FLORIDA DEPARTMENT OF Environmental Protection

Southwest District Office
13051 North Telecom Parkway #101
Temple Terrace, Florida 33637-0926

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Transmitted via email only to: john.phillip.arnold@gmail.com

Mr. John Arnold
Angelo's Aggregate Materials, Ltd.
41111 Enterprise Road
Dade City, Fl. 33525

March 26, 2020

RE: Enterprise Recycling and Disposal Facility
Cell 17 Construction Completion Report
Permit No.: 177982-025-SC/T3, Pasco County
WACS No.: 87895

Dear Mr. Arnold:

The Department has reviewed the following information prepared in support of the Certification of Construction Completion for **Cell 17 of the Enterprise Recycling and Disposal Facility** received on March 6, 2020 and March 12, 2020:

Installation of Monitoring Wells MW-21A, -22A, -22B, -23B, -24A and -24B Angelo's Recycling Materials – Enterprise Class III Landfill, dated June 6, 2019, prepared by Locklear & Associates.

Enterprise Recycling and Disposal Facility Cell 17 Construction Completion Report, dated March 2, 2020, prepared by John Arnold, P.E.

Enterprise Cell 17 Certification Well Information, received via e-mail March 12, 2020, prepared by Locklear & Associates.

Based on the Department's review of the information listed above, the following clarifying information and/or replacement documentation should be provided by Angelo's Aggregate Materials. Ltd within 30 days of this letter regarding the above construction certification report.

1. Figure 1 - Site Map, from the *Enterprise Cell 17 Certification Well Information*:
   a. The legend indicates MW-3, MW-3B and MW-17B are "Proposed to be Abandoned". Please revise Figure 1 to indicate these wells have been abandoned.
   b. The legend indicates MW-21A/B, MW-22A/B and MW-23A/B are "Proposed detection monitoring wells". Please revise Figure 1 to reflect those monitoring wells which have been installed (MW-21A, MW-22A, MW-22B, MW-23B, MW-24A and MW-24B) in conjunction with Cell 17.
   c. The legend indicates gas probes GP-4 and GP-5 are future gas probe locations. Please revise Figure 1 to indicate GP-4 and GP-5 are existing gas probes.
   d. The Revision Description table does not indicate the figure has been revised since May 29, 2019. Please update the table to reflect the recent revision associated with Cell 17 construction certification.

2. The Installation of Gas Probes GP-4 and GP-5 Letter Report:
   a. The letter indicates Figure 1 – Site Monitoring Network is included as Attachment 3 however, there is no Figure 1 included. Please verify and revise Attachment 3 accordingly.
   b. The Well Completion Logs provided for GP-4 and GP-5 indicate in the "Well Development" table that the water levels were measured at 30 feet and were developed for one half hour at two gallons per minute. Seeing how these gas probes are 20 and 22-feet deep, and are designed to not intercept the groundwater table, this information appears incorrect. Please review and revise the logs as necessary.
   c. The Well Completion Logs provided for GP-4 and GP-5 indicate the probes were installed using a Sonic drill rig, that each borehole was six inches in diameter, the well seal was 30/65 fine sand, the grout seal was Portland Type I or II and the filter pack was 20/30 sand. However, the approved engineering report indicates GP-4 and GP-5 were proposed to be installed by hollow-stem auger, constructed with eight-inch diameter boreholes and were to be filled with pea gravel that meets the requirements of FDOT standard size No. 10 aggregate washed pea gravel. The engineering report also indicated the surface seal was to be completed with a sand/bentonite slurry – a blend of 4 parts of sand to one part of granular bentonite, mixed dry and hydrated immediately prior to placing it in the annular space of the borehole (and no proposed well seal). Please confirm these deviations from the approved gas probe design and explain how the construction deviations will still provide a greater permeability than the surrounding sediments and properly perform as collector points for any methane gas, if present.

3. Attachment 2 – Survey
   a. The survey provides horizontal survey locations of the newly installed monitoring wells and gas probes in northing and easting decimal format. Per Rule 62-701.510(3)(d)1., F.A.C., the location of each well should be in the in degrees, minutes and seconds format for longitude/latitude. Please revise survey to indicate longitude/latitude locations in in degrees, minutes and seconds.

Based on the Department review of construction certification report referenced above, the Department has determined that the additional information requested above is minor in nature and Cell 17 was constructed substantially in accordance with the approved design and the construction requirements of **Construction Permit No. 177982-025-SC/T3.** The Department therefore **approves** the certification of construction completion of Cell 17 of the Enterprise Recycling and Disposal Facility.

Operation of Cell 17 and the subsequent vertical expansion of the Enterprise Class III Landfill **is not authorized** until a modification of **Operation Permit No. 177982-028-SO/T3** is issued by the Department [currently pending Permit Modification Application No. 177982-029-SO/MM] authorizing operation of Cell 17 and the subsequent vertical expansion.

If you would like to discuss any issue in this letter, please contact me at (813) 470-5754.

Sincerely,

Steven G. Morgan
Air & Solid Waste Permitting Manager
Permitting and Waste Cleanup Program
Southwest District

cc: Dominic Iafrate, Angelo's Aggregate Materials, diafrate@iafrate.com
Lisa Baker, Locklear & Associates, lisa@locklearconsulting.com
John Locklear, Locklear & Associates, john@locklearconsulting.com
Walker Wrenn, Locklear & Associates, walker@locklearconsulting.com
Justin Chamberlain, P.G., FDEP Tampa Jusin.Chamberlain@floridadep.gov
Steve Tafuni, FDEP Tampa Solid Waste CAP Manager, Steve.Tafuni@floridadep.gov

1530 McDuff Avenue South
Jacksonville, FL 32205
Ph. (813) 477-1719
Arnoldjohnp@gmail.com

Arnold Engineering Consulting, LLC

March 2, 2020

Ms. Alexis Black
Solid Waste Section
Florida Department of Environmental Protection - Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

RE: Enterprise Recycling and Disposal Facility
Cell 17 Construction Completion Report
Angelo's Aggregate Materials, Ltd.
FDEP Permit Nos. 177982-025-SC/T3
WACS No.: 87895
Pasco County, Florida

Dear Ms. Black,

This report contains the Certification of Construction Completion (Certification) and Construction Quality Assurance (CQA) data for Cell 17 of the Enterprise Class III landfill and is being submitted to the Florida Department of Environmental Protection (Department) for review and approval.

The CQA program and certification reporting are based on the specific condition requirements contained in FDEP Permit No. 177982-025-SC/T3, which include the following:

a. The owner or operator shall submit a Certification of Construction Completion, Form 62-701.900(2), signed and sealed by the professional engineer in charge of construction and quality assurance to the Department for approval (Specific Condition 177982-025-SC/T3, Part B). The Certification of Construction Completion is provided in Attachment A.

b. The permittee shall submit Record Drawings/Documents showing all changes (i.e. additions, deletions, revisions to the plans previously approved by the Department including site grades and elevations). The Record Documents shall include, but not be limited to, as-built elevations of the disposal areas (surveys), details and elevations of limerock encountered, and other details as appropriate (Specific Condition 177982-025-SC/T3, Part B, 2.a.2). Record Drawings are provided in Attachment B.

c. The owner or operator shall submit a narrative indicating all changes in plans, the cause of the deviations, and certification of the Record Drawings/Documents by the Engineer to the Department (Specific Condition 177982-025-SC/T3, Part B). The narrative report prepared by the professional engineer responsible for the construction quality assurance (CQA Engineer of Record) program is provided in Attachment C.

d. The CQA Engineer of Record shall submit to the Department a final report to verify conformance with the project specifications, including all test results for the development of each cell (Specific Condition 177982-023-SC/T3, Part B). These documents including

the Construction Quality Assurance Testing performed by Universal Engineering Sciences, Inc. are provided in Attachment D.

e. Prepare and submit financial assurance for the facility in accordance with F.A.C. 62-701.630 and Specific Condition 177982-025-SC/T3, Part F). The approved financial assurance estimate and existing letter of credit on file with the Department include Cell 17.

f. Limerock Details and Observations. There was no limerock observed or encountered as part of Cell 17 construction.

g. Groundwater Monitoring Wells and Sampling. Installation, initial sampling, and reporting of the groundwater monitoring wells associated with Cell 17 construction is being coordinated by our sub-consultant, Mr. Locklear P.G. All of the requested materials have been provided by Mr. Locklear to the Department.

We trust this submittal, along with the financial assurance update, will satisfy the Department's certification requirements. Please call me at (813) 477-1719 if you have any questions or require any additional information.

Sincerely,

John Arnold, P.E. Date: 03/06/20
State of Florida P.E. No.: 47164
1530 McDuff AVE S
Jacksonville, FL 32205
Tel.: (352) 339-1408

attachments
cc: Dominic Iafrate, Angelo's Recycled Materials
Lisa Baker, Locklear and Associates, Inc.
John Locklear, Locklear and Associates, Inc.

Attachment A

Certification of Construction Completion
FDEP Form 62-701.900(2)

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: 177982-025-SC/T3 County: PASCO

Name of Project: ENTERPRISE RECYCLING & DISPOSAL FACILITY

Name of Owner: ANGELO'S AGGREGATE MATERIALS, LTD

Name of Engineer: JOHN P. ARNOLD, P.E.

Type of Project: CELL 17 OF THE CLASS III LANDFILL; CERTIFICATION OF AS-BUILT DRAWINGS AND CERTIFICATION OF CLAY LINER CONSTRUCITON AND CONFORMANCE TESTING

Cost: Estimate $ 300,000 est. Actual $ 300,000 est.

Site Design Quantity: 1,500 ton/day Site Acreage: 10 ac (apprx.) Cell 17 Acres

Deviations from Plans and Application Approved by DEP (attach additional pages as needed):

The 3' clay barrier layer was installed in substantial accordance with the approved drawings.

The bottom of the cell slopes towards the 8" DIA SDR 17 leachate collection pipe as designed.

Address and Telephone No. of Site: 41111 ENTERPRISE RD., DADE CITY, FL 33525

PH: 352-567-7676 Scale House

Name(s) of Site Supervisor: Mr. Phil Curtin

Date Site inspection is requested: March 9, 2020

This is to certify that, with the exception of any deviation noted above, the construction of the project has been completed in substantial accordance with the plans authorized by Construction

Permit No.: 177982-025-SC/T3 Dated: June 21, 2019

Date: 03/02/2020

JOHN P. ARNOLD LICENSE No. 47164 STATE OF FLORIDA PROFESSIONAL ENGINEER

John Arnold 03/02/20

Signature of Professional Engineer

P.E. 47164
1538 Inverness Circle S.
Jacksonville, FL 32205

Attachment B

Record Drawings & Documents

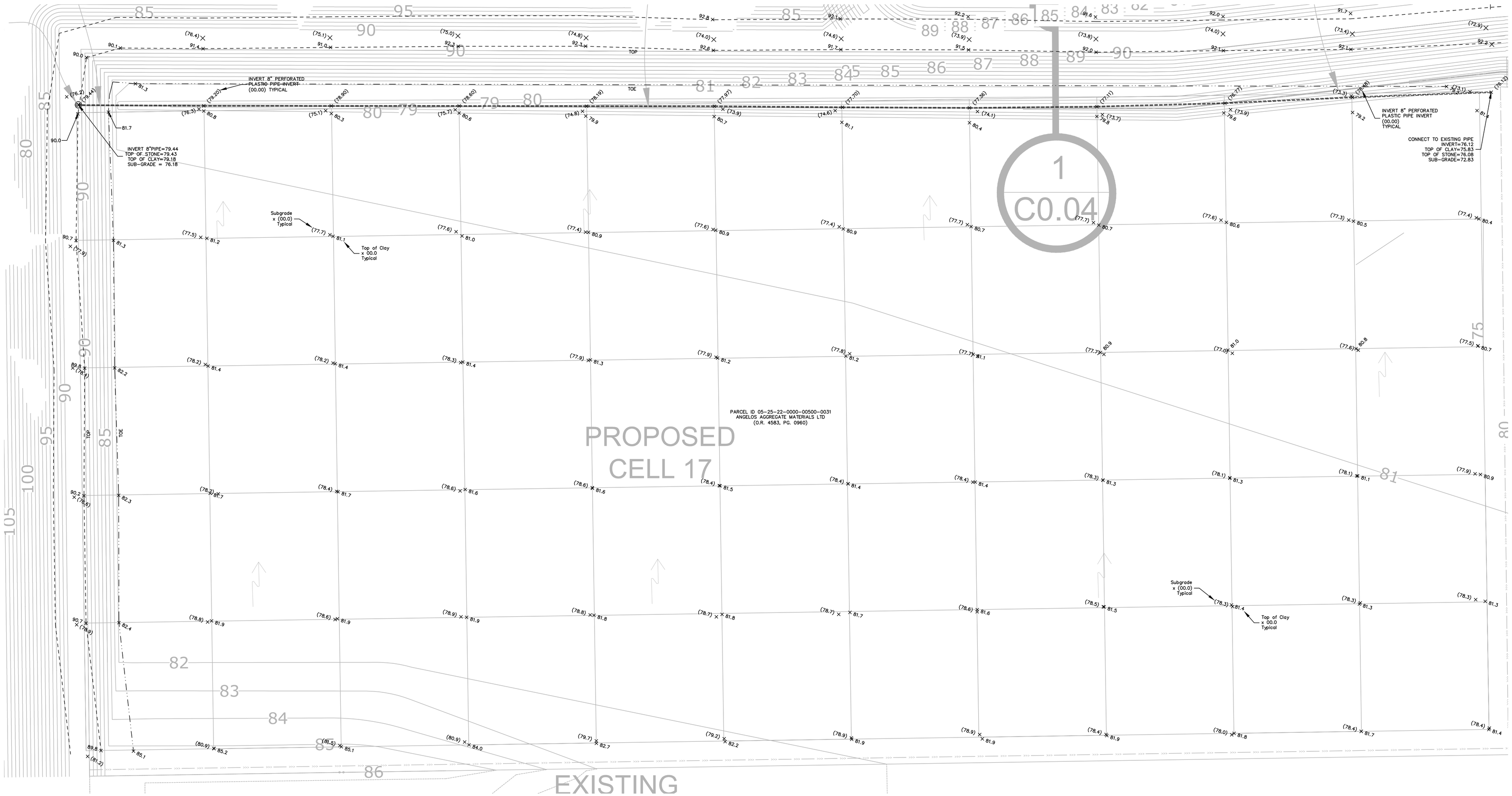
A topographic survey depicting as-built conditions of the site was prepared by Rapid Surveying, Inc. based on field work performed by them on various dates, including 7/5/19, 7/19/19, and 9/19/19. As-built elevations documenting the 3' clay over-excavation, top of Cell 17 clay, and leachate collection pipe were collected under the direction of John Arnold, P.E. as the Professional Engineer responsible for the Construction Quality Assurance (CQA) plan in accordance with Chapter 471, Florida Statues.

Supporting Record Drawings and Documents include the following:

- Rapid Surveying, Inc. Topographic Survey (over-excavation, top of clay, and leachate pipe)
- Non-Woven Geofabric Cut Sheet
- No. 4 Aggregate Gradation Test

Specific Purpose Survey

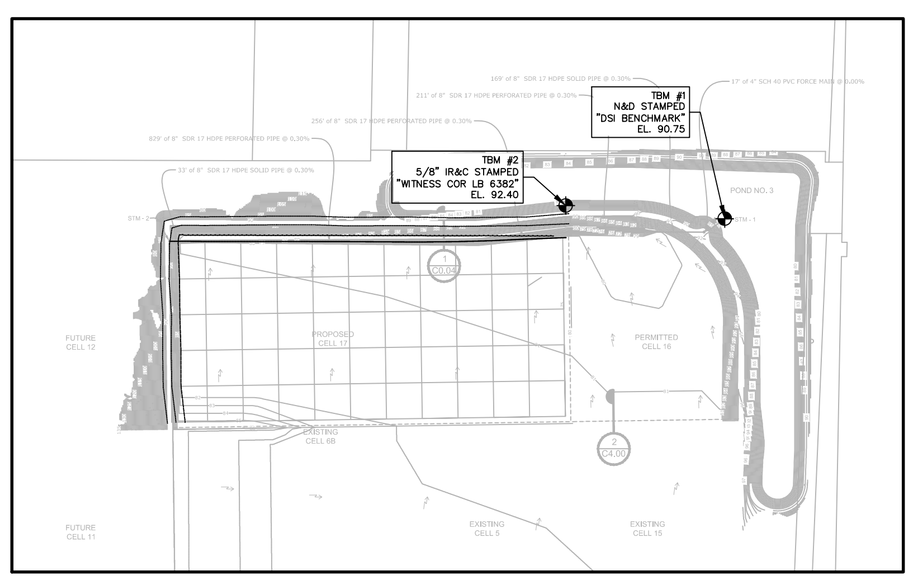
Section 05, Township 25 South, Range 22 East, Pasco County, Florida



Survey Legend:

FND	FOUND		ELECTRIC LINE	D	DRAINAGE MANHOLE
CM	CONCRETE MONUMENT		FORCE MAIN	RD	ROOF DRAIN
IR	IRON ROD		GAS MAIN	DS	DOWN SPOUT
N&D	NAIL AND DISK		OVERHEAD WIRE	YD	YARD DRAIN
IR&C	IRON ROD AND CAP		RECLAIM MAIN		
PRM	PERMANENT REFERENCE MARKER		SANITARY SEWER		
PCP	PERMANENT CONTROL POINT		TELEPHONE LINE		
P.S.M.	PROFESSIONAL SURVEYOR & MAPPER		WATER MAIN		
LB	LICENSED BUSINESS	BWF	BARBED WIRE FENCE		
	BENCHMARK	CLF	CHAIN LINK FENCE		
TBM	TEMPORARY BENCHMARK	STF	STOCKADE FENCE		
FF	FINISHED FLOOR LOCATION	WFF	WIRE FIELD FENCE		
(C)	CALCULATED DATA	WPF	WOOD PRIVACY FENCE		
(D)	DEED DATA	CTV	CABLE TV LINE FLAG/PAINT MARK		
(F)	FIELD DATA	DR	DRAINAGE LINE FLAG/PAINT MARK		
(P)	PLAT DATA	ELEC	ELECTRIC LINE FLAG/PAINT MARK		
N	NORTH	FM	FORCE MAIN FLAG/PAINT MARK		
E	EAST	FO	FIBER OPTIC LINE FLAG/PAINT MARK		
S	SOUTH	GAS	GAS LINE FLAG/PAINT MARK		
W	WEST	IRG	IRRIGATION LINE FLAG/PAINT MARK		
NE	NORTHEAST	RCW	RECLAIMED WATER LINE FLAG/PAINT MARK		
SE	SOUTHEAST	SWR	SEWER LINE FLAG/PAINT MARK		
SW	SOUTHWEST	TELE	TELEPHONE LINE FLAG/PAINT MARK		
NW	NORTHWEST	WTR	WATER LINE FLAG/PAINT MARK		
O.R.	OFFICIAL RECORDS BOOK	WET	WETLAND FLAG		
P.B.	PLAT BOOK	CTV	CABLE TV DELINEATOR		
PG	PAGE(S)	ELEC	ELECTRIC DELINEATOR		
ID	IDENTIFICATION	FM	FORCE MAIN DELINEATOR		
POB	POINT OF BEGINNING	FO	FIBER OPTIC DELINEATOR		
POC	POINT OF COMMENCEMENT	GAS	GAS LINE DELINEATOR		
R/W	RIGHT-OF-WAY	RCW	RECLAIMED LINE DELINEATOR		
x000.0	GROUND SHOT	TELE	TELEPHONE LINE DELINEATOR		
x000.00	IMPERVIOUS SHOT	WTR	WATER LINE DELINEATOR		
EL/ELEV	ELEVATION				
INV	INVERT	ARV	AIR RELEASE VALVE		
BOC	BACK OF CURB				
EOP	EDGE OF PAVEMENT				
	ASPHALT PAVEMENT				
	BRICK PAVERS				
CONC	CONCRETE	ARB	AIR RELEASE BOX		
TOE	TOE OF SLOPE				
TOP	TOP OF SLOPE		BACK FLOW PREVENTER		
TYP	TYPICAL	BOV	BLOW OFF VALVE		
CMP	CORRUGATED METAL PIPE				
CPP	CORRUGATED PLASTIC PIPE	CO	CLEAN OUT		
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE				
HDPE	HIGH DENSITY POLYETHYLENE PIPE		REDUCER		
PVC	POLYVINYL CHLORIDE PIPE				
RCP	REINFORCED CONCRETE PIPE	VENT	VENT		
U.G.S.	UNDERGROUND SERVICE				
	UTILITY SERVICE				

GUY ANCHOR			
LIGHT POLE			
TRANSFORMER			
UTILITY POLE			
TELEPHONE JUNCTION BOX			
TELEPHONE MANHOLE			
TELEPHONE PEDISTAL/RISER			
FIBER OPTIC JUNCTION BOX			
FIBER OPTIC PEDISTAL/RISER			
CABLE TV JUNCTION BOX			
CABLE TV MANHOLE			
CABLE TV PEDISTAL/RISER			
ANTENNA			
SATELLITE DISH			
IRRIGATION MANHOLE			
IRRIGATION METER			
IRRIGATION SPRINKLER			
IRRIGATION VALVE			
AIR CONDITIONER UNIT			
FLAG POLE			
BOLLARD			
METAL COLUMN			
MAIL BOX			
SINGLE POLE TRAFFIC SIGN			
DOUBLE POLE TRAFFIC SIGN			
MONITOR WELL			
PIEZOMETER			
SOIL BORING			



CONTROL MAP
Scale 1" = 300'

Surveyor's Notes:

1. This is not a boundary survey as defined in Florida Administrative Code 5J-17.052
2. Not valid without the original signature and seal of a Florida licensed Surveyor and Mapper unless affixed with a digital signature and seal. If digitally sealed, the seal appearing on this document was authorized by Danny R. Gann, P.S.M. on the date depicted on the accompanying digital signature.
3. The purpose of this survey is to show limited topographic features as requested by the client. There are additional improvements that exist that were not located and are not part of this survey.
4. Horizontal mapped features and coordinates if shown, are based on State Plane Coordinate System, Florida West Zone, North American Datum of 1983 (2011) adjustment, as established using Florida Department of Transportation FPRN (Florida Permanent Reference Network).
5. The parcel id (identification) numbers and ownership information shown hereon was obtained from the Pasco County Property Appraisers web site.
6. The signed and sealed copies of this survey will be the record drawing for this project.
7. The approximate parcel lines shown hereon were obtained from Pasco County Geographic Information System shape files and have not been verified as part of this survey.
8. No underground utilities or underground encroachments were measured or located as part of this Survey. Utilities marked by others were located and shown if flagged or marked at time of field date.
9. Additional grayed background information shown on drawing is for reference purposes only and was supplied by the Client or Engineer of Record. Grayed information is shown as provided and was not updated to show features that were constructed or removed during construction.
10. Trees, shrubs, and landscape features were not located.
11. Grade percentage may vary from cross section to cross section and between field determined break point or grid lines. No certification of compliance to Americans with Disabilities Act (A.D.A.) is a part of this survey.
12. Vertical information shown hereon is referenced to NAVD 88 (North American Vertical Datum of 1988) and was based on National Geodetic Survey benchmark "S 630" being a standard 4"x4" concrete monument with survey disk stamped "S 630 2005", having a published elevation of 94.52.

RSI
Rapid Surveying, Inc.
2000 East Edgewood Drive
Suite 106B
Lakeland, Florida 33803
OFFICE (863)668-9124
FAX (863)968-3091
E-MAIL:RSI@tampabay.rr.com
STATE OF FLORIDA AUTHORIZATION
FOR SURVEYING AND MAPPING
LICENSED BUSINESS #7658

I, THE UNDERSIGNED, AS REPRESENTATIVE OF RAPID SURVEYING, INC., HEREBY CERTIFY THAT THIS SURVEY MEETS OR EXCEEDS THE STANDARDS OF PRACTICE FOR SURVEYS SET FORTH BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES.

DANNY R. GANN, P.S.M. No. 6188

02/08/2020
FIELD DATE

DANNY R. GANN
CERTIFICATE
No. 6188
STATE OF FLORIDA
REGISTERED SURVEYOR & MAPPER

Revision

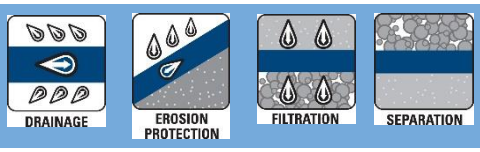
Specific Purpose Survey
Angelos Aggregate Materials
Enterprise Road
Dade City, Florida

Sheet 1 of 1
Job No. 3355
Date 02/14/2020
Drawn By LSS

P:\LAND PROJECTS 2004\3355-Angelos Dump Enterprise Rd 4111\dwg_gis\3356-topo-Review2.dwg Feb 18, 2020 4:53 pm

TENCATE GEOSYNTHETICS
Americas

Mirafi® 160N



Mirafi® 160N is a nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi® 160N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids. Mirafi® 160N meets AASHTO M288 Class 2 for Elongation > 50%.

TenCate Geosynthetics Americas Laboratories are accredited by Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP). NTPEP Listed

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	160 (712)	160 (712)
Grab Tensile Elongation	ASTM D4632	%	50	50
Trapezoid Tear Strength	ASTM D4533	lbs (N)	60 (267)	60 (267)
CBR Puncture Strength	ASTM D6241	lbs (N)	410 (1825)	
			Maximum Opening Size	
Apparent Opening Size (AOS)	ASTM D4751	U.S. Sieve (mm)	70 (0.212)	
			Minimum Roll Value	
Permittivity	ASTM D4491	sec^{-1}	1.5	
Flow Rate	ASTM D4491	$gal/min/ft^2$ ($l/min/m^2$)	110 (4481)	
			Minimum Test Value	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	70	

Physical Properties	Unit	Roll Size
Roll Dimensions (width x length)	ft (m)	15 x 300 (4.5 x 91)
Roll Area	yd^2 (m^2)	500 (418)

365 South Holland Drive
Pendergrass, GA 30567
Tel 706 693 2226
Tel 888 795 0808
Fax 706 693 4400
www.tencate.com

FGS000361
FTOR89

TEST LAB INC.
GEOTECHNICAL & MATERIALS
ENGINEERING, TESTING & INSPECTION
P.O. BOX 15732 • TAMPA, FLORIDA 33684 • 813/872-7821 CA No. 1450

SIEVE ANALYSIS

PROJECT: Product Check - Cell 17
Dade City, FL

PROJECT NO: 1170.15.1

DATE: 8/19/2019

CLIENT: Angelo's Recycled Materials

LAB NO: B-11587

SAMPLE LOCATION: Composite sample from stockpile

SAMPLE DESCRIPTION: No. 4 Crushed Concrete
(Coarse Aggregate)

Sieve Number	Percent Passing	FDOT Specifications Section 901-1.4
2"	100	100
1 1/2"	95	90-100
1"	28	20-55
3/4"	5	0-15
1/2"	3	---
3/8"	3	0-5

WASH NO. 200 0.9%

FINENESS MODULUS: 7.90

DATE SAMPLED: 8/5/19

DATE TESTED: 8/19/19

TEST LAB, INC.

SA.LabB-11587 (No 4)

Attachment C

CQA Engineer of Record Narrative Report

Construction Quality Assurance Engineerof Record Narrative Report

Enterprise Recycling and Disposal Facility
Cell 17 Construction
FDEP Permits No.: 177982-025-SC/T3
WACS No.: 87895

Prepared For:

Angelo's Aggregate Materials, Ltd.
855 28th Street South
St. Petersburg, FL 33712

Prepared By:

CQA Engineer of Record: John P. Arnold, P.E.
Date: 03/02/20
State of Florida P.E. No.: 47164
1530 McDuff AVE S
Jacksonville, FL 32205
Tel: (352) 339-1408

Background

This report documents the activities and methods of construction for Cell 17 (approximately 14 acres in size) in accordance with FDEP Permit No. 177982-025-SC/T3.

Record Drawings of the as-built conditions, including the elevations of the excavation/undercut (prior to installation of the 3' thick clay barrier layer), top-of-clay (after installation of the 3' thick clay barrier layer), and leachate collection pipe were performed by the Rapid Surveying, Inc. Topographic survey and elevation data were evaluated by the Engineer for conformance with the Department requirements. All Record Drawings are provided in Attachment B and include the clay perimeter berm and leachate collection system. The elevations on the surveys show that the subgrade was over-excavated by a minimum of 3-feet and then backfilled with clay to construct a 3' thick clay layer. The 3' clay layer (cell floor) was placed in three (3) approximately 12-inch thick lifts, with each lift being compacted. Geotechnical soils tests were performed on each completed clay lift of the 3' clay barrier layer to ensure the installed clay layer met the Department requirements in accordance with the Operations Permit.

Universal Engineering Sciences, Inc. (UES) performed all field and laboratory testing in accordance with the Construction Quality Assurance (CQA) requirements. Mr. John Arnold, P.E. served as the CQA professional engineer of record and he, or his designee was on-site at all times during construction to monitor construction activities.

Clay Layer Construction

Cell 17 was over-excavated by a minimum of 3 feet so that the finished 3-ft thick clay layer could be installed. The over-excavation was performed using tracked excavating equipment. The Engineer verified grades to ensure that the excavation was sufficient to meet the 3-foot over-excavation criteria. Clay was placed and compacted in the over-excavated area using approximatly12-inch lifts to construct the clay layer. Clay was also placed and compacted in approximate 12-inch lifts to construct the perimeter berm (road). Signed and Sealed drawings documenting the As-Built conditions are provided in Attachment B.

Clay from on-site was used to construct the 3' clay layer and the clay berms that extend along the west and north sides of Cell 17. The clay was installed in approximately 12-inch lifts and compacted to within at least 95% of the maximum dry density in accordance with ASTM D698. The clay for each lift was spread with a bull dozer and compacted with multiple passes of loaded off-road (articulating) dump trucks. The in-place density and moisture content for the clay lifts of the 3' clay layers were evaluated by the Universal representative using nuclear-density testing and Speedy Moisture Content devices, respectively. Cell 17 was subdivided by rows (1 thru 7) and columns (A and B) for testing. Each section was approximately 1 acre in size, which was the approved testing frequency used for in-place materials, per lift. Lifts were designated as Lift 1, 2, and 3 (from bottom to top). The perimeter clay berm was constructed in approximate 12" lifts up to the finished grades. A figure depicting the Cell 17 Test Plan is attached.

The UES field technician collected undisturbed Shelby tube samples for each test section of the 3' clay layer, per completed lift, to verify that the installed permeability met or exceeded the Department approved criteria. Additional samples were collected from the clay perimeter berm. Permeability testing was performed on the undisturbed Shelby tube samples in the laboratory using

a triaxial-permeameter device. The collected samples were also used to evaluate Atterberg Limits.

Results of the density, permeability, and moisture content tests are provided as Attachment D and show that the installed, compacted clay for the 3' clay layer and perimeter berm satisfied the maximum installed hydraulic permeability of 1x10-8 cm/sec.

Leachate Pipe and Wetwell

The leachate pipe along the north end of Cell 17 was installed by Sullivan Environmental, Inc. The leachate pipe was 8" DIA SDR 17 HDPE and was fusion welded by Sullivan Environmental, Inc. and was connected to the west end of the existing Cell 16 leacahte collection pipe. The perforated portion of the pipe included 3/8" DIA holes at 3" linear spacing per the approved drawings. The pipe was backfilled with No. 4 aggregate and encapsulated with non-woven filter fabric. A gradation test of the aggregate used to bed and backfill the leachate collection pipe is provided in Attachment B.

The leachate collection toe drain was constructed in substantial accordance with the drawings. Non-woven geofabric was placed in the bottom of the trench and the pipe was placed on a 3-inch thick layer of gravel (pipe bedding). The pipe was then backfilled with gravel and encased in the non-woven geofabric. The completed toe drain was covered with excess (surplus) No. 4 gravel that was on-site to provide additional protection to the installed system.

Limerock

Limerock was not observed or encountered within the area of Cell 17.

Field Inspection, Review, Conformance Assessment, and Major Deviations

John Arnold, P.E., serving as the CQA Engineer of Record reviewed the UES Testing Report, As-Built (Record) drawings including Rapid Surveying, Inc. topographic survey, performed daily field inspections/observations, and prepared and submitted this report and Certification of Construction Completion to the Department for review and approval.

1. There were no occurrences of sinkholes, soft zones, ravel areas, or unstable conditions associated with the construction of Cell 17.

2. Weekly progress meetings were informal and minutes were not taken.

3. Daily observation reports and photographs of construction activity are attached to this CQA Engineer of Record Narrative Report.

Summary

Review of the UES Testing Report, As-Built Drawings, and field observations during construction indicate that Cell 17 has been constructed in substantial accordance with the Department approved permit requirements. Specifically, the 3' clay layer and perimeter clay berm meet the maximum installed permeability requirement and the leachate collection pipe in the toe drain meets the design grades.

Cell 17 Test Plan


Angelo's CLIII
Cell 17
1
2
3
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Row A
Cell 17
Row B
Google Earth
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Daily Observation Reports

Enterprise Recycling and Disposal Facility
Cell 17 Construction
Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd
Engineer of Record: John Arnold, P.E. (JPA)
Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc
As-Built Engineering Survey: Rapid Surveying, Inc.

Date	CQA Engineer	Temp. (F)	Rainfall	Observations and Comments
6/24/19	JPA	85		Clearing vegetation from construction area
6/25/19	JPA	85		Verify grades and undercut from mining operations
6/26/19	JPA	85		Haul and place clay layer
6/27/19	JPA	85		
6/28/19	JPA	85	0.15	
6/29/19				
6/30/19				
7/1/19	JPA	90		Haul and place clay
7/2/19	JPA	90		
7/3/19	JPA	90		
7/4/19	JPA	90		
7/5/19	JPA	90	0.20	Universal Sciences Testing Sample Collection
7/6/19				
7/7/19				
7/8/19	JPA	90	0.30	Clay backfill and compaction
7/9/19	JPA	90		
7/10/19	JPA	90	2.75	
7/11/19	JPA	90		
7/12/19	JPA	90		
7/13/19				
7/14/19				
7/15/19	JPA	90		Clay backfill and compaction
7/16/19	JPA	90		
7/17/19	JPA	90	0.30	
7/18/19	JPA	90		
7/19/19	JPA	90		Universal Sciences Testing Sample Collection
7/20/19				
7/21/19				
7/22/19	JPA	85		Clay backfill and compaction
7/23/19	JPA	85		
7/24/19	JPA	90		
7/25/19	JPA	90		
7/26/19	JPA	90	0.70	
7/27/19				
7/28/19				
7/29/19	JPA	90		
7/30/19	JPA	90		
7/31/19	JPA	90		

Enterprise Recycling and Disposal Facility
Cell 17 Construction
Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd
Engineer of Record: John Arnold, P.E. (JPA)
Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc
As-Built Engineering Survey: Rapid Surveying, Inc.

Date	CQA Engineer	Temp. (F)	Rainfall	Observations and Comments
8/1/19	JPA	90		
8/2/19	JPA	90		
8/3/19				
8/4/19				
8/5/19	JPA	90	0.10	
8/6/19	JPA	90	0.00	
8/7/19	JPA	90	0.00	
8/8/19	JPA	90	0.00	
8/9/19	JPA	90		
8/10/19				
8/11/19				
8/12/19	JPA	85		
8/13/19	JPA	85		
8/14/19	JPA	85		
8/15/19	JPA	85	2.50	
8/16/19	JPA	85	1.00	
8/17/19				
8/18/19				
8/19/19	JPA	90		Gravel sample and testing
8/20/19	JPA	90	1.00	
8/21/19	JPA	90		
8/22/19	JPA	90	0.30	
8/23/19	JPA	90		
8/24/19				
8/25/19				
8/26/19	JPA	90		
8/27/19	JPA	90		
8/28/19	JPA	90		
8/29/19	JPA	85	0.25	
8/30/19	JPA	90		
8/31/19				
9/1/19				
9/2/19	JPA	90	0.25	
9/3/19	JPA	90		
9/4/19	JPA	90		
9/5/19	JPA	90		
9/6/19	JPA	90		
9/7/19				

Enterprise Recycling and Disposal Facility
Cell 17 Construction
Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd
Engineer of Record: John Arnold, P.E. (JPA)
Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc
As-Built Engineering Survey: Rapid Surveying, Inc.

Date	CQA Engineer	Temp. (F)	Rainfall	Observations and Comments
9/8/19				
9/9/19	JPA	90		
9/10/19	JPA	90	0.10	
9/11/19	JPA	90		
9/12/19	JPA	90		
9/13/19	JPA	90		
9/14/19				
9/15/19				
9/16/19	JPA	85	0.50	Clay backfill substantially complete
9/17/19	JPA	90		
9/18/19	JPA	90		
9/19/19	JPA	90	0.25	Rapid Surving, Inc. leacahte pipe
9/20/19	JPA	90		
9/21/19				
9/22/19				
9/23/19	JPA	90		Sullivan Environmental HDPE Leacahte Pipe Installation
9/24/19	JPA	90		Sullivan Environmental HDPE Leacahte Pipe Installation
9/25/19	JPA	90		Sullivan Environmental HDPE Leacahte Pipe Installation
9/26/19	JPA	90		Gravel backfill pipe
9/27/19	JPA	90		Gravel backfill pipe
9/28/19				
9/29/19				
9/30/19	JPA	90		
10/1/19	JPA	90		Rapid Surveying, top of clay grades
10/2/19	JPA	90		
10/3/19	JPA	90		
10/4/19	JPA	85		
10/5/19				
10/6/19				
10/7/19	JPA	90		
10/8/19	JPA	90		
10/9/19	JPA	90		
10/10/19	JPA	90		
10/11/19	JPA	90		Florida Jet Clean Pipe Cleaning/Washing
10/12/19				
10/13/19				
10/14/19	JPA	85		Earthwork and pipe work substantially complete
10/15/19	JPA	85		

Enterprise Recycling and Disposal Facility
Cell 17 Construction
Daily Observation Reports

Client: Aneglo's Aggregate Materials, Ltd
Engineer of Record: John Arnold, P.E. (JPA)
Quality Assurance Testing Laboratory: Universal Engineering Sciences, Inc
As-Built Engineering Survey: Rapid Surveying, Inc.

Date	CQA Engineer	Temp. (F)	Rainfall	Observations and Comments
10/16/19	JPA	80		
10/17/19	JPA	80		
10/18/19	JPA	80		
10/19/19				
10/20/19				


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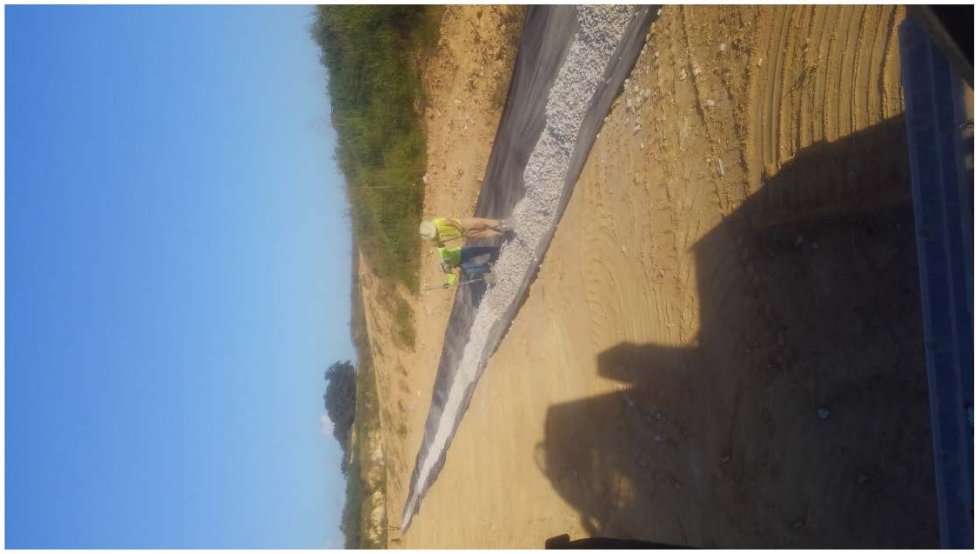


Attachment D

Construction Quality Assurance Test Results
Universal Engineering Science, Inc.

UNIVERSAL ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

LOCATIONS:
- Atlanta
- Daytona Beach
- Fort Myers
- Fort Pierce
- Gainesville
- Jacksonville
- Miami
- Ocala
- Orlando (Headquarters)
- Palm Coast
- Panama City
- Pensacola
- Rockledge
- Sarasota
- St. Petersburg
- Tampa
- Tifton
- West Palm Beach

March 2, 2020

Angelo's Recycled Materials
41111 Enterprise Road
Dade City, Florida 33525

Attention: John Arnold

Reference: John Arnold
Enterprise Class III Landfill Cell 19
Dade City, Florida
UES Project No. 0810.1900213.0000

Mr. Arnold:

Pursuant to your request, please find attached all related testing reports for the Landfill Cell 17. This letter certifies reports for:

- **Proctor Report:** Page 1-45
- **Permeability Reports:** Pages 46-48
- **Density Reports**: Pages 49-51

Please note failing tests were rerun, only passing tests have been provided.

We trust that these testing reports bound herein, are acceptable to your current needs. However, if you should require additional information please contact us.

We appreciate the opportunity to work with you on this project and look forward to a continued association with Angelo's Recycled Materials. Please do not hesitate to contact us if you should have any questions or if we may further assist you as your plans proceed.

Respectfully submitted,
UNIVERSAL ENGINEERING SCIENCES, INC.
Certificate of Authorization No. 00000549

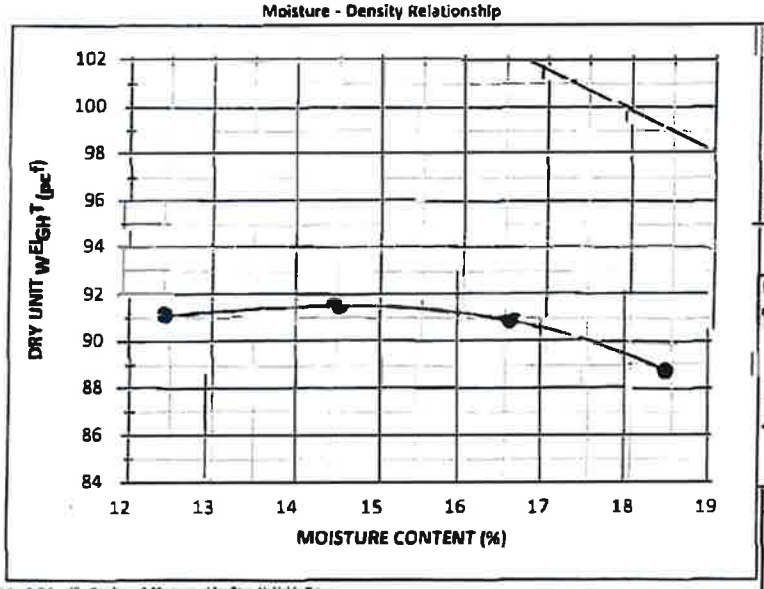
Mark Hardy, P.E.
Tampa Regional Manager
Florida PE Registration Number 57233
Date: 3/2/20

9802 Palm River Road, Tampa, FL 33619-4438 • 813-740-8506 • 813-740-8706
www.UniversalEngineering.com

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/22/2019
Client Project #		RADISE Project #	190708-
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1411

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.25 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	91.5
Optimum Moisture (%)	14.5

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B(Standard Proctor)Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location A1 - 1st Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	3

Moisture Content

Moisture Content	30.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

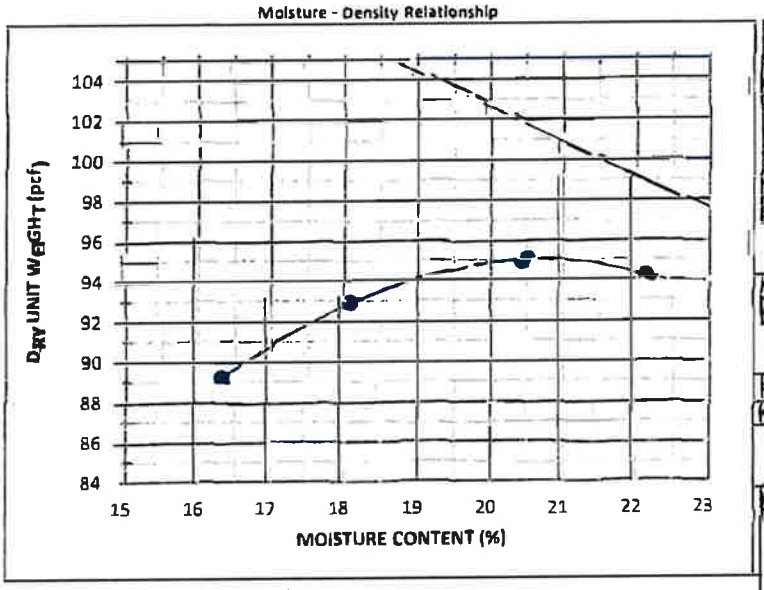
Finer than #200 (%)	54.5

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/30/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1412

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.45 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	95
Optimum Moisture (%)	20.7

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A|Standard Proctor|Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location	
A2 - First Lift	
Soil Description	
Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	4

Moisture Content

Moisture Content	31.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

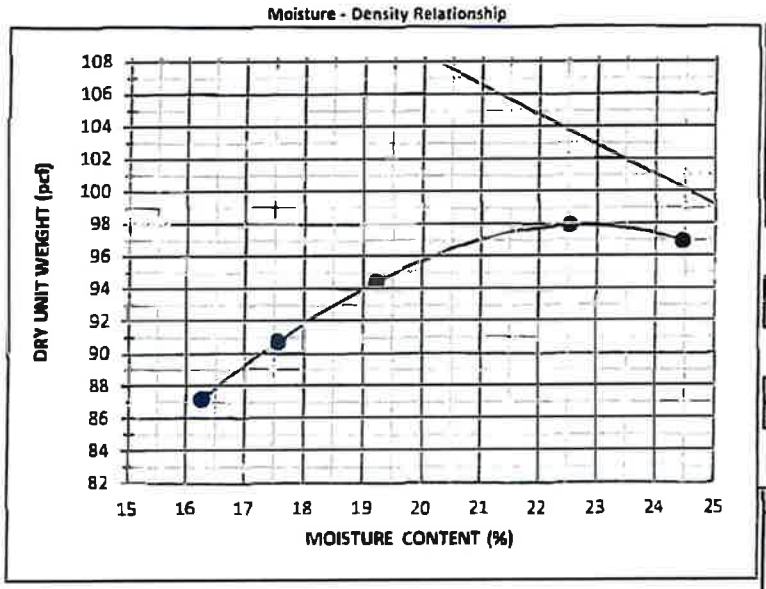
Finer than #200 (%)	45.4

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test date	7/29/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1413

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	97.9
Optimum Moisture (%)	22.7

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B(Standard Proctor)Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/5/2019
Sample Location A3 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	5

Moisture Content

Moisture Content	28.7

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

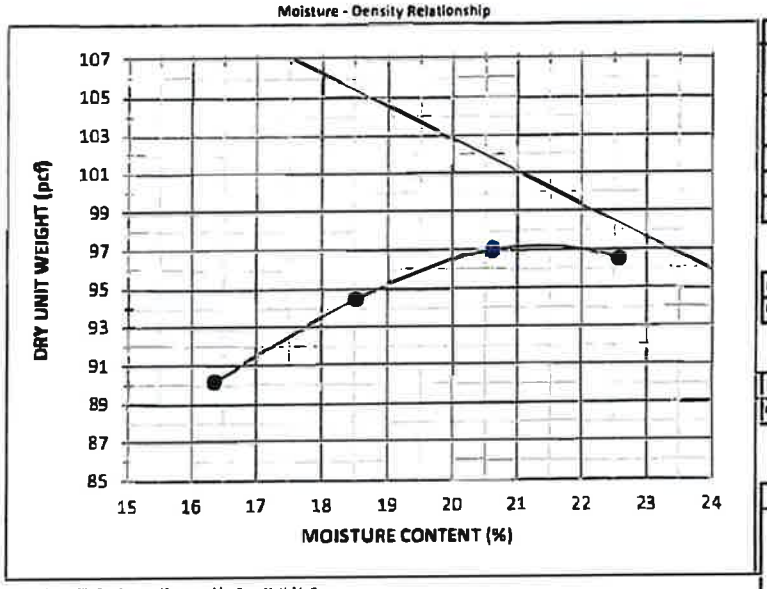
Finer than #200 (%)	55.6

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	09/05/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/30/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1414

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.45 assumed for Zero Air Voids Curve

Sample Details

Sample Date	7/5/2019
Sample Location A4 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	6

Moisture Content

Moisture Content	30.1

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	55.7

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor

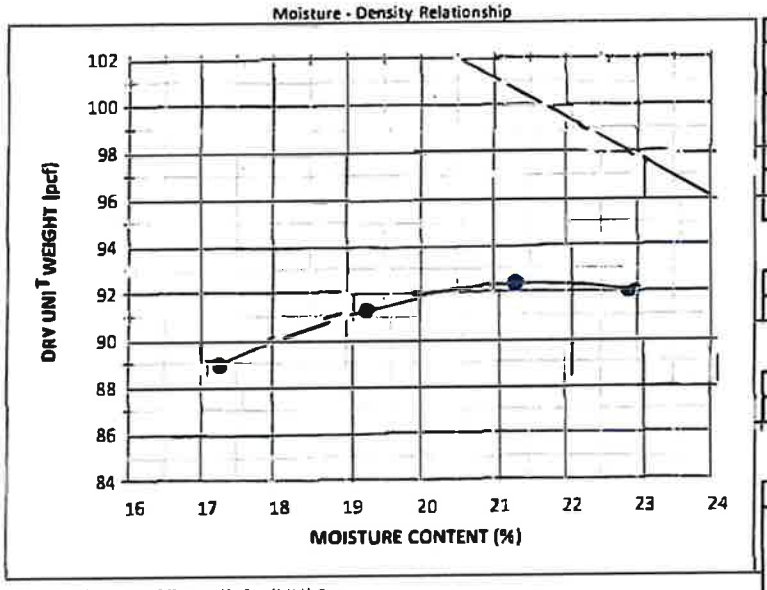
Maximum Density (pcf)	97.2
Optimum Moisture (%)	21.3

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A(Standard Proctor)Dry Preparation and Manual Hammer type was used

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/30/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering ~ General Lab Testing	RADISE Sample #	2019 - 1415

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.45 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	92.3
Optimum Moisture (%)	21.6

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B(Standard Proctor)Dry Preparation and Automatic hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location A5 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	7

Moisture Content

Moisture Content	29.1

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

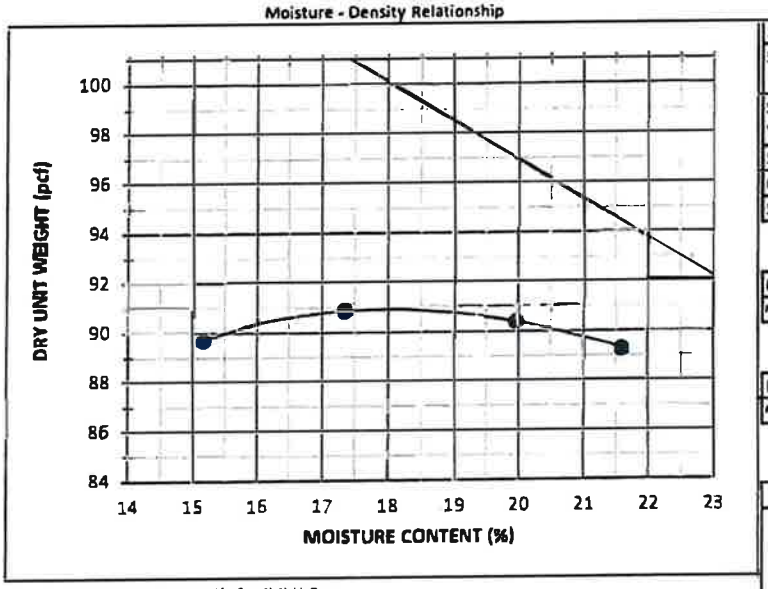
Finer than #200 (%)	56.6

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	8/9/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1416

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.75 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	90.9
Optimum Moisture (%)	17.9

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A(Standard Proctor)Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location A6 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	8

Moisture Content

Moisture Content	19.8

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

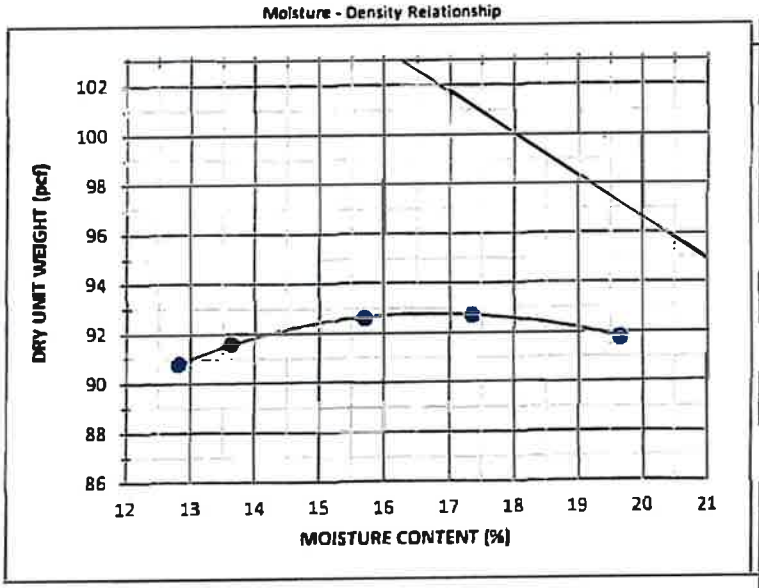
Finer than #200 (%)	60.9

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/26/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1417

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.75 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	92.7
Optimum Moisture (%)	16.7

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B(Standard Proctor)Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location A7 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	9

Moisture Content

Moisture Content	30.6

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

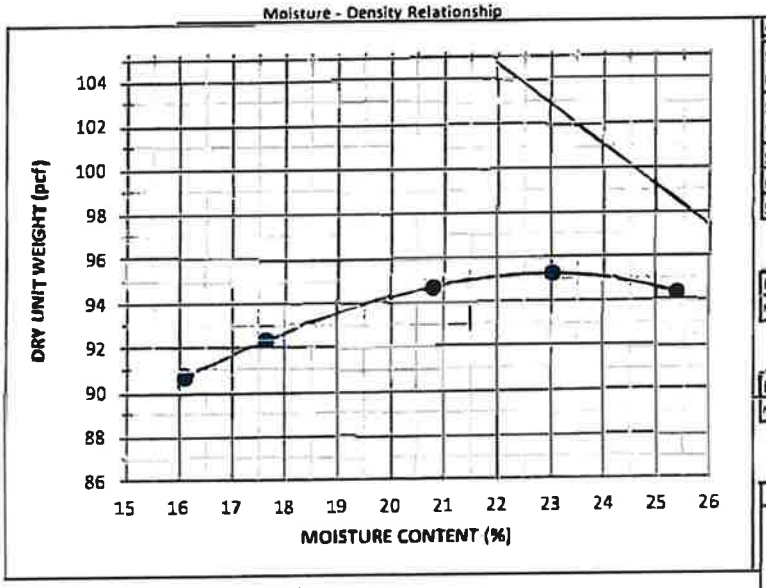
Finer than #200 (%)	55

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	8/9/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1418

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	95.2
Optimum Moisture (%)	22.9

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A(Standard Proctor)Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/5/2019
Sample Location B1 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	10

Moisture Content

Moisture Content	28.4

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

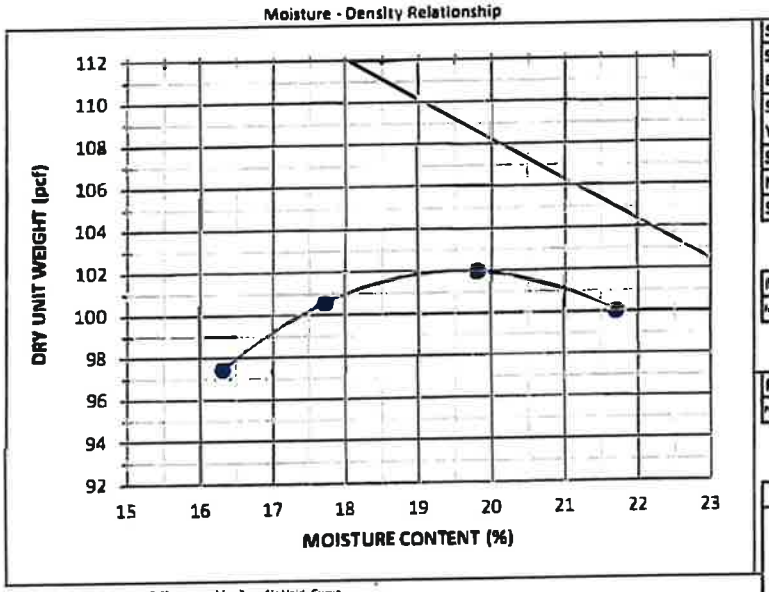
Finer than #200 (%)	46.1

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/29/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1419

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	102
Optimum Moisture (%)	19.5

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method B (Standard Proctor) Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location B2 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	11

Moisture Content

Moisture Content	24.5

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	43.9

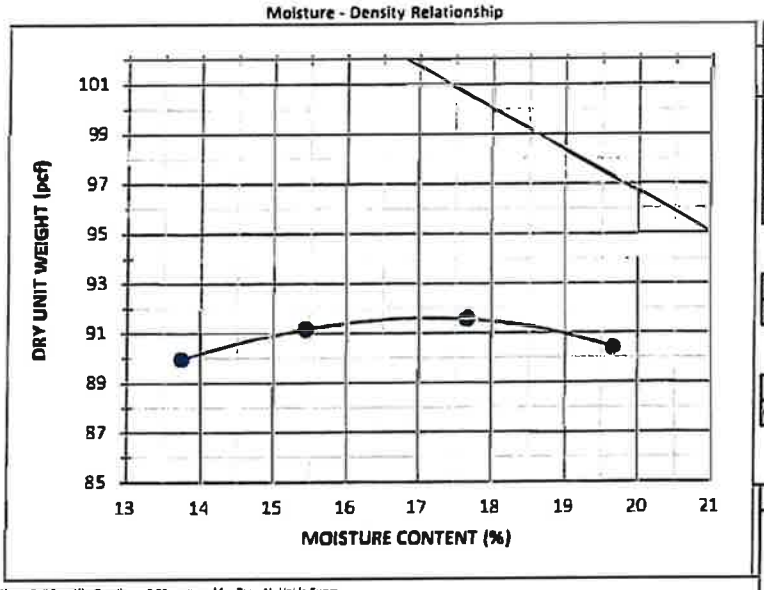
Note: Material Finer than #200 performed in accordance with ASTM-D1140

Hydraulic Conductivity

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/22/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1420

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.25 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	91.6
Optimum Moisture (%)	17.1

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B (Standard Proctor) Dry Preparation and Manual Hammer type was used

Sample Details

Sample Date	7/5/2019
Sample Location B3 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	12

Moisture Content

Moisture Content	31.8

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

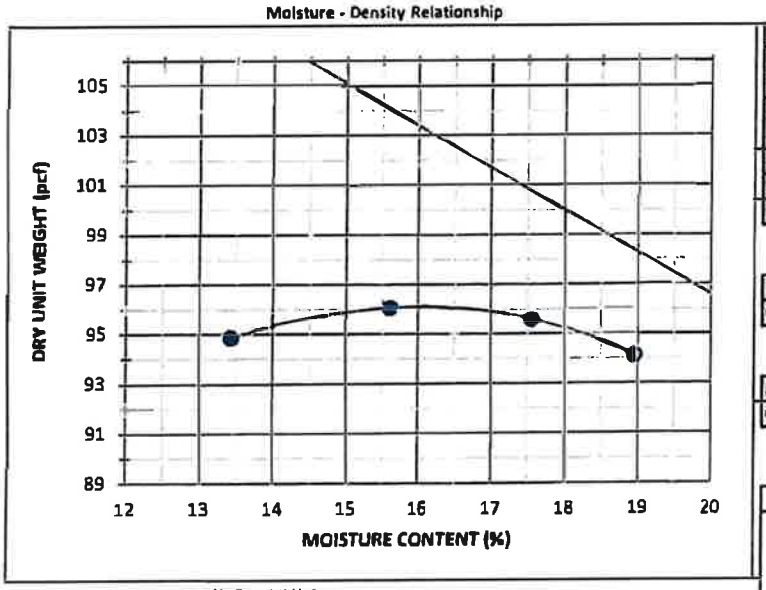
Finer than #200 (%)	59.3

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/25/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1421

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.25 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	96.1
Optimum Moisture (%)	16

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B (Standard Proctor) Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location B4 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	13

Moisture Content

Moisture Content	28.7

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

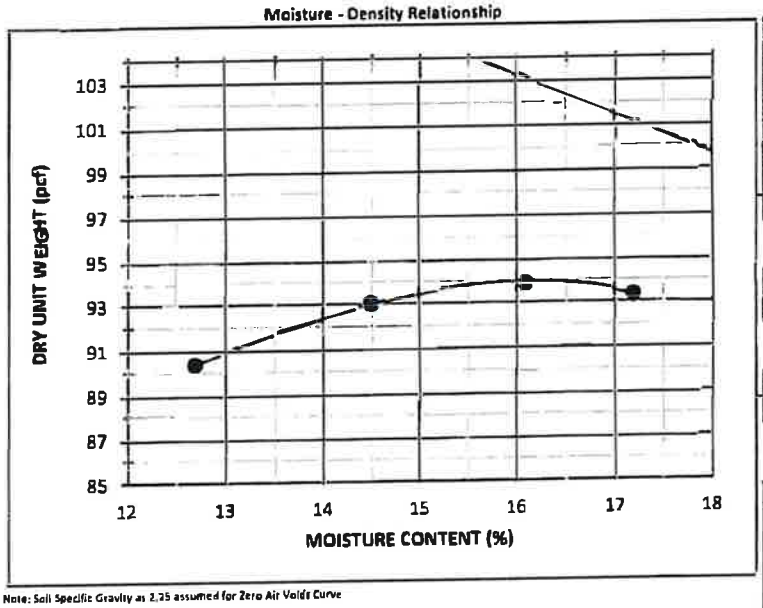
Finer than #200 (%)	57.4

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/29/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1422

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.75 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	93.9
Optimum Moisture (%)	16.1

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method B(Standard Proctor)Dry Preparation and Manual Rammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location BS - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	14

Moisture Content

Moisture Content	27.7

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

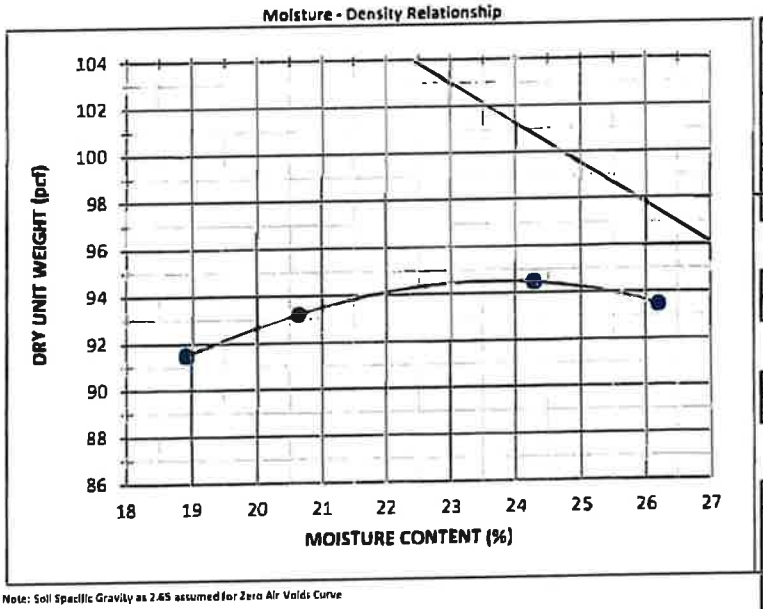
Finer than #200 (%)	54.7

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	9/5/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	8/9/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1423

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	94.5
Optimum Moisture (%)	23.7

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A Standard Proctor|Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/5/2019
Sample Location B6 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	15

Moisture Content

Moisture Content	22.9

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

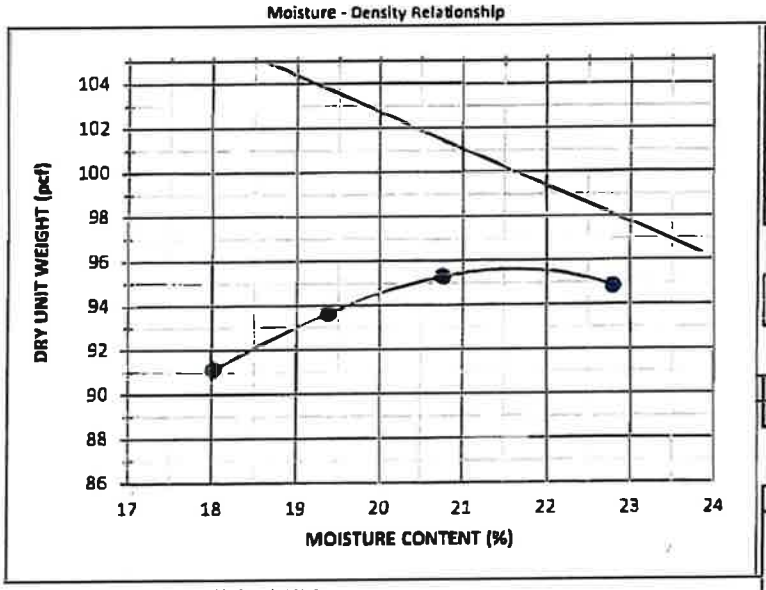
Finer than #200 (%)	51.8

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	09/05/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	7/29/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1424

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	95.6
Optimum Moisture (%)	21.6

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A Standard Proctor/Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/5/2019
Sample Location B7 - First Lift	
Soil Description Yellowish brown clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	16

Moisture Content

Moisture Content	32.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

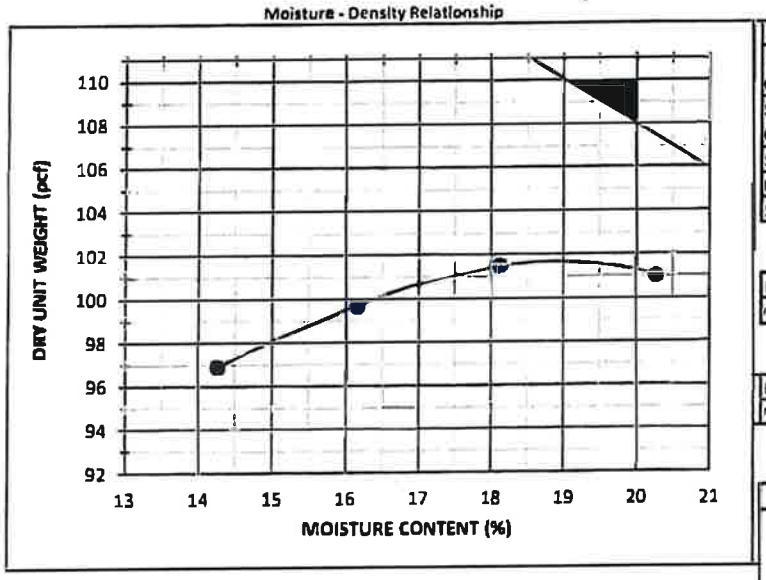
Finer than #200 (%)	52.4

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	12/03/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	11/15/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1536

Moisture - Density Relationship



Note: Soil Specific Gravity at 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	101.7
Optimum Moisture (%)	18.9

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method A(Standard Proctor)Dry Preparation and Manual Rammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location	
CELL-17 ; A-1 ; 2nd Lift	
Soil Description	
Orange, clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	20

Moisture Content

Moisture Content	9.2

Note: Moisture Contents performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

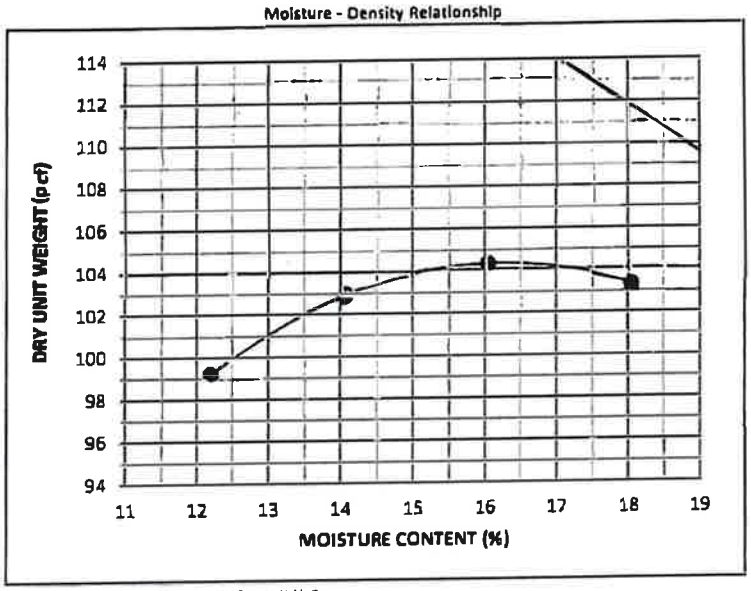
Finer than #200 (%)	39.5

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/26/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1549

Moisture - Density Relationship



Note: Soil Specific Gravity at 2.55 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	104.3
Optimum Moisture (%)	16.2

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A(Standard Proctor)Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location CELL- 17; Berm ; S1	
Soil Description Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	32

Moisture Content

Moisture Content	16.5

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

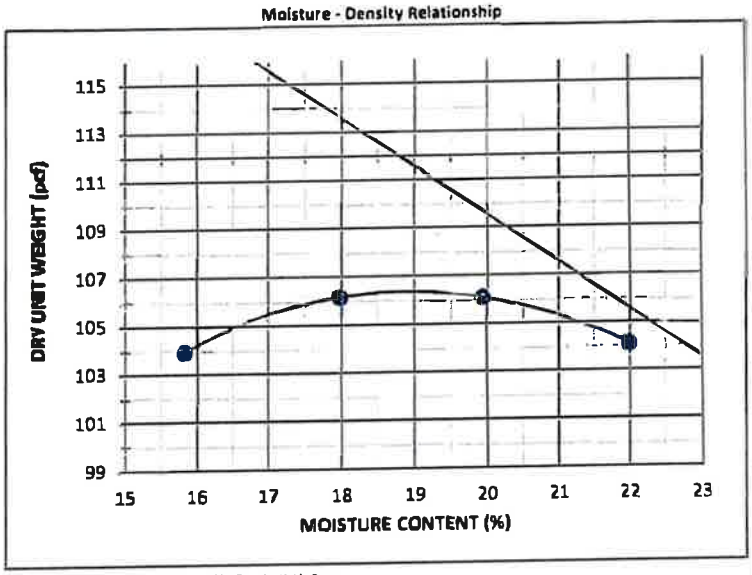
Finer than #200 (%)	40.7

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	12/03/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	11/15/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1537

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.70 assumed for Zero Air Voids Curve

Sample Details

Sample Date	7/19/2019
Sample Location	
CELL-17 ; A-2 ; Lift 2	
Soil Description	
Brownish yellow Clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	21

Moisture Content

Moisture Content	8.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	41.7

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor

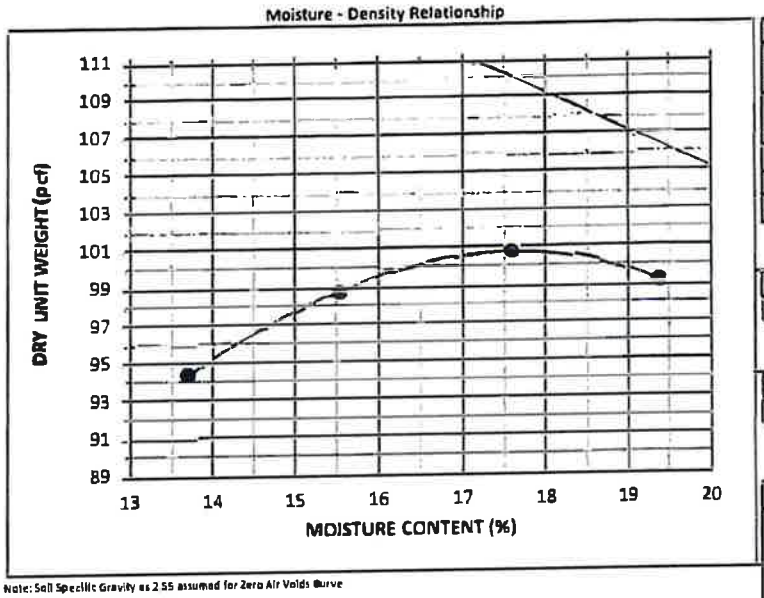
Maximum Density (pcf)	106.4
Optimum Moisture (%)	18.9

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A (Standard Proctor) Dry Preparation and Manual Hammer type was used

Proctor Report

Client	Universal Engineering Sciences	Report Date	10/28/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	10/11/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1551

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.55 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	100.8
Optimum Moisture (%)	17.6

Note: Moisture Density Relationship performed in accordance with ASTM D-698(Standard Proctor)Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location	
CELL-17 ; A-3 ; Lift 2	
Soil Description	
Brownish yellow Clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	34

Moisture Content

Moisture Content	22.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

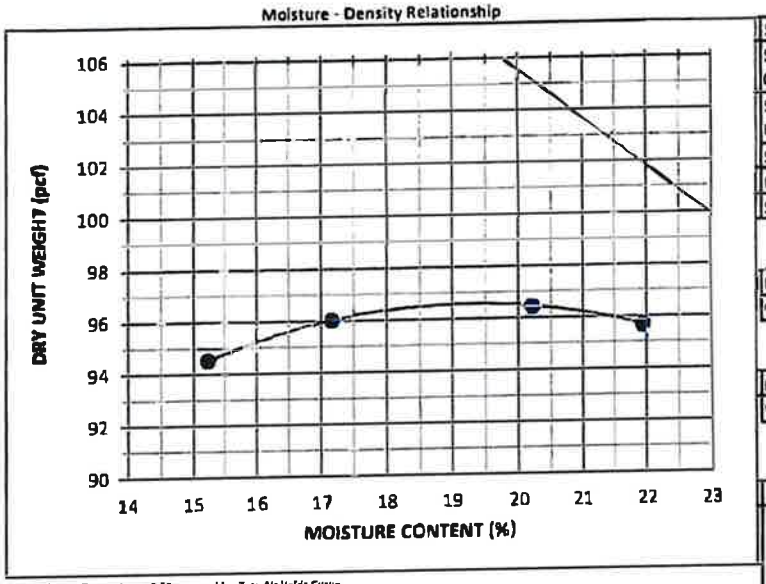
Finer than #200 (%)	40.8

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	10/28/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	10/11/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1552

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.55 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	96.6
Optimum Moisture (%)	19.2

Note: Moisture Density Relationship performed in accordance with ASTM D 698 method A(Standard Proctor)Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; A-4 ; Lift 2	
Soil Description Brownish yellow clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	35

Moisture Content

Moisture Content	11.9

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	47.7

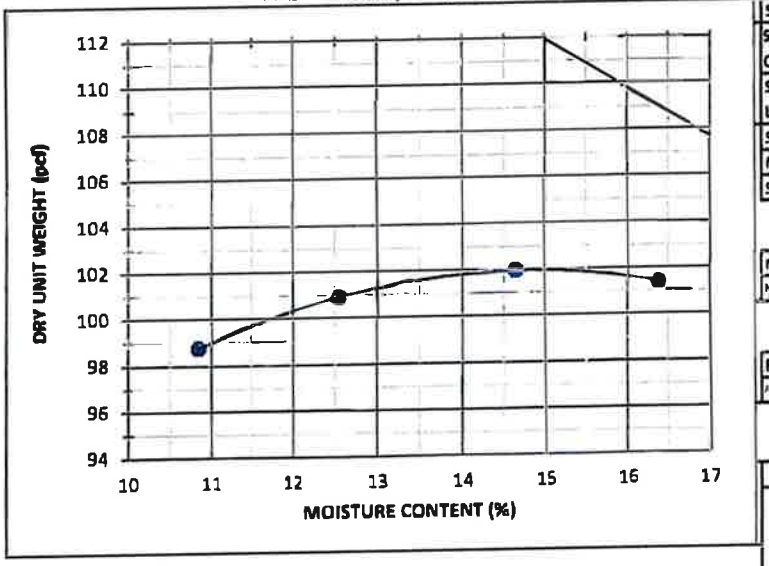
Note: Material Finer than #200 performed in accordance with ASTM-D1140

Hydraulic Conductivity

Proctor Report

Client	Universal Engineering Sciences	Report Date	12/03/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	11/15/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1538

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.45 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	101.9
Optimum Moisture (%)	14.8

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method A(Standard Proctor)Dry Preparation and Manual hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location	
CELL-17 ; A-5 ; Lift 2	
Soil Description	
Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	22

Moisture Content

Moisture Content	8.9

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

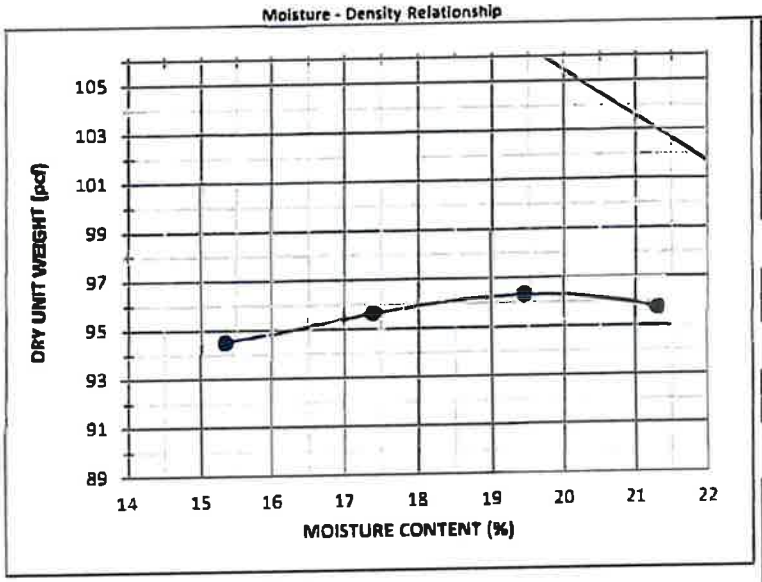
Finer than #200 (%)	49.6

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	12/03/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	11/15/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1540

Moisture - Density Relationship



Note: Soil Specific Gravity at 2.55 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	96.3
Optimum Moisture (%)	19.6

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A(Standard Proctor)Dry Preparation and Manual Hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; A-6 ; Lift 2	
Soil Description Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	23

Moisture Content

Moisture Content	8.8

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

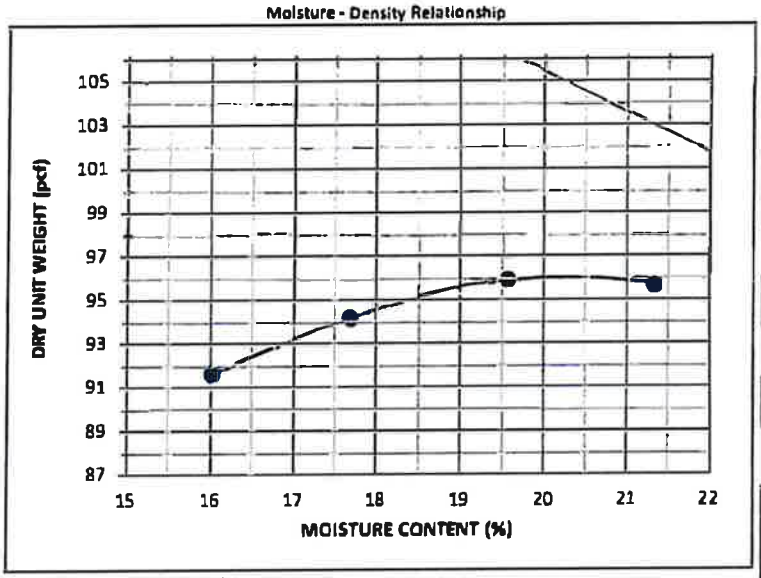
Finer than #200 (%)	49

Note: Material Finer than #200 performed in accordancewith ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	10/28/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	10/22/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1541

Moisture - Density Relationship



Note: Soil Specific Gravity at 2.55 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	96.1
Optimum Moisture (%)	20.3

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A(Standard Proctor)Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; A-7 ; Lift 2	
Soil Description Brownish yellow Clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	24

Moisture Content

Moisture Content	19.1

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

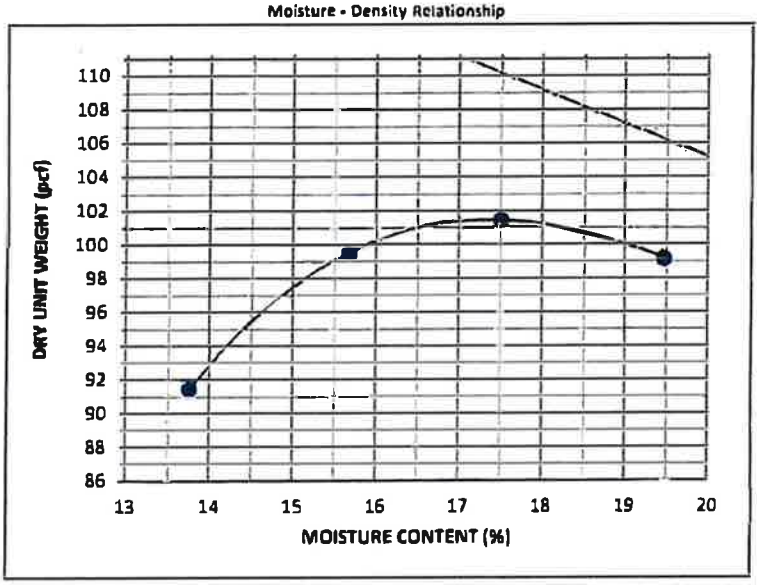
Finer than #200 (%)	51.8

Note: Material finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	12/03/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	11/15/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1542

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	101.5
Optimum Moisture (%)	17.3

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A (Standard Proctor) Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; B-1 ; Lift 2	
Soil Description Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	25

Moisture Content

Moisture Content	7.4

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

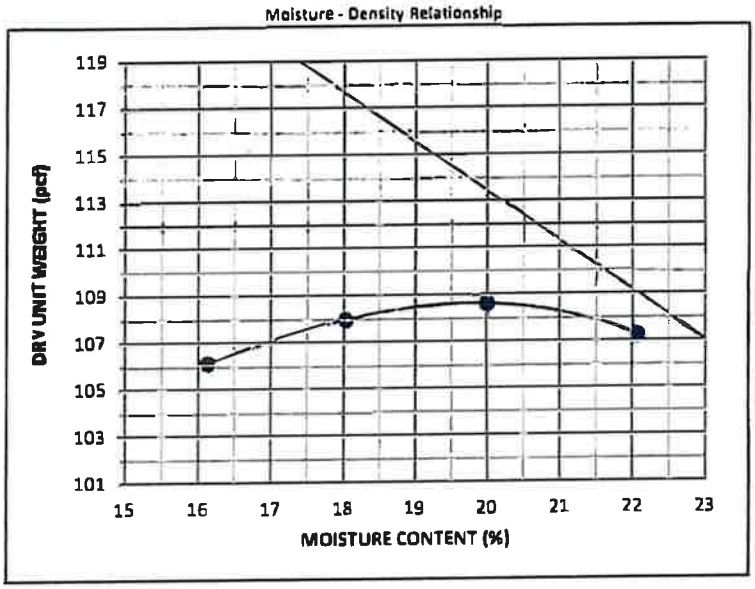
Finer than #200 (%)	43.1

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	12/03/2019
	9802 Palm River Road, Tampa, FL 33619	Test Date	11/15/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1543

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; B-2 ; Lift 2	
Soil Description Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	26

Moisture Content

Moisture Content	9.1

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	45.5

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor

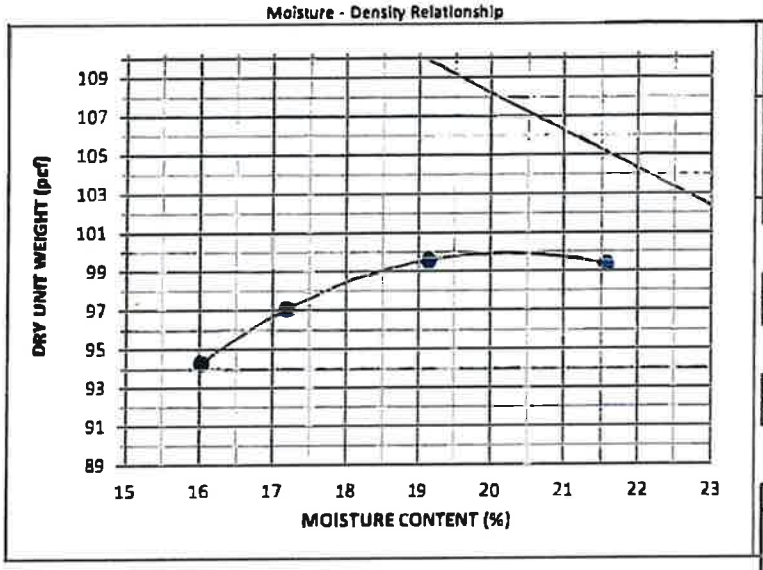
Maximum Density (pcf)	108.7
Optimum Moisture (%)	19.8

Note: Moisture Density Relationship performed in accordance with ASTM D-698 Method A|Standard Proctor|Dry Preparation and Manual Hammer type was used

Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/13/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1544

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	99.9
Optimum Moisture (%)	20.2

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method A (Standard Proctor) Dry Preparation and Manual Hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; B-3 ; Lift 2	
Soil Description Orange, Sandy Clay	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	27

Moisture Content

Moisture Content	6.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

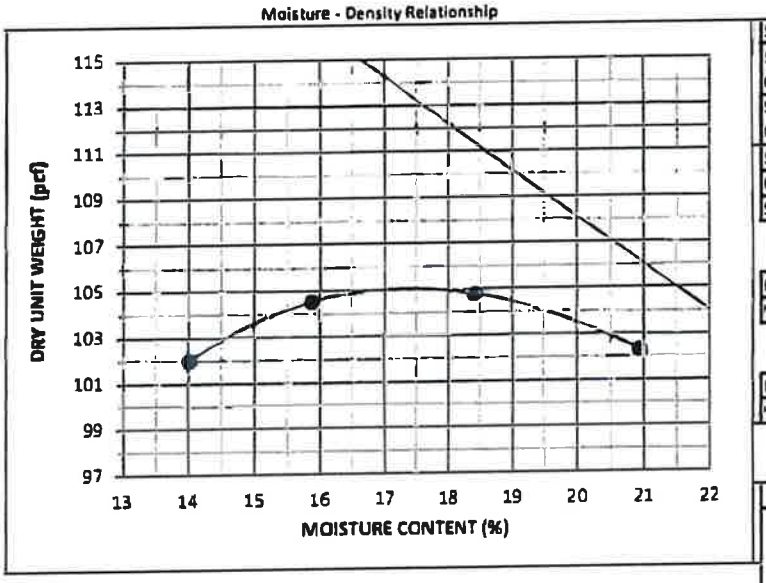
Finer than #200 (%)	43.2

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/13/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1545

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	105.1
Optimum Moisture (%)	17.3

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method A(Standard Proctor)Dry Preparation and Manual Hammer type was used

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; B-4 ; Lift 2	
Soil Description Orange, Sandy Clay	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	28

Moisture Content

Moisture Content	8.4

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

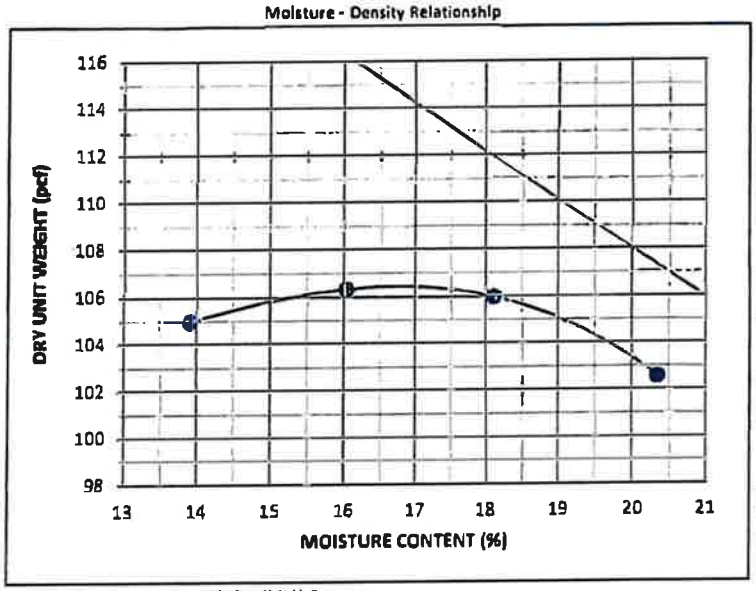
Finer than #200 (%)	37.1

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/26/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1546

Moisture - Density Relationship



Note: Soil Specific Gravity at 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	106.4
Optimum Moisture (%)	16.8

Note: Moisture Density Relationship performed in accordance with ASTM D-698(Standard Proctor)Dry Preparation and Manual hammer type was used

Sample Details

Sample Date	7/19/2019
Sample Location CELL-17 ; B-5 ; Lift 2	
Soil Description Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	29

Moisture Content

Moisture Content	5

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	39.4

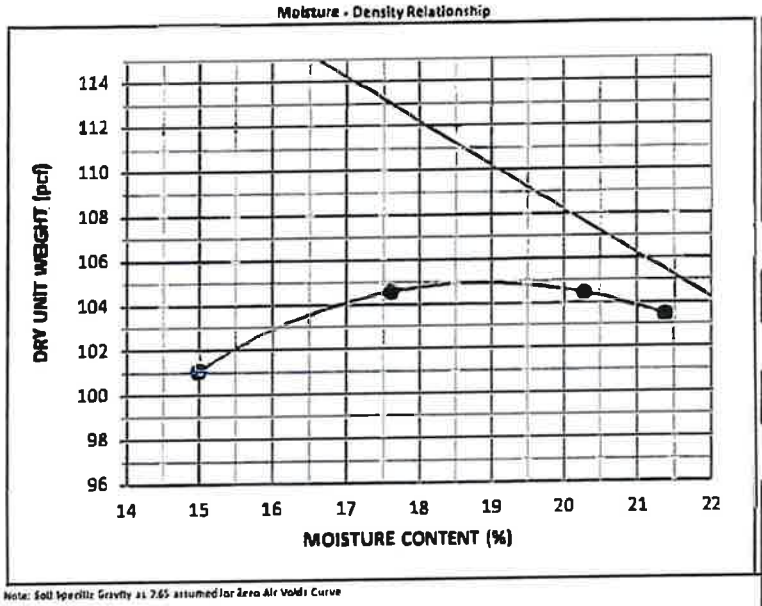
Note: Material Finer than #200 performed in accordance with ASTM-D1140

Hydraulic Conductivity

Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/23/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1547

Moisture - Density Relationship



Note: Soil Specific Gravity at 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	104.9
Optimum Moisture (%)	18.8

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method A(Standard Proctor)Dry Preparation and Manual Rammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location CELL-6 ; B-6 ; Lift 2	
Soil Description Orange Clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	30

Moisture Content

Moisture Content	5

Note: Moisture Content performed in General accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	39.2

Note: Material Finer than #200 performed in accordance with ASTM-D1140

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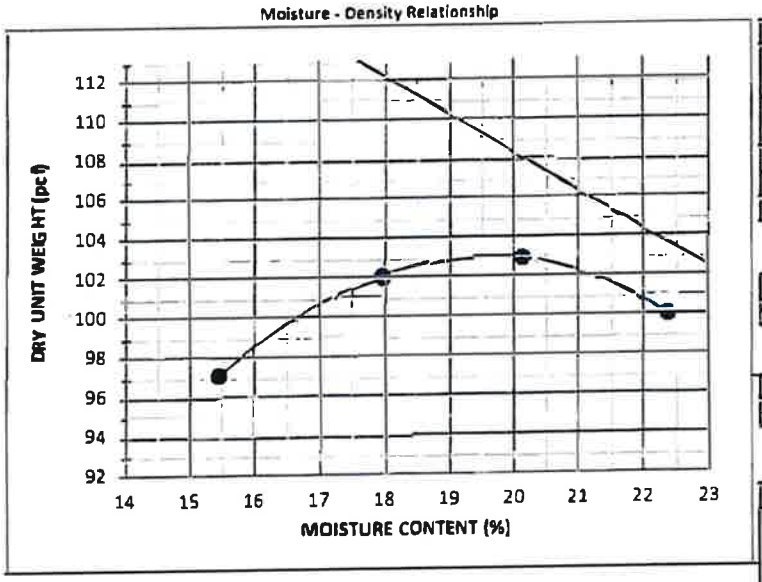
Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/23/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1548

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	103
Optimum Moisture (%)	19.6

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Method A(Standard Proctor)Dry Preparation and Manual Hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location CELL-6 ; B-7 ; Lift 2	
Soil Description Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	31

Moisture Content

Moisture Content	10.3

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

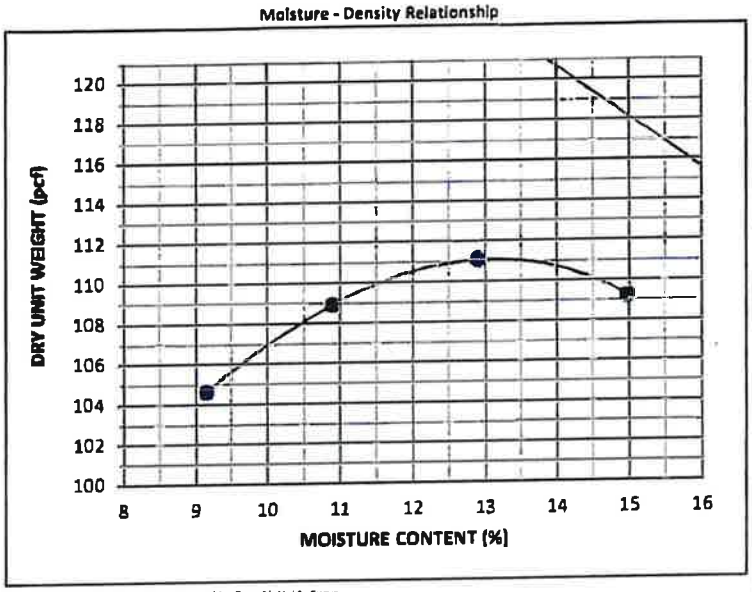
Finer than #200 (%)	43.3

Note: Material Finer than #200 performed in accordance with ASTM-D1140

Proctor Report

Client	Universal Engineering Sciences	Report Date	01/08/2020
	9802 Palm River Road, Tampa, FL 33619	Test Date	12/26/2019
Client Project #		RADISE Project #	190708
Project Name	Universal Engineering – General Lab Testing	RADISE Sample #	2019 - 1550

Moisture - Density Relationship



Note: Soil Specific Gravity as 2.65 assumed for Zero Air Voids Curve

Proctor

Maximum Density (pcf)	111.1
Optimum Moisture (%)	13.1

Note: Moisture Density Relationship performed in accordance with ASTM D 698 Standard Proctor Dry Preparation and Automatic hammer type was used.

Sample Details

Sample Date	7/19/2019
Sample Location	
CELL-17 ; Berm ; S2	
Soil Description	
Light reddish brown fine clayey SAND	
Soil Classification	Not Performed
Material	Delivered Sample
Sample #	33

Moisture Content

Moisture Content	5.4

Note: Moisture Content performed in general accordance with ASTM-D2216

Material Finer than #200 Sieve

Finer than #200 (%)	39.3

Note: Material Finer than #200 performed in accordance with ASTM-D1140

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UNIVERSAL ENGINEERING SCIENCES
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LOCATIONS:
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- Panama City
- Pensacola
- Rockledge
- Sarasota
- Tampa
- Tifton
- West Palm Beach

Client: Angelo's Materials

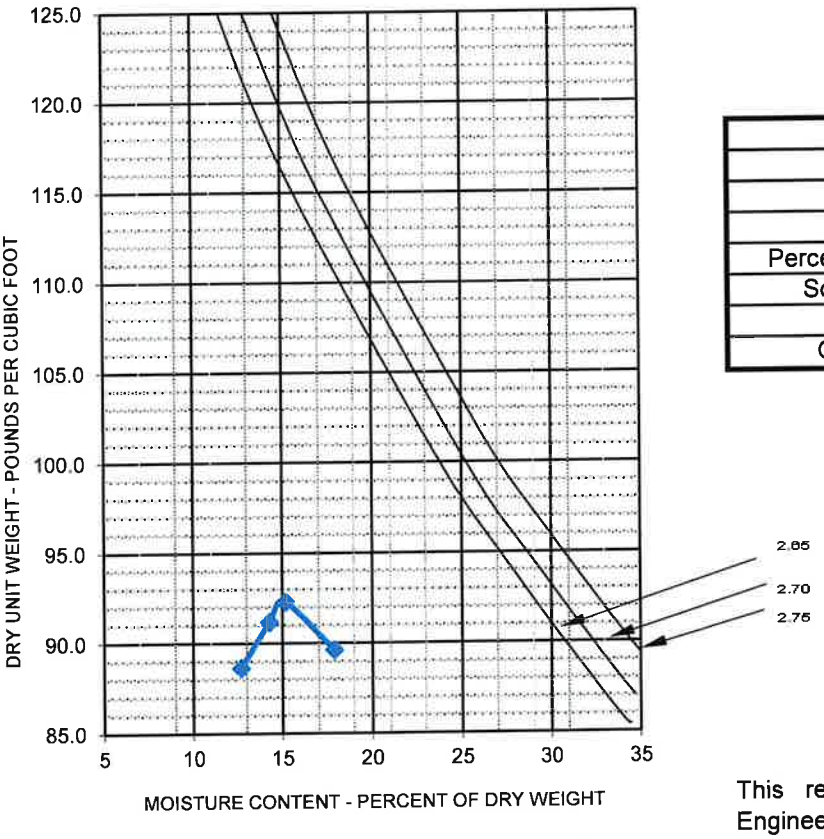
Project No.: 0810.1900213.0000
Report No.: SPR#1
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 9/19/2019
Date Tested: 10/15/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A1 3rd
Location: A-1 3rd Lift



Proctor	
Maximum Density (pcf)	**92.3**
Optimum Moisture (%)	**15.1**
Soil Classification	
Percent Passing 200 (ASTM D1140)	52.3
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Yellowish Brown Clayey Sand
Rammer Type: Manual

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an Expeditious manner. A signed / sealed cover page for all tests reports can be provided at the completion of the project and / or at the request of the client.

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Client: Enterprise

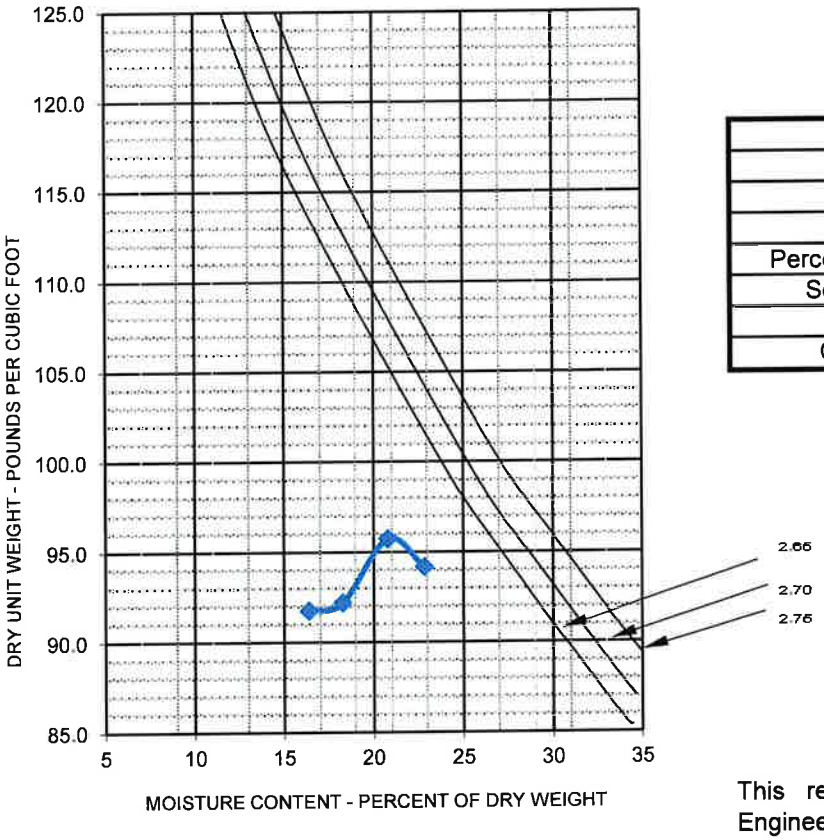
Project No.: 0810.1900213.0000
Report No.: SPR#2
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 9/19/2019
Date Tested: 10/15/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A2-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**95.7**
Optimum Moisture (%)	**20.8**
Soil Classification	
Percent Passing 200 (ASTM D1140)	44.5
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Yellowish Brown Clayey Sand
Rammer Type: Manual

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Client: Enterprise

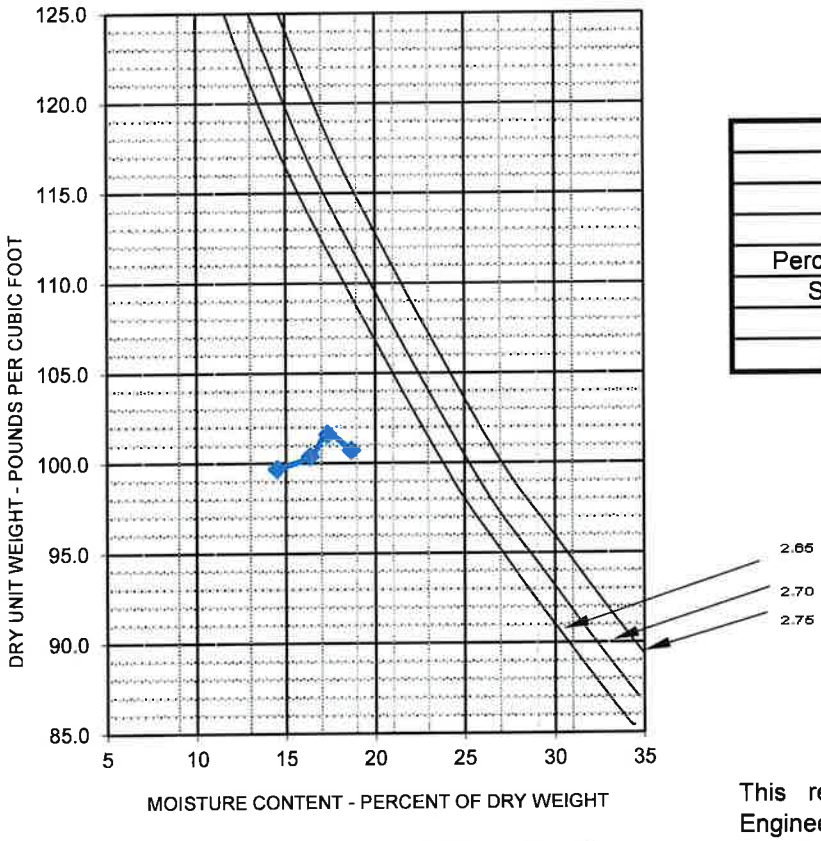
Project No.: 0810.1900213.0000
Report No.: SPR#3
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 9/19/2019
Date Tested: 10/15/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A3-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**101.6**
Optimum Moisture (%)	**17.4**
Soil Classification	
Percent Passing 200 (ASTM D1140)	39.2
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Brownish Yellow Clayey Sand
Rammer Type: Manual

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Client: Enterprise

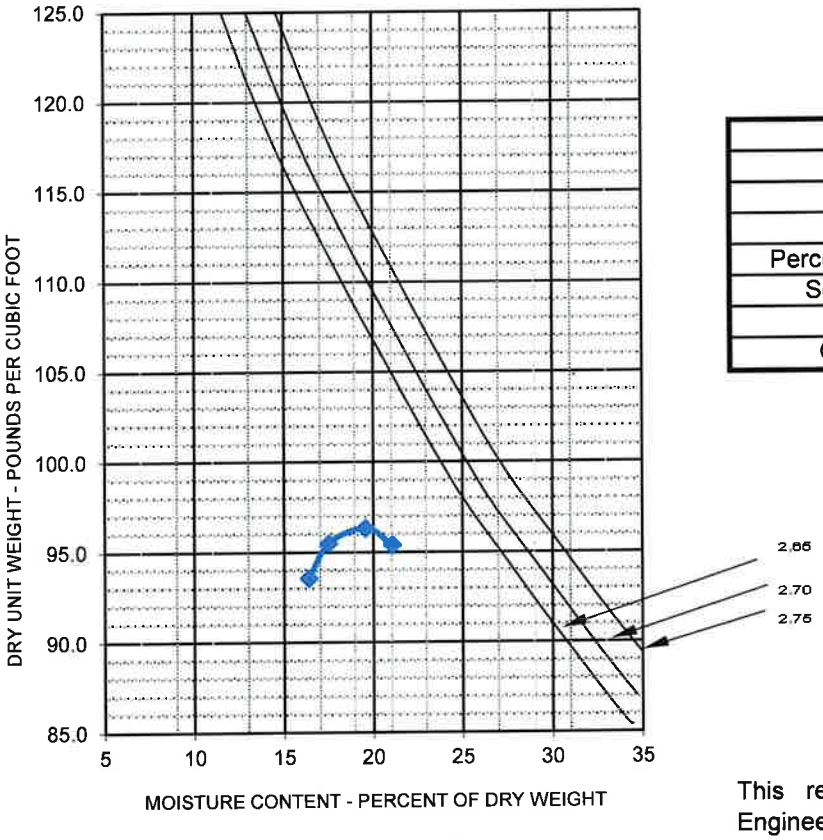
Project No.: 0810.1900213.0000
Report No.: SPR#4
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 9/19/2019
Date Tested: 10/16/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A4-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**96.4**
Optimum Moisture (%)	**19.8**
Soil Classification	
Percent Passing 200 (ASTM D1140)	48.3
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: **Brownish Yellow Clayey Sand**
Rammer Type: Manual

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Client: Enterprise

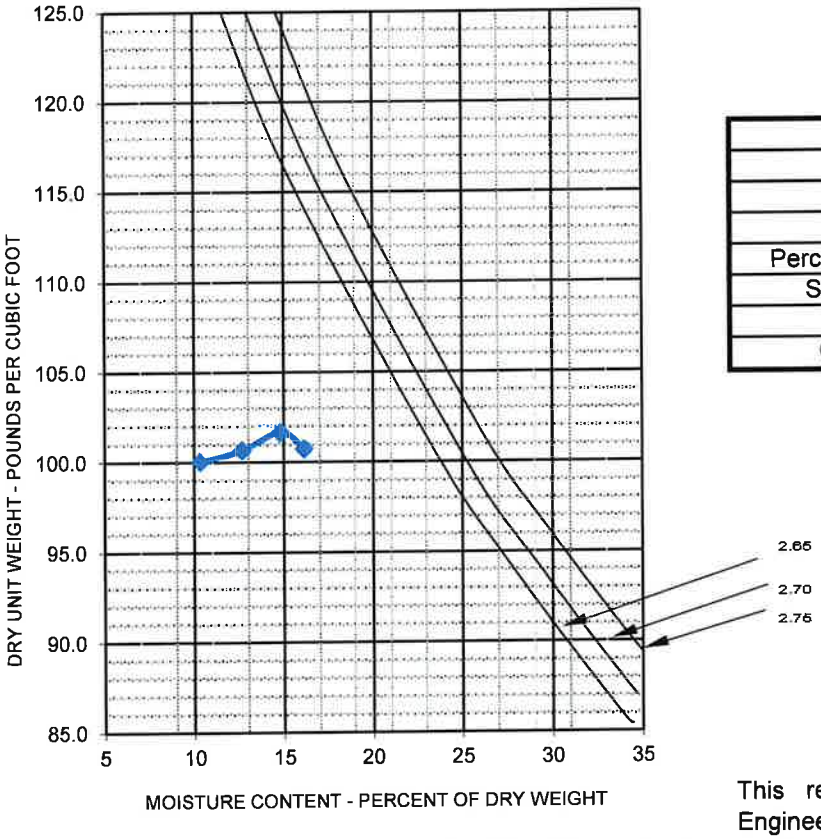
Project No.: 0810.1900213.0000
Report No.: SPR#5
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 9/19/2019
Date Tested: 10/16/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A5-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**101.7**
Optimum Moisture (%)	**14.8**
Soil Classification	
Percent Passing 200 (ASTM D1140)	47.9
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: **Light Reddish Brown Fine Clayey Sand**
Rammer Type: Manual

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Client: Enterprise

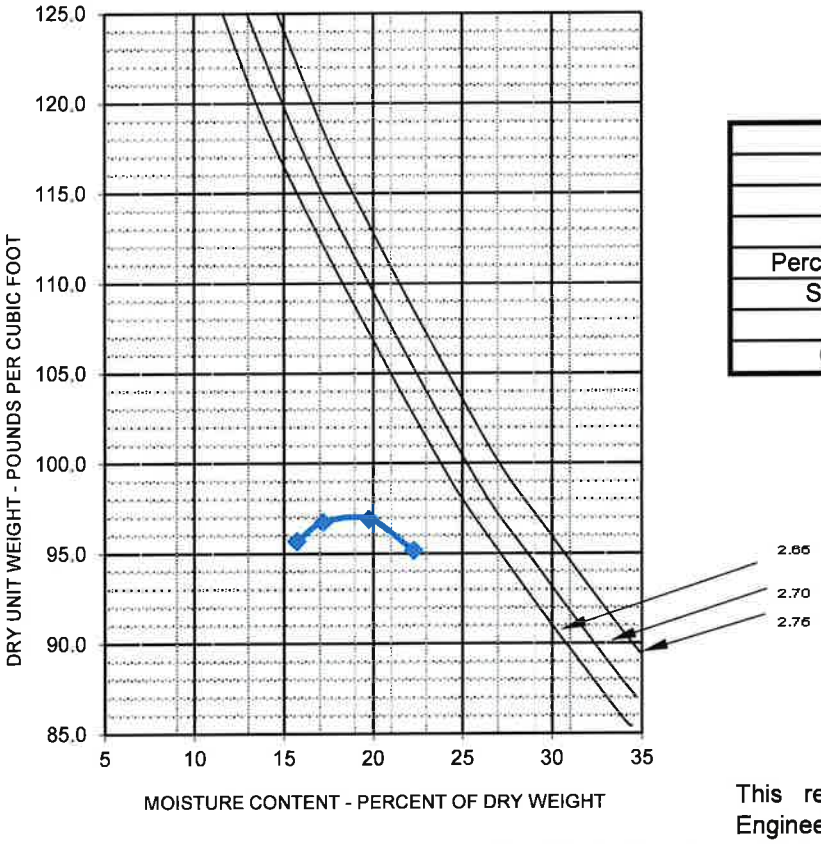
Project No.: 0810.1900213.0000
Report No.: SPR#6
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 9/19/2019
Date Tested: 10/16/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A6-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**96.9**
Optimum Moisture (%)	**19.8**
Soil Classification	
Percent Passing 200 (ASTM D1140)	47.8
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Light Reddish Brown Fine Clayey Sand
Rammer Type: Manual

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Client: Enterprise

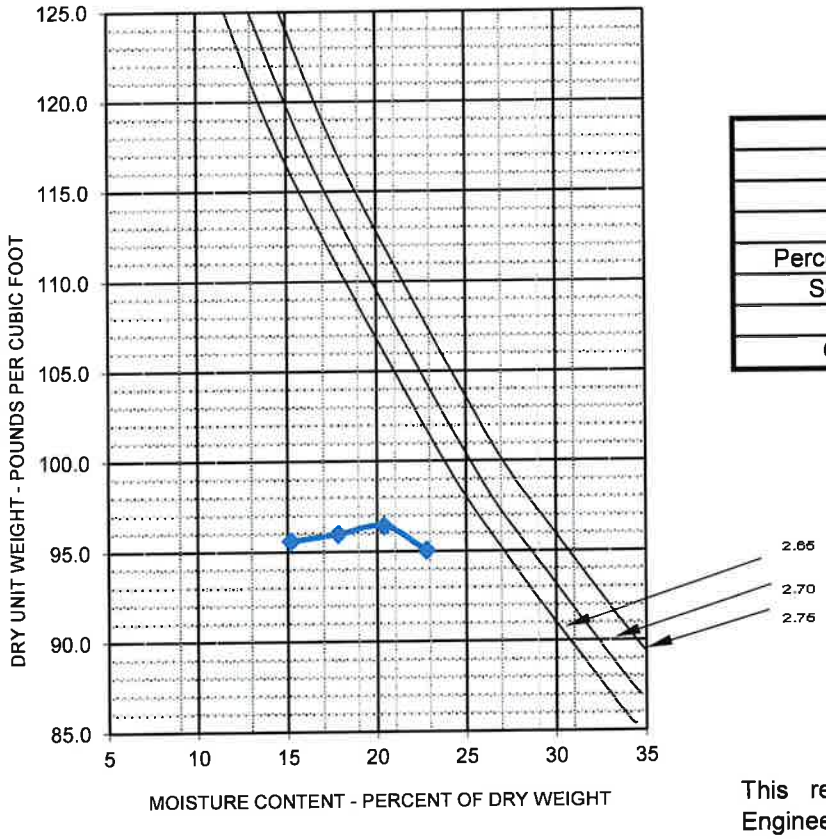
Project No.: 0810.1900213.0000
Report No.: SPR#7
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/16/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: A7-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**96.4**
Optimum Moisture (%)	**20.4**
Soil Classification	
Percent Passing 200 (ASTM D1140)	51.3
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Brownish Yellow Clayey Sand
Rammer Type: Manual

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Client: Enterprise

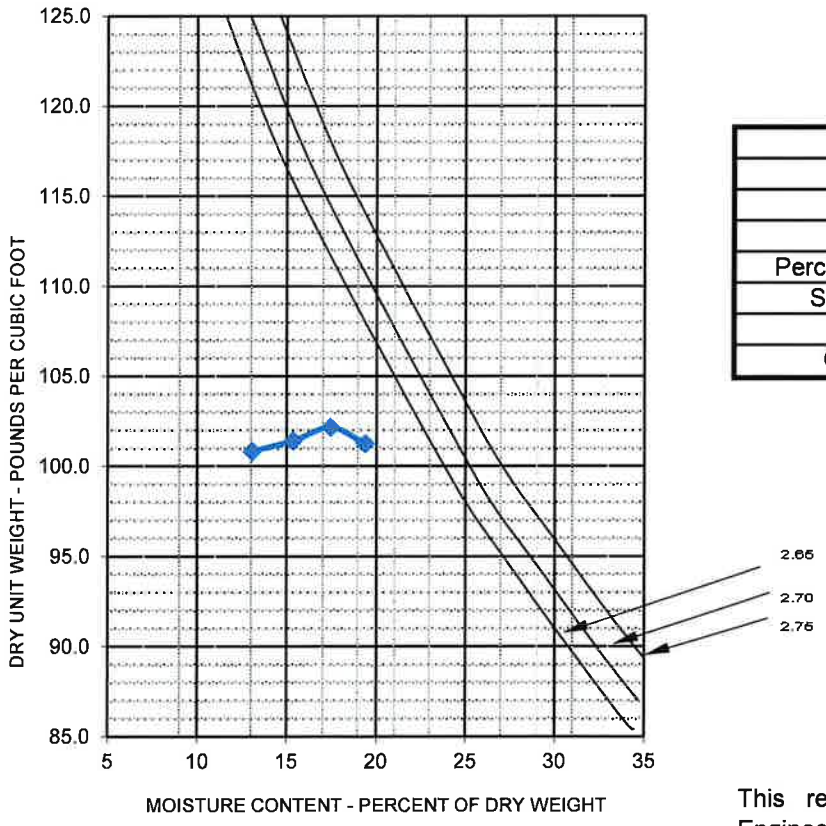
Project No.: 0810.1900213.0000
Report No.: SPR#8
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/16/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B1-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**102.2**
Optimum Moisture (%)	**17.4**
Soil Classification	
Percent Passing 200 (ASTM D1140)	42.5
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Brownish Yellow Clayey Sand
Rammer Type: Manual

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Client: Enterprise

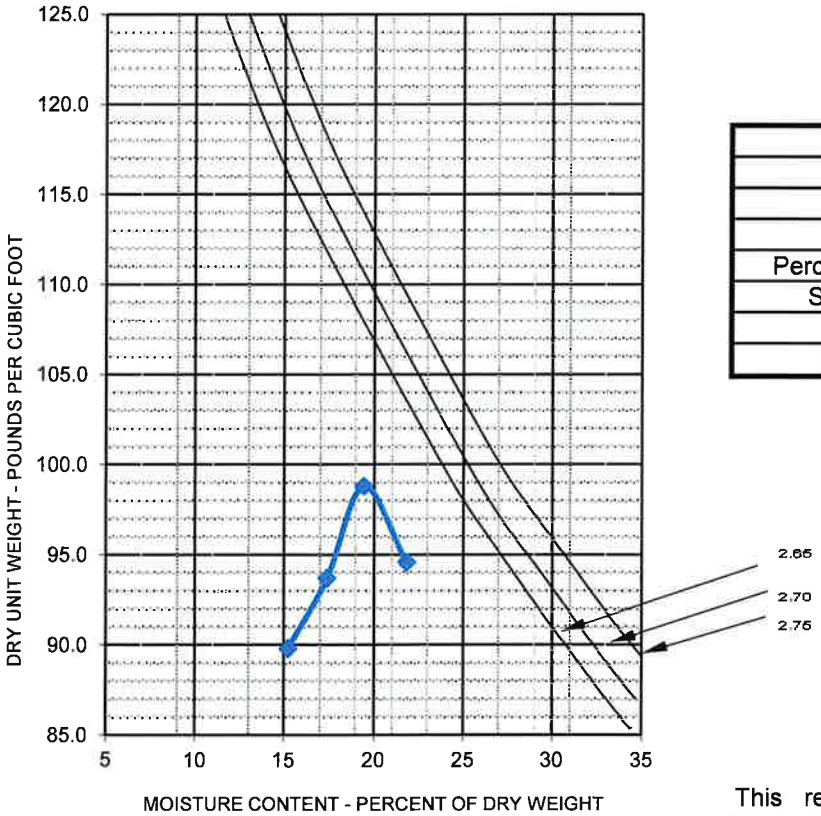
Project No.: 0810.1900213.0000
Report No.: SPR#9
Date: October 21, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/18/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B2-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**98.8**
Optimum Moisture (%)	**18.2**
Soil Classification	
Percent Passing 200 (ASTM D1140)	46.7
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Light Reddish Brown Fine Clayey Sand
Rammer Type: Manual

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Client: Enterprise

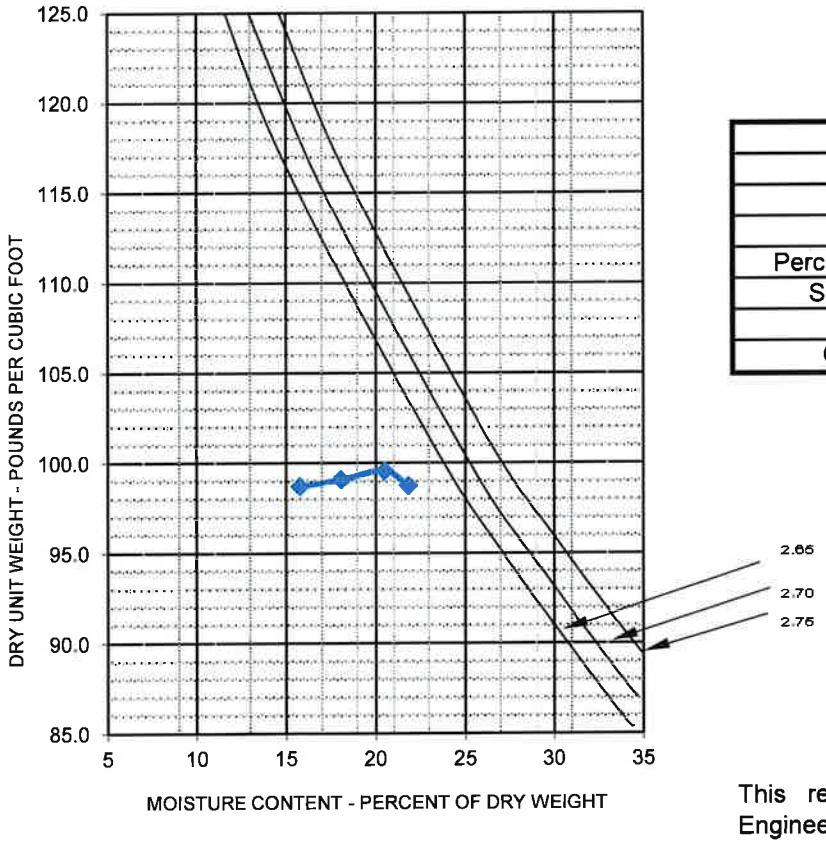
Project No.: 0810.1900213.0000
Report No.: SPR#10
Date: October 18, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/18/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B3-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**99.6**
Optimum Moisture (%)	**20.5**
Soil Classification	
Percent Passing 200 (ASTM D1140)	42.9
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Orange Sandy Clay
Rammer Type: Manual

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Client: Enterprise

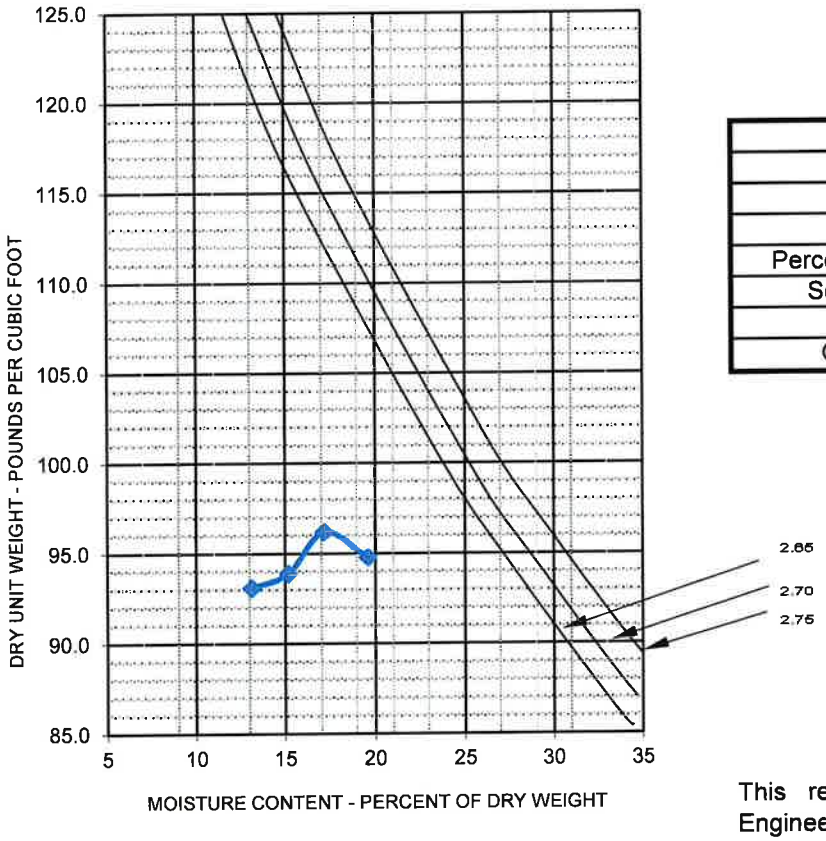
Project No.: 0810.1900213.0000
Report No.: SPR#11
Date: October 21, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/19/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B4-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**96.2**
Optimum Moisture (%)	**18.6**
Soil Classification	
Percent Passing 200 (ASTM D1140)	43.7
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Orange Sandy Clay
Rammer Type: Manual

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Client: Enterprise

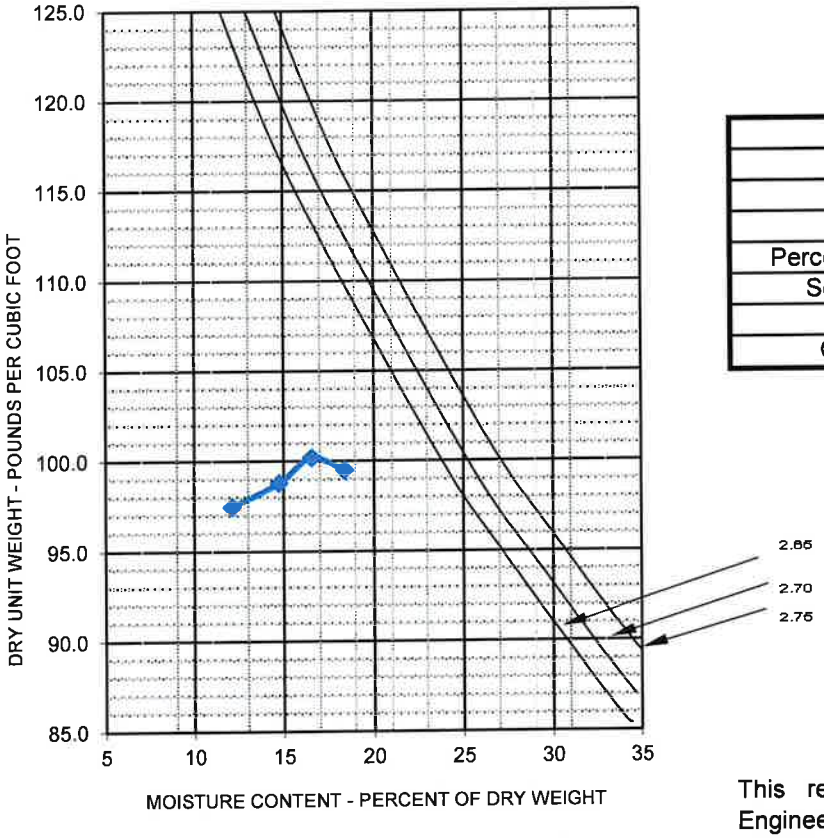
Project No.: 0810.1900213.0000
Report No.: SPR#12
Date: October 21, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 11/15/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B5-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	100.2
Optimum Moisture (%)	17.9
Soil Classification	
Percent Passing 200 (ASTM D1140)	48.8
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Light Reddish Brown Fine Clayey Sand
Rammer Type: Manual

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Client: Enterprise

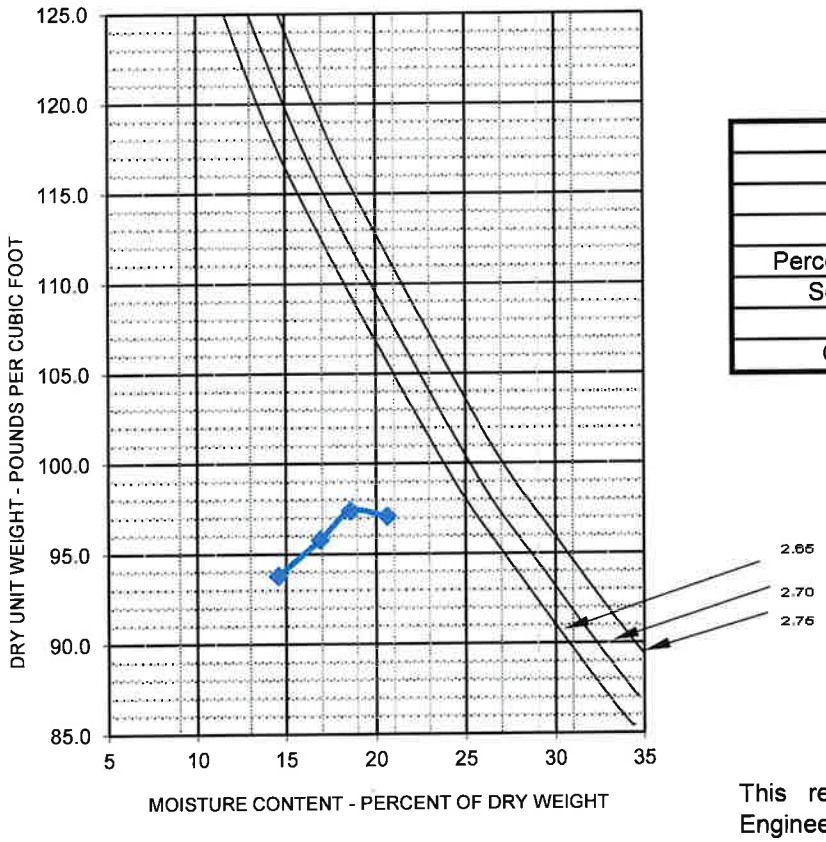
Project No.: 0810.1900213.0000
Report No.: SPR#13
Date: October 21, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/19/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B6-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**97.4**
Optimum Moisture (%)	**18.6**
Soil Classification	
Percent Passing 200 (ASTM D1140)	39.7
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Ornge Clayey Sand
Rammer Type: Manual

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Client: Enterprise

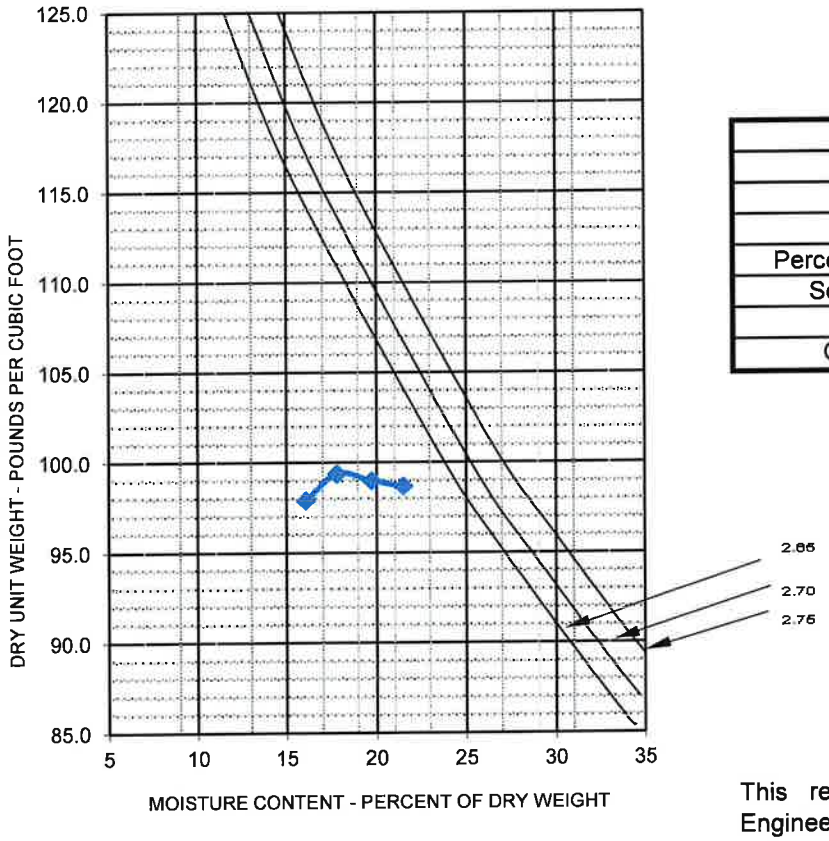
Project No.: 0810.1900213.0000
Report No.: SPR#14
Date: October 21, 2019

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/19/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: B7-3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**99.4**
Optimum Moisture (%)	**18.2**
Soil Classification	
Percent Passing 200 (ASTM D1140)	44.6
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Light Reddish Brn Fine Clayey Sand
Rammer Type: Manual

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▪Sarasota
▪Tampa
▪Tifton
▪West Palm Beach

Client: Enterprise

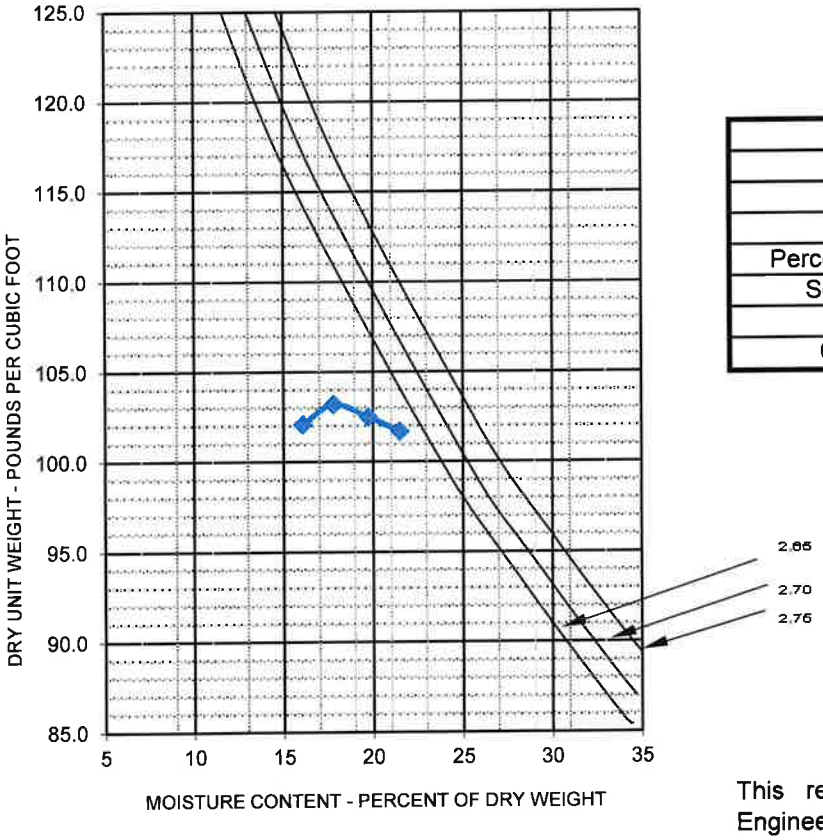
Project No.: 0810.1500214.0000
Report No.: SPR#15
Date: March 2, 2020

Project: Cell 17

STANDARD PROCTOR REPORT
ASTM 698 METHOD A

Date Sampled: 7/19/2019
Date Tested: 10/19/2019
Workorder No.: N/A

Sampled By: M. Arroyo
Sample No.: Berm S3
Location: Cell 17



Proctor	
Maximum Density (pcf)	**103.2**
Optimum Moisture (%)	**16.4**
Soil Classification	
Percent Passing 200 (ASTM D1140)	44.6
Soil Classification (ASTM D2487)	N/A
Plasticity Index (ASTM D4318)	N/A
Organic Content (ASTM D2974)	N/A

Soil Description: Light Reddish Brn Fine Clayey Sand
Rammer Type: Manual

This report has been reviewed by the UES Engineer of Record. The intent of this report is to provide testing information in an Expeditious manner. A signed / sealed cover page for all tests reports can be provided at the completion of the project and / or at the request of the client.

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▪Panama City
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▪Rockledge
▪Sarasota
▪Tampa
▪Tifton

Client: Angelo's Materials's

Project: Enterprise Class 3 Cell 17

REPORT ON TRIAXIAL PERMEABILITY AND PERCENT PASSING NO. 200 SIEVE (ASTM D-5084 and ASTM C-117) (AASHTO T-11)

Date Tested: 7/23/19-2/24/20 Tested By: Various

Date Sampled: 7/19/2019-2/06/2020 Sampled By: MA

Sample Location	Percent Passing No. 200 Sieve	Proctor Value		Permeability:
		Optimum Moisture	Dry Unit Weight (pcf)	K (cm/s)
Section A-1 L1	54.5	14.5	91.5	1.08×10^{-8}
Section A-1 L2	39.5	18.9	101.7	6.65×10^{-9}
Section A-1 L3	52.3	15.1	92.3	3.92×10^{-9}
Section A-2 L1	45.4	20.7	95.0	2.18×10^{-9}
Section A-2 L2	41.7	18.9	106.4	1.03×10^{-8}
Section A-2 L3	44.5	20.8	95.7	4.61×10^{-9}
Section A-3 L1	55.6	22.7	97.9	2.88×10^{-9}
Section A-3 L2	40.8	17.6	100.8	1.13×10^{-8}
Section A-3 L 3	39.2	17.4	101.6	1.09×10^{-9}
Section A-4 L1	55.7	21.3	97.2	2.73×10^{-9}
Section A-4 L2	47.7	19.2	96.6	3.06×10^{-9}
Section A-4 L3	48.3	19.8	96.4	1.48×10^{-9}
Section A-5 L1	56.6	21.6	92.3	1.06×10^{-8}
Section A-5 L2	49.6	14.8	101.9	1.36×10^{-8}
Section A-5 L3	47.9	14.4	101.7	2.41×10^{-9}
Section A-6 L1	60.9	17.9	90.9	1.22×10^{-9}
Section A-6 L2	49.0	19.6	96.3	1.04×10^{-8}
Section A-6 L3	47.8	19.8	96.9	2.22×10^{-9}

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Client: Angelo's Materials's

Project: Enterprise Class 3 Cell 17

REPORT ON TRIAXIAL PERMEABILITY AND PERCENT PASSING NO. 200 SIEVE (ASTM D-5084 and ASTM C-117) (AASHTO T-11)

Date Tested: 7/23/19-2/24/20 Tested By: Various

Date Sampled: 7/19/2019-2/06/2020 Sampled By: MA

Sample Location	Percent Passing No. 200 Sieve	Proctor Value		Permeability:
		Optimum Moisture	Dry Unit Weight (pcf)	K (cm/s)
Section A-7 L1	55.0	16.7	92.7	1.04×10^{-8}
Section A-7 L2	51.8	20.3	96.1	9.95×10^{-9}
Section A-7 L3	51.3	20.4	96.4	3.57×10^{-9}
Section B-1 L1	46.1	22.9	95.2	5.45×10^{-9}
Section B-1 L2	43.1	17.3	101.5	1.17×10^{-8}
Section B-1 L3	42.5	17.4	102.2	2.13×10^{-9}
Section B-2 L1	43.9	19.5	102.0	4.68×10^{-9}
Section B-2 L2	45.5	19.8	94.2	9.04×10^{-9}
Section B-2 L 3	46.7	17.4	98.8	4.73×10^{-9}
Section B-3 L1	59.3	17.1	91.6	2.13×10^{-9}
Section B-3 L2	43.2	20.2	99.9	6.35×10^{-9}
Section B-3 L3	42.9	20.5	99.6	2.09×10^{-9}
Section B-4 L1	57.4	16.0	96.1	6.27×10^{-9}
Section B-4 L2	37.1	17.3	105.1	5.34×10^{-9}
Section B-4 L3	43.7	18.6	96.3	4.95×10^{-9}
Section B-5 L1	54.7	16.1	93.9	5.01×10^{-9}
Section B-5 L2	39.4	16.8	106.4	2.94×10^{-9}
Section B-5 L3	48.8	17.9	100.2	2.25×10^{-9}

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▪Rockledge
▪Sarasota
▪Tampa
▪Tifton

Client: Angelo's Materials's

Project: Enterprise Class 3 Cell 17

REPORT ON TRIAXIAL PERMEABILITY AND PERCENT PASSING NO. 200 SIEVE (ASTM D-5084 and ASTM C-117) (AASHTO T-11)

Date Tested: 7/23/19-2/24/20 Tested By: Various

Date Sampled: 7/19/2019-2/06/2020 Sampled By: MA

Sample Location	Percent Passing No. 200 Sieve	Proctor Value		Permeability:
		Optimum Moisture	Dry Unit Weight (pcf)	K (cm/s)
Section B-6 L1	51.8	23.7	94.5	1.22×10^{-8}
Section B-6 L2	39.2	18.8	104.9	5.84×10^{-9}
Section B-6 L3	39.7	18.5	97.4	2.72×10^{-9}
Section B-7 L1	52.4	21.6	95.6	3.81×10^{-9}
Section B-7 L2	43.3	19.6	103	3.28×10^{-9}
Section B-7 L3	44.6	18.2	99.4	1.82×10^{-9}
Section BERM S1	40.7	16.2	104.3	2.01×10^{-9}
Section BERM S2	39.3	13.1	111.1	4.26×10^{-9}
Section BERM S3	44.2	16.4	103.2	3.21×10^{-9}

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Building Code Administration, Compliance Inspection & Plan Review
9802 Palm River Road, Tampa, FL 33619 - P: 813.740.8506 - F: 813.740.8706

UES Project No: 0810.1900213.0000
Workorder No: 101893-1
Report Date: 01/10/2020

In-Place Density Test Report

Client: Angelo's Materials
41111 Enterprise Road
Dade City, FL 33525

Project: Enterprise Class III Landfill Cell 17
,, Pasco County,

UES Technician: Mario Arroyo
Date Tested: 07/12/2019

Area Tested: 1st lift
Material: Fill
Reference Datum: 0 = Top of Fill

Type of Test:
Field: ASTM D-6938 Nuclear Gauge Method
Laboratory: ASTM D698 Standard Proctor

The tests below meet the 95% minimum compaction requirement.

Test No.	Location of Test	Range	Maximum Density (pcf)	Optimum Moisture (%)	Field Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)	Pass or Fail
1	A-1	1 ft	91.5	14.5	92.3	16.8	101	Pass
2	A-2	1 ft	95.0	20.7	96.8	17.2	102	Pass
3	A-3	1 ft	97.9	22.7	96.2	15.3	98	Pass
4	A-4	1 ft	97.2	21.3	98.4	19.3	101	Pass
5	A-5	1 ft	92.3	21.6	93.9	18.0	102	Pass
6	A-6	1 ft	90.9	17.9	91.5	16.8	101	Pass
7	A-7	1 ft	92.7	16.7	94.1	15.9	102	Pass
8	B-1	1 ft	95.2	22.9	94.3	18.4	99	Pass
9	B-2	1 ft	102.2	17.4	99.4	18.3	97	Pass
10	B-3	1 ft	91.6	17.1	93.4	16.5	102	Pass
11	B-4	1 ft	96.1	16.0	95.2	17.2	99	Pass
12	B-5	1 ft	93.9	16.1	95.8	15.4	102	Pass
13	B-6	ft	94.5	23.7	94.1	18.9	100	Pass
14	B-7	1 ft	95.6	21.6	94.1	17.5	98	Pass

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9802 Palm River Road, Tampa, FL 33619 - P: 813.740.8506 - F: 813.740.8706

UES Project No: 0810.1900213.0000
Workorder No: 103427-1
Report Date: 02/04/2020

In-Place Density Test Report

Client: Angelo's Materials
41111Enterprise Road
Dade City, FL 33525

Project: Enterprise Class III Landfill Cell 17
,, Pasco County,

UES Technician: Mario Arroyo
Date Tested: 08/02/2019

Area Tested: Second lift
Material: Fill
Reference Datum: 0 = Top of Fill

Type of Test:
Field: ASTM D-6938 Nuclear Gauge Method
Laboratory: ASTM D698 Standard Proctor

The tests below meet the 95% minimum compaction requirement.

Test No.	Location of Test	Range	Maximum Density (pcf)	Optimum Moisture (%)	Field Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)	Pass or Fail
1	A-1	1 ft	96.1	20.3	96.4	18.7	100	Pass
2	A-2	1 ft	106.4	18.9	103.8	17.4	98	Pass
3	A-3	ft	100.8	17.6	101.5	17.4	101	Pass
4	A-4	1 ft	96.6	19.2	97.5	17.0	101	Pass
5	A-5	1 ft	101.9	14.8	99.4	15.7	98	Pass
6	A-6	1 ft	96.3	19.6	98.2	18.5	102	Pass
7	A-7	1 ft	96.1	16.7	96.6	15.8	101	Pass
8	B-1	1 ft	101.5	17.3	99.7	15.4	98	Pass
9	B-2	1 ft	94.2	19.8	96.3	16.6	102	Pass
10	B-3	1 ft	99.9	20.2	98.7	16.9	99	Pass
11	B-4	1 ft	105.1	17.3	101.7	18.2	97	Pass
12	B-5	1 ft	106.4	16.8	102.7	17.1	97	Pass
13	B-6	1 ft	104.9	18.8	101.7	17.9	97	Pass
14	B-7	1 ft	103.0	19.6	100.9	17.0	98	Pass
15	Berm S1	1 ft	104.3	16.2	103.2	14.6	99	Pass
16	Berm S2	1 ft	111.1	13.1	106.3	14.5	96	Pass

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UES Project No: 0810.1900213.0000
Workorder No: 119034-1
Report Date: 02/18/2020

In-Place Density Test Report

Client: Angelo's Materials
41111Enterprise Road
Dade City, FL 33525

Project: Enterprise Class III Landfill Cell 17
,, Pasco County,

UES Technician: Mario Arroyo
Date Tested: 09/19/2019

Area Tested: Lift 3
Material: Fill
Reference Datum: 0 = Top of Fill

Type of Test:
Field: ASTM D-6938 Nuclear Gauge Method
Laboratory: ASTM D698 Standard Proctor

The tests below meet the 95% minimum compaction requirement.

Test No.	Location of Test	Range	Maximum Density (pcf)	Optimum Moisture (%)	Field Dry Density (pcf)	Field Moisture (%)	Soil Compaction (%)	Pass or Fail
1	A-1	1 ft	92.3	15.1	96.4	18.2	104	Pass
2	A-2	1 ft	95.7	20.8	96.5	19.4	101	Pass
3	A-3	1 ft	101.6	17.4	100.8	16.9	99	Pass
4	A-4	1 ft	96.4	19.8	98.2	17.4	102	Pass
5	A-5	1 ft	101.7	14.4	98.3	15.9	97	Pass
6	A-6	1 ft	96.9	19.8	99.3	17.0	102	Pass
7	A-7	1 ft	96.4	20.4	97.5	18.1	101	Pass
8	B-1	1 ft	102.2	17.4	100.9	17.7	99	Pass
9	B-2	1 ft	98.8	17.0	100.4	18.5	102	Pass
10	B-3	1 ft	99.6	20.5	101.5	18.1	102	Pass
11	B-4	1 ft	96.3	18.6	97.0	17.2	101	Pass
12	B-5	1 ft	93.9	16.1	95.7	17.5	102	Pass
13	B-6	1 ft	97.4	18.5	99.4	16.1	102	Pass
14	B-7	1 ft	99.4	18.2	98.3	16.5	99	Pass
15	Berm S3	1 ft	104.3	16.2	103.2	14.6	99	Pass