owner Pink Copy - Employee's Field File

Project No	.: 101,07,08	Report No.: 55 Thus	
Date:	10/18/2012	Page: of	-
	in place with the excaus	stor until the sump was fille	2 2
	·	ersonnel Are removing the r.	
		h area that was construct	
	About 100' North of the	sump,	_
13.'30	ERC personnel Ave installi	wy geotextile for the leachast	٤.
	relection system, They are	preparing to fuse A few sections of	F
	Leachate Collection pipe.		_
15:00	ERC Started fusing the 6" 1	eachate collection pipe, They only	V
	fused 3 Sections,	·	-
15:45	ERC has stopped work.	for the day, They will No	of
- · · · · · · · · · · · · · · · · · · ·	work fomorrow, They	will return to work on	-
	monday, I departed.	the site.	-
		•	-
		·	-
			-
			-
			-
			-

Owner: Vista	Landfill		Report No	o.: <u>56</u>		FRI
2			Page		_ of	
Project: Cell	-3		Date:/	0/19/2	012	
Project: No.:	1.07,08	Weather:	A.M		_ P.M	
				Low _		Rain
Contractor(s)	NA				· · · · · · · · · · · · · · · · · · ·	The state of the s
Contractor Super(s)	<u> </u>					
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracte	ors Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERE		No				
				<del> </del>		
					<u> </u>	
					<u> </u>	
	Visitors		Repres	antin a		
Daily Notations:						
			x for	Vista Gar	-2P111	, I was
on!	the Plato	log. Had Pie	sur m	ta, mita	وك 0 د	- the
	J			,		
13:33 I	Stopped W	sik for fle Ity	,			
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	100000000000000000000000000000000000000		· · · · · · · · · · · · · · · · · · ·			······································
					444	
			11		· ·	
		Signature:	4			

				•			
( 1				Report No.	: 57		MON
				Page		of	2
				Date: _/0	122/2010 C	2	
0			_ Weather:	A.M	<i>C</i>	P.M/	DC
					82 Low _	640	Rain
							· · · · · · · · · · · · · · · · · · ·
A	1- <del>199</del>	995NS					
s' I	erso	sonnel, Hours V	Worked (Ident	ify Subcontracto	ors Separately)		
op]		Major C	Constr. Equip.	Description	Size/Capacity	No.	No. in Use
		log des	<u>(                                    </u>	Hurde	760-74	1	/
		10zer	-	CAT	.06	2	(
				K Belt		,	l
				shelio		1	/
						2	ð
		Compail	tor Ings	ers: 11 Rand	25 tow 50,00		0
		6	/	Represe			
				1			
	w	V site	At Vo	sta land	fill. ER	c 0	ar Callan
		0			JIII ER	C f	2737700
					At the	Q-A-	ct oid
,	7	They Al	150 Sta	v ted fus	ing 6" pe	- Rova	td leac
) <sub>r</sub>		They	Are usin	in hick	DWSSUR AL	\c +	Clear o
_		1,00	- 00/10	1 13 1	r court	, , 0	CICOTO J
w.	-1	/ A.a	1. 110.12	hales	1 6" 0"	-6-	and i
					DICSSUR AI	_	

Signature:

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Project No.:	101,07.08	Report No.:	57	·* · · · · · · · · · · · · · · · · · ·	MON
Date:	1/22/2012	Page:	2	of	2
15:00 E	-RC personnel excavated sand	up the	NOV-fl	chop	a fer the
	19844 Clean out pipe. They con				
	o grade sand At the east s	ide of	Call-3	. I	discussed
	the Cey-3 Sump stone and g				
	Nd Soth NUNS, The drawin				
	he store in the sump with,		,		
	eth informed Tack Wiggin				
	ver the sump geotextile for			-	
	RC installed the demost pip	V			slope with
	list flange. They continue				
	sand At the east side of				
	RC personnel stopped work				desarted
	the Site.				
	,				
			3300		
				4	
					- Louis
ABS 1				· · · · · · · · · · · · · · · · · · ·	
			2		

Signature

	. ( A		· · · · · · · · · · · · · · · · · · ·			
Owner: Vista	LANdfill			: <u>58</u>		-
			Page	1	_ of	2
Project: <u>Cell</u>	-3		Date:	0/23/2	012	1-
Project: No.:	1.07.08			PC		
		-	_	32 Low _	65	Rain
Contractor Super(s)	JAde Wi	991NS				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	7:	104der 1	tyundi	760-74	1	1
to the second		Doze15	C14 T	<b>D</b> 6	3	ĺ
		Excavator Li	VK Belt	330	1	0
		Excavator ko	belco	235	1	1
		Trucks V	olva	25 tow	1	1
		Compactor Inge.			(	0
	Visitors	, .	Represe	nting		
Paily Notations:						
06:40 I	Avrived OK	V site at Vis	ta Land	LAII, EI	ec o	ever NNC
AV	CVIVING A	w site				
		Ave grading	/		-	1 3.7

4 re fusing Leachate collection and Cleanout pipe They 10:00 11:00 Sums collection pipes

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Signature:

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11,0

Project N	Io.: 10/, 07, 08	Report No.: <u>58</u>	TUE
	10/23/2012		
•	The perfections in the pip		
	box is 6.5' long x 32" u		
	of Stone in the box.		
	ERC personnel Continues		chate collection
-	stone over the " leach.		
	using the hand held GP		
	the center live And ston		
	Are using A rock box to		
15:00	Tues Carried was on sit		
	placement o		
	ERC Stopped Store pla		y. They Ave
	sewing geotextile Aroun		
18:45	ERC personnel stopped		
	fulcing thier equipment		
	of pipe AND Stone At.		
	completed NO. 4 Stone	in the sum but	Not UP
	the south slope. I		
-		0	

Signature

Owner: $V_{i,s}t_{a}$	LANDGII	Report No	o.: <u>59</u>		Wec
0011	-	Page	1 1 2 1 2 1 2 2	of	2
			10/24/20 AC		
Contractor(s)	ERC	Temp.(EF): High	<u>82</u> Low _	70	Rain
	Fack Wie	991NS			
		onnel, Hours Worked (Identify Subcontract			
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC	8	Loader Hyundri	760 - 7A	1	/
		DOZENS CAT	1	i	2
		Excavator LinkBelt			0
		1	•	1	l
		Excavator Kobeleo Trucks Volvo	25 TOW	1	l
		Compactor Ingersal Road	50/00	(	0
	Visitors	Repres			
06:50 I A	irrived on	site at vista-Lan	Afill, E	RC	person
		GPS dozers five g	radive t	he.	sand so
		They are short of S.			
		Leachate collection			
4150					
brso Orde	red, ERC	Completed Lusion weld.	ing the la	57 5	ection e
Drde Solie	red, ERC Lb' pipe (		skeps.	st 5	ection e

Signature:

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1005

Project No.:	Report No.: 59	wed
Date: 10/24/2012		
pipe for the force main p		
grade protective cover sand		
13:30 ERC CONTINUES INSTAlling 6		
the force mains. They are		
surface with 2 GPS do		
16:00 ERC Started placing # 57		
collection french. They ha		
to complete. They Are Als	,	
18:35 ERC completed placing # 59	Stowe to complete the	- leschat
tread in cell 3. They di		
gosfartile. I departed to	*	~
		-
		711 to 187
	,	
Signa	ture by Confr	

Owner: <u>Visfa</u>	LANdfill	Report N	Vo.: <u>60</u>		Thu
Project: <u>CE//</u>	-3		10/25/20		
	1.07.08		OC/RAIN _	P.M. <u></u>	OGRAN
Contractor(s)					<del></del>
Contractor Super(s) _	TACK Wig	gias			
Number and Function	of Contractors' Person	onnel, Hours Worked (Identify Subcontra	ctors Separately)		
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC	8	Loader Hyundi	760-7A	l	/
		Dozer CAT		3	2
		Excavator Link Belt	1	l	1
		Excavator Kobeles	235	_ (	1
		Trucke Volvo	25 fow	1	1
		Truck Volvo Compactor Ingersoll Ran	£ 50/00	(	0
	Visitors		esenting		
Daily Notations:					
06:45 I	AVIIVED D.	e rain this morning hel has 2 dozers	NUCL ARE	ON 5,	ite. T
	A drizzle	e rain this morning	(	4	<del>,</del>
07:15 FR	C DEVSONA	vel has 2 dozers	Grading SA	ald,	in cell
_approx. 8		dozers grading	/ ; }		2

Signature:

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Project No.: _/0/, 07, 08	Report No.: 60	Thurs
Date: 10/25/2012	Page: of	2
the 6" perforated teachate	collection pipe from	North for of
slope to the sump write	Solid Clean outpipe	At the worth
And south side . The	Sump riser pipe, All Sto	Ne AND All
geotextile Sewing. ERC	continues grading	SANE IN GIL.
They started fusing s	ections of force main	6 8 10".
14:00 RAIN Started, ERC	Dersonnel Continues	grading saw
IN Cell-3. Thier 33	O excavator blew A.	hose.
16:00 ERC has problems in	ith thier EPS . A	24 in Continues
They can Not fore p	ye. They stopped	work for
the day, I departed	the site	
		-
	1	/?_

Signature

Owner: Vista	HANDER!		Report No.	: <u>61</u>		FRI
			Page	/	of	2
Project: <u>Colf</u>	3		Date:	10/26/201	2	
Project: No.:	1.07.08	Weather:	A.M. <u>@</u>	<u>C</u>	P.M	PC
				34 Low 7		
Contractor(s)	ERC	· ·				
Contractor Super(s)	JACK N.	iggins			· · · · · · · · · · · · · · · · · · ·	
Number and Function o	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	8	Lader H	vouder	760 × 7A	/	1
		Dozer		1	3	2
		Excavator Lix		1	(	0
		Excavator K		1	1	Ð
		Trock			1	0
		Compactor Ingerso			)	0
110	Visitors	,	Represe			
	VISITOIS		represe	onting.		
Nailes Nickadi						
Daily Notations:		site at Vi	- 1 . /	1 0	F 0 :	
06.45 L Arc			TA LOI	v.atilla	LRC	personne
07:90 580	or street	1.	1			0.00
01.30 EXC	STAVELLA	grading san	12 12	(0)1-3.	1 0	1770
		ug on fusing				
pipe	· JACK	Wigging request	ed the	location	ANO	elevat.
		a black At the		h west o	U+51	de dotah
		with peter l				
19:30 ERC	personnel	Are grading SAN	id in a	e/1-3 Wi	th 2	GPS doz
		ing the GPS o				
ERC	personnel	Are Working on	1 the	temperarmy	force	main f
2" AN.	1 6"			1		,

Signature:

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815

Project No	.: 101.07.08	Report No.: 6/	FRI
Date:	10/26/2012	Page: of	2
	ERC personnel Are instr		
	for the temperarry force		
13:30	ERC personnel are justall	ing force main pipe	inside the
4	outer carrier pipes. The	Y are fising central	lisas o They
	Ave Also grading sand		
	They had a few problems	with the GAS,	
15:30	EROpersonnol Stopped We	ik for the day.	They will
	Not work this weekend	1. I depoted the s	ite.
-		,	
•			
			<u>.</u>

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Owner: Vista	LAND Sill	Report No.	: 62		mond
		Page		_ of	2
Project: <u>Cell-</u>	3	Date:	1/29/2012 C		
Project: No.:	1. 07.08		C		
		Temp.(EF): High	5 Low _	51	Rain
Contractor(s)	ERC	~ GG ) W S	. ,		
Contractor Super(s)	JACK WI	991WS	and the second s		
Number and Function of	of Contractors' Perso	onnel, Hours Worked (Identify Subcontracto	rs Separately)	T	
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC	8	LOAder Hyundri	760-7A	1	/
		Dozers CAT	I	3	2
		Excavator Link Belt		1	ĺ
		Excavator Robelco	_	1	/
				2	2
		Compactor Ingersall Rand	57/00	(	0
	Visitors	Represe			
Daily Notations:					
66:55 I	avrived e	ow site at vista	LAND fill	, E1	RC APTSON
Are	ON site	ow site at vista		<u> </u>	The state of the s
07:30 ERC	personne	started hauling pro	tective a	over	said for
		Gu-3. They Are o			
ARA	S IN CRIT	-3,			
98:30 ERC	personnel	Are building A road	d Accoss	Co11 -	3 from the
south	West Con	ver to the east side	to get	SANd	in the Go
They	Are using	2 dozers And 2	trudesi		
0.00 ERC	personnel	Are excavating the	frorce M	AIN.	trevely for
the	viser pipe	toward the east ec	ge, The	9 601	vtinue to
haul	sand And	grade sand inside Qu	153,		
		M	/ - 5	7	
		Signature:	16/	na	/b4/
7	White Copy - Library F	File Yellow Copy Owner Pink Copy	- Employee's Field F	ile	,

Project No.:	181.07.08	Report No.:	62	mon
Date:	10/29/2012			
	ERC personnel are inst.			
* · · · · · · · · · · · · · · · · · · ·	10" CASSING Pipe. They		•	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Air, They continue ?	. ,	r	•
14.00	ERC Started Pusing	*		
	At the south slope a			e e
Person	inside cui-3 with 2	,	, /	
	installing 6" pipe inside			
	Cell-3.	<i>F C</i>		
	ERC personnel stopped	1 work for	the da	4. They did
	Not complete the sout			
	the site,			
. 4.0		e de la composição de l		
***				100000000000000000000000000000000000000
		· · · · · · · · · · · · · · · · · · ·		

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Yellow Copy - Owner

Signature

Owner: Vista	bandfill		Report No.	: 63	-1	Tuz
			Page		_ of	2
			Date:	0/30/20	/2	
Project: No.:	,07.08	Weather:				
	E' 0 1		_	69Low		Rain
Contractor(s)	ERC INC	49, NS				
		•				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracto	ors Separately)	<del></del>	
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	8	loader Hy	and vi	760-7A	1	/
		Dozecs			9	2
		Excavator li				
		Excavator R	sholes	235	l	1
		Trucks		1	i	
		compactor tages	1101.4	83///3	/	
		is uprion in sugar				<u> </u>
	Visitors		Represe	enting		
Daily Notations:				[ 2		
		s site at v	ista L	and fille	ERC	- person
AVE			1	1 .		
er-ac ERC	personnel	Started grad	LING SAX	04 Call		iney A
		dozers TI	1,	16		,
		tion of force		*		
		fusing the f.				
		the east end e				
	, ,	for the worth	side.	SF 611-5		ey coat
/	·	in au-3,				A-1111-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
		Are grading.				
dozev	s. They	are fusing force	MAIN P	ipe At the	e Nov	oth side
			1/	. bongs.	-	
		Signature:	15mil	1 O []	rt U	he//

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Project No.:	5'	Report No	o.: <u>63</u>	Tue
Date: 10/30/2012	are:	Page:	of	2
of Ce11-3,				<del></del>
14:00 ERC personne	1 Are fusin	g the temp	or Arry 31"	x6 force
main pipe for	the intercoll	bern. Th	ey Ave h	Auling more
SAND AND GY	rading the con	urfloor, ER	c pesson	vel are also
	2 2" electrical		,	
of Q1-3,	I had A L	unch mertin	quith Si	herre Gryns
·	ZA AND Debb.			/
AND Items.	to complete.	and the same of th		
16:30 ERC PEVSON	Wel Ave gra	ding saud	in cell -	3 and fusin
10 16	e main pipe			
17:35 ERC hus 3	stopped work	for the c	lay. I	departed
the site.				·
	en e en			
			· ,	
	· · · · · · · · · · · · · · · · · · ·	* Processor Alberta	The second secon	· · · · · · · · · · · · · · · · · · ·
			· · · · · · · · · · · · · · · · · · ·	
100000000000000000000000000000000000000				
		- Algebra		
		, was a great and		
***************************************				

### GEG

Project: No.: /0/2 0  Contractor(s)	7.08	Temp.(EF):	Date: 10	1 1/31/20/2 (5	P.M	
Project: No.: /0/2 O  Contractor(s)	7.08	Weather: Temp.(EF):				v
Contractor(s)		Temp.(EF):				Ü
Contractor(s)	C	• • •	High	/ S + /		
Contractor(s)	. C					Rain
Contractor Comon(a)	- , _	e /	<del></del>		<del></del>	
Contractor Super(s)	ack Wig	giNs (				
Number and Function of Co	ontractors' Perso	onnel, Hours Worked (Identify	Subcontracto	rs Separately)		
Contractor N	lo. of People	Major Constr. Equip. De	escription	Size/Capacity	No.	No. in Use
ERC	8	Logder Hyus	sdri	760-7A	(	/
		Dozers		l	3	2
		Excavator Gin	LBeit	330	1	0
		Excavator Ko	helca	2-35	1	/
		Trucks	VOLVS	as for	2	0
		Compacto Tuge			(	0
7	√isitors	/	Represe			
			•	S		

Signature: Die Ag

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9.5

Project No	0.: 101.07.08	Report No.: 64	Wed
Date:	10/31/2012		
11:30	ERC continues grading	SAND IN COLL-3	with 2 CPS
- Company	dozors. They continue	to fost 6'x 10'	AND 3"X6"
	force major pipes,		
14:00	ERC autinues fusing	3"x 6" force main	for the tempora
	Live by the intercea be		
	l" × 10" force main for		
	They have I dozer grad		
	grading the ditch south	· ·	
	ERC continues grading		
	South road area and dis		
	A 3'x6" elbow of H	ne 6" X 10" force m	in At the
	Sump visar pipe i		
17:35	ERC personnel stopped		I departed
	the site		
	Note ! I pak I how - or	of todays time	for maintance
	ous vechicle	,	
			N
WWW.*			
		Signature (5)	Befre

Owner: Vista	Land fill			: 65		
Project: Oil	3			11/01/2		
Project: No.:			A.M.	11/01/2	P.M.	PC
3				7 9 Low _		
Contractor(s)	ERC					
Contractor Super(s)	JACK W					
Number and Function	of Contractors' Person	onnel, Hours Worked (Identify S	Subcontracto	rs Separately)		
Contractor	No. of People	Major Constr. Equip. De	scription	Size/Capacity	No.	No. in Use
ERC	7	Louder 14	uvdri	760-7A	į	./
		Dizes		I	3	2
		Excavator Link			l	/
		Excavator Ros			(	1
					2	1
·		Trucks Compactor Incerso	11 And	50/00	1	0
	Visitors		Represe			
	VISIOIS		represe	annig		
Daily Notations:	·					
06:50 I A	rrived ON	site At Vista	LAND.	Pill ERC	- pe	CONNC
Are	ON Site.					· · · · · · · · · · · · · · · · · · ·
07:20 ERC	started	grading sand in	Cel1-	3, They	hav	e 2 GP
dozen	rs grading.	· 1			· · · · · · · · · · · · · · · · · · ·	
07.45 ERC	Started ex	carating for the	- Conici	ise struct	-unces	AND 30
This Ell	peres.		, a ,	<i>B I I I I</i>		as t
at H		c foring A 6 X		bee do	<u>~                                    </u>	By end
the	í .	they Are q	radine	HAS TOO M	rsr L	711 off
The v	rond.	y y	1751105	JAC GA		<u> </u>
11:30 ERC	set the	corner concrete	54100	fore. The	i ses	t anydes
			11			11
		Signature:	Son	4 CB	n/	
	White Copy - Library I	File Yellow Copy - Owner	Pink Copy	- Emplovee's Field Fij	le/	

Project No.: 10/207208	Report No.: 65	Thors
Date: /// 0//2012	Page: of	1
with the GPS, One.	fost of arush stone was	5 p 14ce d
	tructure. They are using	
•	Il around the pipe.	,
13:30 ERC personnel Continues	• •	
excavating for the 30"	pipe AND CONCRETE Structure in	1 the
duainage Litch south of 6	511-3. They Are Also excar	wating the
North force main towns.	I picked up A Copy of t	Pavel drawings
	Replaced the Link Belt excavato	
330 Kobelco,		
16:00 Efc personnel are exc	overting the worth force mai	N frestly.
	inage structure. They are	
30" pipe with concres	te 4t the structure. ERC p	EJONNEL AVE
hauling cover sand to the	east been Aco. They	Costina to
grade SANG , N Cell-3	•	
18:00 ERC personnel are place	ing growt around pipe At a	The concrete
Structurers, They are	excavating the North force	· main french
19:00 ERC placed the force	main in the section of +	French Complet
	of Call-3. They have	
	in yet. They stopped	
the day. I depar	ted the site.	-
		***
	4/	<del></del>
	Signature Any C Buy	17/1

Owner: Vista	LANDEIL		Report No	s.: <u>66</u>	+	FR
7				/		
			Date:	11/02/20	1/2	
Project: No.:	1.07.08			<u>Ć</u>		
	Z01	Temp.(EF):	High	80 Low _	53	Rain
Contractor(s)		5.45			- Ir	
		giNS				
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify	Subcontracte	ors Separately)		**************************************
Contractor	No. of People	Major Constr. Equip. D	escription	Size/Capacity	No.	No. in Use
ERC	8	Loader 1	Honde.	760 7A	C	1
		162813		1	3	2
·		EXCAVATOR KO				2
		Trucks	VOLVO	25 To N	2	0
THE PROPERTY OF THE PROPERTY O		Compactor ingers		1	1 .	0
		Exervator mini k			/	1
	Visitors		Repres			
			1	Ü		
Daily Notations:						
06:45 I	Arrived o	N site At Vi	sta la	Ndfill,	GRC	DEVSON
	ON sit.					
Are		Exerting the	worth	leat chip fe	fo.	le main
07:20 ERC	- Started	Excepting the	worth ey him	reachate	· for	gradi
Are 07:20 ERC tres	of toward	Excepting the 1 Cell-2. The	worth	leatchAfe	- fo: 02e-s	gradi
AVE 07:20 ERC tres the	ch toward	1 Cell-2. Th	ey him	rc 2 de	02 <i>e-s</i>	gradi
Ave 07:20 ERC trew the 08:30 ERC	ch toward  run out  personn	rel Are fosiv	ey him	se 2 do	pipe	gradi
Ave 07:20 ERC tres the 08:30 ERC Sout	ch toward  run out  personn  h east Co	1 Cell-2. Th	ey him	ce main	pipe	gradio

Signature:

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Project No.	:	Report No.: 66 P25
	/	Page: of
	to complete the Lorce	main. They Ave short over
	100 Lf of 6"x10	" force main, Jerry Pinder
	ordered the pipe. The	e survey crew is ow site
PARTITION A	to As-built the S	And layer in Cell. 3. I inform
· · · · · · · · · · · · · · · · · · ·	them to As-Goilt	All points judveling extra
	points Added for	subgrade.
13500	ERC has stopped	UNHL mondry. I An worked
	on the pavel di	rswing.
14:30	I departed the	5,4.
	,	
	/	
	<u>, , , , , , , , , , , , , , , , , , , </u>	
<del></del>		
yton		
<del></del>		
		Signature Signature

				7		
oject: <u>Co11</u>		D	0ate;	/05/20 C	12	$-\alpha$
ntractor(s)	51. 07. 0 ERC			5 Low 4		
	JACK Wig	gINS				
		onnel, Hours Worked (Identify Sub				
Contractor	No. of People	Major Constr. Equip. Descr.	iption	Size/Capacity	No.	No. in Use
ERC	G.	Loader Hy	udri	760-7A	1	
		D0201		۵۲	3	2
		Excavator Kob	elo	330 , <b>3</b> 35	2	
		Trucks V			2	O
		Compactor Ingerou	egud	SD100	1	O state
		Exceptator Mini Komo		88		
	Visitors		Represen	ing		
ly Notations:	<u>, , ta la la la parti</u>					

06:55	I arrived an site At vista landfill. ERC personnel
	Are ON SITE!
07:15	ERC personnel are Pusing fittings for testing pipe
Tentral parties and the state of the state o	At the worth east corner of Cen-3, They are Also
	grading the south road Avea,
09730	Isco delivered I section of SDR-11 3" Pipe 40" long 120 LR.
	of 6" SDR-11, 120 LE OF 10" SDR-17 pipe, 6 exch 6"×10"
	SPAIN (lips And 6 exus 6" ×10" contratizers. They Also how
	1 exch 3" X6" SDR 11 end DUAL CONTAINMENT TERMINATION, ERC
	personal are grading excess fill At the South road
	ARA, They are fusing spe centralizers,

Signature:

Yellow Copy-Owner

White Copy - Library File

Project No	o.:		Report No.: _6	7	<u>400</u> 0
	11/05/2012				
	ERC personnel Are				
	located the tiz-in				
	ERE persound are				
	of 011-3. They A				
	Water for the force	main fest	from the	N.E. Cor	ner to the
	soup.				
17:00	ERC personnel are,	Hydro pressure	testing	the 3°	tempo-any
	force main and 6th			医乳头皮皮 医二氯甲基 医乳腺管 网络鼠类 医多克尔	
	the justercen berm (3	") ACLESS -	the south	edge (6°	<u>(*) 40</u>
	the sump, They	at the e	xisting fo	rce main	1 At CON-
	And pumped water		· · · · · · · · · · · · · · · · · · ·		
	FRC has stopped				
	test only dropped				
	They will leave				
					All the Secretary of the Control
,					
					on a right and a fine of the control
		1			
				7	
		Signature	DIG	CH	

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Owner: Vis	som landf		10.: <u>68</u>		
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Project: <u>Ce (1</u>	化二硫二氯化物 医克尔特氏 化二氯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基	Date:	11/06/20 nc / Trace	1/2	0 -
Project: No.:	1,07,08				
Contractor(s)	EDA	Temp.(EF): High	_76 Low	<u> </u>	Rain
Contractor(s)  Contractor Super(s) _	and the state of the state of the state of				
		스스 레르크 및 1985년 1일 전 1985년 1일 전 1985년 1일 전 1985년 1일 전 - 1987년 1일 전 1987년 1			
Number and Function	of Contractors' Perso	onnel, Hours Worked (Identify Subcontrac	otors Separately)		
Contractor	No. of People	Major Constr. Equip. Description	Size/Capacity	No.	No. in Use
ERC	8	Loader Hywodi	760-7A	(	
		DOZEN CAT	D6	3	2
		Excavator Kobelco	330, 235	_2_	2
		Tracks Volvo	25 To-	j	1
		Compactor Ingeroll Rand	52/00	- (	0
		Excavador mini komatsu	I ES	n-1/2 33	1
	Visitors	Repre	senting		
Daily Notations:					
06750 I	Arrived	ON site A+ VistA A I checked the pressure is the samp, 1	andfill. E	RC.	persona
An	c en sife,	I checked the pres.	sure on th	e pij	c terter

8:15 There is A light drizzle of rAin. It's NOT enough to
Stop work.

0:00 ERC: personnel are fusing pipe at the worth force main
pipe. They are using the water tanker to foll the worth

Signature:

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Yellow Copy - Owner Pink Copy - Employee's Field File

### OFC.

Project No.:	Report No.: 68	Tre
Date: 11/04/2012	Page: of	2
force nois pipe.		
13:00 ERC pergonnel are grad	ing the south road Ave	o, Cleaning
up the works side, pro		
15:00 ERC personnel tested		
passed. They are pre		
pipe At the North side.		
17:30 ERC completed test or		
North side. This co.		
force main. They still		
	e major at 011-2.	
17:45 I gave Sharee A P		
for Cell- 3,		
17:55 I departed the site	. I will demobilize	from the
site today.		
		<b>^</b>
	Signature	

White Copy - Library File

Yellow Copy - Owner



### **Preconstruction Meeting**

### Vista Class III Landfill

### 8/13/2012

### The following items were discussed;

- 1. Site safety was discussed; All personnel will wear personal protective equipment safety vest and hard hats while working at Vista Landfill. Sheree stated there are some large dogs that roam the Landfill.
- 2. ERC will work Monday through Friday to start. Their work hours will be from 6:30 AM to 6:00PM. ERC has no plans to work Labor Day. ERC will start work 7 days early.
- 3. The gate will be locked at 3:30 PM daily. ERC to keep the gate locked. The rear gate will not be used to access the site.
- 4. ERC will keep a daily sign in sheet. All personnel will sign in and out daily. Tommy Bradford will keep sign in/out records.
- 5. ERC will expose the tie-in liner at Cell-2 and they will check sand thickness at the top of tie in berm at Cell 2.
- 6. Surveyors will be on site today to set bench marks for ERC to use.
- 7. CEC will have a moisture density gauge on site next week. The gauge was schooled prior to moving the start date up a week.
- 8. TRI Environmental of Austin TX, will perform geosynthetics testing for this project. Genesis Testing Services of Conyers GA, will perform laboratory soil testing.
- 9. Geosynthetic materials has been ordered. Materials will be tested pripr to shipping. ERC will unload and store materials.
- 10. ERC said they will complete the road and structures prior to starting geosynthetics.
- 11. ERC will get water at the tank next to the road. They should not run out of watwe.

### VISTA CLASS III LANDFILL

### **GEOSYNTHETICS PRECONSTRUCTION MEETING**

### 9/19 2012

- Discussed site safety. All personnel working at Vista Landfill must have a hard hat and safety
  vest. ESI has personnel that need Waste Management Safety Training. Sheree will let them
  know when they can get training. Tommy Bradford will document safety meetings on the daily
  report.
- 2. ERC will unlock and lock the main gate for ESI. The back gate cannot be used by contractor personnel. A daily sign in sheet will be kept by Tommy Bradford.
- 3. Seth Nunes said that he received the survey certification shots this morning and are being checked. Only the inside top of berm and floor were shot.
- 4. Tommy Bradford stated that ESI and CEC will walk all areas prior to placing liner over sub-base and sign a subgrade acceptance form. Areas accepted will be on a daily basis.
- 5. Trial seams will be performed every 5 hours. Test will be 2 peel and 2 shear for each test. At least 1 test for each welder that wells each day.
- 6. Equipment used on geocomposite must not damage the material. CEC will monitor equipment used to insure there is no damage.
- 7. Destructive samples will be sent to TRI Environmental in Austin Texas. Tommy will let ESI know the latest time to get samples to Fedex. Only 10 peel allowed with 4 out of 5 passing specifications and the 5<sup>th</sup> sample must meet 80 % of specifications. Shear strength for fusion and extrusion is 120 lb/in. Peel for fusion is 91 lb/in and peel for extrusion is 78 lb/in.
- 8. Non-destructive testing is as follows; Air pressure test is 25 to 30 psi for 5 minutes with no more than 3 lbs loss. Vacuum test will be for 20 seconds with 5 psig. There should not be any spark testing for cell 3.
- 9. All liner panels will be as-built prior to covering with geocomposite.
- 10. CEC will contact the geocomposite manufacture to find out how long the fabric can be exposed before covering with protective cover soil.
- 11. Seth Nunes stated that slopes that cannot be smooth drum rolled must be raked to remove high spots from equipment tracks. All areas must be smooth and dry.
- 12. Jack Wiggins said they are getting drainage stone samples for # 57 and # 4 stone. They may have problems getting # 57 stone.
- 13. ESI will complete all geosynthetics in 7 days or less.
- 14. There is a wet spot at the toe of east berm that will be investigated.
- 15. All completed work including sub-base completion, liner completion, Geocomposite completion, leachate pipe and collection system and protective cover completion will require a certificate of completion.

### **Progress Meeting**

### Vista Class III Landfill

### 10/04/2012

### The following items were discussed;

- 1. Geocomposite was completed on Saturday. Excess materials was inventoried and stored at the storage area across the road.
- 2. Jerry Pinder said that they should complete items inside of Cell 3 by 23 October. ERC has 4 trucks on site and has placed 10,000 cubic yards of protective cover sand to date.
- 3. Jack Wiggins has ordered # 57 and # 4 stone, but it will not be delivered until it passes the laboratory test.
- 4. ERC will start installation of leachate collection pipe and stone system next week. ERC will use a rock box for # 57 drainage stone installation to keep the stone uniform.
- 5. All pipe, leachate collection and force main pipe will be cleaned prior to fusion welding. Jack said that he will need parts for the force main pipe. ERC will order the parts and WMI will provide the P O.
- 6. Seth Nunes said that survey point locations were added to Cell 3 grid points to insure the 50 foot grid requirement was met. Pipe survey is 50 foot along the pipe.
- 7. Jack with ERC and Debby with WMI will check the borrow area for protective cover sand and agree on an area to excavate sand.
- 8. Sheree said ERC will build the concrete structure but Electric, Pumps and pipe inside the concrete structure will be done by others.

### **D.5 JETCLEAN LEACHATE PIPE TESTING REPORT**

### **FLORIDA JETCLEAN**

HIGH PRESSURE WATER JETTING
PIPELINE VIDEO INSPECTION (EX)
VACUUM TRUCK SERVICES
LASER PROFILING / NO DIG REPAIRS

7538 DUNBRIDGE DR., ODESSA, FL 33556 TEL: 800-226-8013 FAX: 813-926-4616 WEB: WWW.FLORIDAJETCLEAN.COM EMAIL: FLORIDAJETCLEAN@YAHOO.COM

DATE

: 11/14/2012

TO

: Sheree Grant – Waste Management

**FROM** 

: Ralph Calistri (floridajetclean@yahoo.com)

**SUBJECT** 

: Vista Landfill Cell #3

Florida Jetclean completed the high-pressure water-jetting of the new Cell 3 leachate collection piping on 11/13/2012.

As the below jetting log indicates, the Cell 3 collection pipe was cleaned end-to-end utilizing high-pressure water-jetting nozzle.

# VISTA LANDFILL – CELL 3 LEACHATE COLLECTION SYSTEM JETTING LOG JETTING PERFORMED BY FLORIDA JETCLEAN NOVEMBER 2012

ACHIEVED LOCATION DISTANCE (ft)

COMMENTS

Cell 2 North C/O

715'

Entire pipe cleaned.

Based on the ability of the jet nozzle to pass through the entire pipe length without obstruction, the leachate collection system appears to be in a sound condition to deliver leachate.

Please call us with questions or concerns.

Regards,

Ralph Calistri - Florida Jetclean - 800-226-8013



Cell-3 prior to excavating to subgrade elevation.



Excess fill in Cell-3 was used for berm construction at the North and South Sides of Cell-3.





Proof rolling was performed throughout Cell-3 Placement.



A D6 Dozer with GPS was used to control lift thickness and soil elevations





A Water Tanker was used to add moisture to the fill as it was placed.



Each lift was compacted with a Drum Vibrator Roller.





View of a loaded truck on the cell floor, proof rolling.



Moisture Density Test was performed using the drive cylinder.





Drive cylinder being weighed in the field laboratory.



Performing a moisture test.





An oven was used to dry samples for moisture test.



Anchor trench excavation. The 2 foot elevation was checked during excavation.





The completed anchor trench.



Geosynthetic materials were unloaded and stored until used. Inventor was made as the materials were unloaded.





The liner crew deployed rolls of liner using a skid steer with a spreader bar.



Tracks made in sub base was hand raked to ensure a smooth surface.





Each panel was numbered and roll numbers were recorded.



View of geosynthetic clay liner (GCL) at the center of Cell-3 under the leachate trench.





Powder bentonite was placed where the GCL panel overlaps.



GCL in the sump and up the south berm riser trench.





Panel seaming was performed using a double track wedge welder.



Destructive seam samples were marked on completed seams.





All double track fusion seams were air tested and passed.
Air pressure tests lasted for five minutes.



Air test information written next to the seam tested.





Trial weld samples were made, tested, and passed before any welding was performed. Both new and old samples of the liner were used for welding at tie-in areas.



View of extrusion welding along the tie-in at Cell-2.





All extrusion welds including tie-in seams and repairs were vacuum tested.



A leaf blower was used to clean the liner in front of the geocomposite installation.





Geocomposite being pulled into place using an ATV.



Geocomposite seams were overlapped and plastic ties were used to connect the net.





All geotextile seams were sewn.



View of Cell-3 with completed geocomposite.





Protective soil placement started at the Southwest corner of Cell-3. All trucks were kept on a minimum of 3.5 feet of sand.

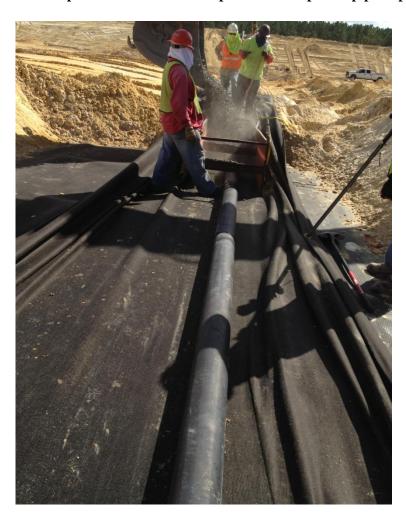


Protective cover sand in the anchor trench was compacted and tested.





The Cell-3 sump with the 1 inch HDPE plate and sump riser pipe in place.



Drainage stone was placed over the perforated leachate collection pipe. The pipe was centered with a GPS unit to ensure it was on the center line.





All geotextile around the drainage and sump stone was wrapped closed and then sealed by sewing.



Cell-3 protective cover sand after completion.





Hydro testing the forcemain pipe in place.



Fusing the forcemain pipe.



## F. RECORD DRAWINGS

