February 11, 1993

LAW ENGINEERING

GEOTECHNICAL, ENVIRONMENTAL
& CONSTRUCTION MATERIALS
CONSULTANTS

Ms. Mary Nogas
State of Florida
Department of Environmental Regulations
7825 Baymeadows Way - Suite B-200
Jacksonville, Florida 32256-7577

Submitted through: Mr. Doug Miller
England Thims & Miller, Inc.
3131 St. Johns Bluff Road
Jacksonville, Florida 32216

Subject: **Report of Soils Quality Assurance Testing**
Phase I-C and Phase II
Trailridge Landfill
Jacksonville, Florida
LAW Project No. 446-01631-01

Dear Ms. Nogas:

Law Engineering, Inc. (LAW) has observed and/or performed a series of soils quality assurance tests for the subject project in general accordance with our contract with Waste Management, Inc. as soils quality assurance consultant.

The purpose of this report is to provide you with the soils quality assurance testing results for Phase I-C and Phase II.

The attached soils quality assurance test results indicate that the landfill subgrade, sand cover, anchor trench, clay liner and leachate collection trench aggregate components were constructed substantially in accordance with the Soils Quality Assurance Consultant Construction Materials Testing Program requirements. This program was previously submitted to FDER as part of the overall liner quality assurance program.

The attachments are organized as follows:

- Subgrade
- Clay Liner
- Protective Sand Cover (A-3 Sand)
- Leachate Trench Aggregate
- Anchor Trench
- Record of Daily Observations

The Attachments page which follows, notes the individual testing sections within these landfill components.

POST OFFICE BOX 5728
3901 CARMICHAEL AVENUE
JACKSONVILLE, FL 32207
904-396-5173

To accomplish the Soils Quality Assurance Consultant Construction Materials Testing Program, Law Engineering had a senior engineering technician at the project site during the construction of the landfill components listed above. Our full-time technician was under the direct supervision of a professional engineer in our office. The daily field observation reports of our technician are submitted as part of this report.

In reviewing the following sections of this report, we note the following for your ease of following the documentation.

Subgrade

The density test numbers refer to the sequence in which they were obtained. The standard of 96 percent of the Modified Proctor maximum dry density was used to conform to City standards for general construction, the standard was raised to 98 percent -2 percent. The modification to 96 percent was a practical recognition of the 98 -2 percent actual minimum.

In reviewing the test results we noted three test locations at which failing tests occurred and the retests are not readily apparent. These tests and our clarifications are as follows:

> Test 483, 590 and 671 - Test areas were recompacted and then proofrolled prior to liner placement, but no density documentation was obtained.

We have reviewed the testing frequency, and in our opinion the attached test reports reflect the frequency required by the testing program.

Clay Liner

Samples for permeability testing were obtained by our technician by using thin wall sampling tubes. The liner thickness was verified at that time. The sample tubes were then returned to our office where the soil permeability was obtained in accordance with ASTM D 5084. Permeability test No. 241, taken at Station Nos. 91+05N and 102+80E initially failed to meet specifications. This area was then recompacted similar to other areas that did not initially meet permeability specifications. Test No. 241 was not retested, however, due to a sample not being obtained prior to the other liner components being placed.

Protective Sand Cover

The borrow area was initially prequalified by conducting permeability testing on sand samples obtained by our technician from test pits. These samples were obtained on a frequency at least equal to that specified by the testing program. In cases of strata changes, the frequency of samples was increased. The sand permeability was then obtained in accordance with ASTM D 2434. When the sand material was excavated for site usage, our technician was on site full time to verify the material was being excavated from areas that were prequalified. Zones or strata that appeared visually different from that tested were sampled and permeability testing (ASTM D2434) accomplished on site for verification prior to using material from these areas. The material from Test Pit No. 297 was unsuitable for protective sand cover from -1 inch to -48 inches. This area was flagged in the field and not excavated. Since this material was off site, a chain of custody sequence was created by our technician signing the truck ticket at the borrow area and the Waste Management, Inc. representative signing the truck ticket at the landfill site. In reviewing the test results we note two test pits, sequence numbers missing. This was due to an error in numbering by our field technician. Test pit numbers 295 and 296 were not used. We have reviewed the testing frequency required and in our opinion the attached test reports exceed the frequency required by the testing program.

Leachate Trench Aggregate

The aggregate was sampled on site by our technician. The aggregate particle size distribution was then verified by ASTM D 448 methods.

Anchor Trench

Anchor trench clay permeability samples were obtained by our technician at the required frequency. The samples were returned to our laboratory when the soil permeability was obtained in accordance with ASTM D 5084.

Record of Daily Observations

Full-time personnel verified and tested material placed for the earthwork (subgrade) portion of the subject project and recorded daily observations.

In our professional opinion, the landfill components noted above in Phase IC and Phase II met the requirements outlined in the Soils Quality Assurance Consultant Construction Materials Testing Program.

If you have any questions, please contact us.

Sincerely,

LAW ENGINEERING, INC.

James J. Gallup
Senior Engineering Technician

James A. Horton, P.E.
Principal Geotechnical Engineer
Registered, Florida, 23315

JJG/JAH:kw

ATTACHMENTS

SUBGRADE

Subgrade Conformance
Field Density Tests
Laboratory Compaction and Grain Size Tests

CLAY LINER

Laboratory Permeability and Field Thickness Tests
Laboratory Compaction Tests and Grain Size Tests

PROTECTIVE SAND COVER (A-3 SAND)

Laboratory Permeability Tests and Daily Observation Reports
Laboratory Compaction and Grain Size Tests

LEACHATE TRENCH AGGREGATE

Aggregate Particle Distribution

ANCHOR TRENCH

Laboratory Permeability Tests

DAILY OBSERVATION REPORTS

May 13, 1982 through December 2, 1992

SUBGRADE

January 12, 1993

LAW ENGINEERING

GEOTECHNICAL, ENVIRONMENTAL
& CONSTRUCTION MATERIALS
CONSULTANTS

Ms. Mary Nogas
State of Florida
Department of Environmental Regulations
7825 Baymeadows Way - Suite B-200
Jacksonville, Florida 32256-7577

Submitted through: Mr. Doug Miller
England Thims & Miller, Inc.
3131 St. Johns Bluff Road
Jacksonville, Florida 32216

Subject: **Trailridge Landfill Subgrade**
Phase I-C and Phase II
Jacksonville, Florida
LAW Project No. 446-01631-01

Dear Ms. Nogas:

In accordance with our responsibilities as the soils quality assurance consultant on the subject project, we are pleased to furnish the attached test results for the earthwork (subgrade) portion of Phase I-C and Phase II. The attached compaction reports verify that the specified level of compaction was achieved. The field density tests are referenced by station and range. The station numbers are west to east and the range numbers are south to north. For reference, a reduced copy of the station and range plan prepared by England, Thims and Miller, Inc. is included in the Attachments. The depth of testing is 12 inches for each lift.

Our full-time personnel verified that the fill material placed did not contain any sharp objects and that particle size of the fill were less than 1/4 inch at the surface and less than 3/4 inch throughout the remaining depth. Prior to the initiation of the earthwork operations, all vegetation was removed. Based on our observations, the fill material did not contain any visible vegetation.

Should you have any questions or need any additional information, please contact us.

Sincerely,

LAW ENGINEERING, INC.

James J. Gallup
Senior Engineering Technician

James A. Horton, P.E.
Principal Geotechnical Engineer
Registered, Florida 23315

JJG/JAH:kw

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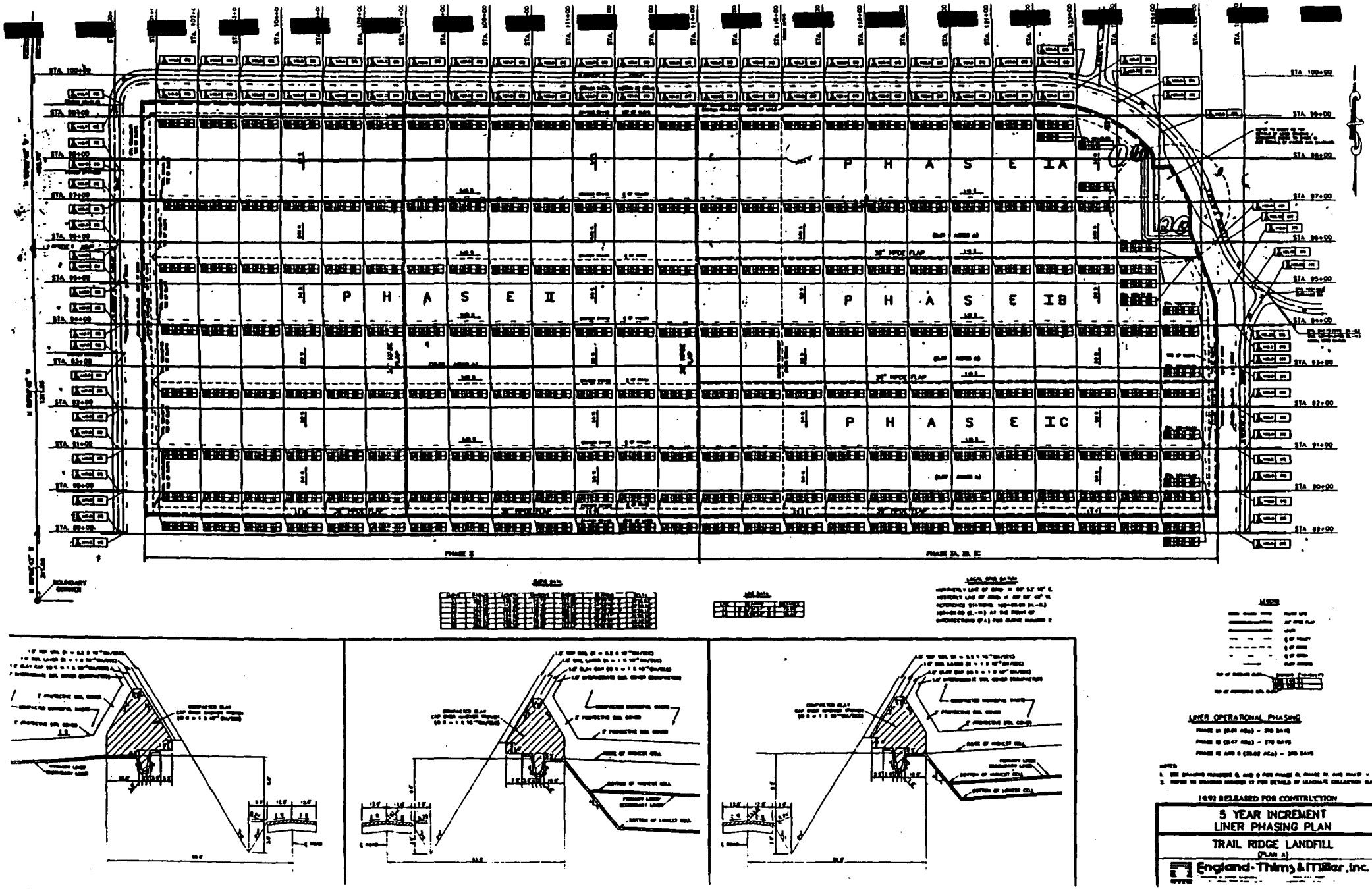
PHASE II
PHASE IA
PHASE IB
PHASE IC
PHASE II
PHASE IA, IB, IC
BOUNDARY CORNER
LINER OPERATIONAL PHASING
1992 RELEASED FOR CONSTRUCTION
5 YEAR INCREMENT
LINER PHASING PLAN
TRAIL RIDGE LANDFILL
(PLAN A)
England-Thims & Miller, Inc.

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/02/92							
430	8.7	109.2	#5	97	96	3	Grade
431	9.4	107.8	#5	96	96	3	-1'
432	8.6	108.3	#5	96	96	3	Grade
433	11.2 <	105.0	3	98	96	3	-1'
434	12.2	106.8	3	99	96	3	Grade
435	12.4	104.4	3	97	96	3	-1'
436	10.2	108.7	#5	96	96	3	Grade
437	13.3	103.0	3	96	96	3	-1'
438	10.2	111.5	#5	99	96	3	Grade
439	9.9	110.5	#5	98	96	3	-1'
440	12.5	109.6	#5	97	96	3	Grade

TEST LOCATIONS:

430	Phase 1-C Sta. 114+00 at 91+90
431	Phase 1-C Sta. 114+00 at 91+90
432	Phase 1-C Sta. 115+00 at 91+90
433	Phase 1-C Sta. 115+00 at 91+90
434	Phase 1-C Sta. 116+00 at 91+90
435	Phase 1-C Sta. 116+00 at 91+90
436	Phase 1-C Sta. 117+00 at 91+90
437	Phase 1-C Sta. 117+00 at 91+90
438	Phase 1-C Sta. 118+00 at 91+90
439	Phase 1-C Sta. 118+00 at 91+90
440	Phase 1-C Sta. 119+00 at 91+90

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities		
#5	112.7	10.5
3	107.5	13.6

REMARKS Performed In General Accordance With:
3 - ASTM D2922

< Denotes More Than ±2 Percent Optimum Moisture

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/02/92							
441	9.0	111.4	# 5	99	96	3	-1'
442	10.0	111.8	# 5	99	96	3	Grade
443	10.9	109.2	# 5	97	96	3	-1'
444	11.2	111.1	# 5	99	96	3	Grade
445	12.7	109.3	# 5	97	96	3	-1'
446	11.3	110.4	# 5	98	96	3	Grade
447	10.0	110.2	# 5	98	96	3	-1'
448	11.4	111.3	# 5	99	96	3	Grade
449	10.1	111.1	# 5	99	96	3	-1'
450	11.3	111.1	# 5	99	96	3	-2'
451	10.9	108.1	# 5	96	96	3	Grade

TEST LOCATIONS:

441	Phase 1-C Sta. 119+00 at 91+90
442	Phase 1-C Sta. 120+00 at 91+95
443	Phase 1-C Sta. 120+00 at 91+95
444	Phase 1-C Sta. 121+00 at 91+95
445	Phase 1-C Sta. 121+00 at 91+95
446	Phase 1-C Sta. 122+00 at 91+95
447	Phase 1-C Sta. 122+00 at 91+95
448	Phase 1-C Sta. 123+00 at 91+95
449	Phase 1-C Sta. 123+00 at 91+95
450	Phase 1-C Sta. 123+00 at 91+95
451	Phase 1-C Sta. 124+00 at 91+95

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities # 5	112.7	10.5

REMARKS Performed In General Accordance With:
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RESPECTFULLY SUBMITTED:

Bryant B. Wildes

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/02/92							
452	9.3	110.2	#5	98	96	3	-1'
453	11.0	110.3	#5	98	96	3	-2'
454	10.1	111.9	#5	99	96	3	Grade
455	9.9	110.5	#5	98	96	3	-1'
456	10.9	109.8	#5	97	96	3	-2'
457	12.1	109.1	#5	97	96	3	Grade
458	11.1	112.3	#5	100	96	3	-1'
459	12.0	109.9	#5	98	96	3	-2'
460	8.9	108.9	#5	97	96	3	Grade
461	9.1 <	103.1	3	96	96	3	-1'
462	10.1	109.4	#5	97	96	3	Grade

TEST LOCATIONS:

452	Phase 1-C Sta. 124+00 at 91+95
453	Phase 1-C Sta. 124+00 at 91+95
454	Phase 1-C Sta. 125+00 at 91+95
455	Phase 1-C Sta. 125+00 at 91+95
456	Phase 1-C Sta. 125+00 at 91+95
457	Phase 1-C Sta. 126+00 at 91+95
458	Phase 1-C Sta. 126+00 at 91+95
459	Phase 1-C Sta. 126+00 at 91+95
460	Phase 1-C Sta. 114+00 at 89+65
461	Phase 1-C Sta. 114+00 at 89+65
462	Phase 1-C Sta. 115+00 at 89+70

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities		
#5	112.7	10.5
3	107.5	13.6

REMARKS Performed In General Accordance With:
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< Denote More Than ±2 Percent Optimum Moisture

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JOB NO: 446-01631-01

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Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/02/92							
463	12.2	110.5	# 5	98	96	3	Grade
464	10.8	110.4	# 5	98	96	3	-1'
465	12.5	112.1	# 5	99	96	3	Grade
466	10.2	109.6	# 5	97	96	3	-1'
467	10.5	111.3	# 5	99	96	3	Grade
468	10.9	109.3	# 5	97	96	3	-1'
469	10.9	109.6	# 5	97	96	3	Grade
470	9.8	108.3	# 5	96	96	3	-1'
471	10.6	110.8	# 5	98	96	3	Grade
472	9.8	111.2	# 5	99	96	3	-1'
473	11.6	110.5	# 5	98	96	3	Grade

TEST LOCATIONS:

463	Phase 1-C Sta. 116+00 at 89+70
464	Phase 1-C Sta. 116+00 at 89+70
465	Phase 1-C Sta. 117+00 at 89+70
466	Phase 1-C Sta. 117+00 at 89+70
467	Phase 1-C Sta. 118+00 at 89+70
468	Phase 1-C Sta. 118+00 at 89+70
469	Phase 1-C Sta. 119+00 at 89+70
470	Phase 1-C Sta. 119+00 at 89+70
471	Phase 1-C Sta. 120+00 at 89+70
472	Phase 1-C Sta. 120+00 at 89+70
473	Phase 1-C Sta. 121+00 at 89+70

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities #5	112.7	10.5

REMARKS Performed In General Accordance With:
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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/02/92							
474	10.1	110.1	# 5	98	96	3	-1'
475	11.8	110.7	# 5	98	96	3	Grade
476	11.2	108.9	# 5	97	96	3	-1'
477	10.8	110.9	# 5	98	96	3	Grade
478	11.4	109.1	# 5	97	96	3	-1'
479	10.2	111.2	# 5	99	96	3	Grade
480	10.9	109.2	# 5	97	96	3	-1'
481	12.5	110.0	# 5	98	96	3	Grade
482	12.3	108.5	# 5	96	96	3	-1'
483	10.6	106.5	# 5	95 <<	96	3	Grade
484	9.2	109.6	# 5	97	96	3	-1'

TEST LOCATIONS:

474	Phase 1-C Sta. 121+00 at 89+70
475	Phase 1-C Sta. 122+00 at 89+70
476	Phase 1-C Sta. 122+00 at 89+70
477	Phase 1-C Sta. 123+00 at 89+70
478	Phase 1-C Sta. 123+00 at 89+70
479	Phase 1-C Sta. 124+00 at 89+70
480	Phase 1-C Sta. 124+00 at 89+70
481	Phase 1-C Sta. 125+00 at 89+70
482	Phase 1-C Sta. 125+00 at 89+70
483	Phase 1-C Sta. 126+00 at 89+70
484	Phase 1-C Sta. 126+00 at 89+70

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities #5	112.7	10.5

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

DISTRIBUTION:
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England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

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LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/02/92							
485	9.6	109.1	#5	97	96	3	Grade
486	10.1	108.8	#5	97	96	3	Grade
487	10.4	111.5	#5	99	96	3	Grade
488	9.1	109.6	#5	97	96	3	Grade
489	12.5	110.2	#5	98	96	3	Grade
490	8.5	109.6	#5	97	96	3	Grade
491	10.8	110.0	#5	98	96	3	Grade
492	8.7	108.4	#5	96	96	3	Grade
493	12.3	109.3	#5	97	96	3	Grade
494	8.5	108.0	#5	96	96	3	Grade

TEST LOCATIONS:

485	Phase 1-C Sta. 123+00 at 91+10
486	Phase 1-C Sta. 122+00 at 90+35
487	Phase 1-C Sta. 121+00 at 91+10
488	Phase 1-C Sta. 120+00 at 90+35
489	Phase 1-C Sta. 119+00 at 91+10
490	Phase 1-C Sta. 118+00 at 90+35
491	Phase 1-C Sta. 117+00 at 91+10
492	Phase 1-C Sta. 116+00 at 90+35
493	Phase 1-C Sta. 115+00 at 91+10
494	Phase 1-C Sta. 114+00 at 90+35

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities #5	112.7	10.5

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

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LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/09/92							
495	10.0	112.2	#5	100	96	3	+2.0
496	13.1 <	110.8	#5	98	96	3	+1.0
497	12.4	109.3	#5	97	96	3	+3.0

TEST LOCATIONS:

495 East burm of Phase 1-B at Sta. 126+15E & Sta. 93+00N
496 East burm of Phase 1-B at Sta. 126+15E & Sta. 93+00N
497 East burm of Phase 1-B at Sta. 126+15E & Sta. 93+80N

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
# of Jax Utilities	112.7	10.5

REMARKS Performed In General Accordance With:
3 - ASTM D2922

< Denotes More Than ±2 Percent Optimum Moisture.

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The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
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Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

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LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/13/92							
498	9.7	106.1	1	96	96	3	-0'
499	8.8	108.8	1	98	96	3	-0'
500	6.4	106.6	#5	95 <<	96	3	-0'
501	9.5	108.0	1	98	96	3	-1'
502	7.6	111.6	#5	99	96	3	-0'
503	8.4	110.9	#5	98	96	3	-1'
504	8.6	109.9	#5	97	96	3	-2'
505	9.2	108.5	1	98	96	3	-3'
506	9.3	107.6	1	97	96	3	-0'
507	5.9	109.7	1	99	96	3	-0'
508	7.4	108.2	#5	96	96	3	-0'

TEST LOCATIONS:

498	Phase 2-A Sta. 100+50 and Sta. 95+80
499	Phase 2-A Sta. 100+50 and Sta. 96+80
500	Phase 2-A Sta. 100+50 and Sta. 97+80
501	Phase 2-A Sta. 100+50 and Sta. 97+80
502	Phase 2-A Sta. 100+50 and Sta. 98+80
503	Phase 2-A Sta. 100+50 and Sta. 98+80
504	Phase 2-A Sta. 100+50 and Sta. 98+80
505	Phase 2-A Sta. 100+50 and Sta. 98+80
506	Phase 2-A Sta. 101+50 and Sta. 95+80
507	Phase 2-A Sta. 101+50 and Sta. 96+80
508	Phase 2-A Sta. 101+50 and Sta. 97+80

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2
#5	112.7	10.5

Jax Utilities

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

DISTRIBUTION:
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England, Thims & Miller, Inc. (DC)
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Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/13/92							
509	4.4	106.4	1	96	96	3	-1'
510	9.3	108.1	#5	96	96	3	-0'
511	10.1	109.2	#5	97	96	3	-1'
512	9.6	108.8	#5	97	96	3	-2'
513	8.2	108.7	1	98	96	3	-3'
514	11.0	105.9	1	96	96	3	-0'
515	9.0	101.8	1	92 <<	96	3	-0'
516	9.7	105.8	1	96	96	3	-0'
517	10.4	109.9	1	99	96	3	-0'
518	9.9	109.9	#5	98	96	3	-0'
519	8.6	107.6	1	97	96	3	-1'

TEST LOCATIONS:

509	Phase 2-A Sta. 101+50 and Sta. 97+80
510	Phase 2-A Sta. 101+50 and Sta. 98+80N
511	Phase 2-A Sta. 101+50 and Sta. 98+80N
512	Phase 2-S Sta. 101+50 and Sta. 98+80N
513	Phase 2-A Sta. 101+50 and Sta. 98+80N
514	Phase 2-A Sta. 102+50 and Sta. 95+80
515	Phase 2-A Sta. 103+50 and Sta. 95+80
516	Phase 2-A Sta. 102+50 and Sta. 96+80
517	Phase 2-A Sta. 103+50 and Sta. 96+80
518	Phase 2-A Sta. 102+50 and Sta. 97+80
519	Phase 2-A Sta. 102+50 and Sta. 97+80

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2
#5	112.7	10.5

Jax Utilities

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/13/92							
520	11.2	108.3	#5	96	96	3	-0'
521	10.4	107.6	1	97	96	3	-1'
522	9.1	109.8	#5	97	96	3	-0'
523	9.6	108.5	#5	96	96	3	-1'
524	10.9	107.9	#5	96	96	3	-2'
525	8.7	106.9	1	96	96	3	-3'
526	10.4	109.4	#5	97	96	3	-0'
527	9.4	108.0	#5	96	96	3	-1'
528	11.1	110.4	#5	98	96	3	-2'
529	9.9	105.8	1	96	96	3	-3'
530	7.1	109.1	#5	97	96	3	-0'

TEST LOCATIONS:

520	Phase 2-A Sta. 103+50 and Sta. 97+80
521	Phase 2-A Sta. 103+50 and Sta. 97+80
522	Phase 2-A Sta. 102+50 and Sta. 98+80
523	Phase 2-A Sta. 102+50 and Sta. 98+80
524	Phase 2-A Sta. 102+50 and Sta. 98+80
525	Phase 2-A Sta. 102+50 and Sta. 98+80
526	Phase 2-A Sta. 103+50 and Sta. 98+80
527	Phase 2-A Sta. 103+50 and Sta. 98+80
528	Phase 2-A Sta. 103+50 and Sta. 98+80
529	Phase 2-A Sta. 103+50 and Sta. 98+80
530	RETEST OF TEST NO. 500

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 Jax Utilities	112.7	10.5
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
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England, Thims & Miller, Inc. (DC)
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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/13/92							
531	9.9	107.6	1	97	96	3	-0'

TEST LOCATIONS:
531 RETEST OF TEST NO. 515

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
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England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/14/92							
532	6.1	108.2	#5	96	96	3	-0'
533	7.2	108.1	#5	96	96	3	-1'
534	7.4	108.5	#5	96	96	3	-2'

TEST LOCATIONS:

532 Phase 2-A west anchor trench berm
533 Phase 2-A west anchor trench berm
534 Phase 2-A west anchor trench berm

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
Jax Utilities	112.7	10.5

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/16/92							
535	8.6	110.6	1	100	96	3	-0'
536	9.1	109.7	1	99	96	3	-0'
537	6.6	111.2	1	100	96	3	-0'
538	8.4	107.7	1	97	96	3	-0'
539	14.3	105.4	1	95 <<	96	3	-0'
540	11.0	110.3	1	100	96	3	-0'
541	10.6	108.2	1	98	96	3	-0'
542	9.9	108.5	1	98	96	3	-0'
543	4.5	112.0	#5	99	96	3	-0'
544	6.7	109.9	1	99	96	3	-1'
545	4.8	108.7	#5	96	96	3	-0'

TEST LOCATIONS:

535	Phase 2-A Sta. 104+50 and Sta. 95+80
536	Phase 2-A Sta. 105+50 and Sta. 95+80
537	Phase 2-A Sta. 106+50 and Sta. 95+80
538	Phase 2-A Sta. 107+50 and Sta. 95+80
539	Phase 2-A Sta. 104+50 and Sta. 96+80
540	Phase 2-A Sta. 105+50 and Sta. 96+80
541	Phase 2-A Sta. 106+50 and Sta. 96+80
542	Phase 2-A Sta. 107+50 and Sta. 96+80
543	Phase 2-A Sta. 104+50 and Sta. 97+80
544	Phase 2-A Sta. 104+50 and Sta. 97+80
545	Phase 2-A Sta. 105+50 and Sta. 97+80

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2
#5 of Jax Utilities	112.7	10.5

REMARKS Performed In General Accordance With:
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CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/16/92							
546	5.1	106.4	1	96	96	3	-1'
547	5.6	108.2	#5	96	96	3	-0'
548	6.4	106.4	1	96	96	3	-1'
549	8.1	110.3	#5	98	96	3	-0'
550	7.2	108.6	1	98	96	3	-1'
551	8.7	109.8	#5	97	96	3	-0'
552	9.1	111.1	#5	99	96	3	-1'
553	10.4	110.1	#5	98	96	3	-2'
554	9.6	107.5	1	97	96	3	-3'
555	9.6	106.7	#5	95 <<	96	3	-0'
556	8.7	108.1	#5	96	96	3	-1'

TEST LOCATIONS:

546	Phase 2-A Sta. 105+50 and Sta. 97+80
547	Phase 2-A Sta. 106+50 and Sta. 97+80
548	Phase 2-A Sta. 106+50 and Sta. 97+80
549	Phase 2-A Sta. 107+50 and Sta. 97+80
550	Phase 2-A Sta. 107+50 and Sta. 97+80
551	Phase 2-A Sta. 104+50 and Sta. 98+80
552	Phase 2-A Sta. 104+50 and Sta. 98+80
553	Phase 2-A Sta. 104+50 and Sta. 98+80
554	Phase 2-A Sta. 104+50 and Sta. 98+80
555	Phase 2-A Sta. 105+50 and Sta. 98+80
556	Phase 2-A Sta. 105+50 and Sta. 98+80

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2
#5 of Jax Utilities	112.7	10.5

REMARKS Performed In General Accordance With:
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Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/16/92							
557	9.1	108.0	#5	96	96	3	-2'
558	8.4	107.5	1	97	96	3	-3'
559	10.3	109.2	#5	97	96	3	-0'
560	9.9	108.1	#5	96	96	3	-1'
561	11.1	108.8	#5	97	96	3	-2'
562	9.9	106.8	1	96	96	3	-3'
563	10.6	108.4	#5	96	96	3	-0'
564	10.9	109.4	#5	97	96	3	-1'
565	9.5	110.2	#5	98	96	3	-2'
566	10.1	107.6	1	97	96	3	-3'
567	12.1	107.5	1	97	96	3	-0'

TEST LOCATIONS:

557	Phase 2-A Sta. 105+50 and Sta. 98+80
558	Phase 2-A Sta. 105+50 and Sta. 98+80
559	Phase 2-A Sta. 106+50 and Sta. 98+80
560	Phaes 2-A Sta. 106+50 and Sta. 98+80
561	Phase 2-A Sta. 106+50 and Sta. 98+80
562	Phase 2-A Sta. 106+50 and Sta. 98+80
563	Phase 2-A Sta. 107+50 and Sta. 98+80
564	Phase 2-A Sta. 107+50 and Sta. 98+80
565	Phase 2-A Sta. 107+50 and Sta. 98+80
566	Phase 2-A Sta. 107+50 and Sta. 98+80
567	RETEST OF TEST NO. 539

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#1 of Jax Utilities	112.7	10.5
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/16/92							
568	10.1	108.2	#5	96	96	3	-0'

TEST LOCATIONS:
568 RETEST OF TEST NO. 555

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of Jax Utilities	112.7	10.5

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
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England, Thims & Miller, Inc. (DC)
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RESPECTFULLY SUBMITTED:

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 04/28/92							
569	10.4	109.9	#5	97	96	3	-0'
570	8.7	109.4	#5	97	96	3	-0'
571	9.1	108.5	#5	96	96	3	-0'
572	10.2	109.6	#5	97	96	3	-0'
573	10.1	107.9	#5	96	96	3	-1'
574	10.2	102.0	#5	91 <<	96	3	-0'

TEST LOCATIONS:

569	RETEST OF TEST NO. 477
570	Phase 1-C at Sta. 124+00 and Sta. 90+35
571	Phase 1-C at Sta. 125+00 and Sta. 91+10
572	Phase 1-C at Sta. 126+00 and Sta. 90+35
573	East anchor trench berm on Phase 1-C at Sta. 90+80N & 126+10E
574	East anchor trench berm on Phase 1-C at Sta. 90+80N & 126+10E

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/02/92							
575	9.1	109.4	#5	97	96	3	-0'
576	9.6	107.0	1	97	96	3	-0'
577	10.4	105.8	1	95 <<	96	3	-0'
578	8.9	106.1	1	96	96	3	-0'
579	11.2	102.5	1	93 <<	96	3	-0'
580	9.9	106.7	1	96	96	3	-0'
581	8.7	106.8	1	96	96	3	-0'
582	9.4	109.5	#5	97	96	3	-0'
583	10.6	100.6	1	91 <<	96	3	-1'
584	9.1	110.3	#5	98	96	3	-0'
585	9.6	109.6	1	99	96	3	-1'

TEST LOCATIONS:

575	RETEST OF TEST NO. 574
576	Phase 2-A Sta. 108+50E, Sta. 95+80N
577	Phase 2-A Sta. 109+50E, Sta. 95+80N
578	Phase 2-A Sta. 110+50E, Sta. 95+80N
579	Phase 2-A Sta. 108+50E, Sta. 96+80N
580	Phase 2-A Sta. 109+50E, Sta. 96+80N
581	Phase 2-A Sta. 110+50E, Sta. 96+80N
582	Phase 2-A Sta. 108+50E, Sta. 97+80N
583	Phase 2-A Sta. 108+50E, Sta. 97+80N
584	Phase 2-A Sta. 109+50E, Sta. 97+80N
585	Phase 2-A Sta. 109+50E, Sta. 97+80N

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

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Tests Performed on 05/02/92							
586	10.4	110.2	#5	98	96	3	-0'
587	9.9	107.9	1	97	96	3	-1'
588	11.4	109.3	#5	97	96	3	-0'
589	10.1	107.5	#5	95 <<	96	3	-1'
590	10.6	106.8	#5	95 <<	96	3	-2'
591	11.1	108.7	1	98	96	3	-3'
592	8.6	109.9	#5	97	96	3	-0'
593	9.1	109.8	#5	97	96	3	-1'
594	9.4	110.2	#5	98	96	3	-2'
595	10.6	108.0	1	98	96	3	-3'
596	9.2	109.8	#5	97	96	3	-0'

TEST LOCATIONS:

586	Phase 2-A Sta. 110+50E, Sta. 97+80N
587	Phase 2-A Sta. 110+50E, Sta. 97+80N
588	Phase 2-A Sta. 108+50E, Sta. 98+80N
589	Phase 2-A Sta. 108+50E, Sta. 98+80N
590	Phase 2-A Sta. 108+50E, Sta. 98+80N
591	Phase 2-A Sta. 108+50E, Sta. 98+80N
592	Phase 2-A Sta. 109+50E, Sta. 98+80N
593	Phase 2-A Sta. 109+50E, Sta. 98+80N
594	Phase 2-A Sta. 109+50E, Sta. 98+80N
595	Phase 2-A Sta. 109+50E, Sta. 98+80N
596	Phase 2-A Sta. 110+50E , Sta. 98+80N

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
of 446-01631-02	112.7	10.5
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/02/92							
597	10.4	110.1	#5	98	96	3	-1'
598	11.6	108.2	1	98	96	3	-2'
599	10.1	106.7	1	96	96	3	-0'
600	10.4	107.7	1	97	96	3	-0'
601	10.6	108.8	1	98	96	3	-1'
602	10.4	108.9	#5	97	96	3	-1'

TEST LOCATIONS:

597	Phase 2-A Sta. 110+50E , Sta. 98+80N
598	Phase 2-A Sta. 110+50E , Sta. 98+80N
599	RETEST OF TEST NO. 577
600	RETEST OF TEST NO. 579
601	RETEST OF TEST NO. 583
602	RETEST OF TEST NO. 589

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
5 of 446-01631-02	112.7	10.5
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

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RESPECTFULLY SUBMITTED:

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
			Tests Performed on 05/11/92				
603	2.9	105.8	1	96	96	3	-0
604	5.0	105.9	1	96	96	3	-0
605	6.0	106.0	1	96	96	3	-0
606	5.2	108.4	1	98	96	3	-0
607	4.4	106.5	1	96	96	3	-0
608	4.9	109.6	1	99	96	3	-0
609	5.1	111.2	1	100	96	3	-0
610	5.9	106.1	1	96	96	3	-0
611	6.6	106.8	1	96	96	3	-0
612	4.9	106.8	1	96	96	3	-0
613	6.6	109.0	1	98	96	3	-0

TEST LOCATIONS:

603	Phase 2-B sta 101+00, sta 95+00
604	Phase 2-B sta 102+00, sta 95+00
605	Phase 2-B sta 103+00, sta 95+00
606	Phase 2-B sta 104+00, sta 95+00
607	Phase 2-B sta 105+00, sta 95+00
608	Phase 2-B sta 106+00, sta 95+00
609	Phase 2-B sta 107+00, sta 95+00
610	Phase 2-B, sta 108+00, sta 95+00
611	Phase 2-B, sta 109+00, sta 95+00
612	Phase 2-B, sta 110+00, sta 95+00
613	Phase 2-B, sta 111+00, sta 95+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/11/92							
614	6.1	108.1	1	98	96	3	-0
615	5.4	106.8	1	96	96	3	-0
616	5.9	106.1	1	96	96	3	-0
617	4.7	106.8	1	96	96	3	-0
618	6.4	107.4	1	97	96	3	-0
619	6.1	106.3	1	96	96	3	-0
620	5.4	108.4	1	98	96	3	-0
621	5.7	105.7	1	95 <<	96	3	-0
622	4.9	106.1	1	96	96	3	-0
623	6.6	105.1	1	95 <<	96	3	-0
624	7.1	105.4	1	95 <<	96	3	-0

TEST LOCATIONS:

614	Phase 2-B, sta 101+00, sta 94+30
615	Phase 2-B, sta 103+00, sta 94+30
616	Phase 2-B, sta 105+00, sta 94+30
617	Phase 2-B, sta 107+00, sta 94+30
618	Phase 2-B, sta 109+00, sta 94+30
619	Phase 2-B, sta 111+00, sta 94+30
620	Phase 2-B, sta 102+00, sta 93+90
621	Phase 2-B, sta 104+00, sta 93+90
622	Phase 2-B, sta 106+00, sta 93+90
623	Phase 2-B, sta 108+00, sta 93+90
624	Phase 2-B, sta 110+00, sta 93+90

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

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3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/11/92							
625	4.9	106.6	1	96	96	3	-0
626	5.8	106.3	1	96	96	3	-0
627	6.2	105.8	1	96	96	3	-0
628	12.0	103.7	1	94 <<	96	3	-0
629	4.1	107.6	1	97	96	3	-0
630	5.6	107.8	1	97	96	3	-0
631	6.6	105.5	1	95 <<	96	3	-0
632	7.4	106.1	1	96	96	3	-0
633	6.9	107.0	1	97	96	3	-0
634	8.6	108.9	1	98	96	3	-0
635	8.1	108.1	1	98	96	3	-0

TEST LOCATIONS:

625	Phase 2-B, sta 101+00, sta 93+30
626	Phase 2-B, sta 102+00, sta 93+30
627	Phase 2-B, sta 103+00, sta 93+30
628	Phase 2-B, sta 104+00, sta 93+30
629	Phase 2-B, sta 105+00, sta 93+30
630	Phase 2-B, sta 106+00, sta 93+30
631	Phase 2-B, sta 107+00, sta 93+30
632	Phase 2-B, sta 108+00, sta 93+30
633	Phase 2-B, sta 109+00, sta 93+30
634	Phase 2-B, sta 110+00, sta 93+30
635	Phase 2-B, sta 111+00, sta 93+30

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/11/92:							
636	6.1	107.7	1	97	96	3	-0
637	6.1	107.5	1	97	96	3	-0
638	7.5	107.2	1	97	96	3	-0
639	5.4	107.0	1	97	96	3	-0
640	6.9	105.9	1	96	96	3	-0

TEST LOCATIONS:

636	RETEST OF TEST # 621
637	RETEST OF TEST # 623
638	RETEST OF TEST # 624
639	RETEST OF TEST # 628
640	RETEST OF TEST # 631

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/26/92							
641	3.5	106.3	1	96	96	3	-0
642	6.4	107.3	1	97	96	3	-1
643	7.6	107.2	1	97	96	3	-0
644	6.4	107.0	1	97	96	3	-1
645	7.1	107.6	1	97	96	3	-0
646	8.8	108.5	1	98	96	3	-1
647	7.9	106.5	1	96	96	3	-0
648	9.1	108.4	1	98	96	3	-1
649	6.6	108.5	1	98	96	3	-0
650	7.1	107.7	1	97	96	3	-1
651	8.3	107.7	1	97	96	3	-0

TEST LOCATIONS:

641	Phase 2-C, sta 101+00, sta 92+00
642	Phase 2-C sta 101+00, sta 92+00
643	Phase 2-C sta 102+00, sta 92+00
644	Phase 2-C, sta 102+00, sta 92+00
645	Phase 2-C, sta 103+00, sta 92+00
646	Phase 2-C, sta 103+00, sta 92+00
647	Phase 2-C, sta 104+00, sta 92+00
648	Phase 2-C, sta 104+00, sta 92+00
649	Phase 2-C, sta 105+00, sta 92+00
650	Phase 2-C, sta 105+00, sta 92+00
651	Phase 2-C, sta 106+00, sta 92+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
- The Haskell Company (DC)
- The Haskell Company (DC)
- England, Thims & Miller, Inc. (DC)
- England, Thims & Miller, Inc. (DC)
- Waste Management of North America (DC)
- City of Jacksonville (DC)
- Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/26/92							
652	7.4	107.0	1	97	96	3	-1
653	10.1	107.4	1	97	96	3	-0
654	9.4	106.9	1	97	96	3	-1
655	9.6	106.0	1	96	96	3	-0
656	10.1	107.5	1	97	96	3	-1
657	7.8	107.8	1	97	96	3	-0
658	8.1	106.8	1	96	96	3	-1
659	6.1	107.2	1	97	96	3	-0
660	6.9	107.1	1	97	96	3	-1
661	6.9	106.7	1	96	96	3	-0
662	8.3	106.4	1	96	96	3	-1

TEST LOCATIONS:

652	Phase 2-C, sta 106+00, sta 92+00
653	Phase 2-C, sta 107+00, sta 92+00
654	Phase 2-C, sta 107+00, sta 92+00
655	Phase 2-C, sta 108+00, sta 92+00
656	Phase 2-C, sta 108+00, sta 92+00
657	Phase 2-C, sta 109+00, sta 92+00
658	Phase 2-C, sta 109+00, sta 92+00
659	Phase 2-C, sta 110+00, sta 92+00
660	Phase 2-C, sta 110+00, sta 92+00
661	Phase 2-C, sta 111+00, sta 92+00
662	Phase 2-C, sta 111+00, sta 92+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Welder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/26/92							
663	5.3	107.7	1	97	96	3	-0
664	10.1	108.2	1	98	96	3	-0
665	8.4	109.4	1	99	96	3	-0
666	10.5	109.7	1	99	96	3	-0
667	6.9	106.1	1	96	96	3	-0
668	5.4	106.3	1	96	96	3	-0
669	7.2	110.4	1	100	96	3	-0
670	8.5	105.9	1	96	96	3	-0
671	8.6	105.7	1	95 <<	96	3	-0
672	8.4	106.2	1	96	96	3	-0
673	9.1	107.5	1	97	96	3	-0

TEST LOCATIONS:

663	Phase 2-C, sta 102+00, sta 91+30
664	Phase 2-C, sta 104+00, sta 91+30
665	Phase 2-C, sta 106+00, sta 91+30
666	Phase 2-C, sta 108+00, sta 91+30
667	Phase 2-C, sta 110+00, sta 91+30
668	Phase 2-C, sta 101+00, sta 90+90
669	Phase 2-C, sta 103+00, sta 90+90
670	Phase 2-C, sta 105+00, sta 90+90
671	Phase 2-C, sta 107+00, sta 90+90
672	Phase 2-C, sta 109+00, sta 90+90
673	Phase 2-C, sta 111+00, sta 90+90

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

DISTRIBUTION:
- The Haskell Company (DC)
- The Haskell Company (DC)
- England, Thims & Miller, Inc. (DC)
- England, Thims & Miller, Inc. (DC)
- Waste Management of North America (DC)
- City of Jacksonville (DC)
- Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/26/92							
674	5.6	106.1	1	96	96	3	-0
675	6.1	106.9	1	96	96	3	-1
676	5.1	106.8	1	96	96	3	-0
677	5.6	107.0	1	97	96	3	-1
678	4.2	107.9	1	97	96	3	
679	4.9	106.9	1	96	96	3	
680	4.8	106.4	1	96	96	3	-0
681	5.1	106.8	1	96	96	3	-1
682	6.7	106.7	1	96	96	3	-0
683	7.4	107.3	1	97	96	3	-1
684	6.4	107.2	1	97	96	3	-0

TEST LOCATIONS:

674	Phase 2-C, sta 101+00, sta 90+00
675	Phase 2-C, sta 101+00, sta 90+00
676	Phase 2-C, sta 102+00, sta 90+00
677	Phase 2-C, sta 102+00, sta 90+00
678	Phase 2-C, sta 103+00, sta 90+00
679	Phase 2-C, sta 103+00, sta 90+00
680	Phase 2-C, sta 104+00, sta 90+00
681	Phase 2-C, sta 104+00, sta 90+90
682	Phase 2-C, sta 105+00, sta 90+00
683	Phase 2-C, sta 105+00, sta 90+00
684	Phase 2-C, sta 106+00, sta 90+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 05/26/92							
685	5.9	106.7	1	96	96	3	-1
686	8.6	107.3	1	97	96	3	-0
687	8.4	107.0	1	97	96	3	-1
688	12.2	107.1	1	97	96	3	-0
689	12.4	107.3	1	97	96	3	-1
690	11.0	106.8	1	96	96	3	-0
691	10.4	107.7	1	97	96	3	-1
692	11.1	107.7	1	97	96	3	-0
693	9.6	109.0	1	98	96	3	-1
694	10.3	108.9	1	98	96	3	-0
695	10.6	109.4	1	99	96	3	-1

TEST LOCATIONS:

685	Phase 2-C, sta 106+00, sta 90+00
686	Phase 2-C, sta 107+00, sta 90+00
687	Phase 2-C, sta 107+00, sta 90+00
688	Phase 2-C, sta 108+00, sta 90+00
689	Phase 2-C, sta 108+00, sta 90+00
690	Phase 2-C, sta 109+00, sta 90+00
691	Phase 2-C, sta 109+00, sta 90+00
692	Phase 2-C, sta 110+00, sta 90+00
693	Phase 2-C, sta 110+00, sta 90+00
694	Phase 2-C, sta 111+00, sta 90+00
695	Phase 2-C, sta 111+00, sta 90+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
- The Haskell Company (DC)
- The Haskell Company (DC)
- England, Thims & Miller, Inc. (DC)
- England, Thims & Miller, Inc. (DC)
- Waste Management of North America (DC)
- City of Jacksonville (DC)
- Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 06/24/92							
696	9.7	113.1	5	100	96	3	-0'
697	9.6	111.7	5	99	96	3	-1'
698	10.1	110.8	5	98	96	3	-0'
699	11.6	110.3	5	98	96	3	-0'

TEST LOCATIONS:

696 Phase 2-B Sta. 113+00, Sta. 95+00
697 Phase 2-B Sta. 113+00, Sta. 95+00
698 Phase 2-B Sta. 113+00, Sta. 94+10
699 Phase 2-B Sta. 113+00, Sta. 93+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 07/06/92							
700	7.4	109.4	#5	97	96	3	-0'
701	8.1	109.1	#5	97	96	3	-1'
702	8.8	109.3	#5	97	96	3	-2'
703	9.4	109.8	#5	97	96	3	-3'
704	10.1	111.5	#5	99	96	3	-4'
705	9.6	108.5	#5	96	96	3	-0'
706	9.9	108.8	#5	97	96	3	-1'
707	10.6	109.2	#5	97	96	3	-2'
708	9.4	109.4	#5	97	96	3	-0'
709	9.6	109.8	#5	97	96	3	-1'
710	10.1	111.2	#5	99	96	3	-2'

TEST LOCATIONS:

700	Phase 2-B Sta. 112+00 Sta. 95+00
701	Phase 2-B Sta. 112+00 Sta. 95+00
702	Phase 2-B Sta. 112+00 Sta. 95+00
703	Phase 2-B Sta. 112+00 Sta. 95+00
704	Phase 2-B Sta. 112+00 Sta. 95+00
705	Phase 2-B Sta. 112+00 Sta. 93+80
706	Phase 2-B Sta. 112+00 Sta. 93+80
707	Phase 2-B Sta. 112+00 Sta. 93+80
708	Phase 2-B Sta. 112+00 Sta. 93+00
709	Phase 2-B Sta. 112+00 Sta. 93+00
710	Phase 2-B Sta. 112+00 Sta. 93+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

NOTE: Tests with moisture less than -2% will be acceptable.

DISTRIBUTION:
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- England, Thims & Miller, Inc. (DC)
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- City of Jacksonville (DC)
- Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 07/06/92							
711	10.4	110.5	#5	98	96	3	-3'
712	10.6	111.1	#5	99	96	3	-4'
713	11.1	109.4	#5	97	96	3	-0'
714	11.6	110.4	#5	98	96	3	-1'
715	10.9	110.4	#5	98	96	3	-0'
716	8.7	110.9	#5	98	96	3	-0'
717	9.1	110.6	#5	98	96	3	-1'
718	10.4	109.0	#5	97	96	3	-0'
719	10.9	109.6	#5	97	96	3	-1'
720	11.3	109.3	#5	97	96	3	-2'
721	11.9	110.3	#5	98	96	3	-3'

TEST LOCATIONS:

711	Phase 2-B Sta. 112+00 Sta. 93+00
712	Phase 2-B Sta. 112+00 Sta. 93+00
713	Phase 2-C Sta. 112+00 Sta. 92+00
714	Phase 2-C Sta. 112+00 Sta. 92+00
715	Phase 2-C Sta. 112+00 Sta. 91+20
716	Phase 2-C Sta. 112+00 Sta. 90+00
717	Phase 2-C Sta. 112+00 Sta. 90+00
718	Phase 2-C Sta. 113+00 Sta. 92+00
719	Phase 2-C Sta. 113+00 Sta. 92+00
720	Phase 2-C Sta. 113+00 Sta. 92+00
721	Phase 2-C Sta. 113+00 Sta. 92+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

NOTE: Tests with moisture less than -2% will be acceptable.

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Waste Management of North America (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 07/06/92							
722	12.2	110.6	#5	98	96	3	-4'
723	9.9	109.7	#5	97	96	3	-0'
724	10.6	111.0	#5	99	96	3	-1'
725	9.9	109.3	#5	97	96	3	-0'
726	11.1	109.3	#5	97	96	3	-1'
727	11.9	107.9	#5	96	96	3	-2'

TEST LOCATIONS:

722	Phase 2-C Sta. 113+00 Sta. 92+00
723	Phase 2-C Sta. 113+00 Sta. 90+90
724	Phase 2-C Sta. 113+00 Sta. 90+90
725	Phase 2-C Sta. 113+00 Sta. 90+00
726	Phase 2-C Sta. 113+00 Sta. 90+00
727	Phase 2-C Sta. 113+00 Sta. 90+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

NOTE: Tests with moisture less than -2% will be acceptable.

DISTRIBUTION:
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Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 08/28/92							
728	14.1	107.5	#5	95 <<	96	3	-0
729	12.1	109.1	#5	97	96	3	-0
730	11.6	109.1	#5	97	96	3	-1'
731	11.9	110.1	#5	98	96	3	-0
732	10.4	109.9	#5	97	96	3	-1'
733	12.4	109.3	#5	97	96	3	-0'
734	19.1	105.1	11	100	96	3	*
735	20.4	103.7	11	99	96	3	*
736	19.6	104.0	11	99	96	3	*
737	21.3	103.0	11	98	96	3	*
738	19.9	103.3	11	98	96	3	*

TEST LOCATIONS:

728	Phase 2-C, Sta. 113+50, Sta. 90+80
729	Phase 2-C, Sta. 113+50, Sta. 90+30
730	Phase 2-C, Sta. 113+50, Sta. 90+30
731	Phase 2-C, Sta. 113+50, Sta. 90+00
732	Phase 2-C, Sta. 113+50, Sta. 90+00
733	RETEST OF TEST NO. 728
734	Phase 2-C, Sta. 113+20, Sta. 91+00; Clay Thickness 7-1/4"
735	Phase 2-C, Sta. 113+70, Sta. 90+75; Clay Thickness 7"
736	Phase 2-C, Sta. 113+50, Sta. 90+50; Clay Thickness 7-3/8"
737	Phase 2-C, Sta. 113+25, Sta. 90+25; Clay Thickness 7-1/2"
738	Phase 2-C, Sta. 113+50, Sta. 90+00; Clay Thickness 6-7/8"

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
5 of 446-01631-02	112.7	10.5
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

<< Denotes Less than Specified Compaction

* Finished Clay Subbase

DISTRIBUTION:
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RESPECTFULLY SUBMITTED:

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Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 08/28/92							
739	22.4	102.6	11	98	96	3	*
740	21.8	102.6	11	98	96	3	*

TEST LOCATIONS:

739 Phase 2-C, Sta. 113+80, Sta. 89+75; Clay Thickness 7-1/4"
740 Phase 2-C, Sta. 113+40, Sta. 89+50; Clay Thickness 7-3/8"

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

*** Finished Clay Subbase**

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Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 08/31/92							
741	12.2	109.7	5	97	96	3	-0
742	10.6	108.0	5	96	96	3	-1'
743	11.1	107.9	5	96	96	3	-2'
744	11.9	109.6	5	97	96	3	-0
745	12.1	108.9	5	97	96	3	-1'
746	12.6	108.7	5	96	96	3	-2'
747	12.4	109.6	5	97	96	3	-3'
Tests Performed on 09/01/92							
748	21.7	101.0	11	96	96	3	*
749	20.4	101.2	11	96	96	3	*

TEST LOCATIONS:

741 Pahse 2-C, Sta. 113+50, Sta. 91+50
742 Phase 2-C, Sta. 113+50, Sta. 91+50
743 Phase 2-C, Sta. 113+50, Sta. 91+50
744 Phase 2-C, Sta. 113+50, Sta. 92+20
745 Phase 2-C, Sta. 113+50, Sta. 92+20
746 Phase 2-C, Sta. 113+50, Sta. 92+20
747 Phase 2-C, Sta. 113+50, Sta. 92+20
748 Phase 2-C, Sta. 113+50, Sta. 92+50; Clay Thickness 7-1/4"
749 Phase 2-C, Sta. 113+20, Sta. 92+25; Clay Thickness 6-7/8"

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

* Finished Clay Subbase

DISTRIBUTION:
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England, Thims & Miller, Inc. (DC)
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City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:
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LAW ENGINEERING

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 09/01/92							
750	23.1	101.2	11	96	96	3	*
751	21.0	102.3	11	97	96	3	*
752	19.6	102.3	11	97	96	3	*
753	20.8	101.5	11	97	96	3	*
754	22.1	101.8	11	97	96	3	*
Tests Performed on 09/02/92							
755	10.6	108.6	5	96	96	3	-0
756	10.9	109.4	5	97	96	3	-1'
757	11.4	109.9	5	97	96	3	-2'
758	12.1	109.4	5	97	96	3	-3'

TEST LOCATIONS:

750	Phase 2-C, Sta. 113+60, Sta. 92+00; Clay Thickness 7"
751	Phase 2-C, Sta. 113+40, Sta. 91+75; Clay Thickness 7-1/2"
752	Phase 2-C, Sta. 113+25, Sta. 91+50; Clay Thickness 7-1/8"
753	Phsae 2-C, Sta. 113+60, Sta. 91+25; Clay Thickness 6-3/4"
754	Phase 2-C, Sta. 113+40, Sta. 91+15; Clay Thickness 6-7/8"
755	Phase 2-B, Sta. 113+50, Sta. 93+00
756	Phase 2-B, Sta. 113+50, Sta. 93+00
757	Phase 2-B, Sta. 113+50, Sta. 93+00
758	Phase 2-B, Sta. 113+50, Sta. 93+00

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
11	105.1	20.1
of 446-01631-02	112.7	10.5

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

* Finished Clay Subbase

DISTRIBUTION:
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RESPECTFULLY SUBMITTED:

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3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 09/02/92							
759	11.4	109.2	5	97	96	3	-0
760	11.6	108.4	5	96	96	3	-1'
761	12.2	108.6	5	96	96	3	-2'

TEST LOCATIONS:

759 Phase 2-B, Sta. 113+50, Sta. 93+70
760 Phase 2-B, Sta. 113+50, Sta. 93+70
761 Phase 2-B, Sta. 113+50, Sta. 93+70

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
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The Haskell Company (DC)
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England, Thims & Miller, Inc. (DC)
Trailridge Landfill, Inc. (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

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3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 09/09/92							
762	23.6	101.1	11	96	96	3	*
763	22.9	101.2	11	96	96	3	*
764	24.1	101.0	11	96	96	3	*
765	22.8	100.8	11	96	96	3	*
766	23.4	101.2	11	96	96	3	*
767	23.2	101.1	11	96	96	3	*

TEST LOCATIONS:

762	Phase 2-B, Sta. 113+30, Sta. 92+75; Clay Thickness 7-1/2"
763	Phase 2-B, Sta. 113+50, Sta. 93+00; Clay Thickness 7-3/4"
764	Phase 2-B, Sta. 113+70, Sta. 93+25; Clay Thickness 7-1/2"
765	Phase 2-B, Sta. 113+40, Sta. 93+50; Clay Thickness 7-5/8"
766	Phase 2-B, Sta. 113+20, Sta. 93+75; Clay Thickness 8"
767	Phase 2-B, Sta. 113+60, Sta. 94+00; Clay Thickness 7-3/4"

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

* Finished Clay Subbase

DISTRIBUTION:
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The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Trailridge Landfill, Inc. (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/01/92							
768	11.4	108.9	#5	97	96	3	-1'
769	12.1	108.6	#5	96	96	3	-2'
770	9.6	108.7	1	98	96	3	-3'
771	10.0	107.8	#5	96	96	3	-1'
772	10.1	108.4	#5	96	96	3	-2'
773	11.3	108.5	1	98	96	3	-3'
774	12.1	109.4	#5	97	96	3	-1'
775	11.6	109.3	#5	97	96	3	-2'
776	12.6	106.9	1	97	96	3	-3'
777	9.6	109.7	#5	97	96	3	-1'
778	10.1	108.8	1	98	96	3	-2'

TEST LOCATIONS:

768	Phase 2A - Sta. 99+00, Sta. 111+50
769	Phase 2A - Sta. 99+00, Sta. 111+50
770	Phase 2A - Sta. 99+00, Sta. 111+50
771	Phase 2A - Sta. 99+00, Sta. 112+50
772	Phase 2A - Sta. 99+00, Sta. 112+50
773	Phase 2A - Sta. 99+00, Sta. 112+50
774	Phase 2A - Sta. 99+00, Sta. 113+50
775	Phase 2A - Sta. 99+00, Sta. 113+50
776	Phase 2A - Sta. 99+00, Sta. 113+50
777	Phase 2A - Sta. 98+00, Sta. 111+50
778	Phase 2A - Sta. 98+00, Sta. 111+50

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5
1	110.8	11.2

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
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Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

for Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/01/92							
779	9.4	109.3	#5	97	96	3	-1'
780	10.4	109.9	1	99	96	3	-2'
781	12.1	109.4	#5	97	96	3	-1'
782	12.9	107.1	1	97	96	3	-2'
783	11.4	108.5	#5	96	96	3	-1'
784	10.9	109.4	1	99	96	3	-2'
785	9.9	109.6	#5	97	96	3	-1'
786	10.1	108.8	1	98	96	3	-2'
787	12.1	108.6	#5	96	96	3	-1'
788	12.4	107.3	1	97	96	3	-2'
789	11.6	108.6	#5	96	96	3	-1'

TEST LOCATIONS:

779	Phase 2A - Sta. 98+00, Sta. 112+50
780	Phase 2A - Sta. 98+00, Sta. 112+50
781	Phase 2A - Sta. 98+00, Sta. 113+50
782	Phase 2A - Sta. 98+00, Sta. 113+50
783	Phase 2A - Sta. 97+00, Sta. 113+50
784	Phase 2A - Sta. 97+00, Sta. 113+50
785	Phase 2A - Sta. 97+00, Sta. 112+50
786	Phase 2A - Sta. 97+00, Sta. 112+50
787	Phase 2A - Sta. 97+00, Sta. 111+50
788	Phase 2A - Sta. 97+00, Sta. 111+50
789	Phase 2A - Sta. 96+00, Sta. 111+50

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
5 of 446-01631-02	112.7	10.5
1	110.8	11.2

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
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City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/01/92							
790	11.9	109.0	#5	97	96	3	-2'
791	12.1	107.8	1	97	96	3	-3'
792	10.1	110.4	#5	98	96	3	-1'
793	10.4	109.6	#5	97	96	3	-2'
794	10.9	107.6	1	97	96	3	-3'
795	11.3	109.6	#5	97	96	3	-1'
796	10.6	108.9	#5	97	96	3	-2'
797	11.4	107.5	1	97	96	3	-3'

TEST LOCATIONS:

790	Phase 2A - Sta. 96+00, Sta. 111+50
791	Phase 2A - Sta. 96+00, Sta. 111+50
792	Phase 2A - Sta. 96+00, Sta. 112+50
793	Phase 2A - Sta. 96+00, Sta. 112+50
794	Phase 2A - Sta. 96+00, Sta. 112+50
795	Phase 2A - Sta. 96+00, Sta. 113+50
796	Phase 2A - Sta. 96+00, Sta. 113+50
797	Phase 2A - Sta. 96+00, Sta. 113+50

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5
1	110.8	11.2

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

DISTRIBUTION:
The Haskell Company (DC)
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England, Thims & Miller, Inc. (DC)
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Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

for Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/07/92							
798	14.1	110.0	1	99	96	3	*
799	13.6	106.5	1	96	96	3	*
800	12.8	109.6	1	99	96	3	*
801	12.8	109.9	1	99	96	3	*
802	12.1	108.8	1	98	96	3	*
803	12.9	108.1	1	98	96	3	*
804	13.0	106.2	1	96	96	3	*
805	11.5	106.2	1	96	96	3	*
806	12.3	108.4	1	98	96	3	*
807	12.3	108.0	1	97	96	3	*
808	11.6	110.7	1	100	96	3	*

TEST LOCATIONS:

798	Phase 2A - Sta. 99+00 and Sta. 113+00
799	Phase 2A - Sta. 98+70 and Sta. 112+00
800	Phase 2A - Sta. 98+70 and Sta. 111+50
801	Phase 2A - Sta. 97+80 and Sta. 111+50
802	Phase 2A - Sta. 97+80 and Sta. 112+00
803	Phase 2A - Sta. 97+80 and Sta. 113+00
804	Phase 2A - Sta. 96+50 and Sta. 111+50
805	Phase 2A - Sta. 96+55 and Sta. 112+25
806	Phase 2A - Sta. 96+55 and Sta. 113+00
807	Phase 2A - Sta. 95+30 and Sta. 113+00
808	Phase 2A - Sta. 95+30 and Sta. 112+25

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

* Finished Subgrade

DISTRIBUTION:
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The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Trailridge Landfill, Inc. (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

BRYANT B. WILDES

LAW ENGINEERING

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REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 10/07/92							
809	12.0	108.9	1	98	96	3	*

TEST LOCATIONS:

809 Phase 2A - Sta. 95+30 and Sta. 111+50

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
1	110.8	11.2

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

* Finished Subgrade

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Trailridge Landfill, Inc. (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wilder

BRYANT B. WILDES

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 11/16/92							
810	15.9	108.0	#5	96	96	3	-0
811	14.6	108.3	#5	96	96	3	-0
812	17.9	108.1	#5	96	96	3	-0
813	15.1	109.8	#5	97	96	3	-0
814	14.6	109.1	#5	97	96	3	-1'
815	13.1	108.2	#5	96	96	3	-1'
816	13.4	109.0	#5	97	96	3	-2'
817	14.4	109.5	#5	97	96	3	-1'
818	16.4	108.9	#5	97	96	3	-1'
819	15.6	108.5	#5	96	96	3	-2'
820	19.6	103.8	11	99	96	3	*

TEST LOCATIONS:

810	Interceptor ditch backfill on Phase 2B at Sta. 94+30
811	Interceptor ditch backfill on Phase 2B at Sta. 95+20
812	Interceptor ditch backfill on Phase 2A at Sta. 96+00
813	Interceptor ditch backfill on Phase 2A at Sta. 97+30
814	Interceptor ditch backfill on Phase 2B at Sta. 94+30
815	Interceptor ditch backfill on Phase 2B at Sta. 95+20
816	Interceptor ditch backfill on Phase 2B at Sta. 95+20
817	Interceptor ditch backfill on Phase 2A at Sta. 97+30
818	Interceptor ditch backfill on Phase 2A at Sta. 96+00
819	Interceptor ditch backfill on Phase 2A at Sta. 96+00
820	Clay subbase on Phase 2B - Sta. 95+30N, Sta. 113+60E

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

*** Finished Clay Subbase**

DISTRIBUTION:
The Haskell Company (DC)
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England, Thims & Miller, Inc. (DC)
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City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 11/16/92							
821	18.3	103.9	11	99	96	3	*
822	20.4	102.7	11	98	96	3	*
823	20.9	102.6	11	98	96	3	*
824	19.4	102.8	11	98	96	3	*
825	19.9	103.0	11	98	96	3	*

TEST LOCATIONS:

821 Clay subbase on Phase 2B - Sta. 95+10N, Sta. 113+75E
822 Clay subbase on Phase 2B - Sta. 94+90N, Sta. 113+60E
823 Clay subbase on Phase 2B - Sta. 94+70N, Sta. 113+50E
824 Clay subbase on Phase 2B - Sta. 94+50N, Sta. 113+60E
825 Clay subbase on Phase 2B - Sta. 94+30N, Sta. 113+70E

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

*** Finished Clay Subbase**

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City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management

JOB NO: 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 11/19/92							
826	22.3	101.6	11	97	96	3	*
827	21.7	101.0	11	96	96	3	*
828	19.6	101.0	11	96	96	3	*
829	20.1	102.7	11	98	96	3	*
830	18.4	101.4	11	97	96	3	*
831	23.1	101.4	11	96	96	3	*
832	21.4	101.8	11	97	96	3	*
833	20.2	101.8	11	97	96	3	*

TEST LOCATIONS:

826	Phase 2-A, Sta. 113+20E - Sta. 97+00N
827	Phase 2-A, Sta. 113+40E - Sta. 96+80N
828	Phase 2-A, Sta. 113+60E - Sta. 96+60N
829	Phase 2-A, Sta. 113+80E - Sta. 96+90N
830	Phase 2-A, Sta. 113+60E - Sta. 96+20N
831	Phase 2-A, Sta. 113+40E - Sta. 96+00N
832	Phase 2-A, Sta. 113+20E - Sta. 95+80N
833	Phase 2-A, Sta. 113+50E - Sta. 95+65N

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

*** Finished Clay Subbase**

DISTRIBUTION:
The Haskell Company (DC)
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England, Thims & Miller, Inc. (DC)
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City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 11/30/92							
834	9.6	109.0	#5	97	96	3	-0
835	10.1	109.7	#5	97	96	3	-1'
836	10.6	110.3	#5	98	96	3	-2'
837	8.4	109.9	#5	97	96	3	-0
838	8.9	110.5	#5	98	96	3	-1'
839	9.9	109.3	#5	97	96	3	-2'
840	10.4	110.1	#5	98	96	3	-3'
841	11.6	110.6	#5	98	96	3	-4'
842	22.1	100.7	11	96	96	3	*
843	21.6	101.2	11	96	96	3	*
844	23.2	101.3	11	96	96	3	*

TEST LOCATIONS:

834	Phase 2-A - Sta. 97+40N, Sta. 113+80E
835	Phase 2-A - Sta. 97+40N, Sta. 113+80E
836	Phase 2-A - Sta. 97+40N, Sta. 113+80E
837	Phase 2-A - Sta. 98+60N, Sta. 113+80E
838	Phase 2-A - Sta. 98+60N, Sta. 113+80E
839	Phase 2-A - Sta. 98+60N, Sta. 113+80E
840	Phase 2-A - Sta. 98+60N, Sta. 113+80E
841	Phase 2-A - Sta. 98+60N, Sta. 113+80E
842	Phase 2-A - Sta. 97+20N, Sta. 113+70E
843	Phase 2-A - Sta. 97+45N, Sta. 113+60E
844	Phase 2-A - Sta. 97+70N, Sta. 113+50E

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
#5 of 446-01631-02	112.7	10.5
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

*** Finished Clay Subbase**

DISTRIBUTION:
The Haskell Company (DC)
The Haskell Company (DC)
England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Trailridge Landfill, Inc. (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED

Bryant B. Wildes

Bryant B. Wildes

LAW ENGINEERING

3901 Carmichael Avenue, Jacksonville, Florida 32207

REPORT OF FIELD DENSITY TESTS

CLIENT: Waste Management **JOB NO:** 446-01631-01

PROJECT: Trailridge Landfill
Jacksonville, FL

TEST NUMBER	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PROCTOR NUMBER	COMPACTION (%)	SPECIFIED COMPACTION (%)	TEST METHOD	ELEVATION OR DEPTH
Tests Performed on 11/30/92							
845	20.4	103.6	11	99	96	3	*
846	21.9	101.6	11	97	96	3	*
847	22.5	103.1	11	98	96	3	*
848	22.1	102.6	11	98	96	3	*
849	23.4	101.1	11	96	96	3	*

TEST LOCATIONS:

845 Phase 2-A - Sta. 97+95N, Sta. 113+40E
846 Phase 2-A - Sta. 98+20N, Sta. 113+50E
847 Phase 2-A - Sta. 98+45N, Sta. 113+60E
848 Phase 2-A - Sta. 98+70N, Sta. 113+70E
849 Phase 2-A - Sta. 98+95N, Sta. 113+60E

TEST COMPARED TO:

PROCTOR NUMBER	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)
11	105.1	20.1

REMARKS

Performed In General Accordance With:
3 - ASTM D2922

*** Finished Clay Subbase**

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England, Thims & Miller, Inc. (DC)
England, Thims & Miller, Inc. (DC)
Trailridge Landfill, Inc. (DC)
City of Jacksonville (DC)
Trailridge Landfill, Inc. (DC)

RESPECTFULLY SUBMITTED:

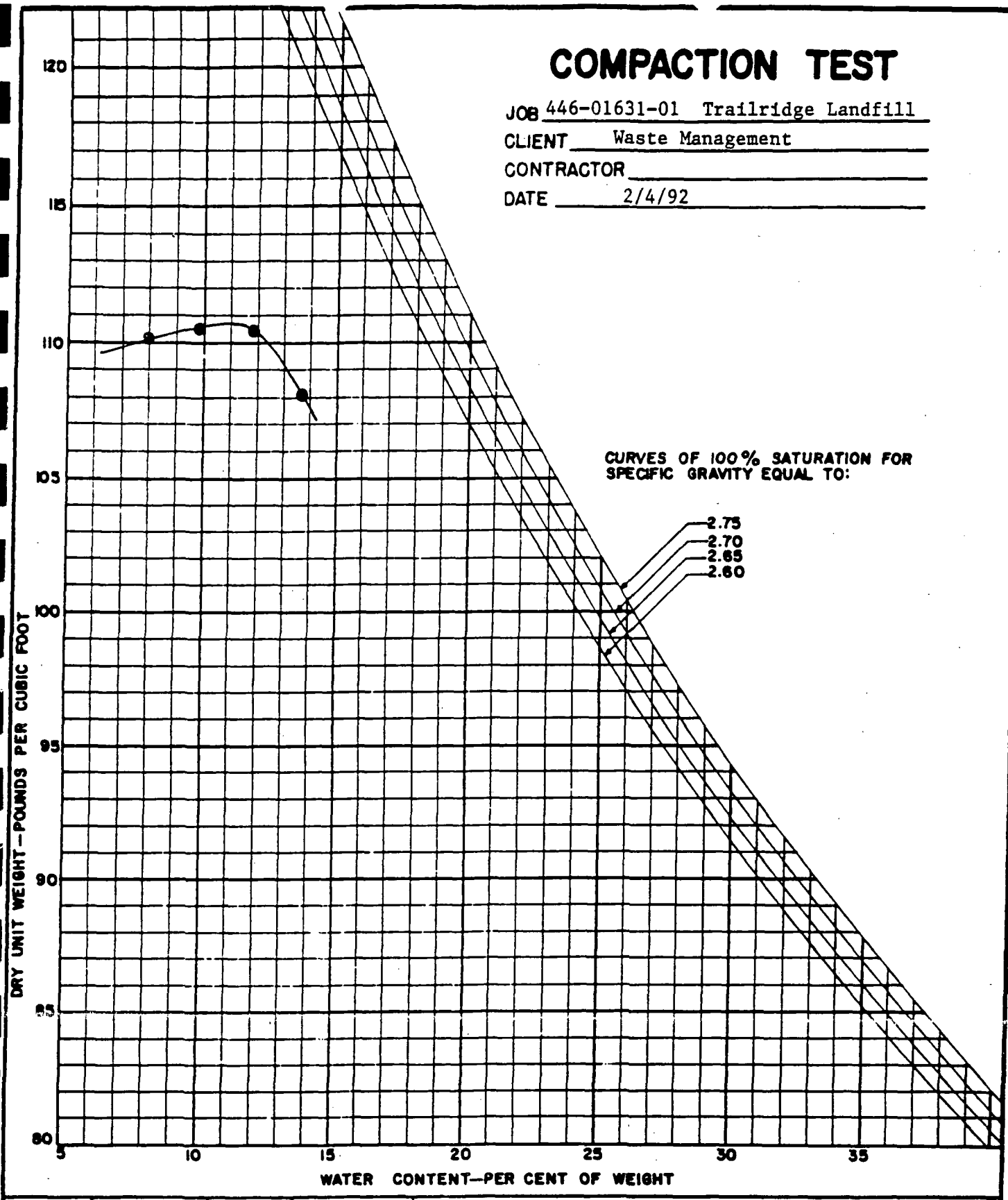
Bryant B. Wildes

Bryant B. Wildes

LABORATORY COMPACTION AND GRAIN SIZE TESTS

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management
CONTRACTOR
DATE 2/4/92

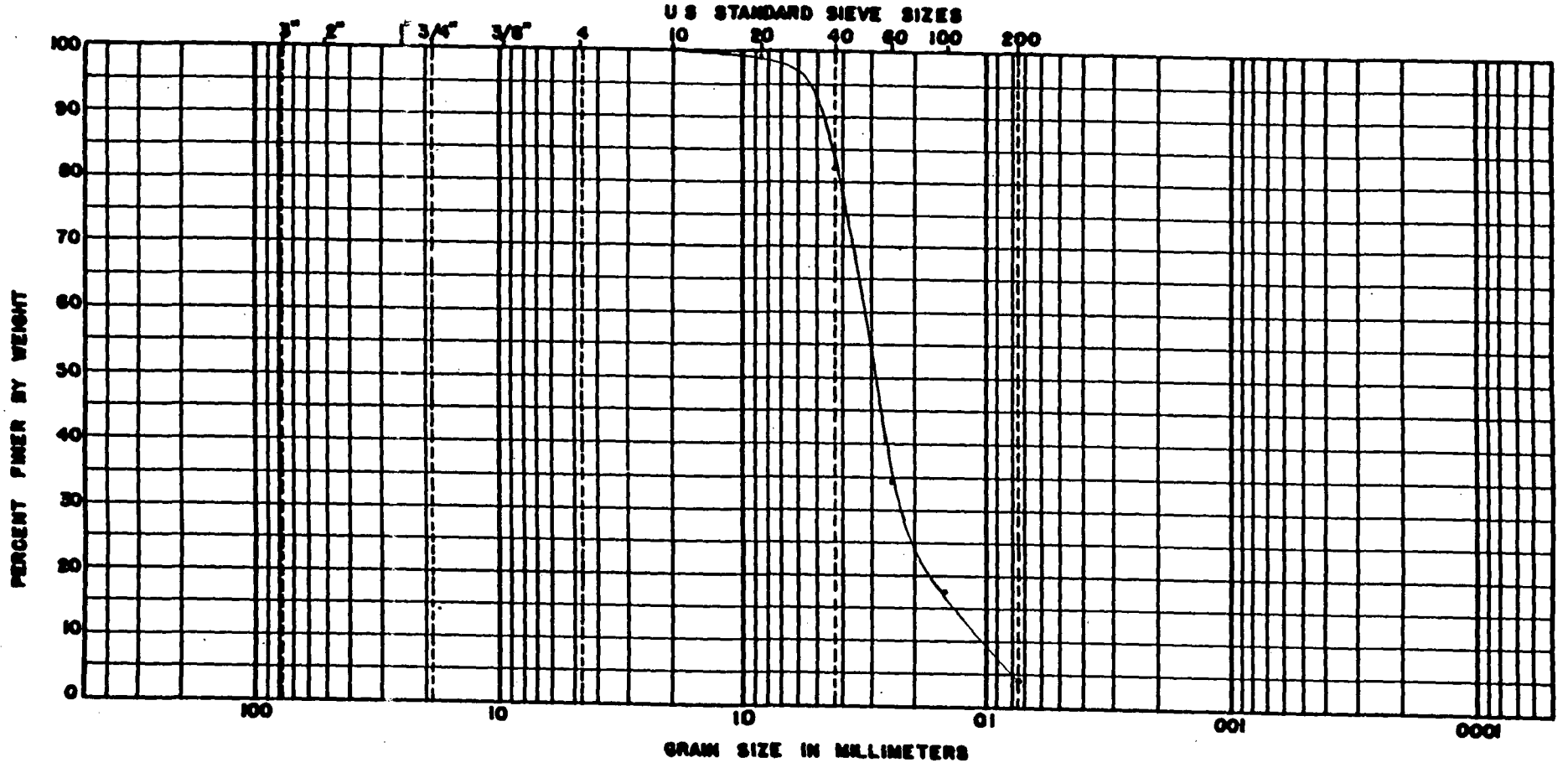


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
1	ASTM D 1557 "A"	110.8	11.2	Grey Slightly Silty Fine Sand (Existing material)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
1						Grey Slightly Silty Fine Sand

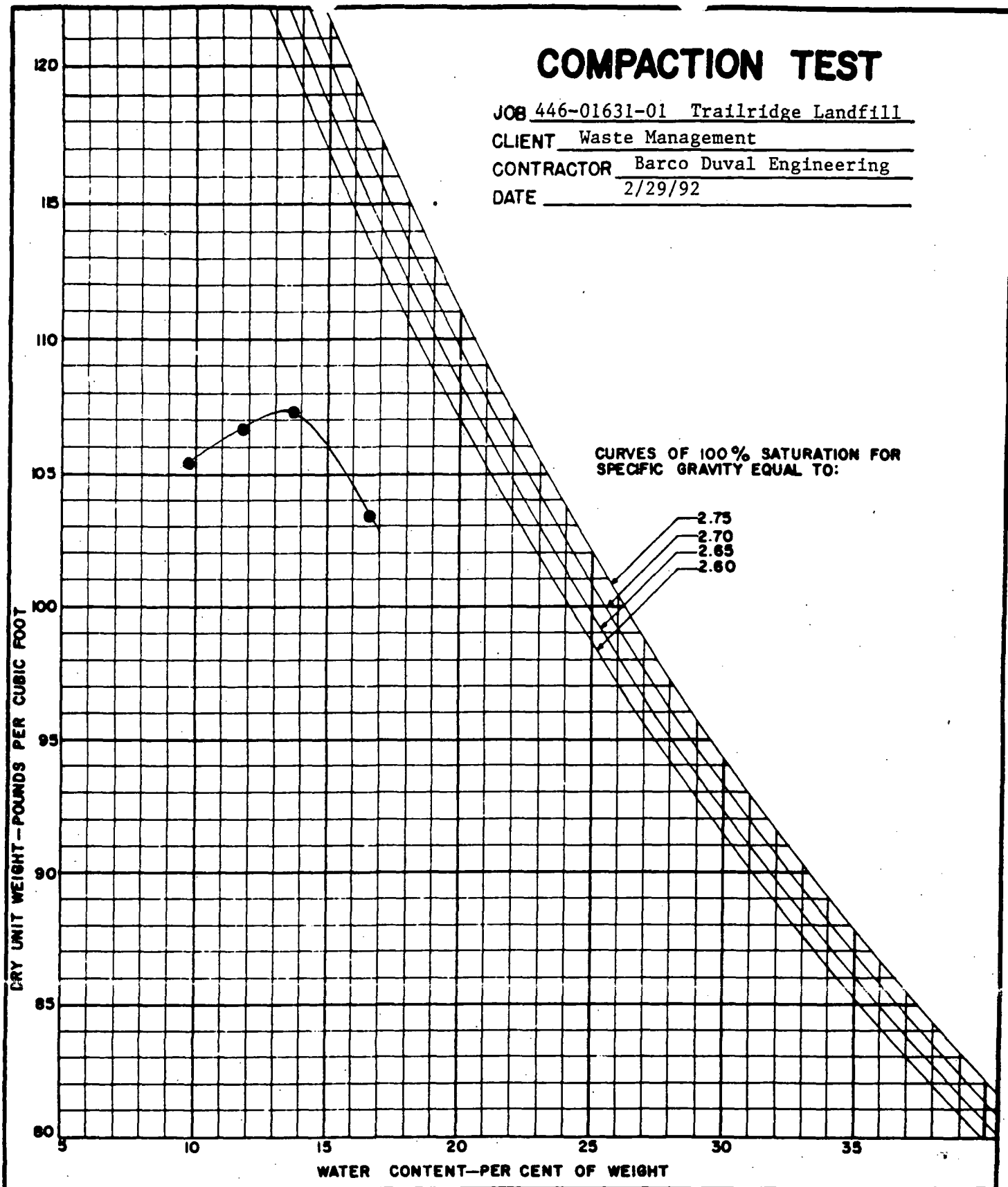
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BBW

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management
CONTRACTOR Barco Duval Engineering
DATE 2/29/92

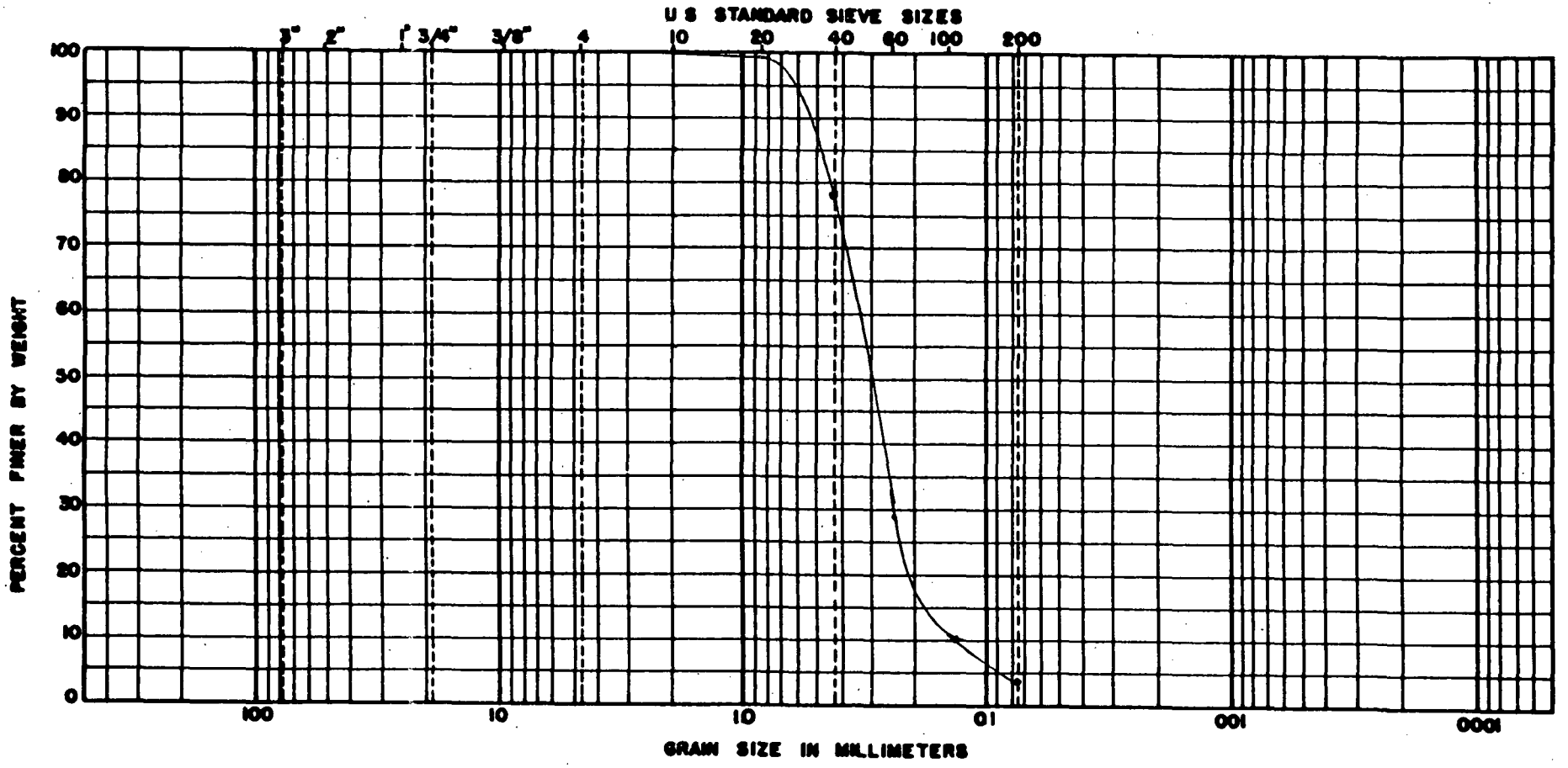


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
3	ASTM D 1557 "A"	107.5	13.6	Dark Grey Fine Sand with Pine Needles (Existing material at Sta. 115+00 and 90+85 on Phase 1C)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	L L	P L	P I	DESCRIPTION OR CLASSIFICATION
3						Dark Grey Fine Sand with Pine Needles

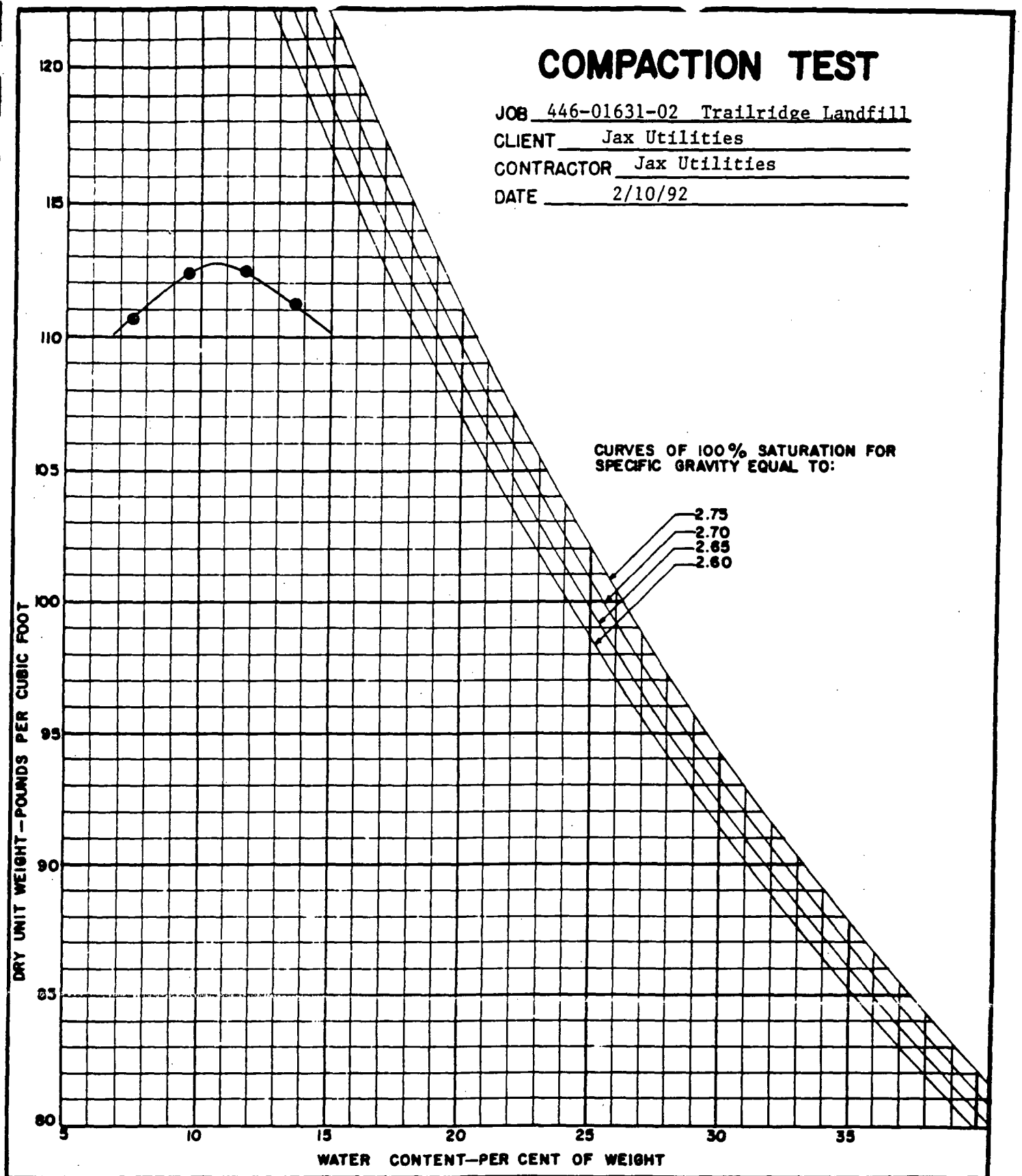
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BBW

COMPACTION TEST

JOB 446-01631-02 Trailridge Landfill
CLIENT Jax Utilities
CONTRACTOR Jax Utilities
DATE 2/10/92

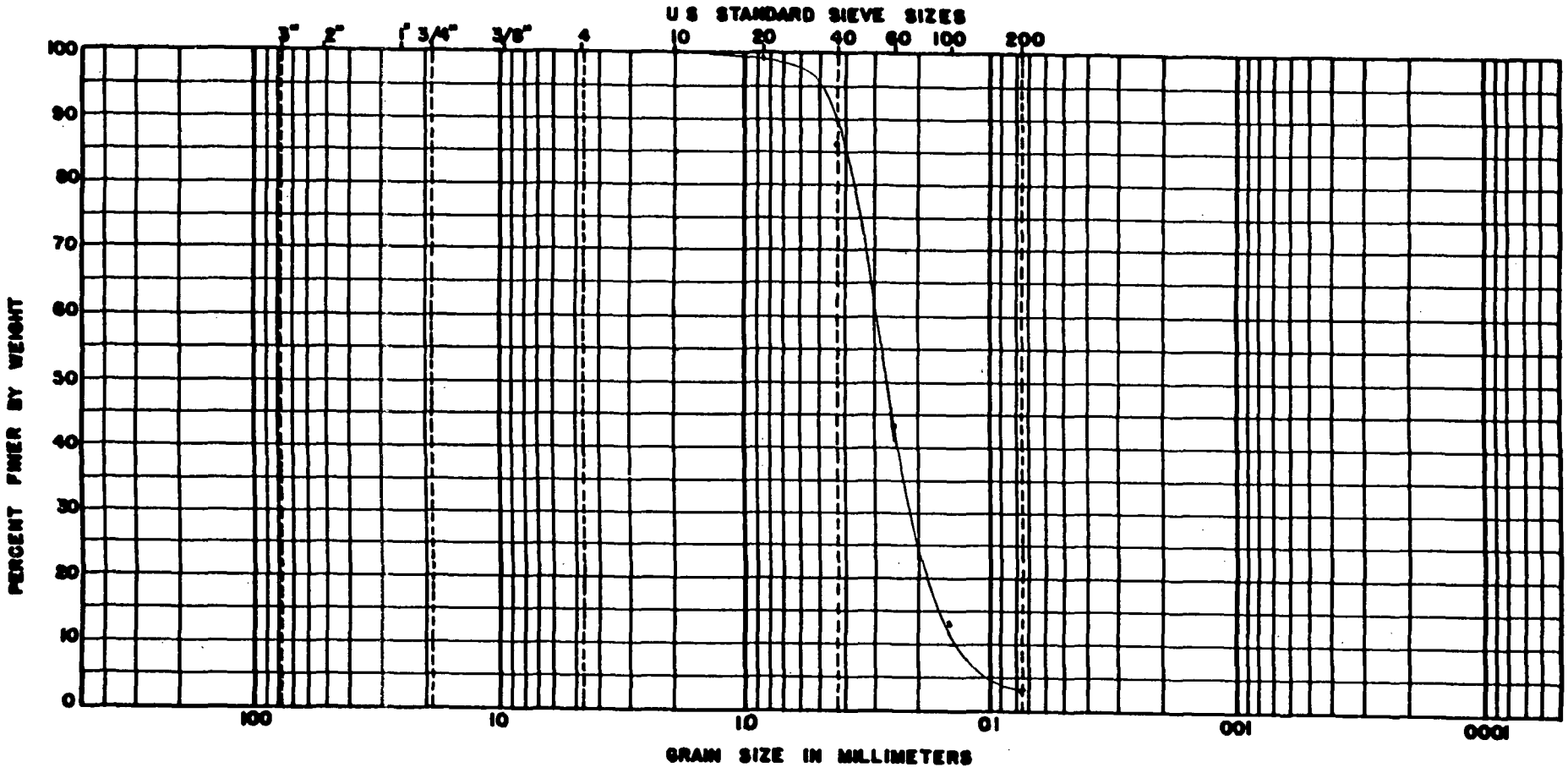


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
5	ASTM D 1557 "A"	112.7	10.5	Dark Grey Fine Sand (Existing Material)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B Wilde



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

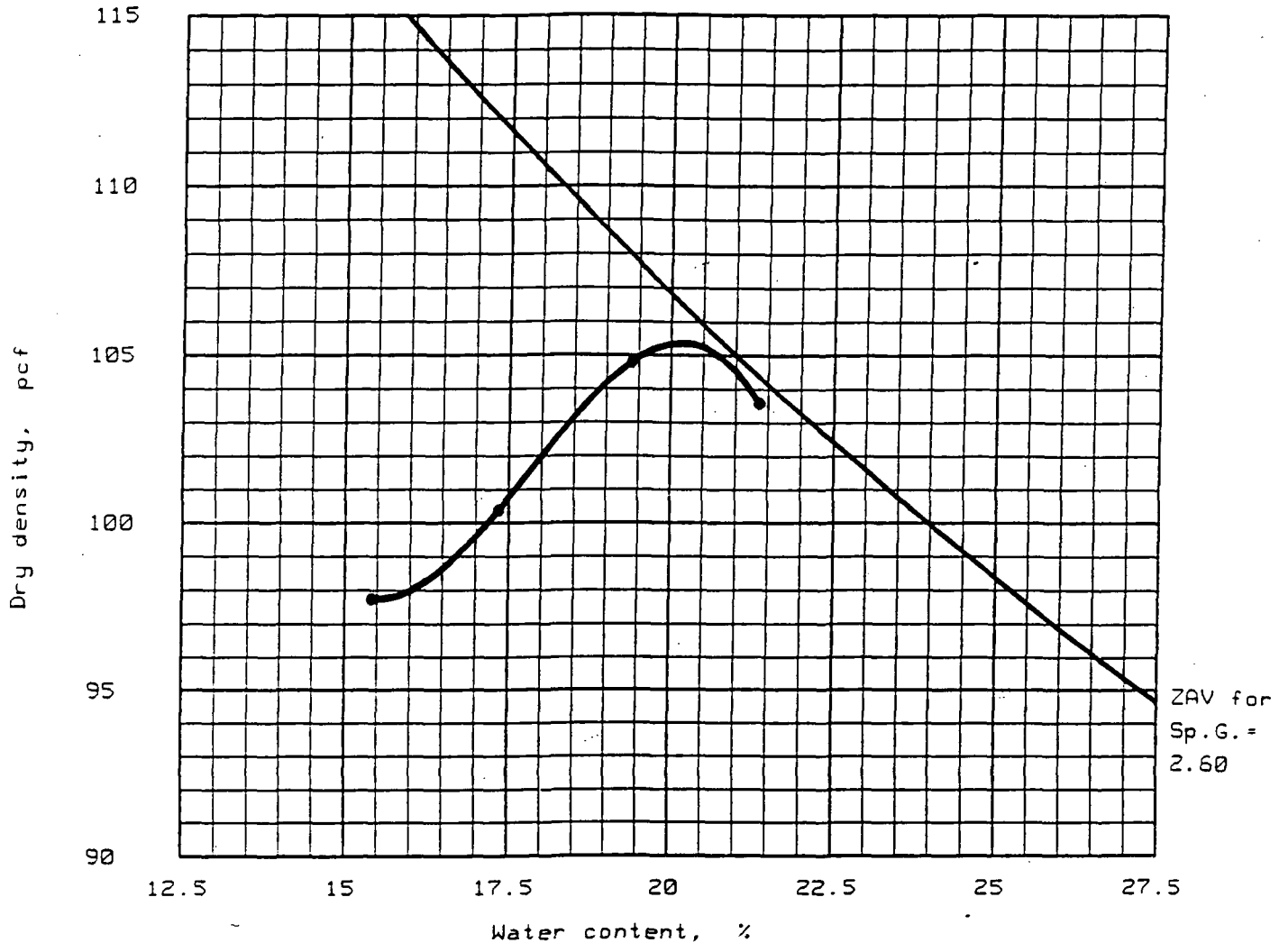
BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
5						Dark Grey Fine Sand

GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-02

LAW ENGINEERING BTBW

PROCTOR TEST REPORT



"Standard" Proctor, ASTM D 698, Method A

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No. 4	% < No. 200
	USCS	AASHTO						
				2.65			0 %	

TEST RESULTS	MATERIAL DESCRIPTION
Optimum moisture = 20.1 % Maximum dry density = 105.4 pcf	Grey-Brown Clayey Fine SAND

Project No.: 446-01631-01

Project: Trailridge Landfill

Location: Clay Liner Phase 2-C

Date: 6-29-92

Remarks:

Client: Waste Management Inc.

Proctor No. 11

PROCTOR TEST REPORT

LAW ENGINEERING INC.

Figure No. 1

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/16/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 16, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
91	116.1	1.1×10^{-6}	Sta. 92+90 125+20	7-3/4
92	108.1	9.8×10^{-6}	Sta. 93+60 125+70	7
93	109.3	2.3×10^{-6}	Sta. 94+30 125+40	8
94	108.1	8.2×10^{-6}	Sta. 94+90 125+90	6-1/2
95	104.1	5.3×10^{-5}	Sta. 96+05 102+00	7
96	106.8	3.7×10^{-5}	Sta. 96+07N, 102+95E	7-1/2
97	101.8	6.1×10^{-5}	Sta. 96+63N, 102+85E	7

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/17/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 17, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
98	106.9	1.1×10^{-5}	Sta. 96+55N, 102+08E	7-1/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/18/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 18, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
99	105.9	8.1×10^{-6}	Sta. 97+40N, 101+70E	7-1/2
100	103.1	1.1×10^{-5}	Sta. 98+70N, 102+20E	7
101	104.5	8.2×10^{-5}	Sta. 98+00 103+10	6-1/2
102	110.0	1.8×10^{-6}	Sta. 97+30 102+70	6-3/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/20/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 20, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
103	108.0	7.3×10^{-6}	RETEST OF #95	7
104	96.8	3.2×10^{-5}	RETEST OF #96	7-1/2
105	106.2	6.9×10^{-6}	RETEST OF #97	7

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/22/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 22, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
106	108.1	7.9×10^{-6}	RETEST OF #98	7-1/4
107	105.8	8.0×10^{-6}	Sta. 95+80N, 103+70E	7-1/2
108	99.4	1.4×10^{-4}	Sta. 96+70N, 104+25E	6-1/2
109	107.2	9.8×10^{-6}	Sta. 97+50N, 103+85E	7-1/4
110	105.4	3.2×10^{-6}	Sta. 98+30N, 104+20E	8
111	103.4	4.2×10^{-6}	RETEST OF #100	7

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/23/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 23, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
112	95.5	8.6×10^{-8}	Sta. 99+10N, 114+00E +7'	Clay Top Cap
113	93.5	7.4×10^{-8}	Sta. 99+10N, 115+00E +2'	Clay Top Cap -3'
114	89.6	4.6×10^{-8}	Sta. 99+10N, 116+00E +4'	Clay Top Cap -5'

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

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JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/25/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 25, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
115	101.1	1.1×10^{-5}	Sta. 92+10N, 114+20E	7
116	106.5	8.7×10^{-7}	Sta. 91+20N, 114+80E	7-3/4
117	103.4	1.9×10^{-7}	Sta. 91+75N, 115+40E	8
118	109.0	6.5×10^{-6}	RETEST OF #101	
119	103.8	2.2×10^{-6}	RETEST OF #104	

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/28/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 28, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
120	105.8	1.9×10^{-6}	Sta. 90+40N, 114+50E	8
121	94.4	2.2×10^{-6}	Sta. 90+70N, 115+10E	7-3/4
122	107.2	4.9×10^{-6}	Sta. 90+20N, 115+70E	8
124	96.8	2.0×10^{-6}	Sta. 99+10N, 118+00E	Clay Top Cap -3'
125	94.7	8.7×10^{-8}	Sta. 99+10N, 119+00E	Clay Top Cap -5'
126	100.8	8.0×10^{-8}	Sta. 99+10N, 120+00E	Clay Top Cap
127	107.9	5.3×10^{-8}	RETEST OF #115	7

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/29/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 29, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
123	99.8	1.1×10^{-8}	Sta. 99+10N, 117+00E	Clay Top Cap
128	104.9	1.0×10^{-7}	RETEST OF #115	7
129	100.1	1.1×10^{-6}	Sta. 90+40N, 116+80E	8
130	97.7	2.8×10^{-8}	Sta. 91+20N, 116+25E	7-1/2
131	109.8	1.4×10^{-6}	Sta. 91+90N, 116+65E	7
132	99.7	1.5×10^{-7}	RETEST OF #108	

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 4/30/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On April 30, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
134	106.8	3.5×10^{-7}	Sta.97+75N, 117+20E	7
135	104.7	7.8×10^{-7}	Sta. 90+80N, 117+80E	6
136	105.3	1.4×10^{-6}	Sta. 90+30N, 117+35E	7-1/2
137	103.7	4.9×10^{-7}	Sta. 92+20N, 118+80E	6-1/2
138	100.7	1.1×10^{-6}	Sta. 91+15N, 118+25E	7-3/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/1/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 1, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
139	106.1	1.9×10^{-7}	Sta. 90+25N, 118+75E	7-1/2
140	92.4	2.1×10^{-9}	RETEST OF #124	Clay Top Cap -3'

Respectfully submitted,
LAW ENGINEERING, INC.

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Bryant B. Wildes
Chief Engineering Technician

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/2/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 2, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
141	100.7	6.6×10^{-9}	Sta. 99+10N, 122+00E	Anchor Trench -3'
142	92.8	5.9×10^{-8}	Sta. 99+10N, 123+00E	Top of Anchor Trench -1'
143	103.6	7.7×10^{-7}	Sta. 90+20N, 119+70E	8
144	97.1	1.6×10^{-6}	Sta. 90+80N, 119+20E	7-1/2
145	105.8	1.7×10^{-7}	Sta. 91+50N, 119+50E	6-3/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wilder

Bryant B. Wilder
Chief Engineering Technician

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/4/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 4, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
133	94.8	5.6×10^{-9}	Sta. 99+10N, 121+00E	Anchor Trench Cap -3'
146	103.1	6.4×10^{-8}	Sta. 90+45N, 120+70E	7
147	89.0	1.4×10^{-7}	Sta. 91+35N, 120+90E	7
148	108.4	2.8×10^{-7}	Sta. 92+10N, 120+25E	6-1/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/5/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 5, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
149	101.2	1.1×10^{-7}	Sta. 98+60N, 124+00E	Anchor Trench -1'
150	102.0	1.7×10^{-6}	Sta. 91+80N, 121+50E	7
151	91.0	2.2×10^{-6}	Sta. 90+70N, 121+20E	6-3/4
152	110.9	6.6×10^{-7}	Sta. 90+25N, 121+80E	7-1/8
153	100.0	2.0×10^{-7}	Sta. 92+15N, 122+80E	7-1/2
154	114.2	2.4×10^{-7}	Sta. 91+35N, 122+45E	7-1/4
155	109.3	2.8×10^{-7}	Sta. 90+30N, 122+70E	7-3/4
156	112.7	9.8×10^{-8}	Sta. 90+20N, 123+50E	7-1/2

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/6/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 6, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
157	101.7	1.8×10^{-7}	Sta. 91+05N, 123+40E	7
158	97.9	6.6×10^{-6}	Sta. 91+80N, 123+75E	7-1/4

Respectfully submitted,
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Bryant B. Wilder

Bryant B. Wildes
Chief Engineering Technician

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/7/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 7, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
159	89.4	7.7×10^{-9}	Sta. 97+80N, 124+75E	-1' from Top of Berm
161	94.2	1.8×10^{-9}	Sta. 95+80N, 125+30E	South Leachate Berm, Top of Berm
162	95.4	3.7×10^{-9}	Sta. 95+00N, 126+15E	1-B Berm Clay Cap, Top of Berm
163	95.5	6.5×10^{-7}	Sta. 94+00N, 126+15E	1-B Berm Clay Cap, -3'
164	89.6	1.7×10^{-9}	Sta. 93+00N, 126+15E	1-B Berm Clay Cap, -4'

Respectfully submitted,
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Bryant B Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/18/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 18, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
165	103.9	2.8×10^{-6}	Sta. 91+70N, 124+20E	7-1/2
166	108.3	5.3×10^{-6}	Sta. 90+70N, 124+20E	7
167	89.0	2.9×10^{-5}	Sta. 90+30N, 124+80E	7-1/4
168	92.4	2.9×10^{-5}	Sta. 90+60N, 125+60E	8
169	90.9	2.9×10^{-5}	Sta. 91+25N, 125+90E	6-3/4
170	103.8	1.6×10^{-5}	Sta. 91+80N, 125+50E	6-1/2

Respectfully submitted,
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/9/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 9, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
171	95.7	2.9×10^{-8}	Sta. 98+70N, 100+95E	7-1/2
172	87.5	3.3×10^{-8}	Sta. 97+80N, 101+20E	7-1/2
173	101.8	4.8×10^{-8}	Sta. 96+80N, 100+95E	7-1/4
174	97.2	4.0×10^{-8}	Sta. 96+10N, 101+30E	7-1/2

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wilder

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/11/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 11, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
160	106.3	1.8×10^{-8}	Sta. 96+60N, 124+25E	West Leachate Berm -3'
175	99.8	2.3×10^{-8}	RETEST OF 149	

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wilder

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/12/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 12, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
176	104.0	2.4×10^{-7}	Sta. 98+60N, 104+80E	7-1/2
177	111.3	1.8×10^{-6}	Sta. 97+40N, 105+20E	8
178	117.0	1.7×10^{-7}	Sta. 96+70N, 104+90E	7-3/4
179	114.9	8.6×10^{-7}	Sta. 95+80N, 105+30E	8-1/2

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/13/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 13, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
180	100.7	9.4×10^{-8}	Sta. 98+70N, 105+80E	7-3/4
181	86.6	4.2×10^{-9}	Sta. 97+75N, 106+20E	8-1/4
182	96.9	6.9×10^{-7}	Sta. 96+60N, 105+95E	8

Respectfully submitted,
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/14/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 14, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
183	93.7	2.6×10^{-6}	Sta. 95+90N, 106+30E	7-1/2
184	101.1	1.7×10^{-7}	Sta. 98+40N, 107+40E	6-1/2
185	105.0	1.7×10^{-7}	Sta. 97+80N, 106+85E	6-3/4
186	104.0	1.5×10^{-6}	Sta. 96+70N, 107+20E	6-1/4
187	105.4	5.5×10^{-7}	Sta. 95+80N, 106+90E	7

Respectfully submitted,
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Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/16/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 16, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
188	106.8	7.2×10^{-8}	RETEST OF 167	7-1/4
189	93.9	1.9×10^{-7}	RETEST OF 168	8
190	108.4	1.0×10^{-7}	RETEST OF 169	6-3/4
191	101.7	8.3×10^{-8}	RETEST OF 170	6-1/2

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wilde

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/17/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 17, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
192	96.2	5.0×10^{-8}	Sta. 95+95N, 107+75E	7
193	104.3	3.5×10^{-8}	Sta. 97+60N, 107+60E	7-1/2
194	99.0	1.2×10^{-7}	Sta. 98+70N, 108+20E	7
195	94.6	5.1×10^{-8}	Sta. 97+95N, 108+75E	7-1/2

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/19/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 19, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
196	102.8	1.9×10^{-7}	Sta. 96+60N, 108+20E	8
197	103.4	5.7×10^{-7}	Sta. 95+85N, 108+65E	8

Respectfully submitted,
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Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/20/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 20, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
198	101.2	2.6×10^{-8}	Sta. 95+80N, 109+90E	7-1/4
199	99.4	2.1×10^{-7}	Sta. 96+70N, 109+40E	6-1/2
200	95.3	1.2×10^{-7}	Sta. 97+90N, 109+30E	6
201	97.4	4.7×10^{-8}	Sta. 98+60N, 109+85E	7-3/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/22/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 22, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
202	97.9	2.2×10^{-8}	Sta. 98+60N, 110+55E	7
203	94.4	4.5×10^{-7}	Sta. 97+35N, 110+60E	6-1/2
204	96.5	4.0×10^{-7}	Sta. 96+60N, 110+85E	7-1/2
205	105.7	8.5×10^{-7}	Sta. 95+80N, 110+30E	7-1/4
206	105.0	4.4×10^{-8}	Sta. 92+85N, 102+25E	7-1/2
207	106.3	2.5×10^{-7}	Sta. 94+10N, 102+90E	8
208	102.6	3.9×10^{-7}	Sta. 95+20N, 102+20E	7-5/8
209	96.8	5.2×10^{-6}	Sta. 94+95N, 103+50E	7-1/2
210	102.5	2.7×10^{-6}	Sta. 94+10N, 103+80E	7

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/24/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 24, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
211	101.7	7.5×10^{-8}	Sta. 93+10N, 103+50E	7-3/4
212	102.1	1.0×10^{-8}	Sta. 95+20N, 101+20E	7-3/4
213	100.1	9.7×10^{-6}	Sta. 94+10N, 101+85E	8-1/2
214	102.1	2.4×10^{-8}	Sta. 92+90N, 101+50E	7-3/8
215	103.1	5.7×10^{-7}	Sta. 92+75N, 104+25E	8
216	103.8	7.3×10^{-9}	Sta. 93+70N, 104+90E	7-1/2
217	96.0	4.4×10^{-7}	Sta. 94+60N, 104+20E	7-1/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wilder

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/25/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 25, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
218	96.7	4.0×10^{-7}	Sta. 95+10N, 105+50E	7-3/8
219	98.3	1.0×10^{-7}	Sta. 94+15N, 105+20E	7
220	102.6	7.3×10^{-6}	Sta. 93+20N, 105+80E	7-5/8

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
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(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/28/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 28, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
221	111.2	2.7×10^{-8}	Sta. 92+75N, 106+40E	7-1/2
222	112.2	6.4×10^{-7}	Sta. 93+70N, 106+50E	7-1/4
223	102.8	6.7×10^{-9}	Sta. 94+75N, 106+30E	7
224	109.6	1.5×10^{-6}	Sta. 94+90N, 107+20E	6-3/8
225	110.4	1.3×10^{-7}	Sta. 94+20N, 107+80E	7-1/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 5/29/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On May 29, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thicknesss (Inches)
226	93.5	5.6×10^{-6}	Sta. 93+15N, 107+40E	7
227	107.2	4.6×10^{-7}	Sta. 92+80N, 108+80E	8-1/4
228	104.2	9.5×10^{-7}	Sta. 94+00N, 108+50E	7-1/2
229	101.1	5.0×10^{-7}	Sta. 94+90N, 108+70E	7
230	99.2	7.3×10^{-8}	RETEST OF 163	

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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Chief Engineering Technician

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/1/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 1, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
231	107.8	1.3×10^{-8}	Sta. 95+20N, 109+50E	7-1/2
232	91.3	2.8×10^{-8}	Sta. 94+05N, 109+25E	7
233	88.9	5.8×10^{-8}	Sta. 92+90N, 109+70E	7
234	101.0	9.0×10^{-8}	Sta. 92+90N, 110+40E	6-1/2
236	101.2	9.2×10^{-7}	Sta. 94+85N, 110+65E	7-1/4

Respectfully submitted,
LAW ENGINEERING, INC.

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/2/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 2, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
235	105.6	9.9×10^{-9}	Sta. 93+80N, 110+70E	6-3/4
237	99.1	1.0×10^{-7}	Sta. 92+15N, 101+60E	7
238	108.8	3.9×10^{-8}	Sta. 91+10N, 101+10E	6-3/4
239	101.6	6.1×10^{-7}	Sta. 89+85N, 101+90E	7-1/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/4/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 4, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
240	88.6	5.3×10^{-7}	Sta. 90+15N, 102+20E	7-3/4
241	98.6	5.3×10^{-5}	Sta. 91+05N, 102+80E	8
242	109.5	1.4×10^{-8}	Sta. 92+10N, 102+25E	8

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/17/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 17, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
243	102.5	4.2×10^{-8}	Sta. 90+20N, 103+40E	7-1/2
244	104.6	1.3×10^{-7}	Sta. 91+10N, 103+60E	7-5/8
246	105.9	1.8×10^{-7}	Sta. 92+30N, 104+20E	7-1/2
247	105.2	5.2×10^{-8}	Sta. 91+20N, 104+60E	8-1/2
248	100.8	1.3×10^{-7}	Sta. 90+10N, 104+45E	7-3/4

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/20/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 20, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
245	111.3	1.3×10^{-7}	Sta. 92+10N, 103+40E	8-1/8
249	105.1	6.2×10^{-8}	Sta. 92+10N, 105+30E	8
250	99.1	2.7×10^{-8}	Sta. 91+20N, 105+70E	8-3/4
251	99.7	2.1×10^{-6}	Sta. 90+40N, 105+50E	7-5/8
252	101.3	2.8×10^{-8}	Sta. 90+20N, 106+80E	7-1/2
253	101.7	1.8×10^{-6}	Sta. 91+20N, 106+25E	8
254	107.8	1.2×10^{-8}	Sta. 92+10N, 106+50E	8

Respectfully submitted,
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/24/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 24, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
255	102.1	5.1×10^{-8}	Sta. 90+40N, 107+40E	7-1/4

Respectfully submitted,
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/25/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 25, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
256	98.8	8.4×10^{-8}	Sta. 91+20N, 107+70E	8
257	100.5	2.1×10^{-8}	Sta. 92+00N, 107+30E	8-1/4
258	92.2	8.7×10^{-8}	Sta. 92+10N, 108+70E	7-1/4
259	103.9	2.1×10^{-8}	Sta. 91+40N, 108+30E	7-5/8
260	104.0	8.0×10^{-8}	Sta. 90+50N, 108+50E	8-1/2
261	102.9	2.0×10^{-8}	Sta. 90+25N, 109+30E	7-1/2

Respectfully submitted,
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 6/26/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On June 26, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
262	94.0	5.6×10^{-8}	Sta. 91+20N, 109+75E	8
263	109.1	6.4×10^{-7}	Sta. 92+20N, 109+30E	7-3/4
264	104.3	5.2×10^{-8}	Sta. 92+15N, 110+25E	8-1/8
265	100.7	4.6×10^{-8}	Sta. 91+20N, 110+50E	7-5/8
266	85.4	4.6×10^{-8}	Sta. 90+25N, 110+80E	8

Respectfully submitted,
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 7/8/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On July 8, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
267	94.5	4.3×10^{-8}	Sta. 92+00N, 126+15E	-3'
268	97.9	4.3×10^{-8}	Sta. 91+00N, 126+15E	Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 7/13/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On July 13, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
269	87.2	3.1×10^{-8}	Sta. 90+00N, 126+15E	-4'
270	99.6	7.2×10^{-8}	Sta. 94+80N, 111+25E	8
271	99.5	3.4×10^{-8}	Sta. 94+30N, 111+80E	7-3/4
272	99.6	7.9×10^{-8}	Sta. 93+20N, 111+35E	8
273	100.8	1.8×10^{-7}	Sta. 94+75N, 112+70E	8
274	101.3	4.9×10^{-8}	Sta. 93+70N, 112+30E	8-1/2
275	100.0	5.6×10^{-8}	Sta. 92+80N, 112+70E	8

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 7/17/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On July 17, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
276	95.5	5.9×10^{-8}	Sta. 95+10N, 113+30E	7
277	91.9	5.9×10^{-6}	Sta. 94+20N, 113+30E	7

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
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(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 7/30/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On July 30, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
278	110.2	4.0×10^{-8}	Sta. 90+20N, 111+20E	6-1/2
279	105.2	4.0×10^{-7}	Sta. 91+20N, 111+60E	7
280	105.1	1.2×10^{-6}	Sta. 92+10N, 111+25E	7-1/4
281	116.1	1.3×10^{-8}	Sta. 91+90N, 112+20E	6-3/4
282	105.2	2.5×10^{-7}	Sta. 91+10N, 112+80E	7-3/8

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/4/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 4, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
283	98.8	1.5×10^{-7}	Sta. 90+25N, 112+40E	6-5/8

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 10/19/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On October 19, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
311	104.0	1.3×10^{-8}	Sta. 113+00E, 98+80N	9
312	94.1	2.6×10^{-8}	Sta. 111+30E, 98+80N	7
313	111.6	3.0×10^{-8}	Sta. 111+50E, 98+20N	9

Respectfully submitted,
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Bryant B. Wildes

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REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 10/21/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On October 21, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
314	106.3	4.0×10^{-9}	Sta. 112+35E, 98+35N	8
315	108.8	2.7×10^{-8}	Sta. 113+00E, 97+80N	6
316	107.3	2.0×10^{-8}	Sta. 112+20E, 97+60N	7
317	96.1	1.7×10^{-8}	Sta. 111+40E, 97+70N	6-1/2
318	109.2	6.4×10^{-9}	Sta. 111+90E, 99+20N	10
319	106.6	2.9×10^{-8}	Sta. 111+50E, 96+45N	7
320	111.9	4.9×10^{-8}	Sta. 111+75E, 95+75N	7-1/2
321	106.7	4.5×10^{-9}	Sta. 112+40E, 95+75N	7-1/4
322	113.1	2.9×10^{-9}	Sta. 112+10E, 96+35N	7

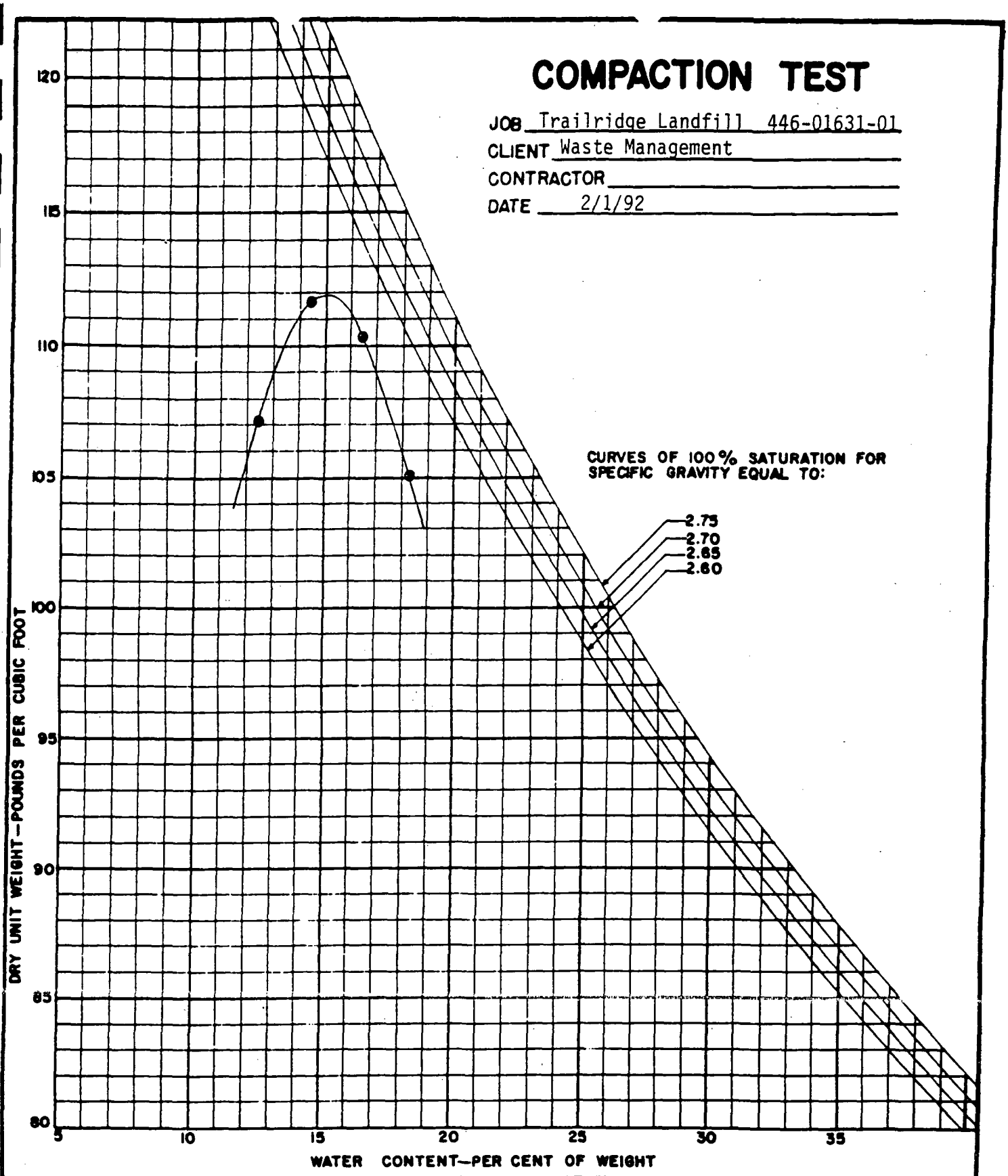
Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

COMPACTION TEST

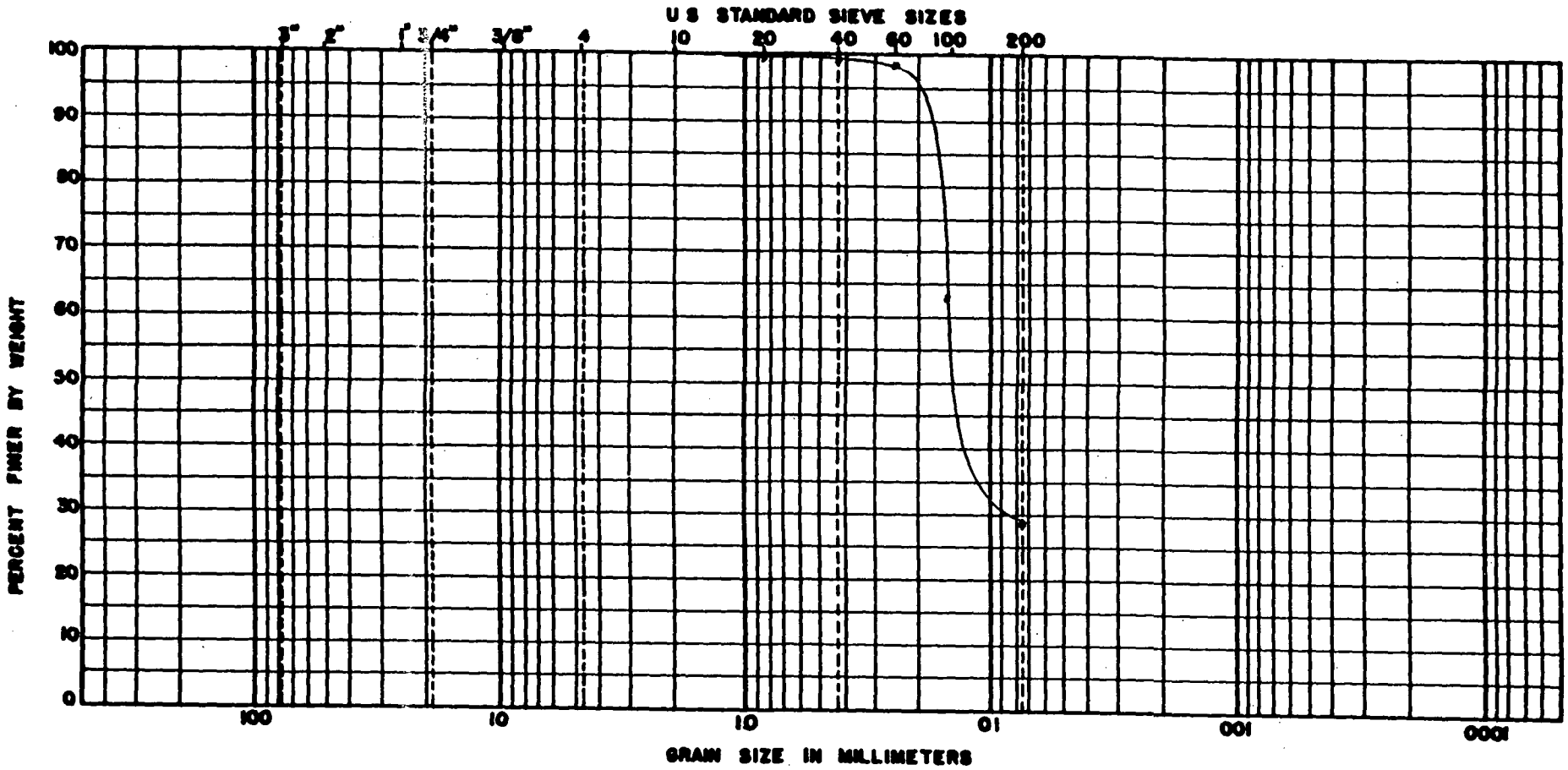
JOB Trailridge Landfill 446-01631-01
CLIENT Waste Management
CONTRACTOR
DATE 2/1/92



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
-1	ASTM D 698 "A"	111.9	14.9	Brown Tan Clayey Fine SAND (Clay verification Sample #1)

LAW ENGINEERING

BY Bryant B Wildes
Bryant B. Wildes, CET



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
Proctor #1						Brown Tan Clayey Fine SAND

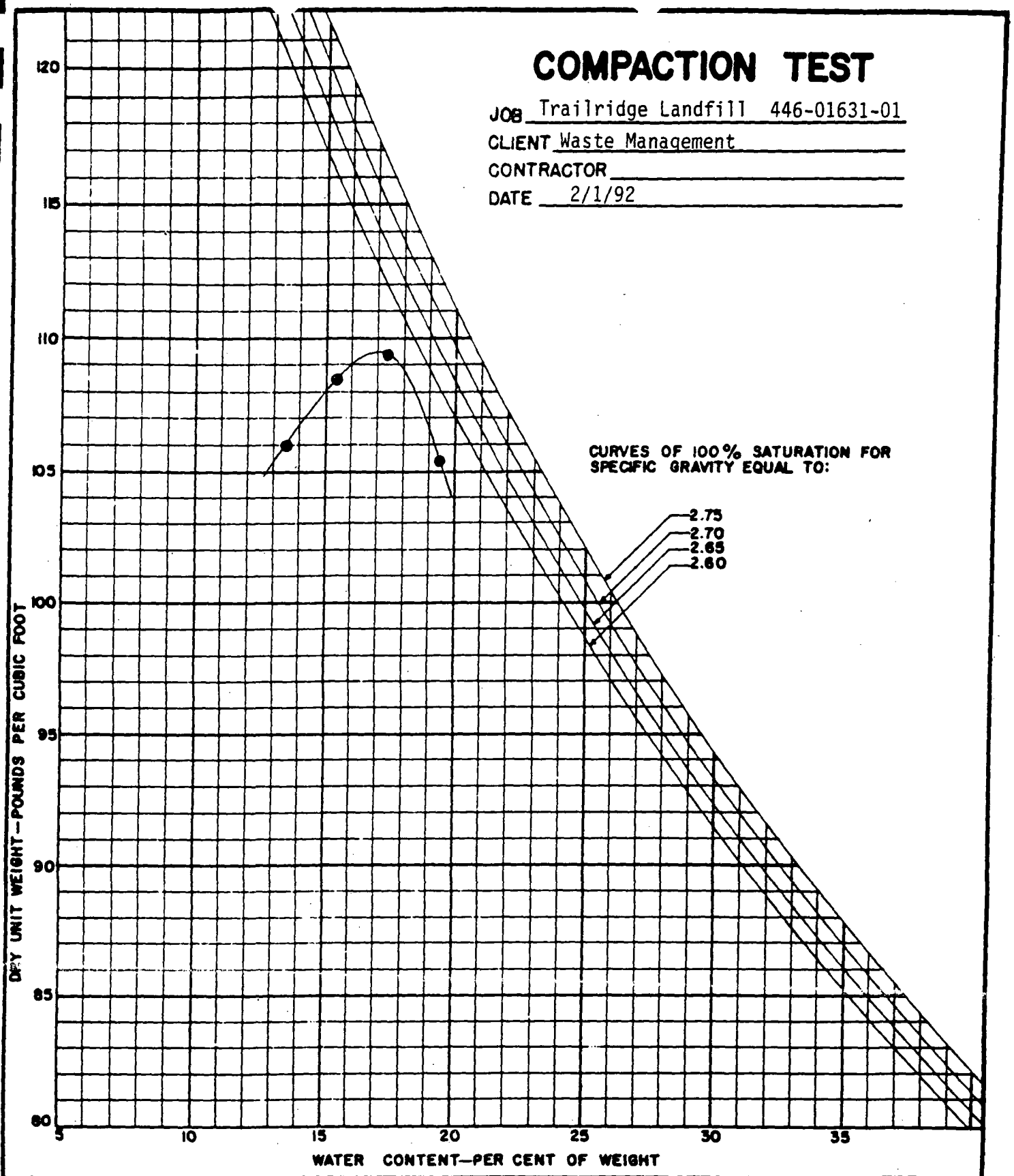
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BW

COMPACTION TEST

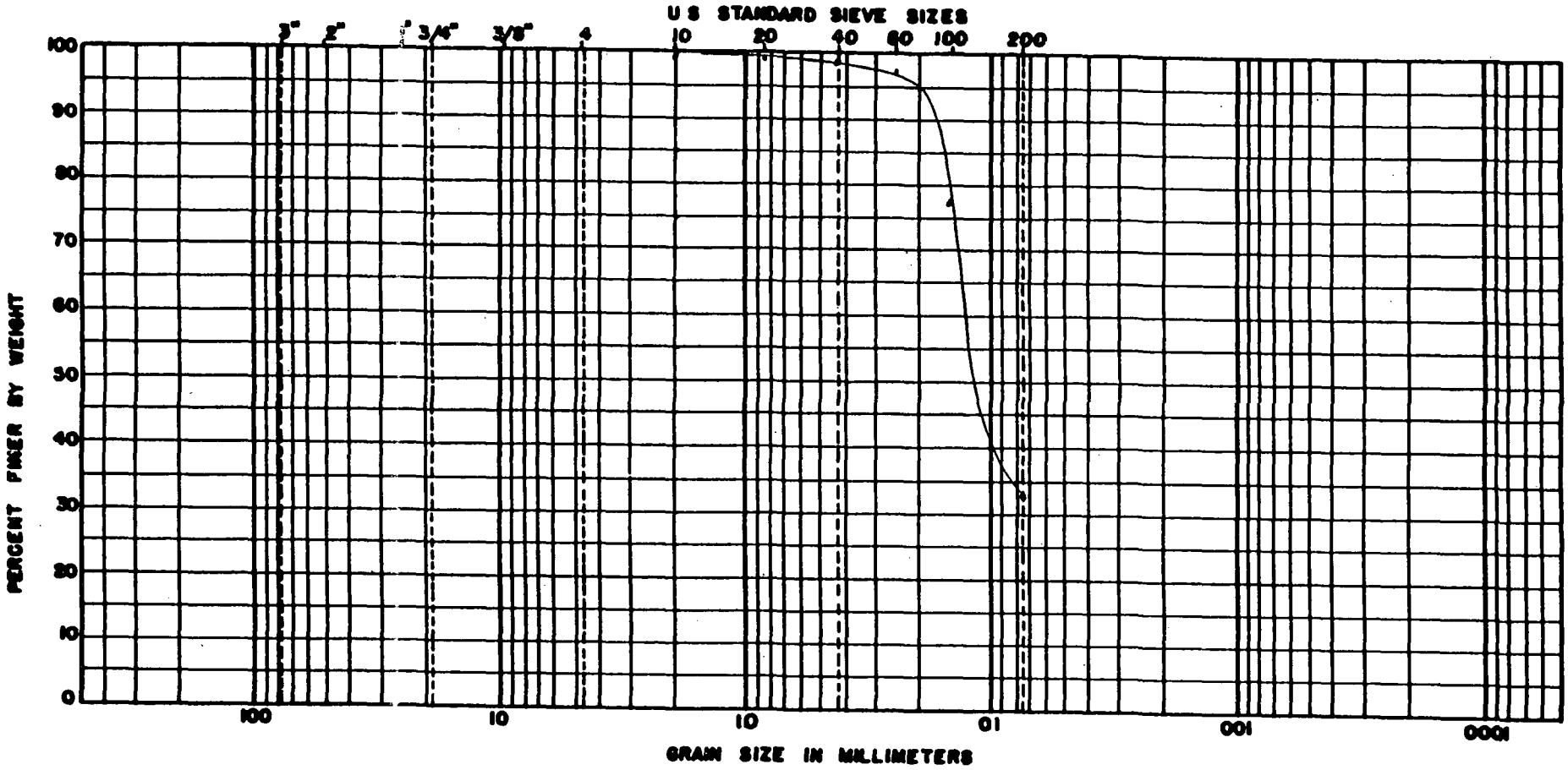
JOB Trailridge Landfill 446-01631-01
CLIENT Waste Management
CONTRACTOR
DATE 2/1/92



MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
2	ASTM D 698 "A"	109.4	17.4	Brown Very Clayey Fine SAND with traces of Rock Fragments (Champion pit Sample #2)

LAW ENGINEERING

BY Bryant B Wildes
Bryant B. Wildes, CET



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
Proctor #2						Brown Very Clayey Fine SAND with traces of Rock Fragments

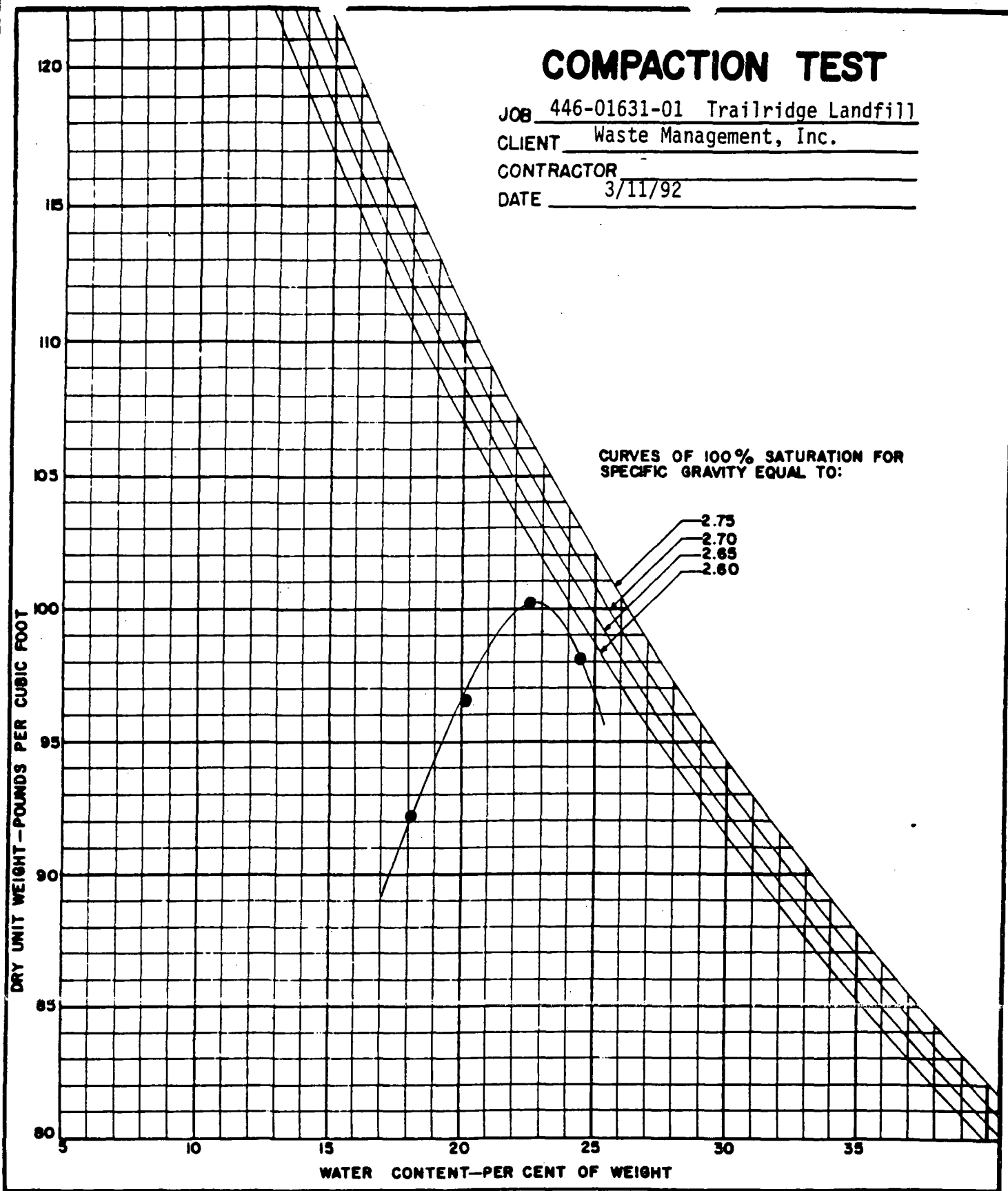
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management, Inc.
CONTRACTOR -
DATE 3/11/92

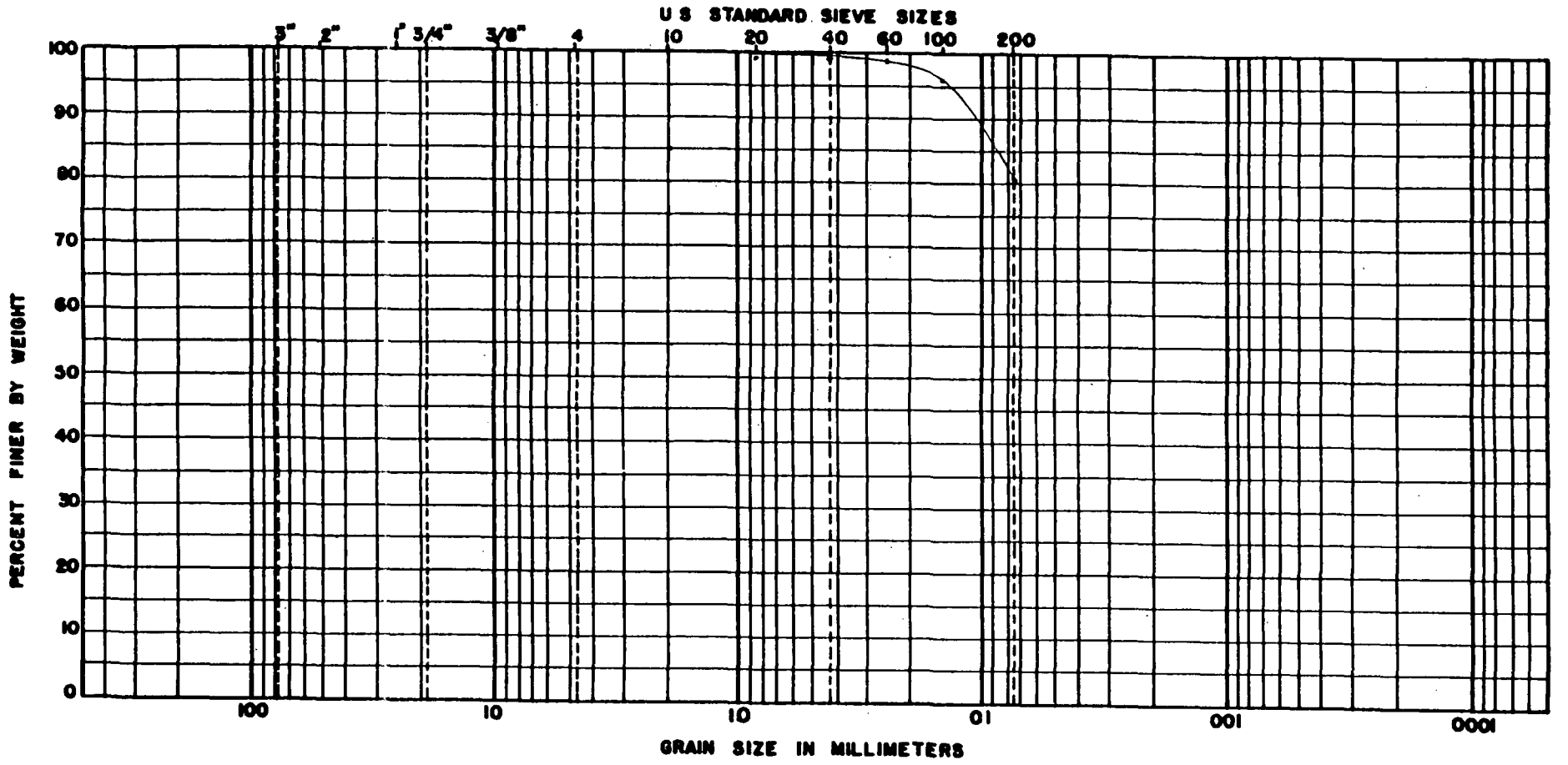


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT%	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
6	ASTM D 698 "A"	100.2	22.7	Light Brown Sandy Clay (6" Clay liner at Sta. 114+80, 96+50 of phase 1A)

Bryant B. Wildes Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wilder



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
6						Light Brown Sandy Clay

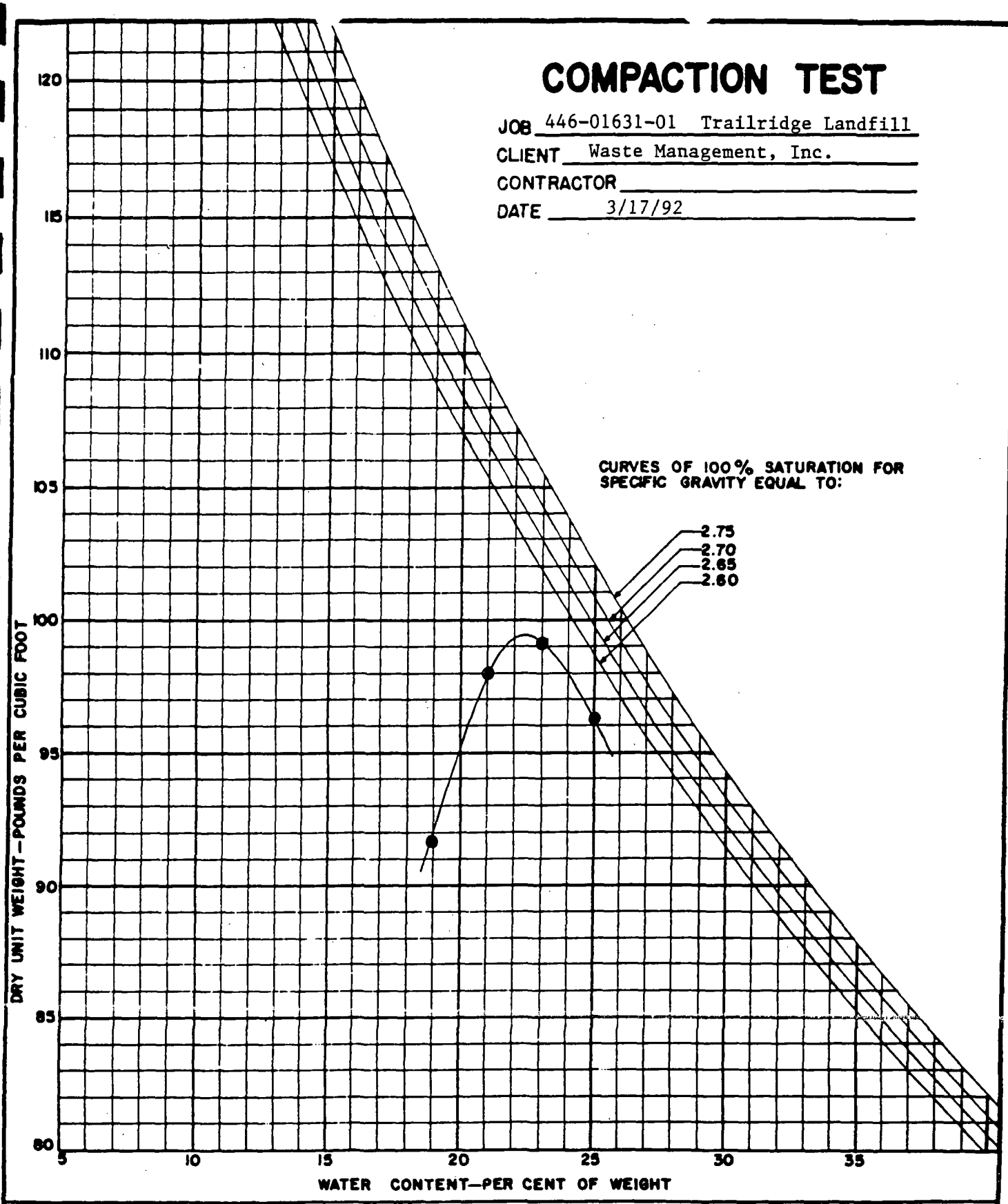
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BBW

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management, Inc.
CONTRACTOR
DATE 3/17/92

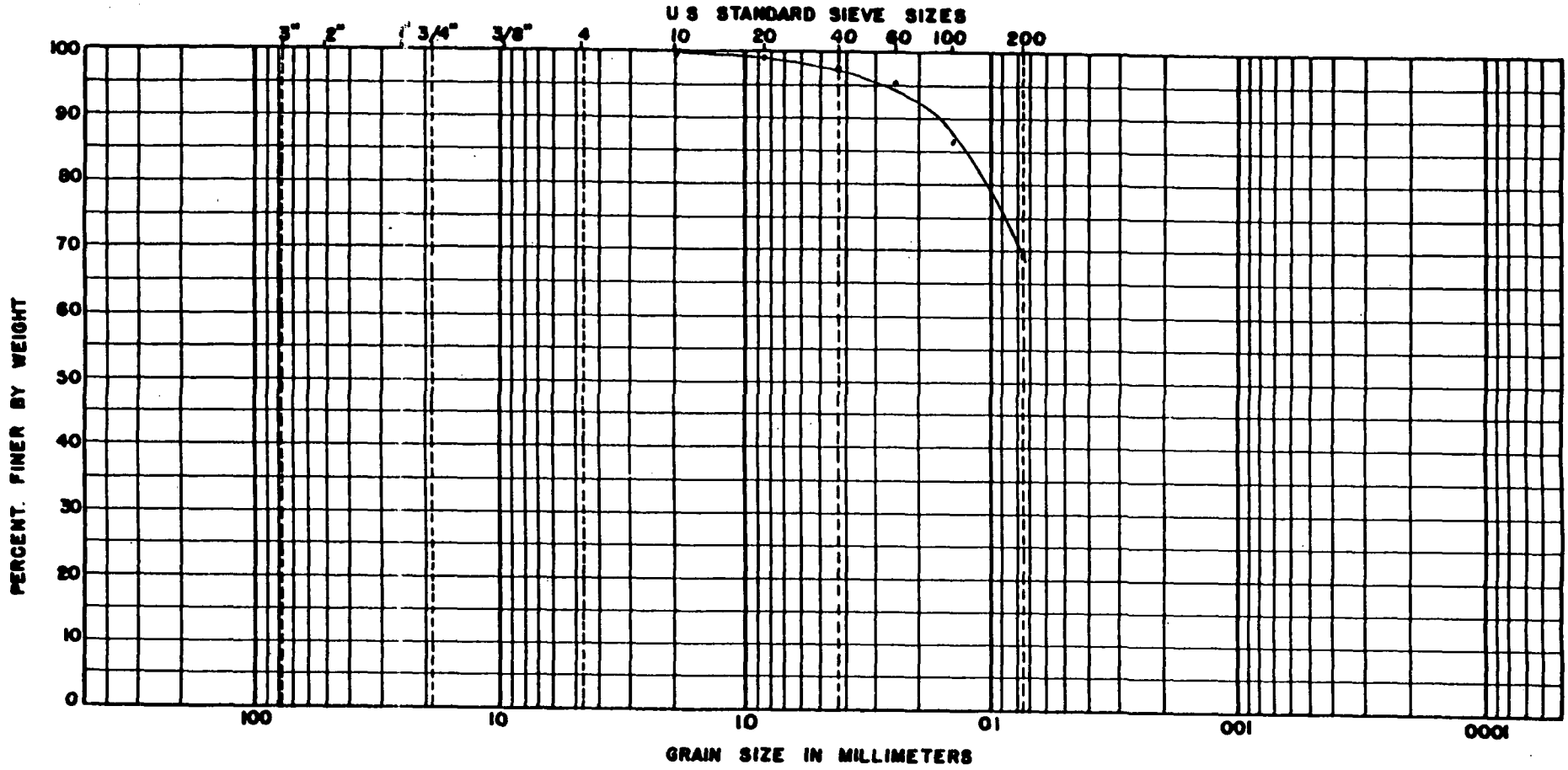


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT%	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
7	ASTM D 698 "A"	99.5	22.4	Brown Sandy Clay (Sample material, clay liner)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
7						Brown Sandy Clay

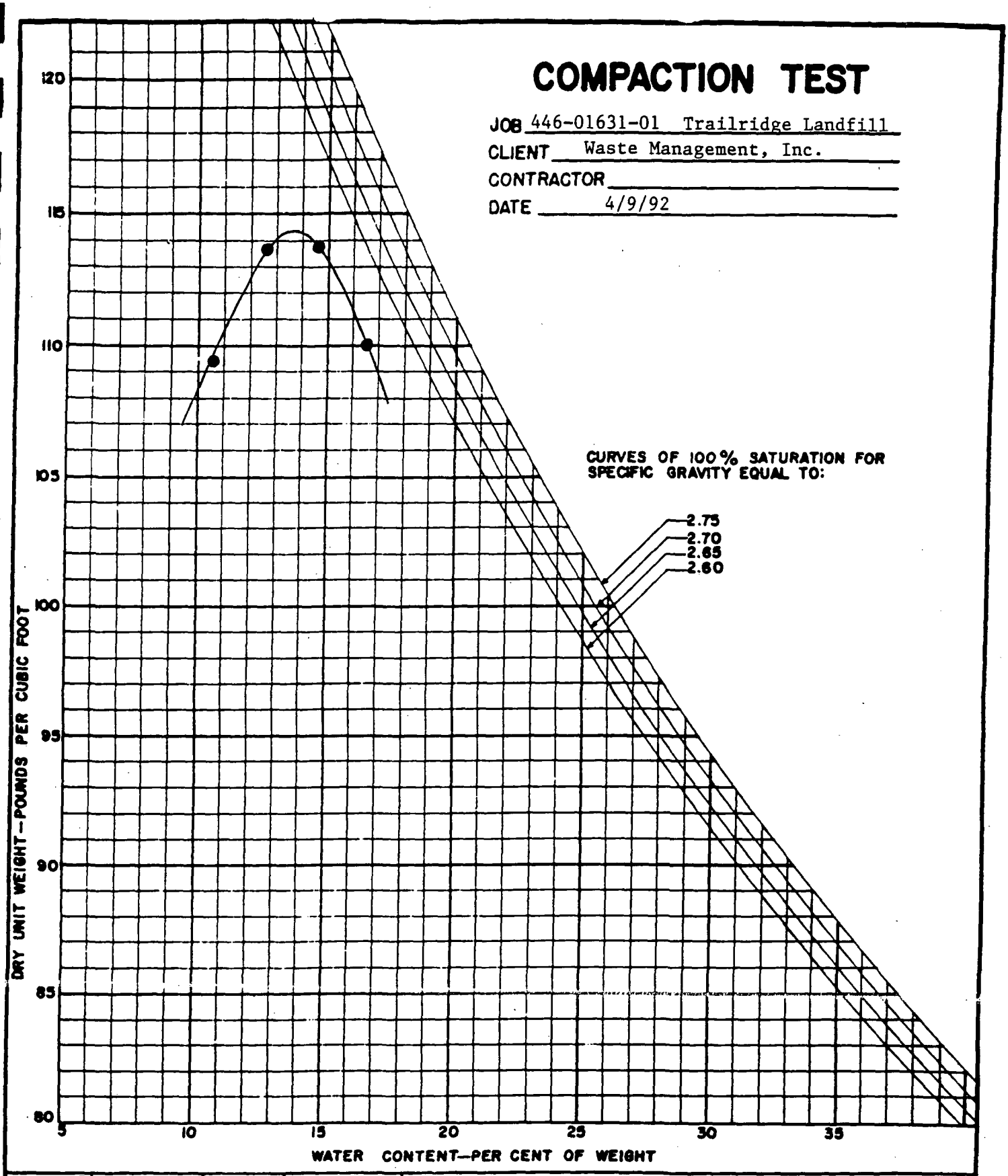
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BBW

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management, Inc.
CONTRACTOR
DATE 4/9/92

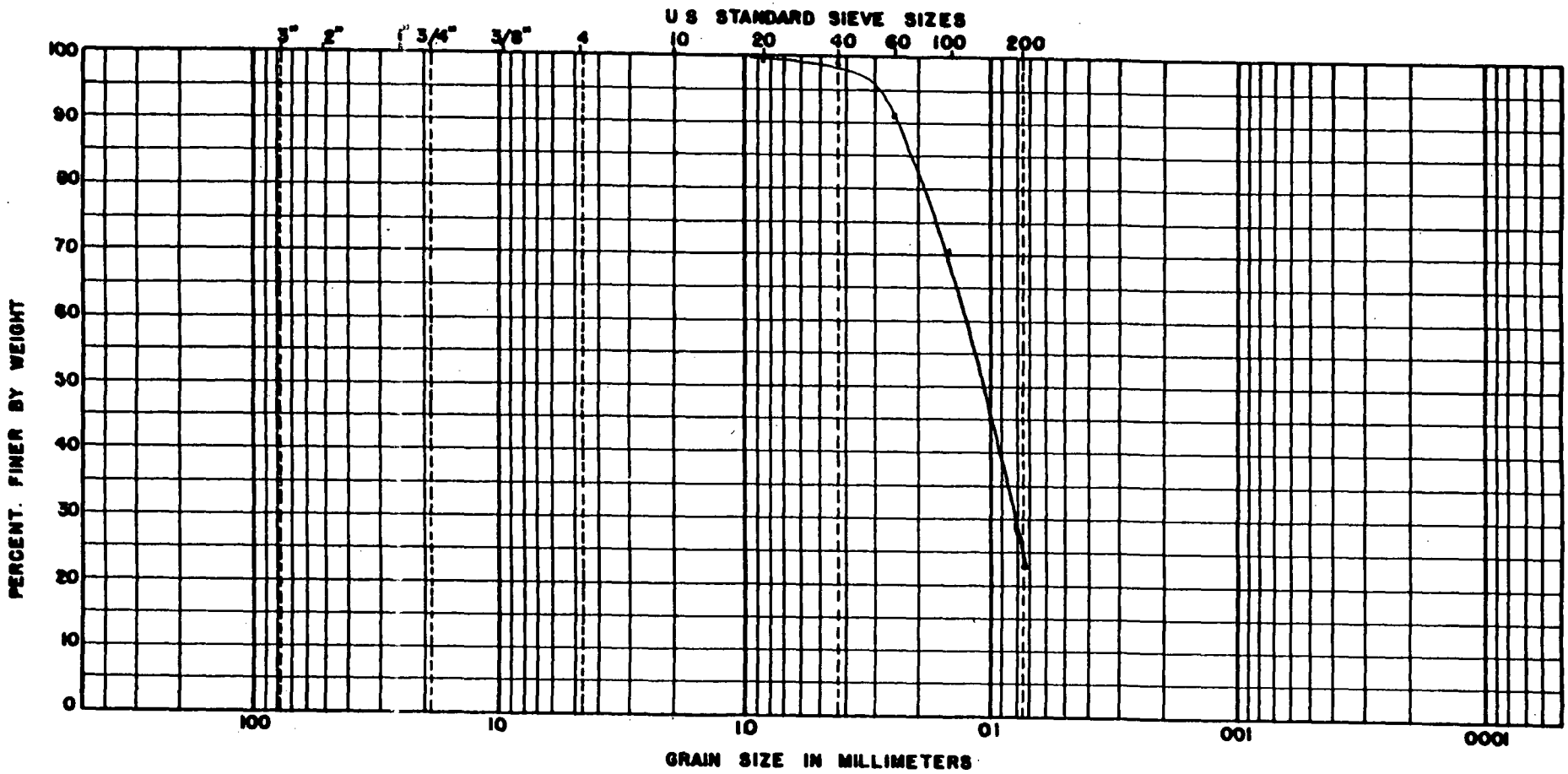


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
..8	ASTM D 698 "A"	114.3	13.8	Light Brown Clayey Fine Sand (Clay liner, Phase 1-B at Sta. 121+30 and 93+60)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wilder



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	LL	PL	PI	DESCRIPTION OR CLASSIFICATION
8						Light Brown Clayey Fine Sand

GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 13, 1992

Client: Waste Management, Inc.

Senior Technician: Mark Coleman

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 13, 1992. The purpose of this visit was to monitor excavation and perform permeability testing of cushion sand being excavated for the Trail Ridge Landfill. Approximately 1530 yds^3 of cushion sand was hauled today, approximately 1/3 from pit #1 and 2/3 from pit #2. Also, 16 test pits were excavated to obtain sand samples for permeability testing. The results of the permeability testing are as follows:

TEST PIT NO.	BORROW PIT #2 LOCATION	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
156	600'NB2 & 130'WBC	-9" TO -36"	96	1.0×10^{-3}
156	600'NB2 & 130'WBC	-36" TO -84"	96	1.3×10^{-3}
157	550'NB2 & 130'WBC	-9"TO -48"	96	1.0×10^{-3}
157	550'NB2 & 130'WBC	-48"TO -84"	96	1.7×10^{-3}
158	500'NB2 & 130'WBC	-9" TO -54"	96	2.4×10^{-3}
158	500'NB2 & 130'WBC	-54" TO -84"	96	1.0×10^{-3}
159	450'NB2 & 130'WBC	-9" TO -54"	96	2.3×10^{-3}
159	450'NB2 & 130'WBC	-54" TO -90"	96	3.2×10^{-3}
160	400'NB2 & 130'WBC	-9" TO -60"	96	1.9×10^{-3}
160	400'NB2 & 130'WBC	-60" TO -90"	96	2.0×10^{-3}
161	350'NB2 & 130'WBC	-9" TO -60"	96	1.4×10^{-3}
161	350'NB2 & 130'WBC	-60" TO -90"	96	4.4×10^{-3}
162	300'NB2 & 130'WBC	-9" TO -60"	96	1.5×10^{-3}
162	300'NB2 & 130'WBC	-60" TO -90"	96	1.3×10^{-3}

Inspector: MARK COLEMAN

Reviewed by: BRYANT B. WILDES
CHIEF ENGINEERING TECHNICIAN

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 13, 1992

Client: Waste Management, Inc.

Senior Technician: Mark Coleman

Project: Trail Ridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

TEST PIT NO.	BORROW PIT #2 LOCATION	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
163	250'NB2 & 130'WBC	-9" to -54"	96	1.2×10^{-3}
163	250'NB2 & 130'WBC	-54" to -84"	96	3.5×10^{-3}
164	200'NB2 & 130'WBC	-9" to -48"	96	1.5×10^{-3}
164	200'NB2 & 130'WBC	-48" to -84"	96	3.0×10^{-3}
165	150'NB2 & 130'WBC	-9" to -48"	96	1.1×10^{-3}
165	150'NB2 & 130'WBC	-48" to -84"	96	3.2×10^{-3}
166	100'NB2 & 130'WBC	-9" to -48"	96	1.1×10^{-3}
166	100'NB2 & 130'WBC	-48" to -78"	96	3.3×10^{-3}

NOTE: Test pit numbers 151 through 155 were not included in this report due to the initial test results not meeting the minimum required by the project specifications, further testing will be performed on May 14, 1992. The contractor (Barco Duval) was notified and this area was staked off, no cushion sand was excavated from this area.

Inspector: Mark Coleman

Reviewed by: Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 14, 1992

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on 5-14-92. The purpose of this visit was to monitor excavation and perform permeability testing of cushion sand for the Trailridge Landfill. Approximately 2870 yds3 of cushion sand was hauled today. Eleven hand auger borings were performed to obtain soil samples for permeability testing, the results of the permeability testing are as follows:

TEST PIT: (borrow pit #2)	LOCATION:	DEPTH OF SAMPLE:	% COMPACTION:	COEFF. OF PERMEABILITY:
167	600'NB2, 30'WBC	-9" to -24"	96	1.0 X 10-3
167	" "	-24" to 90"	96	1.8 X 10-3
168	640'NB2, 30'WBC	-9" to -18"	96	1.0 X 10-3
168	" "	-18" to -84"	96	2.1 X 10-3
169	640'NB2, 30'EBC	-6" to -18"	96	1.9 X 10-3
169	" "	-18" to -84"	96	1.5 X 10-3
170	600'NB2, 30'EBC	-12" to -24"	96	1.1 X 10-3
170	" "	-24" to -72"	96	1.7 X 10-3
171	550'NB2, 30'EBC	-6" to -36"	96	1.0 X 10-3
171	" "	-36" to -72"	96	4.8 X 10-3
172	550'NB2, 30'WBC	-6" to -42"	96	1.0 X 10-3
172	" "	-42" to -78"	96	1.5 X 10-3
173	640'NB2, 100'WBC	-6" to -18"	96	1.0 X 10-3
173	" "	-18" to -78"	96	1.8 X 10-3
174	500'NB2, 30'WBC	-6" to -36"	96	1.3 X 10-3
174	" "	-36" to -78"	96	6.6 X 10-3

Inspector Mark Coleman

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 14, 1992

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

TEST PIT: (Borrow Pit #2)	LOCATION:	DEPTH OF SAMPLE:	(%) COMPACTION	COEFF. OF PERMEABILITY:
175	500'NB2, 30'EBC	-6" to -36"	96	2.8×10^{-3}
175	" "	-36" to -72"	96	3.2×10^{-3}
176	450'NB2, 30'EBC	-6" to 42"	96	1.8×10^{-3}
176	" "	-42" to -84"	96	4.0×10^{-3}
177	450'NB2, 30'WBC	-6" to -42"	96	1.2×10^{-3}
177	" "	-42" to -84"	96	3.5×10^{-3}

Test pits 151 thru 155 noted on daily report dated 5-14-92 as not meeting the minimum job requirements as specified are addressed below. Two additional tests were also performed on perimeter ditch stockpiled material where the unsuitable material was mixed with the suitable material, both of which met minimum project specifications. In pits 152 thru 155, the upper 18 to 36 inches of soil did not meet the minimum 1.0×10^{-3} permeability rate as specified. All other tests of lower strata at pits 151 through 155 met or exceeded the minimum permeability rate required.

Inspector Mark Coleman

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 14, 1992

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

TEST PIT: (Borrow Pit #2)	LOCATION:	DEPTH OF SAMPLE:	(%) COMPACTION:	COEFF. OF PERMEABILITY:
151	660'NB2, 40'EBC	-10" to -20"	96	1.0×10^{-3}
151	" "	-20" to -66"	96	1.1×10^{-3}
152	660'NB2, on BC	-10" to -24"	96	9.0×10^{-4}
152	" "	-24" to -66"	96	1.0×10^{-3}
153	660'NB2, 40'WBC	-9" to -24"	96	5.4×10^{-4}
153	" "	-24" to -72"	96	2.1×10^{-3}
154	660'NB2, 80'WBC	-9" to -24"	96	5.2×10^{-4}
154	" "	-24" to -84"	96	1.3×10^{-3}
155	650'NB2, 130'WBC	-9" to -36"	96	5.7×10^{-4}
155	" "	-36" to -84"	96	1.1×10^{-3}

Inspector Mark Coleman

Reviewed by Bryant C. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 15, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 15, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed on the site to obtain soil samples for the permeability tests. Approximately 2660 yds^3 of sand was excavated on May 15, 1992. The results of the permeability tests for May 15, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #2)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
178	400'NB2, 30'WBC	-4" to -36"	96	1.1×10^{-3}
178	400'NB2, 30'WBC	-36" to -78"	96	1.5×10^{-3}
179	400'NB2, 30'EBC	-6" to -18"	96	7.7×10^{-4}
179	400'NB2, 30'EBC	-18" to -48"	96	1.0×10^{-3}
179	400'NB2, 30'EBC	-48" to -84"	96	2.6×10^{-3}

NOTE: In the area around pit No. 179, it was determined that the top 18-inches of soil was not suitable material. The area will be marked off and the equipment operators on site will be notified that the top 18-inches of soil must be removed before any sand is excavated from the 50' x 50' area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 18, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 18, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Seven hand auger borings were performed on the site to obtain soil samples for the permeability tests. Approximately 2030 yds^3 of sand was excavated on May 18, 1992. The results of the permeability tests for May 18, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #2)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
180	350'NB2, 30'EBC	-6" to -42"	96	3.0×10^{-3}
180	" "	-42" to -84"	"	6.4×10^{-3}
181	350'NB2, 30'WBC	-4" to -36"	"	1.3×10^{-3}
181	" "	-36" to -78"	"	6.1×10^{-3}
182	300'NB2, 30'WBC	-4" to -42"	"	1.5×10^{-3}
182	" "	-42" to -84"	"	5.8×10^{-3}
183	300'NB2, 30'EBC	-4" to -42"	"	1.5×10^{-3}
183	" "	-42" to -84"	"	3.9×10^{-3}
184	250'NB2, 30'EBC	-6" to -42"	"	1.2×10^{-3}
184	" "	-42" to -84"	"	1.5×10^{-3}
185	250'NB2, 30'WBC	-6" to -45"	"	1.7×10^{-3}
185	" "	-45" to -84"	"	2.7×10^{-3}
186	200'NB2, 30'WBC	-4" to -45"	"	1.1×10^{-3}
186	" "	-45" to -84"	"	2.0×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 19, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 19, 1992. The purpose of this visit was to monitor excavations and perform permeability tests on the cushion sand for the Trailridge Landfill. Three hand auger borings were performed on the site to obtain soil samples for the permeability tests. Approximately 2258 yds^3 of sand was excavated on May 19, 1992. The results of the permeability tests for May 19, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #2)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
187	200'NB2, 30'EBC	-6" to -12"	96	8.8×10^{-4}
187	" "	-12" to -36"	"	2.0×10^{-3}
187	" "	-36" to -84"	"	1.0×10^{-3}
188	150'NB2, 30'EBC	-6" to -12"	"	3.9×10^{-4}
188	" "	-12" to -36"	"	2.2×10^{-3}
188	" "	-36" to -84"	"	2.5×10^{-3}
189	150'NB2, 30'WBC	-6" to -48"	"	1.6×10^{-3}
189	" "	-48" to -84"	"	6.3×10^{-3}

NOTE: In the area around pits 187 and 188 it was determined that the top 12-inches of soil was not suitable material. The areas will be marked off and the equipment operators will be notified that the top 12-inches of soil must be removed before any sand is excavated from either 50' x 10' area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 20, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 20, 1992. The purpose of this visit was to monitor excavation on the cushion sand for the Trailridge Landfill.

Approximately 2608 yds^3 of sand was excavated on May 20, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 21, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visted the Turkey Ridge Borrow Pit on 5-21-92. The purpose of the visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed at the site to obtain samples for the permeability tests.

Approximately 2520 yds^3 of sand was removed on 5-21-92. The results of the permeability tests are as follows:

TEST PIT: (borrow pit #2)	LOCATION:	DEPTH OF SAMPLE:	(%) COMPACTION:	COEFF. OF PERMEABILITY (cm/s)
190	100'NB2, 30'WBC	-6" to -39"	96	1.1×10^{-3}
190	100'NB2, 30'WBC	-39" to -84"	96	5.1×10^{-3}
191	100'NB2, 30'EBC	-4" to -36"	96	1.0×10^{-3}
191	100'NB2, 30'EBC	-36" to -84"	96	5.2×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 22, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 22, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Three hand auger borings were performed at the site to obtain soil for the permeability tests. Approximately 1838 yds^3 of sand was excavated on May 22, 1992. The results of the permeability tests for May 22, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #2)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
192	50'NB2, 30'WBC	-6" to -45"	96	1.0×10^{-3}
192	" "	-45" to -84"	"	4.2×10^{-3}
193	50'NB2, 30'WBC	-4" to -48"	"	2.3×10^{-3}
193	" "	-48" to -84"	"	3.8×10^{-3}
194	50'NB2, 130'WBC	-6" to -12"	"	3.2×10^{-4}
194	" "	-12" to -48"	"	1.1×10^{-3}
194	" "	-48" to -84"	"	4.9×10^{-3}

NOTE: It was determined that the top 12-inches was not suitable material. The area around pit #194 will be marked off and the equipment operators will be notified that the top 12-inches of soil must be removed before any sand is excavated from the area around pit #194.

Inspector Aaron Googins

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 26, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 26, 1992. The purpose of this visit was to monitor excavation on the cushion sand for the Trailridge Landfill.

Approximately 3208 yds^3 of sand was excavated on May 26, 1992.

Inspector Aaron Googins

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 27, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 27, 1992. The purpose of this visit was to monitor excavation on the cushion sand for the Trailridge Landfill.

Approximately 3203 yds^3 of sand was excavated on May 27, 1992.

Inspector Aaron Googins

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 28, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 28, 1992. The purpose of this visit was to monitor excavation on the cushion sand for the Trailridge Landfill.

Approximately 2905 yds^3 of sand was excavated on May 28, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 29, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on May 29, 1992. The purpose of this visit was to monitor excavation on the cushion sand for the Trailridge Landfill.

Approximately 2695 yds^3 of sand was excavated on May 29, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE June 1, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 1, 1992. The purpose of this visit was to monitor excavation on the cushion sand for the Trailridge Landfill.

Excavation began in the area around test pit #179 on June 1, 1992. The top 18-inches of soil was removed before any sand was excavated from the area in accordance with the decision made on May 15, 1992.

Apprximately 3028 yds^3 of san was excavated on June 1, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE June 2, 1992

Client: Waste Management, Inc.

Senior Technician:

Project: Trailridge Landfill

Technician: Aaron Googins

LAW Job Number: 446-01631-01

Technician:

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 2, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Excavation was completed in the area around test pit #179 on June 2, 1992. The top 18-inches of soil was removed before any sand was excavated from the area in accordance with the decision made on May 15, 1992. Two hand auger borings were performed at the site to obtain soil samples for the permeability tests. Approximately 3063 yds^3 of sand was excavated on June 2, 1992. The results of the permeability tests for June 2, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #2)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
195	50'NB2, 10'EBC	-2" to -42"	96	1.8×10^{-3}
195	" "	-42" to -84"	"	3.6×10^{-3}
196	50'NB2, 80'EBC	-4" to -36"	"	2.8×10^{-3}
196	" "	-36" to -84"	"	5.4×10^{-3}

Inspector: Aaron Googins

Reviewed by: Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
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RECORD OF DAILY OBSERVATION

DATE June 3, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 3, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trialridge Landfill. Two hand auger borings were performed at the site to obtain soil samples for the permeability tests. Approximately 1208 yds^3 of sand was excavated on June 3, 1992. The results of the permeability tests for June 3, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #2)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
197	285'NB2 & 60'EBC	-8" to -60"	96	1.6×10^{-3}
198	285'NB2 & 60'WBC	-4" to -45"	"	1.7×10^{-3}
198	285'NB2 & 60'WBC	-45" to -84"	"	4.0×10^{-3}

NOTE: Test pit Nos. 197 and 198 are for the purpose of additional testing. Both pits are in areas that were previously tested.

Inspector Aaron Googins

Reviewed by Steven C. Cox
for Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 6/4/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 4, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was performed to obtain soil samples for the permeability tests. This was the first boring performed in borrow pit No. 3. Approximately 2888 yds^3 of sand was excavated on June 4, 1992. The results of the permeability tests for June 4, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT NO. 3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
199	100'NB3, 100'EBC	-6" to -48"	96	1.5×10^{-3}
199	100'NB3, 100'EBC	-48" to -84"	96	7.8×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 6/5/92

Client: Waste Management, Inc.

Senior Technician: David Johns, Jr.

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 5, 1992. The purpose of this visit was to monitor excavation and perform permeability tests of cushion sand for the Trailridge Landfill.

Approximately 3100 yds^3 of sand was hauled today. Also, eight permeability tests were performed, the results of the permeability tests are as follows:

PIT NO.	DEPTH OF SAMPLE	APPROXIMATE LOCATION	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
200	-2" to -18"	100'NB3, 60'WBC	96	8.2×10^{-4}
200	-18" to -42"	" "	"	2.1×10^{-3}
200	-42" to -84"	" "	"	3.6×10^{-3}
201	-4" to -12"	200'NB3, 150'WBC	"	8.5×10^{-4}
201	-12" to -54"	" "	"	1.0×10^{-3}
201	-54" to -84"	" "	"	1.3×10^{-3}
202	-5" to -48"	200'NB3, 60'EBC	"	1.2×10^{-3}
202	-48" to -84"	" "	"	2.6×10^{-3}
203	-6" to -48"	250'NB3, 100'WBC	"	6.1×10^{-3}

NOTE: It was determined that the top 18-inches of soil was not suitable material in the area around pit #200 and it was also determined that the top 12 inches of soil was not suitable material in the area around pit #201. The equipment operators on site will be notified that the unsuitable material must be removed from both areas before any excavation can take place in those areas.

Inspector: D. Johns, Jr.

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 8, 1992

Client: Waste Management, Inc.

Senior Technician:

Project: Trailridge Landfill

Technician: Aaron Googins

LAW Job Number: 446-01631-01

Technician:

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 8, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed at the site to obtain soil samples for the permeability tests.

Approximately 3213 yds^3 of sand was excavated on June 8, 1992. The results of the permeability tests for June 8, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
204	300'NB3, 140'EBC	-5" to -48"	96	2.0×10^{-3}
204	" "	-48" to -78"	"	2.8×10^{-3}
205	300'NB3, 60'WBC	-4" to -48"	"	1.7×10^{-3}
205	" "	-48" to -84"	"	1.7×10^{-3}
206	400'NB3, 100'WBC	-4" to -48"	"	1.7×10^{-3}
206	" "	-48" to -84"	"	5.9×10^{-3}
207	400'NB3, 100'EBC	-8" to -48"	"	1.1×10^{-3}
207	" "	-48" to -84"	"	3.5×10^{-3}
208	500'NB3, 60'EBC	-5" to -48"	"	1.6×10^{-3}
208	" "	-48" to -78"	"	4.8×10^{-3}
209	500'NB3, 150'WBC	-2" to -48"	"	2.3×10^{-3}
209	" "	-48" to -84"	"	7.5×10^{-3}

Inspector: Aaron Googins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 9, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 9, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed to obtain soil for the permeability tests.

Approximately 170 yds^3 of sand was excavated on June 9, 1992. The results of the permeability tests for June 9, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
210	600'NB3, 140'EBC	-4" to -24"	96	4.4×10^{-4}
210	" "	-24" to -40"	"	1.0×10^{-3}
210	" "	-40" to -84"	"	1.3×10^{-3}
211	600'NB3, 60'WBC	-6" to -50"	"	1.6×10^{-3}
211	" "	-50" to -84"	"	2.7×10^{-3}
212	700'NB3, 60'EBC	-6" to -54"	"	1.3×10^{-3}
212	" "	-54" to -84"	"	3.0×10^{-3}
213	700'NB3, 150'WBC	-2" to -66"	"	2.5×10^{-3}
213	" "	-66" to -84"	"	3.4×10^{-3}
214	50'NB3, 140'EBC	-4" to -48"	"	2.6×10^{-3}
214	" "	-48" to -84"	"	5.9×10^{-3}
215	100'NB3, 140'EBC	-2" to -48"	"	2.1×10^{-3}
215	" "	-48" to -84"	"	6.3×10^{-3}

NOTE: It was determined that the top 24-inches of soil in the area around pit #210 is not suitable material. The equipment operators on the site will be notified that the unsuitable material must be removed from the area before any excavation can take place in that area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 10, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 10, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed to obtain soil for the permeability tests.

Approximately 2176 yds^3 of sand was excavated on June 10, 1992. The results of the permeability tests for June 10, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
216	150'NB3, 140'EBC	-4" to -48"	96	1.9×10^{-3}
216	" "	-48" to -84"	"	5.0×10^{-3}
217	200'NB3, 140'EBC	-2" to -48"	"	2.2×10^{-3}
217	" "	-48" to -84"	"	8.1×10^{-3}
218	250'NB3, 140'EBC	-3" to -48"	"	1.0×10^{-3}
218	" "	-48" to -84"	"	6.2×10^{-3}
219	350'NB3, 140'EBC	-4" to -48"	"	1.5×10^{-3}
219	" "	-48" to -78"	"	4.1×10^{-3}
220	400'NB3, 140'EBC	-2" to -48"	"	1.6×10^{-3}
220	" "	-48" to -72"	"	6.4×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 11, 1992

Client: Waste Management, Inc.

Senior Technician: _____

Project: Trailridge Landfill

Technician: Aaron Googins

LAW Job Number: 446-01631-01

Technician: _____

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 11, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed to obtain soil for the permeability tests.

Approximately 2805 yds^3 of sand was excavated on June 11, 1992. The results of the permeability tests for June 11, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
221	450'NB3, 140'EBC	0 to -44"	96	1.6×10^{-3}
221	" "	-44" to -72"	"	6.5×10^{-3}
222	500'NB3, 140'EBC	-4" to -18"	"	6.6×10^{-4}
222	" "	-18" to -46"	"	1.8×10^{-3}
222	" "	-46" to -76"	"	4.3×10^{-3}
223	550'NB3, 140'EBC	-4" to -24"	"	5.9×10^{-4}
223	" "	-24" to -48"	"	1.0×10^{-3}
223	" "	-48" to -84"	"	3.2×10^{-3}
224	650'NB3, 140'EBC	-2" to -48"	"	1.4×10^{-3}
224	" "	-48" to -72"	"	2.3×10^{-3}
225	700'NB3, 140'EBC	-6" to -48"	"	2.6×10^{-3}
225	" "	-48" to -84"	"	5.1×10^{-3}

NOTE: It has been determined that the top 18-inches in the area around test pit #222 and the top 24-inches in the area around test pit #223 is unsuitable material. The equipment operators at the site will be notified that the unsuitable material must be removed before excavation can begin in these areas.

Inspector: Aaron Googins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 12, 1992

Client: Waste Management, Inc.

Senior Technician:

Project: Trailridge Landfill

Technician: Aaron Googins

LAW Job Number: 446-01631-01

Technician:

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 12, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed on the site to obtain soil for the permeability tests.

Approximately 2108 yds^3 of sand was excavated on June 12, 1992. The results of the permeability tests for June 12, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
226	700'NB3, 100'EBC	-4" to -60"	96	1.4×10^{-3}
226	" "	-60" to -84"	"	4.0×10^{-3}
227	700'NB3, Centerline	-2" to -60"	"	1.1×10^{-3}
227	" "	-60" to -84"	"	2.0×10^{-3}
228	700'NB3, 60'WBC	-2" to -66"	"	1.9×10^{-3}
228	" "	-66" to -84"	"	4.0×10^{-3}
229	700'NB3, 100'WBC	-4" to -66"	"	3.4×10^{-3}
229	" "	-66" to -84"	"	3.1×10^{-3}
230	650'NB3, 150'WBC	-4" to -60"	"	3.0×10^{-3}
230	" "	-60" to -78"	"	2.7×10^{-3}
231	600'NB3, 150'WBC	-2" to -66"	"	2.5×10^{-3}
231	" "	-66" to -84"	"	3.7×10^{-3}

Inspector: Aaron Googins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 15, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 15, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed on the site to obtain soil samples for the permeability tests. Excavation began today in the area around test pit No. 187. The top 12-inches of soil was removed and discarded from the area before excavation began in accordance with decision made on May 19, 1992.

Approximately 2890 yds^3 of sand was excavated on June 15, 1992. The results of the permeability tests for June 15, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
232	550'NB3, 150'WBC	-1" to -60"	96	1.8×10^{-3}
232	" "	-60" to -84"	"	6.1×10^{-3}
233	450'NB3, 150'WBC	0 to -60"	"	2.2×10^{-3}
233	" "	-60" to -84"	"	7.4×10^{-3}
234	400'NB3, 150'WBC	-4" to -54"	"	2.4×10^{-3}
234	" "	-54" to -84"	"	5.3×10^{-3}
235	350'NB3, 150'WBC	-4" to -48"	"	2.7×10^{-3}
235	" "	-48" to -84"	"	7.3×10^{-3}
236	300'NB3, 150'WBC	-2" to -48"	"	1.0×10^{-3}
236	" "	-48" to -84"	"	4.4×10^{-3}
237	250'NB3, 150'WBC	-2" to -48"	"	1.7×10^{-3}
237	" "	-48" to -84"	"	3.9×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Jacksonville, Florida 32207
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RECORD OF DAILY OBSERVATION

DATE June 16, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. visited the Turkey Ridge borrow pit on June 16, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Seven hand auger borings were performed on the site to obtain soil samples for the permeability tests. Excavation continued in the area around test pit No. 187. The top 12-inches of soil was removed and discarded from the area before excavation continued, in accordance with the decision made on May 19, 1992.

Approximately 2958 yds^3 of sand was excavated on June 16, 1992. The results of the permeability tests for June 16, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
238	150'NB3, 150'WBC	-1" to -48"	96	1.0×10^{-3}
238	" "	-48" to -84"	"	3.7×10^{-3}
239	100'NB3, 150'WBC	-3" to -48"	"	1.1×10^{-3}
239	" "	-48" to -84"	"	2.7×10^{-3}
240	50'NB3, 150'WBC	-4" to -48"	"	2.1×10^{-3}
240	" "	-48" to -84"	"	3.0×10^{-3}
241	50'NB3, 100'EBC	-6" to -48"	"	1.6×10^{-3}
241	" "	-48" to -84"	"	7.6×10^{-3}
242	150'NB3, 100'EBC	-6" to -48"	"	4.2×10^{-3}
242	" "	-48" to -84"	"	5.3×10^{-3}
243	200'NB3, 100'EBC	-6" to -48"	"	1.9×10^{-3}
243	" "	-48" to -84"	"	6.9×10^{-3}
244	250'NB3, 100'EBC	-4" to -48"	"	1.9×10^{-3}
244	" "	-48" to -84"	"	4.5×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 17, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 17, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed on the site to obtain soil samples for the permeability tests. No sand was hauled from the site on June 17, 1992. The results of the permeability tests for June 17, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
245	300'NB3, 100'EBC	-2" to -54"	96	1.2×10^{-3}
245	" "	-54" to -84"	"	4.5×10^{-3}
246	350'NB3, 100'EBC	-4" to -54"	"	4.3×10^{-3}
246	" "	-54" to -84"	"	3.1×10^{-3}
247	450'NB3, 100'EBC	-6" to -48"	"	1.1×10^{-3}
247	" "	-48" to -84"	"	7.1×10^{-3}
248	500'NB3, 100'EBC	-6" to -18"	"	6.7×10^{-4}
248	" "	-18" to -48"	"	1.4×10^{-3}
248	" "	-48" to -84"	"	4.1×10^{-3}
249	550'NB3, 100'EBC	-1" to -44"	"	2.2×10^{-3}
249	" "	-44" to -84"	"	2.9×10^{-3}
250	600'NB3, 100'EBC	-2" to -18"	"	4.6×10^{-4}
250	" "	-18" to -42"	"	1.2×10^{-3}
250	" "	-42" to -80"	"	2.3×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 17, 1992

Client Waste Managemnet, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

NOTE: It was determined that the top 18-inches of soil in the area around pit Nos. 248 and 250 was not suitable material. The equipment operators on site will be notified that the unsuitable material must be removed and discarded before excavation can take place in either area.

Inspector Aaron Googins

Reviewed by BBW 6/22/92
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 18, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 18, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Three hand auger borings were performed on the site to obtain soil samples for the permeability tests. Excavation began in the area around test pit No. 188. The top 12-inches of soil was removed and discarded from the area before excavation began in accordance with the decision made on May 19, 1992. Approximately 2313 yds^3 of sand was excavated on June 18, 1992. The results of the permeability tests for June 18, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
251	650'NB3, 100'EBC	-2" to -44"	96	1.1×10^{-3}
251	" "	-44" to -84"	"	4.1×10^{-3}
252	650'NB3, 60'EBC	0 to -44"	"	1.1×10^{-3}
252	" "	-44" to -78"	"	4.5×10^{-3}
253	650'NB3, Centerline	-2" to -50"	"	1.8×10^{-3}
253	" "	-50" to -84"	"	4.7×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 19, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 19, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed in order to obtain soil samples for the permeability tests. Excavation was completed in the area around test pit #188. The top 12-inches of soil was removed and discarded from the area before the area was completed, in accordance with the decision made on May 19, 1992. Approximately 1649 yds^3 of sand was excavated on June 19, 1992. The results of the permeability tests for June 19, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
254	650'NB3, 60'WBC	0 to -54"	96	1.1×10^{-3}
254	" "	-54" to -84"	"	4.7×10^{-3}
255	650'NB3, 100'WBC	-1" to -54"	"	1.3×10^{-3}
255	" "	-54" to -84"	"	5.1×10^{-3}
256	600'NB3, 100'WBC	-2" to -54"	"	3.1×10^{-3}
256	" "	-54" to -84"	"	7.7×10^{-3}
257	600'NB3, Centerline	-4" to -48"	"	2.6×10^{-3}
257	" "	-48" to -84"	"	4.1×10^{-3}
258	600'NB3, 60'EBC	-2" to -48"	"	1.0×10^{-3}
258	" "	-48" to -84"	"	3.6×10^{-3}
259	550'NB3, 100'WBC	-2" to -54"	"	2.5×10^{-3}
259	" "	-54" to -84"	"	5.4×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
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RECORD OF DAILY OBSERVATION

DATE 6/22/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 22, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed in order to obtain soil samples for the permeability tests.

Approximately 2040 yds^3 of sand was excavated on June 22, 1992. The results of the permeability tests for June 22, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
260	550'NB3, 60'WBC	-4" to -60"	96	1.3×10^{-3}
260	" "	-60" to -84"	"	5.4×10^{-3}
261	550'NB3, Centerline	-2" to -60"	"	1.1×10^{-3}
261	" "	-60" to -84"	"	6.5×10^{-3}
262	550'NB3, 60'EBC	-6" to -24"	"	7.6×10^{-4}
262	" "	-24" to -48"	"	1.1×10^{-3}
262	" "	-48" to -84"	"	5.1×10^{-3}
263	500'NB3, 100'WBC	-2" to -54"	"	1.9×10^{-3}
263	" "	-54" to -84"	"	7.8×10^{-3}
264	500'NB3, 60'WBC	-1" to -60"	"	1.9×10^{-3}
264	" "	-60" to -84"	"	9.2×10^{-3}

NOTE: It was determined that the top 24-inches in the area around test pit #262 is not suitable material. The equipment operators on site will be notified that the unsuitable material must be removed and discarded before excavation can take place in the area.

Inspector Aaron Googins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 23, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 23, 1992. The purpose of this visit was to monitor excavation and performed permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed in order to obtain soil samples for the permeability tests. Excavation began in the area around test pit #194. In accordance with the decision made on May 22, 1992, The top 12-inches of soil was removed and discarded before excavation began in the area.

Approximately 1800 yds^3 of sand was excavated on June 23, 1992. The results of the permeability tests on June 23, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
265	500'NB3, Centerline	-4" to -18"	96	7.3×10^{-4}
265	" "	-18" to -54"	"	1.1×10^{-3}
265	" "	-54" to -84"	"	1.6×10^{-3}
266	450'NB3, 100'WBC	-1" to -48"	"	2.9×10^{-3}
266	" "	-48" to -84"	"	4.4×10^{-3}
267	450'NB3, 60'WBC	-2" to -54"	"	1.1×10^{-3}
267	" "	-54" to -84"	"	8.3×10^{-3}
268	450'NB3, Centerline	-2" to -42"	"	1.6×10^{-3}
268	" "	-42" to -78"	"	4.4×10^{-3}
269	450'NB3, 60'EBC	-2" to -18"	"	9.3×10^{-4}
269	" "	-18" to -48"	"	1.2×10^{-3}
269	" "	-48" to -84"	"	5.0×10^{-3}

Inspector Aaron Googins

Reviewed by BBW
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 23, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

NOTE: It was determined that the top 18-inches of soil in the areas around test pit Nos. 265 and 269 are unsuitable material. The operators will be notified that the unsuitable material must be removed and discarded before excavation can take place in either area.

Inspector Aaron Googins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 24, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 24, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Three hand auger borings were performed to obtain soil samples for the permeability tests. Excavation was completed in the area around test pit No. 194. In accordance with the decision made on May 22, 1992, the top 12-inches of soil was removed and discarded before excavation was completed in the area.

Approximately 2125 yds^3 of sand was excavated on June 24, 1992. The results of the permeability tests for June 24, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
270	400'NB3, 60'WBC	-2" to -42"	96	1.1×10^{-3}
270	" "	-42" to -84"	"	3.7×10^{-3}
271	400'NB3, Centerline	-1" to -54"	"	1.2×10^{-3}
271	" "	-54" to -72"	"	4.7×10^{-3}
272	400'NB3, 60'EBC	-1" to -60"	"	1.9×10^{-3}
272	" "	-60" to -84"	"	3.5×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 25, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 25, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed to obtain soil samples for the permeability tests.

Approximately 2227 yds^3 of sand was excavated on June 25, 1992. The results of the permeability tests for June 25, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
273	350'NB3, 100'WBC	-2" to -48"	96	1.2×10^{-3}
273	" "	-48" to -84"	"	5.4×10^{-3}
274	350'NB3, 60'WBC	-4" to -48"	"	1.0×10^{-3}
274	" "	-48" tp -66"	"	1.3×10^{-3}
275	350'NB3, Centerline	-4" to -48"	"	1.6×10^{-3}
275	" "	-48" to -84"	"	4.9×10^{-3}
276	350'NB3, 60'EBC	0" to -18"	"	8.8×10^{-4}
276	" "	-18" to -48"	"	3.5×10^{-3}
276	" "	-48" to -84"	"	6.6×10^{-3}
277	300'NB3, 60'EBC	-2" to -48"	"	1.8×10^{-3}
277	" "	-48" to -78"	"	6.1×10^{-3}
278	300'NB3, Centerline	-6" to -72"	"	1.6×10^{-3}

NOTE: It has been determined that the top 18-inches of soil in the area around test pit #276 is unsuitable material. The equipment operators on site will be notified that the unsuitable material must be removed and discarded before excavation may begin in the area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 26, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 26, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Four hand auger borings were performed in order to obtain soil samples for the permeability tests. Excavation began in borrow pit #3 today.

Approximately 2754 yds^3 of sand was excavated on June 26, 1992. The results of the permeability tests for June 26, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
279	300'NB3, 100'WBC	-4" to -48"	96	1.3×10^{-3}
279	" "	-48" to -72"	"	4.7×10^{-3}
280	250'NB3, 60'WBC	-3" to -42"	"	1.6×10^{-3}
280	" "	-42" to -78"	"	4.2×10^{-3}
281	250'NB3, Centerline	-5" to -30"	"	7.7×10^{-4}
281	" "	-30" to -54"	"	1.3×10^{-3}
282	250'NB3, 60'EBC	-4" to -60"	"	2.1×10^{-3}
282	" "	-60" to -84"	"	5.2×10^{-3}

NOTE: It has been determined that the top 30-inches of soil in the area around test pit No. 281 is unsuitable material. The operators on site will be notified that the unsuitable material must be removed before excavation begins in the area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 29, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 29, 1992. The purpose of the visit was to monitor excavation and to perform permeability tests on the cushion sand for the Trailridge Landfill. Three hand auger borings were performed to obtain soil samples for the permeability tests.

Approximately 3060 yds^3 of sand was excavated on June 29, 1992. The results of the permeability tests for June 29, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
283	200'NB3, 100'WBC	-2" to -18"	96	2.7×10^{-4}
283	" "	-18" to -48"	"	1.7×10^{-3}
283	" "	-48" to -84"	"	4.7×10^{-3}
284	200'NB3, 60'WBC	-6" to -48"	"	1.0×10^{-3}
284	" "	-48" to -84"	"	4.0×10^{-3}
285	200'NB3, Centerline	-8" to -18"	"	8.1×10^{-4}
285	" "	-18" to -42"	"	2.0×10^{-3}
285	" "	-42" to -84"	"	5.6×10^{-3}

NOTE: It has been determined that the top 18-inches of soil in the areas around test pit Nos. 283 and 285 are unsuitable material. The operators on site will be notified that the unsuitable material must be removed before excavation begins in either areas.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
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Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 30, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on June 30, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed to obtain soil samples for the permeability tests.

Approximately 2159 yds^3 of sand was excavated on June 30, 1992. The results of the permeability tests for June 30, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
286	150'NB3, 100'WBC	-4" to -42"	96	1.2×10^{-3}
286	" "	-42" to -78"	"	1.0×10^{-3}
287	150'NB3, 60'WBC	-3" to -42"	"	1.4×10^{-3}
287	" "	-42" to -78"	"	6.0×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE July 1, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 1, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Four hand auger borings were performed in order to obtain soil samples for the permeability tests.

No sand was excavated from the site on July 1, 1992. The results of the permeability tests for July 1, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
288	150'NB3, Centerline	-6" to -18"	96	3.8×10^{-4}
288	" "	-18" to -36"	"	1.1×10^{-3}
288	" "	-36" to -78"	"	3.8×10^{-3}
289	150'NB3, 60'EBC	-4" to -54"	"	1.6×10^{-3}
289	" "	-54" to -84"	"	5.4×10^{-3}
290	100'NB3, 100'WBC	-6" to -42"	"	1.1×10^{-3}
290	" "	-42" to -84"	"	1.9×10^{-3}
291	100'NB3, Centerline	-3" to -42"	"	1.0×10^{-3}
291	" "	-42" to -84"	"	2.4×10^{-3}

NOTE: It has been determined that the top 18 inches of soil in the area around test pit No. 288 is unsuitable material. The operators will be notified that the unsuitable material must be removed before excavation begins in the area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 7/2/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 2, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Three hand auger borings were performed in order to obtain soil samples for the permeability tests.

No sand was excavated from the site on July 2, 1992. The results of the permeability tests for July 2, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
292	100'NB3, 60'EBC	-2" to -48"	96	1.2×10^{-3}
292	" "	-48" to -84"	"	7.0×10^{-3}
293	50'NB3, 90'WBC	-4" to -45"	"	1.2×10^{-3}
293	" "	-45" to -84"	"	2.8×10^{-3}
294	50'NB3, 60'WBC	-3" to -42"	"	1.5×10^{-3}
294	" "	-42" to -84"	"	2.7×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE July 9, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 9, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed to obtain soil samples for the permeability tests. Excavation began in the areas around test pit Nos. 250 and 210. In accordance with the decision made on June 9, 1992 and June 17, 1992, the unsuitable material was removed from both areas before excavation began.

Approximately 1700 yds^3 of sand was excavated on July 9, 1992. The results of the permeability tests for July 9, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
297	510'NB3, Centerline	-1" to -48"	96	6.2×10^{-4}
297	" "	-48" to -84"	"	3.0×10^{-3}
298	470'NB3, 60'EBC	-2" to -48"	"	1.6×10^{-3}
298	" "	-48" to -84"	"	5.6×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 7/10/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 10, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed to obtain soil samples for the permeability tests. Excavation continued on the areas around pit Nos. 250 and 210. In accordance with the decision made on June 9, 1992 and June 17, 1992, the unsuitable material was removed from the area.

Approximately 1900 yds^3 of sand was excavated on July 10, 1992. The results of the permeability tests for July 10, 1992 area as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
299	460'NB3, 30'WBC	-1" to -54"	96	1.5×10^{-3}
299	" "	-54" to -84"	"	5.6×10^{-3}
300	420'NB3, 30'WBC	-2" to -42"	"	1.9×10^{-3}
300	" "	-42" to -78"	"	6.7×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 7/13/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 13, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed in order to obtain soil samples for the permeability tests. Excavation began in the areas around test pit Nos. 262 and 223. In accordance with the decisions made on June 11, 1992 and on June 22, 1992, the unsuitable material was removed from the area before excavation began.

Approximately 1785 yds^3 of sand was excavated on July 13, 1992. The results of the permeability tests for July 13, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
301	360'NB3, 30'WBC	-2" to -54"	96	2.3×10^{-3}
301	" "	-54" to -80"	"	3.8×10^{-3}
302	320'NB3, 30'WBC	-2" to -36"	"	2.1×10^{-3}
302	" "	-36" to -72"	"	2.2×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 14, 1992

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 14, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trairlidge Landfill. Two hand auger borings were performed in order to obtain soil samples for the permeability tests. Excavation continued in the areas around test pit Nos. 262 and 223. In accordance with the decisions made on June 11, 1992 and on June 22, 1992, the unsuitable material was removed from the area before excavation began.

Approximately 2550 yds^3 of sand was excavated on July 14, 1992. The results of the permeability tests on July 14, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
303	260'NB3, 30'WBC	-1" to -42"	96	1.9×10^{-3}
303	" "	-42" to -84"	"	1.8×10^{-3}
304	220'NB3, 30'WBC	-3" to -42"	"	2.0×10^{-3}
304	" "	-42" to -84"	"	3.4×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 7/20/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 20, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Two hand auger borings were performed in order to obtain soil samples for the permeability tests. Excavation began in the areas around test pit Nos. 265, 248 and 222. The unsuitable material was removed from the areas before excavation began.

Approximately 2397 yds^3 of sand was excavated on July 20, 1992. The results of the permeability tests for July 20, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
305	160'NB3, 30'WBC	-4" to -42"	96	2.2×10^{-3}
305	" "	-42" to -84"	"	4.9×10^{-3}
306	60'NB3, 30'WBC	-2" to -36"	"	1.5×10^{-3}
306	" "	-36" to -84"	"	3.8×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 7/21/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 21, 1992. The purpose of this visit was to monitor excavationa nd perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was performed in order to obtain soil samples for the permeability tests. Excavation continued in the areas around test pit Nos. 265, 248 and 222. The unsuitable material was removed from the areas before excavation began.

Approximately 2873 yds^3 of sand was excavated on July 21, 1992. The results of the permeability tests for July 21, 2991 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
307	60'NB3, Centerline	-2" to -42"	96	1.0×10^{-3}
307	" "	-42" to -84"	"	5.0×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
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(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 7/22/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 22, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was perform in order to obtain soil samples for the permeability tests. Excavation began in the area around test pit Nos. 269 and 298. In accordance with the decision made on June 23, 1992, the unsuitable material was removed before excavation began.

Approximately 1972 yds^3 of sand was excavated on July 22, 1992. The results of the permeability tests for July 22, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
308	120'NB3, Centerline	-3" to -42"	96	1.4×10^{-3}
308	" "	-42" to -84"	"	2.1×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 7/23/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge Borrow pit on July 23, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was performed in order to obtain soil samples for the permeability tests. Excavation continued in the area around test pit Nos. 269 and 298. In accordance with the decision made on June 23, 1992, the unsuitable material was removed from the area.

Approximately 1513 yds^3 of sand was excavated on July 23, 1992. The results of the permeability tests for July 23, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
309	120'NB3, Centerline	-2" to -60"	96	1.2×10^{-3}
309	" "	-60" to -84"	"	7.6×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 7/24/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 24, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was performed in order to obtain soil samples for the permeability tests.

Approximately 1768 yds^3 of sand was excavated on July 24, 1992. The results of the permeability tests for July 24, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
310	60'NB3, 40'EBC	-4" to -42"	96	1.1×10^{-3}
310	" "	-42" to -84"	"	4.1×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 7/27/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit. The purpose of this visit was to monitor excavation of the cushion sand for the Trailridge Landfill.

Approximately 1564 yds^3 of sand was excavated on July 27, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.

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RECORD OF DAILY OBSERVATION

DATE 8/3/92

CLIENT Waste Management, Inc. SENIOR TECHNICIAN

PROJECT Trailridge Landfill TECHNICIAN Aaron Googins

LAW PROJECT NO. 446-01631-01 TECHNICIAN

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 3, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was performed in order to obtain soil samples for the permeability tests. Excavation began in the area around test pit No. 276. In accordance with the decision made on June 25, 1992, the top 18-inches of soil was removed before excavation began.

Approximately 2924 yds^3 of sand was excavated on August 3, 1992. The results of the permeability tests for August 3, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
311	120'NB3, 40'EBC	-2" to -48"	96	1.6×10^{-3}
311	" "	-48" to -84"	96	1.4×10^{-3}

INSPECTOR Aaron Googins REVIEWED BY Bryant B Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.

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RECORD OF DAILY OBSERVATION

DATE 8/4/92

CLIENT Waste Management, Inc. SENIOR TECHNICIAN

PROJECT Trailridge Landfill TECHNICIAN Aaron Googins

LAW PROJECT NO. 446-01631-01 TECHNICIAN

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 4, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. One hand auger boring was performed in order to obtain the soil samples for the permeability tests. Excavation continued in the area around test pit No. 276. In accordance with the decision made on June 25, 1992, the top 18-inches of soil was removed before excavation began in the area.

Approximately 2448 yds^3 of sand was excavated on August 4, 1992. The results of the permeability tests for August 4, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #3)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
312	160'NB3, 40'EBC	-2" to -72"	96	1.3×10^{-3}
312	" "	-72" to -84"	96	2.5×10^{-3}

INSPECTOR Aaron Googins REVIEWED BY Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/5/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 5, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Testing began in borrow pit #4 today. Two hand auger borings were performed in order to obtain soil samples for the permeability tests.

Approximately 17 yds^3 of sand was excavated on August 5, 1992. The results of the permeability tests for August 5, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
313	700'NB4, 120'EBC	-1" to -76"	96	1.5×10^{-3}
313	" "	-76" to -84"	"	5.6×10^{-3}
314	700'NB4, 70'EBC	-1" to -60"	"	2.1×10^{-3}
314	" "	-60" to -84"	"	2.8×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/6/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 6, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Four hand auger borings were performed in order to obtain soil samples for the permeability tests.

Approximately 1632 yds^3 of sand was excavated on August 6, 1992. The results of the permeability tests for August 6, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICEINT OF PERMEABILITY (CM/SEC)
315	700'NB4, 20'EBC	-2" to -66"	96	1.5×10^{-3}
315	" "	-66" to -84"	"	4.3×10^{-3}
316	700'NB4, 30'WBC	-2" to -66"	"	2.3×10^{-3}
316	" "	-66" to -84"	"	3.3×10^{-3}
317	700'NB4, 80'WBC	0 to -66"	"	1.0×10^{-3}
317	" "	-66" to -84"	"	2.6×10^{-3}
318	700'NB4, 130'WBC	0 to -66"	"	1.2×10^{-3}
318	" "	-66" to -84"	"	6.2×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 8/7/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 7, 1992. The purpose of this visit was to perform permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed in order to obtain soil samples for the permeability tests. No excavation was performed today.

The results of the permeability tests for August 7, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
319	650'NB4, 130'WBC	-1" to -60"	96	1.6×10^{-3}
319	" "	-60" to -84"	"	1.0×10^{-2}
320	600'NB4, 130'WBC	-3" to -66"	"	1.0×10^{-3}
320	" "	-66" to -84"	"	1.8×10^{-3}
321	550'NB4, 130'WBC	-2" to -66"	"	1.0×10^{-3}
321	" "	-66" to -84"	"	6.1×10^{-3}
322	500'NB4, 130'WBC	-1" to -60"	"	1.8×10^{-3}
322	" "	-60" to -84"	"	5.2×10^{-3}
323	450'NB4, 130'WBC	-4" to -48"	"	1.0×10^{-3}
323	" "	-48" to -84"	"	3.3×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 8/10/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 10, 1992. The purpose of this visit was to perform permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed in order to obtain soil samples for the permeability tests.

No sand was excavated from the site on August 10, 1992. The results of the permeability tests for August 10, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
324	400'NB4, 130'WBC	-3" to -48"	96	1.4×10^{-3}
324	" "	-48" to -84"	"	4.4×10^{-3}
325	375'NB4, 130'WBC	-4" to -42"	"	1.0×10^{-3}
325	" "	-42" to -84"	"	5.1×10^{-3}
326	375'NB4, 80'WBC	-4" to -54"	"	1.2×10^{-3}
326	" "	-54" to -84"	"	5.7×10^{-3}
327	400'NB4, 80'WBC	-3" to -60"	"	1.3×10^{-3}
327	" "	-60" to -84"	"	5.3×10^{-3}
328	450'NB4, 80'WBC	-4" to -54"	"	1.5×10^{-3}
328	" "	-54" to -84"	"	4.6×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 8/11/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 11, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Six hand auger borings were performed in order to obtain soil samples for the permeability tests.

Approximately 1139 yds^3 of sand was excavated on August 11, 1992. The results of the permeability tests for August 11, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
329	500'NB4, 80'WBC	-1" to -60"	96	1.3×10^{-3}
329	" "	-60" to -84"	"	4.9×10^{-3}
330	550'NB4, 80'WBC	0 to -60"	"	2.0×10^{-3}
330	" "	-60" to -84"	"	3.2×10^{-3}
331	600'NB4, 80'WBC	-2" to -60"	"	2.5×10^{-3}
331	" "	-60" to -84"	"	3.9×10^{-3}
332	650'NB4, 80'WBC	-3" to -66"	"	2.1×10^{-3}
332	" "	-66" to -84"	"	6.9×10^{-3}
333	650'NB4, 30'WBC	0 to -60"	"	1.2×10^{-3}
333	" "	-60" to -84"	"	5.5×10^{-3}
334	650'NB4, 20'EBC	-1" to -66"	"	1.2×10^{-3}
334	" "	-66" to -84"	"	7.0×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 8/12/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 12, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Four hand auger borings were performed in order to obtain soil samples for the permeability tests.

Approximately 1377 yds^3 of sand was excavated on August 12, 1992. The results of the permeability tests for August 12, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
335	650'NB4, 70'EBC	-1" to -66"	96	1.3×10^{-3}
335	" "	-66" to -84"	"	5.6×10^{-3}
336	650'NB4, 120'EBC	-4" to -18"	"	7.9×10^{-4}
336	" "	-18" to -60"	"	3.0×10^{-3}
336	" "	-60" to -84"	"	2.8×10^{-3}
337	600'NB4, 120'EBC	-2" to -60"	"	1.4×10^{-3}
337	" "	-60" to -84"	"	4.2×10^{-3}
338	550'NB4, 120'EBC	-1" to -66"	"	1.2×10^{-3}
338	" "	-66" to -84"	"	8.4×10^{-3}

NOTE: It has been determined that the top 18-inches of soil in the area around pit No. 336 is unsuitable material. The operators on site will be notified that the unsuitable material must be removed before excavation begins in the area.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 8/13/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 13, 1992. The purpose of this visit was to monitor excavation and perform permeability tests on the cushion sand for the Trailridge Landfill. Five hand auger borings were performed in order to obtain soil samples for the permeability tests.

Approximately 1173 yds^3 of sand was excavated on August 13, 1992. The results of the permeability tests for August 13, 1992 are as follows:

TEST PIT NO.	LOCATION (BORROW PIT #4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
339	500'NB4, 120'EBC	-2" to -60"	96	1.2×10^{-3}
339	" "	-60" to -84"	"	6.4×10^{-3}
340	450'NB4, 120'EBC	-2" to -84"	"	1.1×10^{-3}
341	400'NB4, 120'EBC	-1" to -70"	"	1.3×10^{-3}
342	400'NB4, 70'EBC	-2" to -54"	"	1.6×10^{-3}
342	" "	-54" to -80"	"	4.2×10^{-3}
343	450'NB4, 70'EBC	-1" to -60"	"	2.5×10^{-3}
343	" "	-60" to -84"	"	3.7×10^{-3}

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/14/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 14, 1992. The purpose of this visit was to monitor excavation of the cushion sand for the Trailridge Landfill.

Approximately 935 yds^3 of sand was excavated on August 14, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE August 17, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 17, 1992. The purpose of this visit was to prequalify the material to be utilized as protective sand on the subject project. Approximately 1800 cubic yards of protective sand was transported to the project site.

Inspector Harlon Wiggins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE August 18, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 18, 1992. The purpose of this visit was to observe the excavation of the protective sand to be utilized on the subject project. Approximately 2400 cubic yards of material was excavated and transported to the project site.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE August 19, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 19, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Ten hand auger borings were performed to obtain samples for permeability testing. Aprpoximately 2000 cubic yards of protective sand was excavated and transported to the project.

PIT NUMBER	LOCATION	COEFFICIENT OF PERMEABILITY (CM/SEC)
344	-2" to -54"	2.9×10^{-3}
344	-54" to -84"	2.2×10^{-3}
345	-3" to -48"	1.8×10^{-3}
345	-48" to -84"	1.9×10^{-3}
346	-2" to -48"	2.7×10^{-3}
346	-48" to -84"	2.2×10^{-3}

Inspector Harlon Wiggins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/21/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 21, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project. Approximately 1600 cubic yards of protective sand was excavated and transported to the subject project. Constant head permeability tests were performed on the samples obtained on August 19, 1992. The results of these tests are as follows:

PIT NUMBER	LOCATION	COEFFICIENT OF PERMEABILITY (CM/SEC)
347	-6" to -60"	6.9×10^{-3}
347	-60" to -84"	2.9×10^{-3}
348	-6" to -60"	4.4×10^{-3}
348	-60" to -84"	7.4×10^{-3}
349	-6" to -60"	3.0×10^{-3}
349	-60" to -84"	9.4×10^{-3}
350	-6" to -60"	8.7×10^{-3}
350	-60" to -84"	2.5×10^{-3}
351	-6" to -72"	5.3×10^{-3}
352	-6" to -60"	3.0×10^{-3}
352	-60" to -78"	7.8×10^{-3}
353	-6" to -60"	4.6×10^{-3}
353	-60" to -78"	7.0×10^{-3}
354	-6" to -60"	2.5×10^{-3}
354	-60" to -78"	5.1×10^{-3}
355	-6" to -60"	3.7×10^{-3}
355	-60" to -78"	7.5×10^{-3}
356	-6" to -60"	4.5×10^{-3}
356	-60" to -78"	8.4×10^{-3}

Inspector Harlon Wiggins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE August 31, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on August 31, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1100 cubic yards of protective sand was transported to the project site.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE September 1, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 1, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1500 cubic yards of protective sand was excavated and transported to the subject project.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE September 2, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow piton September 2, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1700 cubic yards of protective sand was excavated and transported to the project site.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/8/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 8, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project. Approximately 3400 cubic yards of protective sand was excavated and transported to the project site.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/9/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 9, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project. Approximately 2000 cubic yards of protective sand was excavated and transported to the subject project.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/18/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 18, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1700 cubic yards of protective sand was excavated and transported to the subject project.

Inspector John Reid, Jr.

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/21/92

Client Waste Management, Inc.

Senior Technician Dale Boatwright

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit for the subject project on September 21, 1992. The purpose of this visit was to monitor the loading of dump trucks with sand and to determine the approximate yardage for the day. Total yardage is 1275 yards.

Inspector Dale Boatwright

Reviewed by for ~~Bryant~~ B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/22/92

Client Waste Management, Inc.

Senior Technician Dale Boatwright

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit for the subject project on September 22, 1992. The purpose of this visit was to monitor the loading of dump trucks with sand and to determine the approximate yardage for the day. Total yardage is 2142 yards.

Inspector Dale Boatwright

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/23/92

Client Waste Management, Inc.

Senior Technician Dale Boatwright

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit for the subject project on September 23, 1992. The purpose of this visit was to monitor the loading of dump trucks with sand and to determine the approximate yardage for the day. Total yardage is 1462 yards.

Inspector Dale Boatwright

Reviewed by ~~Bryant~~ B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/24/92

Client Waste Management, Inc.

Senior Technician Dale Boatwright

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit for the subject project on September 24, 1992. The purpose of this visit was to monitor the loading of dump trucks with sand and to determine the approximate yardage for the day. Total yardage is 2023 yards.

Inspector Dale Boatwright

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/25/92

Client Waste Management, Inc.

Senior Technician Dale Boatwright

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit for the subject project on September 25, 1992. The purpose of this visit was to monitor the loading of dump trucks with sand and determine the approximate yardage for the day. No hauling this day due to rain.

Inspector Dale Boatwright

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/28/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 28, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 2567 cubic yards of protective sand was excavated and transported to the subject project.

Inspector John Reid, Jr.

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/29/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 29, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 2550 cubic yards of protective sand was excavated and transported to the subject project.

Inspector John Reid, Jr.

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 9/30/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on September 30, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 2074 cubic yards of protective sand was excavated and transported to the subject project.

Inspector John Reid, Jr.

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 10/1/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on October 1, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 2074 cubic yards of protective sand was excavated and transported to the subject project.

Inspector John Reid, Jr.

Reviewed by for Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 10/2/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on October 2, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 867 cubic yards of protective sand was excavated and transported to the subject project.

Inspector John Reid, Jr.

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
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RECORD OF DAILY OBSERVATION

DATE 12/7/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge Borrow pit on December 7, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1513 cubic yards of protective sand cover was excavated and transported to the subject project.

89 loads at 17 cubic yards per truck.

Inspector John Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/8/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge Borrow pit on December 8, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1785 cubic yards of protective sand cover material was excavated and transported to the subject project.

105 loads at 17 cubic yards per truck.

Inspector John Reid

Reviewed by Bryant B Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Jacksonville, Florida 32207
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RECORD OF DAILY OBSERVATION

DATE 12/9/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge Borrow pit on December 9, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1700 cubic yards of protective sand cover material was excavated and transported to the subject project.

Inspector John Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/10/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge Borrow pit on December 10, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 0 cubic yards of protective sand cover material was excavated and transported to the subject project.

NOTE: Due to heavy rain in the early A.M., hauling from Turkey Ridge Borrow pit was cancelled for the day.

Inspector John Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/11/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge Borrow pit on December 11, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1819 cubic yards of protective sand cover material was excavated and transported to the subject project.

107 loads at 17 cubic yards per truck.

Inspector John Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/14/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc., (LAW) visited the Turkey Ridge borrow pit on December 14, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project. Approximately 1615 cubic yards of protective sand cover material was excavated and transported to the subject project. 95 loads @ 17 cy per load.

Inspector J. Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/15/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 15, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1411 cubic yards of protective sand was excavated and transported to the subject project.

83 loads at 17 cubic yards per load.

Inspector John Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Post Office Box 5728
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(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/16/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 16, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1241 cubic yards of protective sand was excavated and transported to the subject project.

73 loads at 17 cubic yards per load.

Inspector John Reid

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/17/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 17, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1292 cubic yards of protective sand was excavated and transported to the subject project.

76 loads at 17 cubic yards per load.

Inspector John Reid

Reviewed by ~~Bryant~~ B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/18/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 18, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1870 cubic yards of protective sand was excavated and transported to the subject project.

110 loads at 17 cubic yards per load.

Inspector John Reid

Reviewed by

~~Bryant~~ B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/19/92

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the subject project site on December 14, 1992 and December 16, 1992. The purpose of these visits was to obtain sand samples and perform permeability testing.

A total of thirty-four samples were obtained and returned to our laboratory for testing. The results are outlined below.

SAMPLE NO.	LOCATION (PIT NO. 4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
357	See Drawing	-12" to -66"	96	5.3×10^{-3}
358	"	-12" to -66"	"	5.7×10^{-3}
359	"	-12" to -66"	"	4.5×10^{-3}
360	"	-12" to -66"	"	4.6×10^{-3}
361	"	-12" to -66"	"	3.3×10^{-3}
362	"	-12" to -66"	"	6.6×10^{-3}
363	"	-12" to -60"	"	4.3×10^{-3}
364	"	-12" to -48"	"	4.5×10^{-3}
364	"	-48" to -66"	"	3.8×10^{-3}
365	"	-12" to -48"	"	3.0×10^{-3}
365	"	-48" to -66"	"	2.4×10^{-3}
366	"	-12" to -48"	"	3.2×10^{-3}
366	"	-48" to -66"	"	9.2×10^{-3}
367	"	-12" to -60"	"	9.3×10^{-3}
368	"	-12" to -48"	"	9.1×10^{-3}
368	"	-48" to -60"	"	9.0×10^{-3}

Inspector Mark Coleman

Reviewed by BBW
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/19/92

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

SAMPLE NO.	LOCATION (PIT NO. 4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
369	See Drawing	-6" to -48"	96	9.0×10^{-3}
369	"	-48" to -66"	"	4.8×10^{-3}
370	"	-9" to -48"	"	5.7×10^{-3}
371	"	-6" to -48"	"	7.5×10^{-3}
371	"	-48" to -72"	"	7.2×10^{-3}
372	"	-9" to -48"	"	6.9×10^{-3}
373	"	-9" to -48"	"	7.2×10^{-3}
373	"	-48" to -66"	"	4.1×10^{-3}
374	"	-9" to -48"	"	8.3×10^{-3}
375	"	-9" to -48"	"	3.2×10^{-3}
375	"	-48" to -72"	"	9.0×10^{-3}
376	"	-9" to -48"	"	7.0×10^{-3}
377	"	-9" to -48"	"	9.2×10^{-3}
377	"	-48" to -72"	"	1.1×10^{-2}
378	"	-9" to -48"	"	4.1×10^{-3}
379	"	-9" to -48"	"	8.1×10^{-3}
380	"	-9" to -48"	"	3.3×10^{-3}
380		-48" to -72"		7.4×10^{-3}

Inspector Mark Coleman

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/21/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative from Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 21, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1989 cubic yards of protective sand was excavated and transported to the subject project.

117 loads at 17 cubic yards per load.

Inspector John Reid

Reviewed by for ~~Bryant~~ B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/22/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 22, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 2329 cubic yards of protective sand was excavated and transported to the subject project.

Approximately 137 loads at 17 cubic yards per load.

Inspector John Reid

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/23/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 23, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1173 cubic yards of protective sand was excavated and transported to the subject project.

69 loads at 17 yards per load.

Inspector John Reid, Jr.

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/29/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 29, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 782 cubic yards of protective sand was excavated and transported to the subject project.

46 loads at 17 yards per load.

Inspector John Reid, Jr.

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/30/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 30, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1887 cubic yards of protective sand was excavated and transported to the subject project.

111 loads at 17 yards per load.

Inspector John Reid, Jr.

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 12/31/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician John Reid, Jr.

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on December 31, 1992. The purpose of this visit was to monitor the excavation of protective sand for the subject project.

Approximately 1377 cubic yards of protective sand was excavated and transported to the subject project.

81 loads at 17 yards per load.

Inspector John Reid, Jr.

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 1/6/93

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow site on December 31, 1992. The purpose of this visit was to obtain sand samples and return to our laboratory for permeability testing. A total of eighteen samples were obtained and tested, the results are outlined below.

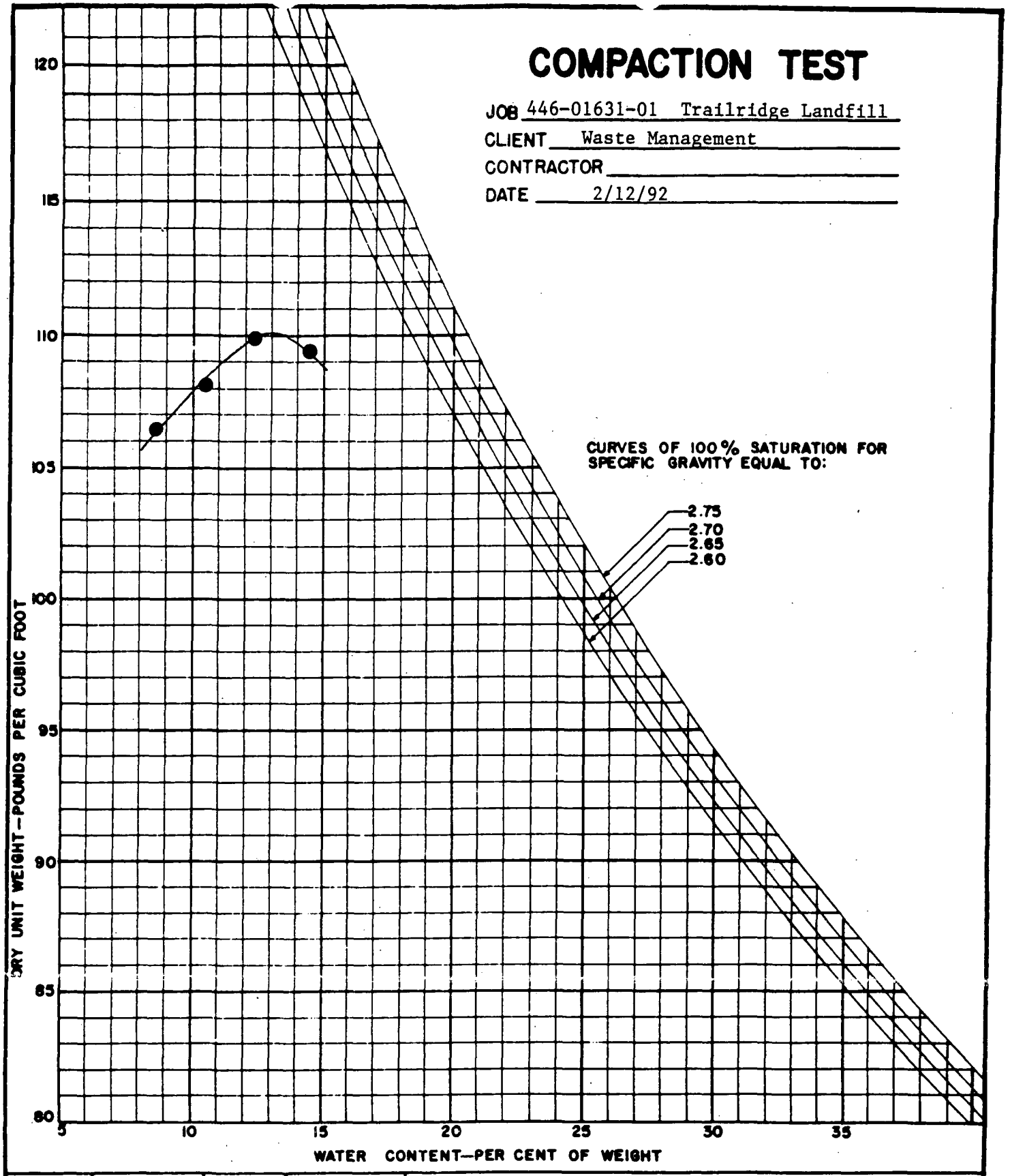
SAMPLE NO.	LOCATION (PIT NO. 4)	DEPTH OF SAMPLE	PERCENT COMPACTION	COEFFICIENT OF PERMEABILITY (CM/SEC)
381	See Drawing	-9" to -48"	96	5.4×10^{-3}
381	"	-48" to -72"	"	3.4×10^{-3}
382	"	-9" to -48"	"	3.3×10^{-3}
383	"	-9" to -48"	"	3.0×10^{-3}
384	"	-9" to -48"	"	2.2×10^{-3}
385	"	-9" to -48"	"	3.1×10^{-3}
386	"	-9" to -48"	"	2.4×10^{-3}
387	"	-9" to -48"	"	6.1×10^{-3}
388	"	-9" to -48"	"	2.8×10^{-3}
388	"	-48" to -72"	"	6.5×10^{-3}
389	"	-9" to -48"	"	2.2×10^{-3}
390	"	-9" to -48"	"	2.5×10^{-3}
390	"	-48" to -72"	"	7.0×10^{-3}
391	"	-9" to -48"	"	2.6×10^{-3}
392	"	-9" to -48"	"	1.3×10^{-3}
393	"	-9" to -48"	"	4.0×10^{-3}
394	"	-9" to -48"	"	2.1×10^{-3}
395	"	-9" to -48"	"	3.0×10^{-3}

Inspector Mark Coleman

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management
CONTRACTOR
DATE 2/12/92

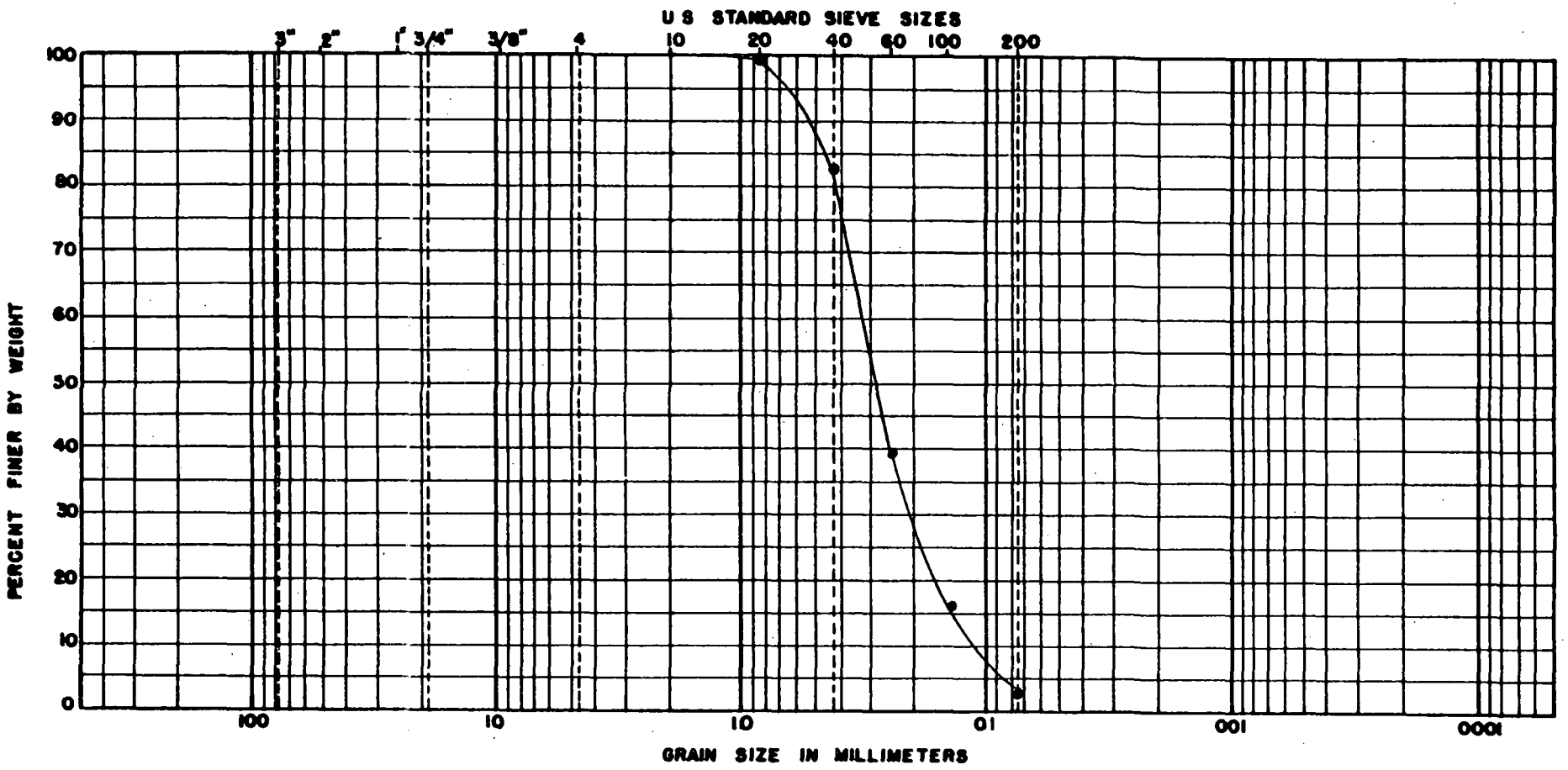


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
1	ASTM D 1557 "A"	110.1	12.9	Tan Fine Sand (Baseline 1 - Turkey Ridge)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	L L	P L	P I	DESCRIPTION OR CLASSIFICATION
1						Tan Fine Sand

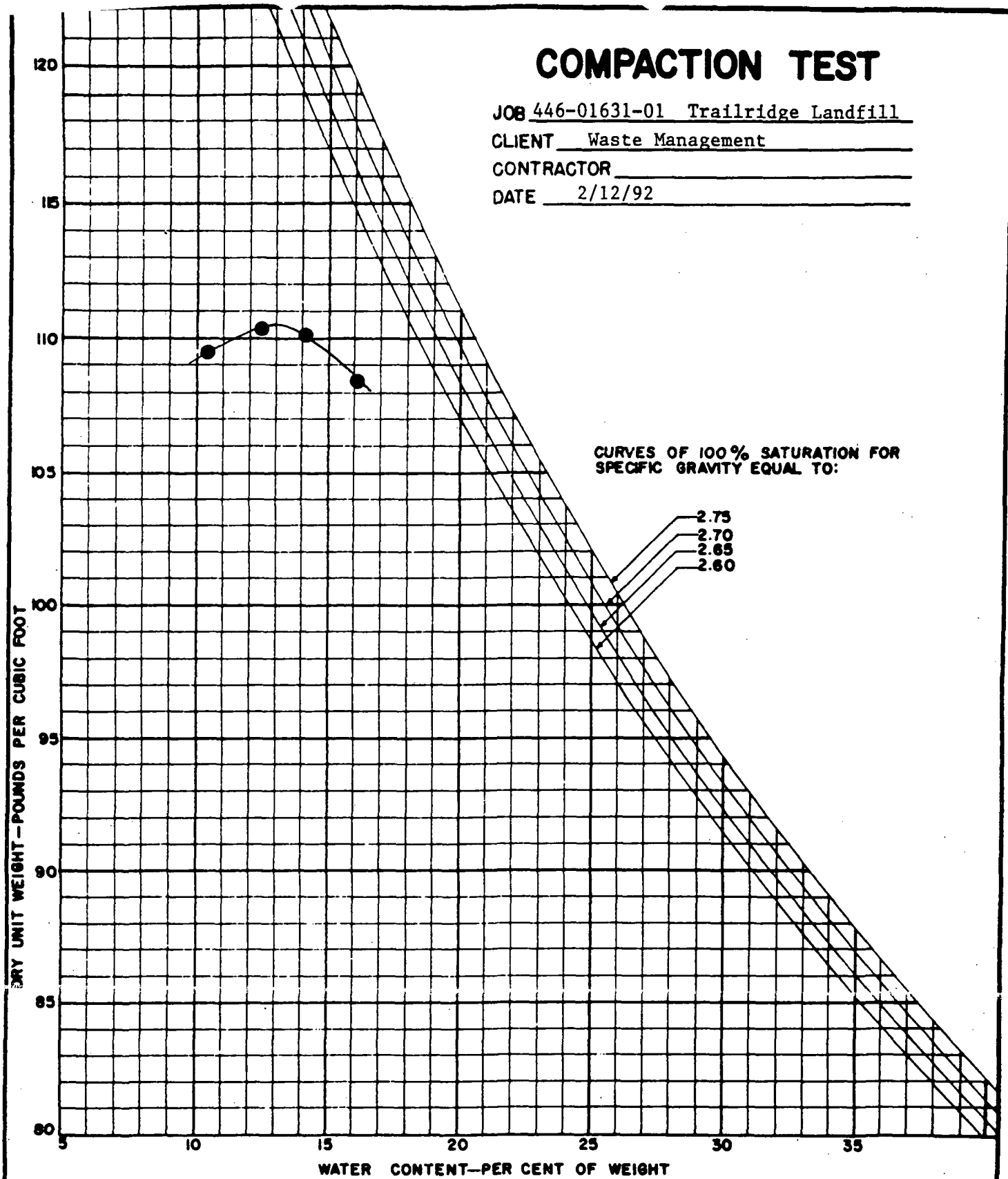
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BBW

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management
CONTRACTOR
DATE 2/12/92

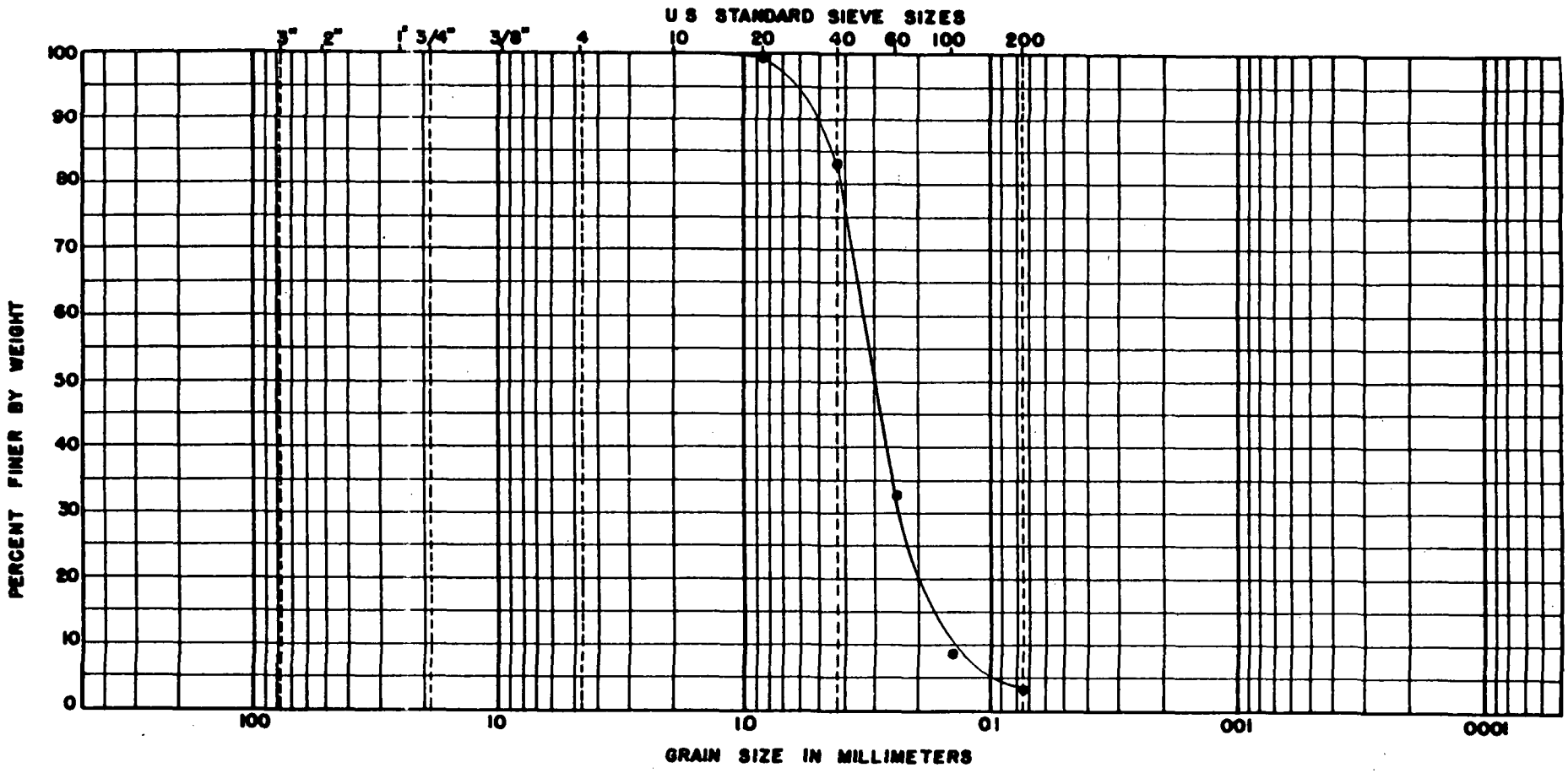


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
2	ASTM D 1557 "A"	110.7	12.9	Tan Fine Sand (Baseline 2 - Turkey Ridge)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	L L	P L	P I	DESCRIPTION OR CLASSIFICATION
2						Tan Fine Sand

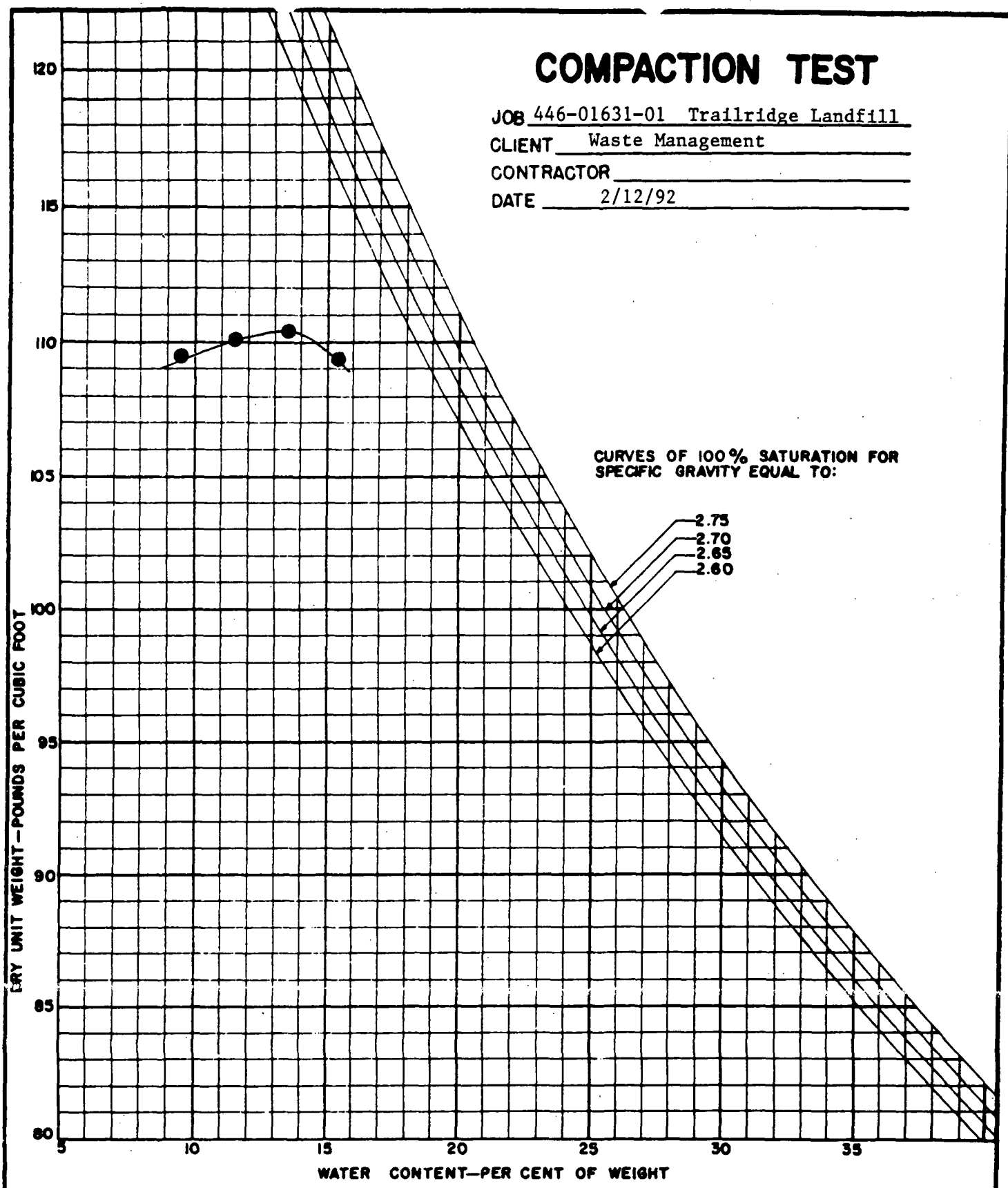
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BTW

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management
CONTRACTOR
DATE 2/12/92

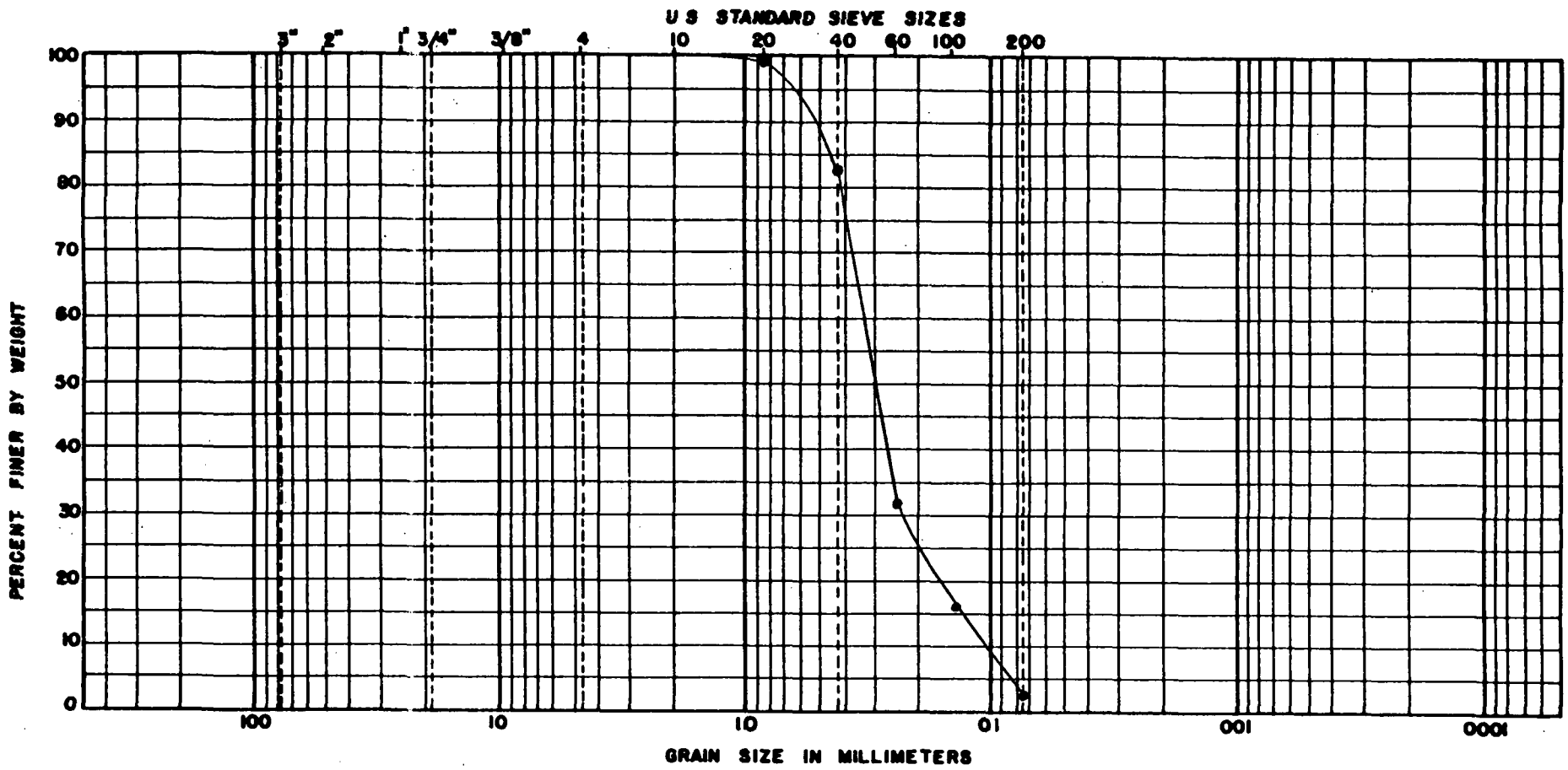


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX. DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
3	ASTM D 1557 "A"	110.4	13.4	Tan Fine Sand (Baseline 3 - Turkey Ridge)

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	L L	P L	P I	DESCRIPTION OR CLASSIFICATION
3						Tan Fine Sand

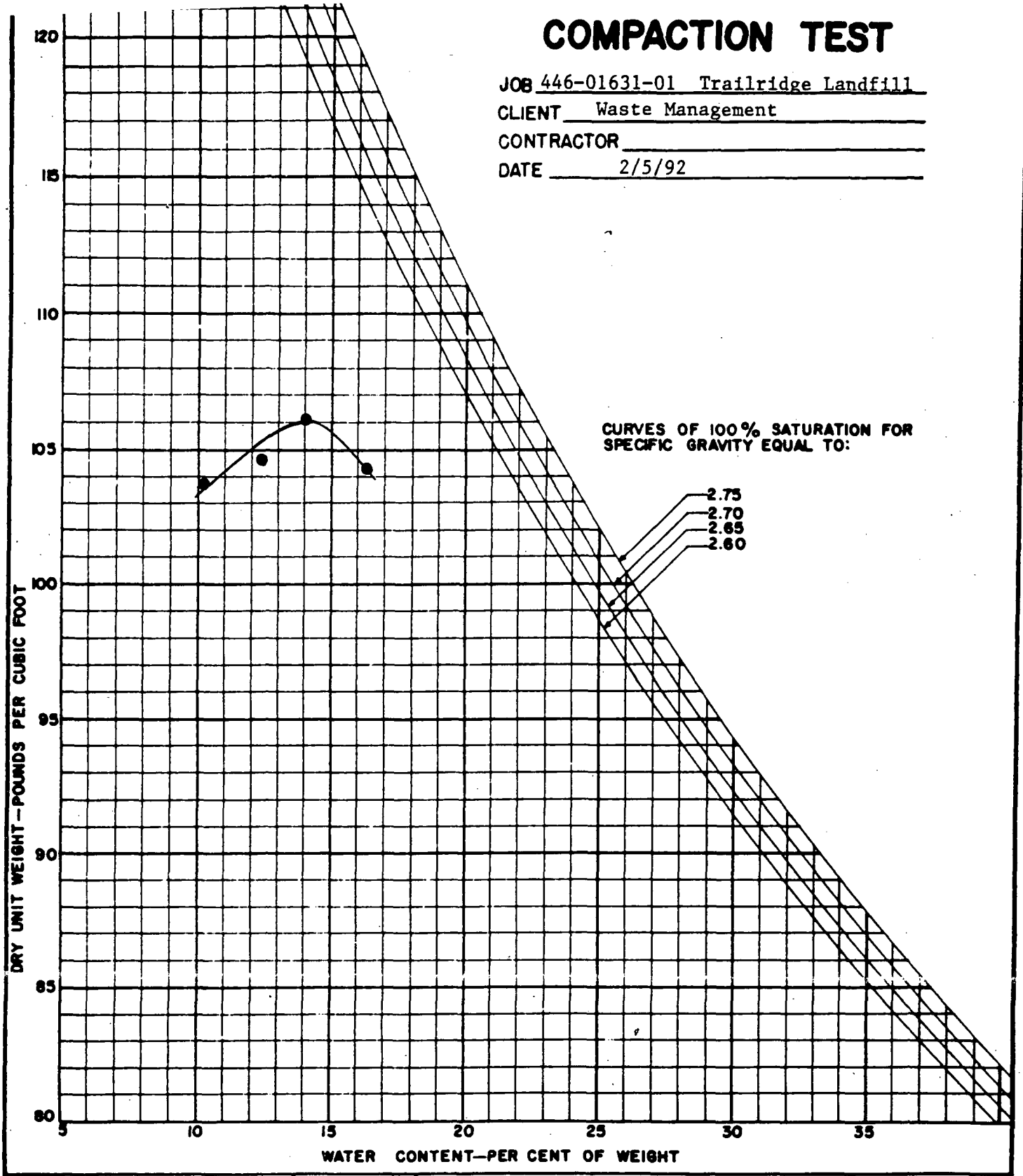
GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING

COMPACTION TEST

JOB 446-01631-01 Trailridge Landfill
CLIENT Waste Management
CONTRACTOR
DATE 2/5/92

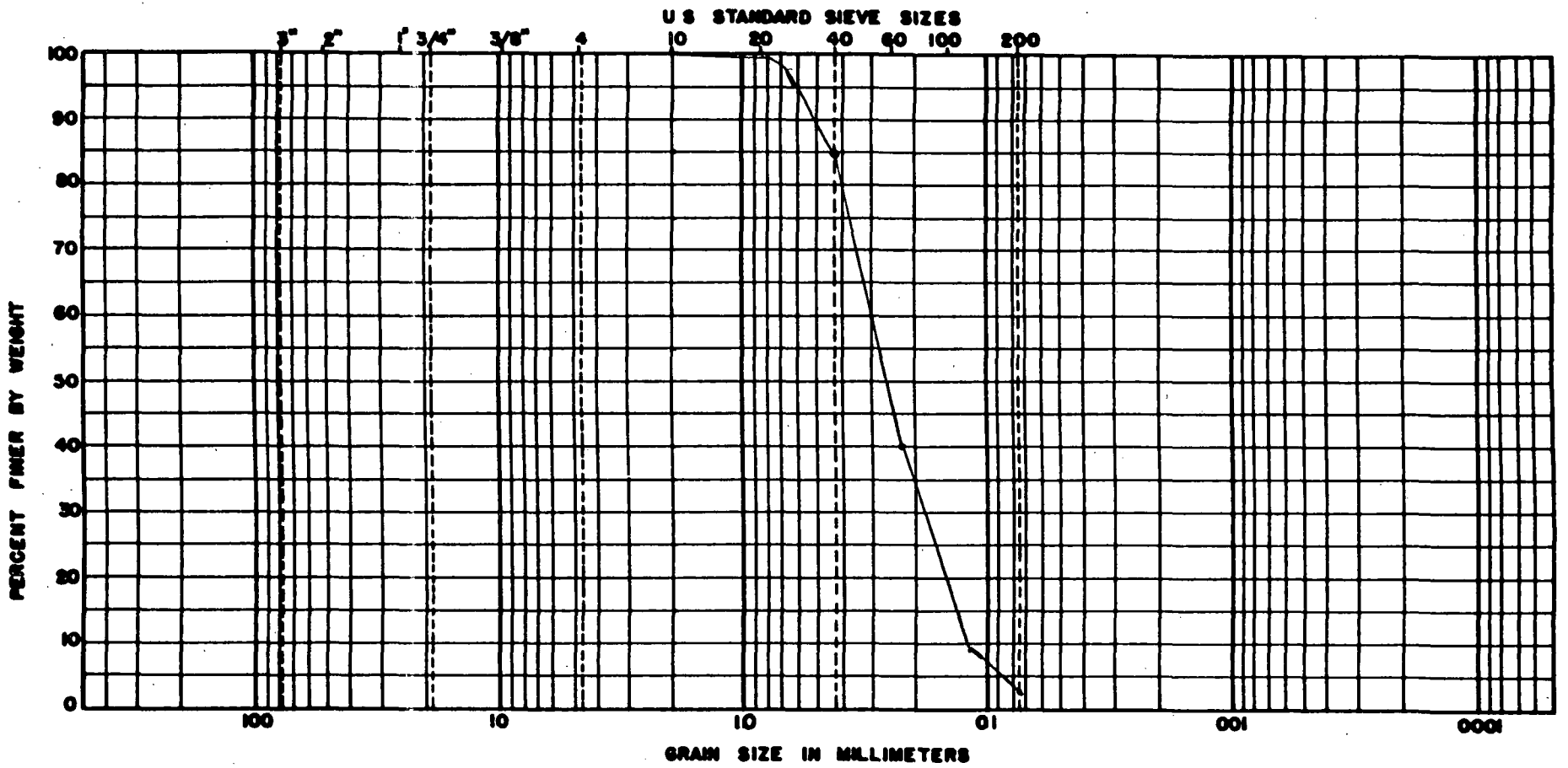


MOISTURE DENSITY RELATION	METHOD OF TEST	MAX DRY DENSITY PCF	OPTIMUM MOISTURE CONTENT %	SOIL DESCRIPTION OR CLASSIFICATION AND SAMPLE LOCATION
4	ASTM D 1557 "A"	106.0	13.8	Light Grey Fine Sand (On site material -25')

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

BY Bryant B. Wildes



BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT SIZES	CLAY SIZES

BORING NO	ELEV OR DEPTH	NAT WC	L L	P L	P I	DESCRIPTION OR CLASSIFICATION
4						Light Grey Fine Sand

GRAIN SIZE DISTRIBUTION

JOB NO. 446-01631-01

LAW ENGINEERING BBW

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Aggregate Particle Distribution

Client: Waste Management, Inc. **Date:** May 28, 1992

Project: Trailridge Landfill **Job No:** 446-01631-01

As requested, Law Engineering, Inc. (LAW) has completed testing of the No. 3 aggregate stockpiled on the subject project to be placed in the secondary leachate sump of Phase 1-C. Gradation sample No. 9 was obtained by our representative in the field. The results of this rests are as follows:

AGGREGATE REQUIREMENTS AASHTO M-43

SAMPLE NO.	SIEVE	PERCENT PASSING	PERCENT PASSING (REQUIRED)
9	2	94.9	90 - 100
	1-1/2	52.7	35 - 70
	1	10.3	0 - 15
	1/2	0.5	0 - 5

Gradation testing in general accordance with AASHTO T-27.

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Aggregate Particle Distribution

Client: Waste Management, Inc. **Date:** 6/11/92

Project: Trailridge Landfill **Job No:** 446-01631-01

As requested, Law Engineering, Inc. (LAW) has completed testing of an aggregate sample obtained by our field representative from the primary sump and leachate collection trench on Phase 1-C. The results are as follows:

SAMPLE NO.	SIEVE	PERCENT PASSING	AASHTO M-43 REQUIRED PERCENT PASSING GRADING #3
10	2-1/2	100	100
	2	96.3	90 - 100
	1-1/2	68.8	35 - 70
	1	14.3	0 - 15
	1/2	1.2	0 - 5

NOTE: The gradation was performed in general accordance with AASHTO T-27.

Respectfully submitted,
LAW ENGINEERING

Bryant B Wildes

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Aggregate Particle Distribution

Client: Waste Management, Inc. **Date:** 7/9/92

Project: Trailridge Landfill **Job No:** 446-01631-01

As requested, Law Engineering, Inc. (LAW) has completed testing an aggregate sample obtained by our field representative from the leachate collection trench on Phase 2-A. The results are as follows:

SAMPLE NO.	SIEVE	PERCENT PASSING	AASHTO M-43 REQUIRED PERCENT PASSING GRADING #3
11	2-1/2	100	100
	2	98.3	90 - 100
	1-1/2	69.9	35 - 70
	1	20.3*	0 - 15
	1/2	1.0	0 - 5

NOTE: The gradation was performed in general accordance with AASHTO T-27.

* Does not meet required grading.

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE July 11, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested, Law Engineering, Inc. (LAW) has completed the aggregate particle distribution analysis on the AASHTO #3 aggregate sample obtained by our representative in the field. Gradation sample No. 12 was obtained from the stockpile representing the leachate collection trench in Phase 2-A.

GRADATION REQUIREMENTS AASHTO M-43

SIEVE SIZE	PERCENT PASSING	PERCENT PASSING (REQUIRED)
2"	96.0	90 - 100
1-1/2"	60.0	35 - 70
1"	14.8	0 - 15
1/2"	1.2	0 - 5

NOTE: Retest of No. 11

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Aggregate Particle Distribution

Client: Waste Management, Inc. **Date:** September 13, 1992

Project: Trailridge Landfill **Job No:** 446-01631-01

Law Engineering, Inc. (LAW) has completed testing of the No. 3 aggregate placed in the leachate collection trench of Phase 2-B. Sample No. 13 was obtained by our representative in the field. The results of this test are as follows:

GRADATION REQUIREMENTS AASHTO M-43

SIEVE SIZE	WEIGHT RETAINED	PERCENT RETAINED	PERCENT PASSING	PERCENT PASSING REQUIRED
2"	3.76	8.1	91.9	90 - 100
1½"	27.42	59.1	40.9	35 - 70
1"	40.87	88.1	11.9	0 - 15
½"	45.88	98.9	1.1	0 - 5

NOTE: Initial dry weight 46.37 lbs.

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Aggregate Particle Distribution

Client: Waste Management, Inc. **Date:** September 13, 1992

Project: Trailridge Landfill **Job No:** 446-01631-01

Law Engineering, Inc. (LAW) has completed testing of the No. 3 aggregate placed in the leachate collection trench of Phase 2-C. Sample No. 14 was obtained by our representative in the field. The results of this test are as follows:

GRADATION REQUIREMENTS AASHTO M-43

SIEVE SIZE	WEIGHT RETAINED	PERCENT RETAINED	PERCENT PASSING	PERCENT PASSING REQUIRED
2"	1.86	3.7	96.3	90 - 100
1½"	16.97	34.1	65.9	35 - 70
1"	43.38	87.1	12.9	0 - 15
½"	48.41	97.15	2.85	0 - 5

NOTE: Initial dry weight 49.83 lbs.

Respectfully submitted,
LAW ENGINEERING

Bryant B Wildes

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Aggregate Particle Distribution

Client: Waste Management, Inc.

Date: 12/2/92

Project: Trailridge Landfill

Project No: 446-01631-01

A representative of Law Engineering, Inc. (LAW) obtained sample No. 15 of the AASHTO No. 3 coarse aggregate stockpiled on the project site. The aggregate is to be placed in the leachate collection trench for the Phase IA, IIA, IB, IIB, IC and IIC tie-in of the leachate collection system. The results of these tests are as follows:

GRADATION REQUIREMENTS AASHTO M-43

SIEVE SIZE	WEIGHT RETAINED	PERCENT RETAINED	PERCENT PASSING	PERCENT PASSING (REQUIRED)
2"	1.38	3.03	96.97	90 - 100
1-1/2"	15.03	32.97	67.03	35 - 70
1"	38.83	85.19	14.81	0 - 15
1/2"	45.00	98.73	1.27	0 - 5

NOTE: Initial dry weight 45.58 Lbs.

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 7/8/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On July 8, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
267	94.5	4.3×10^{-8}	Sta. 92+00N, 126+15E	-3'
268	97.9	4.3×10^{-8}	Sta. 91+00N, 126+15E	Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/7/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 7, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
284	96.3	5.9×10^{-8}	Sta. 99+10N, 110+00E	Top Berm
285	92.2	5.2×10^{-8}	Sta. 99+10N, 109+00E	-3' Below Top of Berm
286	93.2	9.3×10^{-8}	Sta. 99+10N, 108+00E	-2' Below Top of Berm
289	94.8	4.6×10^{-7}	Sta. 99+10N, 105+00E	-2' Below Top of Berm
290	89.8	1.0×10^{-8}	Sta. 99+10N, 104+00E	-3' Below Top of Berm
293	91.6	9.7×10^{-8}	Sta. 99+10N, 101+00E	-3' Below Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/16/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 16, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
287A	94.0	1.7×10^{-7}	Sta. 99+10N, 107+00E RESAMPLE OF 287	-4'Below Top of Berm
288A	93.2	1.1×10^{-7}	Sta. 99+10N, 106+00E RESAMPLE OF 288	Top of Berm
291A	96.9	2.1×10^{-7}	Sta. 99+10N, 103+00E RESAMPLE OF 291	Top of Berm
292A	88.2	1.8×10^{-7}	Sta. 99+10N, 102+00E RESAMPLE OF 292	-2' Below Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/12/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 12, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
294	91.5	3.0×10^{-7}	Sta. 98+00N, 100+85E	Top of Berm
295	91.3	1.5×10^{-8}	Sta. 97+00N, 100+85E	-2' Below Top of Berm
296	87.9	2.1×10^{-8}	Sta. 96+00N, 100+85E	-3' Below Top of Berm
297	92.7	9.8×10^{-8}	Sta. 95+00N, 100+85E	Top of Berm
298	93.9	9.4×10^{-8}	Sta. 94+00N, 100+85E	-4' Below Top of Berm
299	90.95	2.5×10^{-7}	Sta. 93+10N, 100+85E	-3' Below Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/16/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 16, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
300	94.6	7.5×10^{-8}	RETEST OF 289	-2' Below Top of Berm
301	92.9	8.3×10^{-9}	Sta. 92+00N, 100+85E	Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/18/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 18, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
302	95.0	2.5×10^{-8}	Sta. 91+00N, 100+85E	-3' Below Top of Berm
303	95.0	1.5×10^{-7}	Sta. 90+00N, 100+85E	-1' Below Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

for Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 8/23/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On August 23, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
304	88.8	4.5×10^{-8}	RETEST OF 287	-4' Below Top of Berm
305	94.1	4.1×10^{-8}	RETEST OF 288	Top of Berm
306	91.7	3.7×10^{-7}	RETEST OF 291	Top of Berm
307	92.5	8.0×10^{-8}	RETEST OF 294	Top of Berm
308	92.1	2.0×10^{-8}	RETEST OF 299	-3' Below Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

for Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 9/17/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On September 17, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
309	96.2	1.6×10^{-8}	RETEST OF 306	Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

for Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 9/5/92

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On September 5, 1992 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
310	95.8	1.9×10^{-8}	RETEST OF 303	-1' Below Top of Berm

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 1/22/93

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On January 22, 1993 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
323	101.8	1.4×10^{-7}	Sta. 99+10N, 113+50E	Top of Clay Cap 2A
324	93.9	4.1×10^{-9}	Sta. 99+10N, 112+50E	3' Below Top of Clay Cap 2A
325	97.0	1.6×10^{-7}	Sta. 99+10E, 111+50E	4' Below Top of Clay Cap 2A
326	93.6	4.3×10^{-9}	Sta. 99+10N, 110+50E	Top of Clay Cap 2A

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 1/23/93

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On January 23, 1993 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
327	88.4	6.9×10^{-8}	RETEST OF TEST #292A	

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.
P.O. BOX 5728 - 3901 CARMICHAEL AVE.
JACKSONVILLE, FLORIDA 32207
(904) 396-5173

REPORT OF PERMEABILITY TESTING

CLIENT: Waste Management, Inc. DATE: 1/28/93

PROJECT: Trailridge Landfill PROJECT NO: 446-01631-01

On January 28, 1993 tests for coefficient of permeability were completed on soils obtained from the subject project. The tests were performed in substantial compliance with ASTM Standard D 5084. Test data and sample location are presented below.

Sample No.	Dry Density (pcf)	Coefficient of Permeability (cm/sec)	Location	Clay Liner Thickness (Inches)
328	98.5	3.1×10^{-8}	RETEST OF TEST #323	Top of Clay Cap 2A
329	99.6	4.0×10^{-9}	RETEST OF TEST #325	Top of Clay Cap 2A

Respectfully submitted,
LAW ENGINEERING, INC.

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE May 13, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 13, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Duval construction continued to place concrete ditch paving along the North Perimeter Road.

Barco-Duval continued constructing the class 3 access road. Placement of the topsoil on the exterior of the north anchor trench clay cap in Phase 1-A was begun today.

Anderson-Columbia, Inc. began placing the initial 1¼" course of FDOT S-I asphaltic concrete. The asphaltic concrete was placed on the East and West approaches up to the scale facility, the main roadway west of the scale facility and the East Perimeter Road.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

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Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 14, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject projection May 14, 1992. The purpose of this visit was to perform construction materials testing for the subject project. Barco-Duval re-excavated the interceptor ditches following the inclement weather from the previous night.

Duval construction did not place clay subbase in Phase 2-A. Permeability samples No. 167, No. 168, No. 169, and No. 170 were reported today. The Permeabilities failed to meet the specified permeability coeff. of -1.0×10^5. These permeability samples represent portions of the 11th and 12th sections of Phase 1-C.

Arco construction continued to place concrete ditch paving along the North perimeter road.

Anderson-Columbia, Inc. continued placing the initial course of FDOT S-I asphaltic concrete. The asphalitc concrete was placed in the East approach to the scale facility, the bus parking area, and the class 3 roadway. The final course of FDOT S-I asphaltic concrete was placed in the Leachate loading area.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

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RECORD OF DAILY OBSERVATION

DATE May 15, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 15, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco-Duval continued constructing the North Perimeter Road in Phase 2. General site clean-up was begun for the DER site inspection. Arco construction completed placing the extruded curb in the ancillary facilities.

Duval construction completed placing clay subbase in Phase 2-A up to the interceptor ditch.

Permeability samples No. 188, No. 189, No. 190, and No. 191 were obtained on the 11th and 12th sections of Phase 1-C. These samples were taken as retests for permeability samples No. 167, No. 168, No. 169, and No. 170, respectively.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 16, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 16, 1992. The purpose of this visit was to perform construction materials testing for the subject project. CID placed concrete in the walkway up to the weighmasters office.

Drilled-core asphaltic concrete specimens were obtained on the East and West approaches to the scale facility; the bypass roadway; the main roadway west of the scale facility; the East and North Perimeter Roads; and the class 3 access roadway. These specimens were returned to Law's laboratory for testing of the in-place density and thickness of the FDOT S-I asphaltic concrete.

Permeability samples No. 192 thru No. 201 were obtained on the 8th, 9th, and 10th sections of Phase 2-A.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

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Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 18, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 18, 1992. The purpose of this visit was to perform construction materials testing for the subject project. The Laboratory Testing of the following permeabilities were completed on Sunday May 17, 1992. The results of these tests are as follows:

Perm. No.	Coeff. Perm.	Coeff. Perm. (required)
176	2.3×10^{-7}	-1.0×10^{-5}
177	1.8×10^{-6}	"
178	1.7×10^{-7}	"
179	8.6×10^{-7}	"
180	9.3×10^{-8}	"
181	4.2×10^{-9}	"
182	6.9×10^{-7}	"
183	2.6×10^{-6}	"
184	1.7×10^{-7}	"
185	1.7×10^{-7}	"
186	1.5×10^{-6}	"
187	5.5×10^{-7}	"

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE May 18, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

Barco-Duval continued constructing the North Perimeter Road in Phase 2.

Arco Construction continued to place concrete ditch paving along the North Perimeter Road in Phase 2.

Law informed Mr. Ron Price of Barco-Duval retesting of the suspect asphaltic concrete on the main roadway will be performed when requested by Barco-Duval. Mr. Jim Sloan of Duval construction was informed the recompaction of the East Anchor trench clay cap on Phase 1-B, should be expedited in order for Law to retest 1 failing permeability for the Phase 1-B certification.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 19, 1992

Client Waste Managment, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative on Law Engineering, Inc. (LAW) visted the subject project on May 19, 1992. The purpose of this visit was to perform construction materails testing for the subject project.

Barco-Duval continued placing fill material and grading Phase 2-C of the Landfill. Construction of the North Perimeter Road was continued. Arco Construction continued to place concrete ditch paving in Phase 2, along the North Perimeter Road.

Weatherell Treatment Services removed the water treatment plant footings. The footings were replaced with 4000 PSI concrete within the specified slump range.

Mr. Hugh McCraig of Duval Construction informed Law the 10th section of clay subbase in Phase 2-A, and the clay subbase in Phase 2-B, will be reworked before permeability samples are obtained Mr. McCraig intends to have the clay subbase perpared on May 20, 1992.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
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Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 20, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 20, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco-Duval continued constructing the North Perimeter Road. The placement of fill material was continued in Phase 2-C.

Arco Construction continued to place concrete ditch paving along the North Perimeter Road in Phase 2. The excavation for the concrete ditch paving in the Leachate containment area was completed.

Duval Construction continued to place clay subbase in Phase 2-B. As built elevations and clay subbase thicknesses were found to be acceptable on sections No. 3, No. 4, and No. 5 of Phase 2-A. Permeability samples No. 202, No. 203, No. 204, and No. 205 were obtained on the 10th section of Phase 2-A. Permeability sample Nos. 206, 207, 208, 209, 210 and 211 were obtained on the 2nd and 3rd sections of Phase 2-B, respectively.

Inspector Harlon Wiggins

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RECORD OF DAILY OBSERVATION

DATE May 21, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 21, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco-Duval continued to prepare the subgrade in Phase 2-C. Excavation of the concrete ditch paving in the Leachate containment area was continued.

Duval construction continued placing clay subbase in Phase 2-B. No permeability samples were obtained today.

Arco construction did not place concrete ditch paving due to inclement weather.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 22, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 22, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco-Duval continued grading the subgrade in Phase 2-C. Compaction of the subgrade was performed also.

Tax utilities placed temporary asphalt ramps on the East and West approaches of the North scale as well as the East approach of the center scale. The asphalt was placed to alleviate the depressions occuring in the asphaltic concrete. The 1 1/4 inch drop off from the concrete approaches contributed to the deflection of the asphaltic concrete pavement.

Jacksonville Utilities completed placing the Phase 2 drainage in the ancillary facilities. Structures AS7, AS6, AS10, and AS11 were installed along with the scheduled 15" RCP.

Duval construction continued placing clay subbase in Phase 2-B. As built elevations and clay subbase thicknesses for the 6th and 7th sections of Phase 2-A were found to be acceptable. Clay subbase permeabilities No. 212 thru No. 220 were obtained on the 1st, 4th, and 5th sections of Phase 2-B, respectively.

Arco construction began placing concrete ditch paving in the Leachate containment area.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

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RECORD OF DAILY OBSERVATION

DATE May 26, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 26, 1992. The purpose of this visit was to perform construction materials testing for the subject project. Barco-Duval achieved compaction on sections No. 1 thru section No. 10 of Phase 2-C.

Arco construction continued to place concrete ditch paving in the Leachate containment area.

Duval construction continued to place clay subbase in Phase 2-B. Clay permeabilities were reported for Phase 2-A. The remaining permeabilities in the 8th, 9th, and 10th sections met the specified requirements.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

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RECORD OF DAILY OBSERVATION

DATE May 27, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 27, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued to grade and compact the subgrade in Phase 2-C. Excavation of the stormwater retention pond in the ancillary facilities.

Arco Construction continued to place concrete ditch paving in the leachate containment area.

Jax Utilities achieved compaction on the 15-inch RCP placed between structures AS10 and AS11; AS6 and AS7; AS7 and AS8; respectively.

Duval Construction continued to place clay subbase on Phase 2-B. Duval Construction intends to prepare sections 6, 7 and 8 for permeability testing. As-built elevations and clay subbase thicknesses were performed on sections 8, 9 and 10 of Phase 2-A. Mr. Hugh McCraig of Duval Construction informed LAW the as-built elevations on the leachate collection trench in the 10th section of Phase 2-A were unacceptable. Duval Construction intends to correct the clay subbase in the leachate collection trench at a later date. Mr. McCraig informed LAW, Duval Construction will move to Phase 1-B to grade and compact the interior slope of the east anchor trench clay cap. The exterior slope of the east anchor trench clay cap had been previously reworked. The retest for permeability No. 163 will be obtained following recompaction of the interior slope.

Permeability sample Nos. 221 through 229 were obtained on sections 6, 7 and 9 of Phase 2-B, respectively.

Barco Duval achieved compaction on the finished subgrade on the north perimeter road from St. 106+00, to Sta. 100+50. The initial lift of limerock base was placed on the finished subgrade.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Chief Enigneering Technician

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RECORD OF DAILY OBSERVATION

DATE May 27, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

Listed below are permeability results received over the holiday weekend and the week beginning May 26, 1992.

PERMEABILITY NUMBER	COEFFICIENT OF PERMEABILITY	SPECIFIED COEFFICIENT OF PERMEABILITY
192	5.0×10^{-8}	-1.0×10^{-5}
193	3.5×10^{-8}	" "
194	1.2×10^{-7}	" "
195	5.1×10^{-8}	" "
196	1.9×10^{-7}	" "
197	5.7×10^{-7}	" "
198	2.6×10^{-8}	" "
199	2.1×10^{-7}	" "
200	1.2×10^{-7}	" "
201	4.7×10^{-8}	" "
202	2.2×10^{-8}	" "
203	4.5×10^{-7}	" "
204	4.0×10^{-7}	" "
205	8.5×10^{-7}	" "
206	4.4×10^{-8}	" "
207	2.5×10^{-7}	" "
208	3.9×10^{-7}	" "
209	5.2×10^{-6}	" "
210	2.7×10^{-6}	" "
211	5.1×10^{-8}	" "

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
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RECORD OF DAILY OBSERVATION

DATE May 27, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

PERMEABILITY NUMBER	COEFFICIENT OF PERMEABILITY	SPECIFIED COEFFICIENT OF PERMEABILITY
212	1.0×10^{-8}	-1.0×10^{-5}
214	2.3×10^{-8}	" "
215	5.7×10^{-7}	" "
217	4.4×10^{-7}	" "
218	4.0×10^{-7}	" "

Inspector Harlon Wiggins

Reviewed by for Bryant B. Wildes
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RECORD OF DAILY OBSERVATION

DATE May 28, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 28, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued excavating the ancillary stormwater pond. Construction of the north perimeter road was continued.

Duval Construction continued placing clay subbase in Phase 2-C. Recompaction of the east anchor trench clay cap was performed. Permeability No. 163 was retested following the compaction process. Our representative observed longitudinal cracks in the asphaltic concrete pavement on the main roadway. The cracks were observed in the right wheel path of the right lane of the main roadway between Sta. 40+00 and Sta. 50+00. Mr. Doug Hurst of England, Thims and Miller was informed of the cracks.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE May 29, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on May 29, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval achieved compaction on the initial 6-inches of limerock base on the north perimeter road from Sta. 113+00 to Sta. 102+00. Barco Duval began placing the final lift of limerock in this area.

Duval Construction began placing clay subbase on Phase 2-C. Grading of Phase 2-B was begun on section No. 1. As-built elevations on the 10th section of Phase 2-A were achieved on May 28, 1992.

Permeability Nos. 231 through 236 were obtained on the 9th and 10th sections of Phase 2-B, respectively.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
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RECORD OF DAILY OBSERVATION

DATE June 1, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 1, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval achieved compaction on the finished limerock base on the north perimeter road. The north perimeter road was primed and sanded from Sta. 113+00 to Sta. 102+00.

Arco Construction placed concrete in the spillway for the ancillary stormwater retention pond.

Construction Industries Division placed concrete in the battery and waste oil storage slab.

Duval Construction continued to place clay subbase in Phase 2-C. Grading was continued on Phase 2-B. Permeability Nos. 237 through 239 were obtained on the 1st section of Phase 2-C.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 2, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 2, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Duval Construction continued to place clay subbase in Phase 2-C. Grading was continued on Phase 2-B. As-built elevations and clay subbase thicknesses were found to be acceptable on the 1st and 2nd sections of Phase 2-B.

Construction Industries Division continued to place the form work and grade the 30' x 300' non-contract drop-off slab on grade. Materials were moved to the ancillary stormwater retention pond to begin constructing the oil/grease skimmer for the spillway.

Jax Utilities began installing the secondary sump pipe for Phase 1-C. Clay subbase permeabilities were reported for the 6th, 7th and 8th sections of Phase 2-B. The permeability retest for the east anchor trench clay cap on Phase 1-B was reported, also. Permeability Nos. 240 through 242 were obtained on the 2nd section of Phase 2-C.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 2, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

REPORT OF PERMEABILITY COEFFICIENT

PERMEABILITY NUMBER	COEFFICIENT OF PERMEABILITY	COEFFICIENT OF PERMEABILITY (REQUIRED)
213	9.7×10^{-6}	-1.0×10^{-5}
216	7.3×10^{-9}	" "
219	1.0×10^{-7}	" "
220	7.3×10^{-6}	" "
221	2.7×10^{-8}	" "
222	6.4×10^{-7}	" "
223	6.7×10^{-9}	" "
224	1.5×10^{-6}	" "
225	1.3×10^{-7}	" "
226	5.6×10^{-6}	" "
227	4.6×10^{-7}	" "
228	9.5×10^{-7}	" "
229	5.0×10^{-7}	" "
230	7.3×10^{-8}	-1.0×10^{-7}

Inspector Harlon Wiggins

Reviewed by for Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 3, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 3, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Mr. Ron Price of Barco Duval; Mr. Doug Hurst of England, Thims and Miller; and Mr. Harlon Wiggins of LAW met to discuss the S-I asphaltic concrete on the main roadway. Mr. Price stated that Anderson-Columbia, Inc. were ready for retests on the asphaltic concrete. LAW stated that the contractor's testing was performed in the wheel paths only. Mr. Hurst informed LAW the revised asphalt mix design would be used as the mix design met City of Jacksonville and FDOT specifications, contingent to Barco Duval confirming the revised mix design represented the in-place asphaltic concrete.

Mr. Hurst and Mr. Price were informed LAW will retest the asphaltic concrete on Sunday, June 7, 1992, as the landfill will not be in operation. Mr. Hurst requested that LAW not core the asphaltic concrete in the wheel paths of the roadway.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 4, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 4, 1992. The purpose of this visit was to perform construction materials testing.

Duval Construction did not place clay subbase due to the pit being too wet to work.

Barco Duval reworked the haul roads to obtain access to the site. Our representative observed the leachate collection trench in Phase 2-A had "silted in" west of the interceptor ditch. Mr. Ron Taylor of Barco Duval was informed the leachate collection trench needed to be cleaned out to allow the water trapped in the leachate collection trench to drain.

Our representative observed the fill material on the northside of the water treatment plant footings had washed out. Mr. Eddie Chance of Jax Utilities was informed to place fill material on the northside of the water treatment plant and slope the fill material down to the silt screen. Undermining of the footings had not occurred prior to this inspection. Mr. Doug Hurst of England, Thims and Miller was informed of the above noted items.

LBR No. 38 was obtained on the subgrade in the non-contract dropoff area. Mr. Ron Taylor of Barco Duval was informed a 3 to 4 inch layer of organics was on the surface. Mr. Taylor informed LAW that approximately 6-inches would be removed to obtain the finished subgrade elevation.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 5, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 5, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Duval Construction did not place clay subbase due to the clay pit being too wet.

Arco Construction began placing concrete ditch paving along the west perimeter road.

Barco Duval began grading the non-contract dropoff area to the proper subgrade elevation. The organics previously observed on the surface will be evaluated following the grading operations.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 8, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 8, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

The following permeability samples were reported being slower than $-1.0x10^{-5}$. These samples were Nos. 232, 233, 236, 237, 240, 241 and 242.

Barco Duval continued grading the subgrade in the non-contract drop-off area. The exterior slope of the east anchor trench clay cap on Phase 1-B was graded and placement of the one foot soil cover was started.

Additional testing of the type S-I asphaltic concrete previously placed on the main roadway was performed on Sunday, June 7, 1992. Drilled core specimens were obtained at the locations which previously failed to meet the specified compaction. (Please see the "Report of Asphaltic Concrete Testing" for the results of these tests.)

Duval Construction did not place clay subbase or the east anchor trench clay cap on Phase 1-C. Mr. Jim Sloan of Duval Construction informed LAW that the clay pits were too wet to load clay.

Arco Construction installed the sock drain for the ground water control for the west perimeter road ditch paving.

Inspector Harlon Wiggins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
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(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE June 9, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 9, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Construction Industries Division placed approximately 230 yds^3 of 3000 psi concrete, produced by Florida Rock, Inc., mix No. 42-4322. The concrete was placed in the non-contract drop-off slab on grade.

Duval Construction did not place clay subbase or the east anchor trench clay cap, due to 1-1/2 inches of rain recorded the previous night.

Barco Duval refilled washouts on the haul roads. Fill material was also placed around inlet S-99, following Jax Utilities placing the two foot riser on S-99.

Arco Construction placed concrete ditch paving on the west perimeter road. Arco Construction placed two panels today. The first panel was placed with no noted discrepancies. The concrete in the second panel began to hydrate prior to completing the concrete placement. Arco Construction removed the second panel. The third load of concrete arrived on the site with a 7-1/2 inch slump. Mr. Ben Allen of Arco Construction rejcted this load of concrete.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 10, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 10, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued to backfill washouts on the haul roads and along the main roadway. Excavation of the concrete ditch paving along the west perimeter road was continued. The placement of protective sand on Phase 1-C was continued.

Arco Construction continued to place concrete ditch paving along the west perimeter road. No discrepancies were noted during today's concrete placement.

Duval Construction did not place clay subbase today. 0.15 inches of rainfall was recorded for the previous night. Clay subbase has not been placed since Thursday, June 4, 1992, due to inclement weather. Permeability testing has been completed for the in-place clay subbase to date.

Construction Industries Division completed saw cutting the required control joints on the 30' x 300' non-contract drop-off slab on grade. No visual discrepancies were observed on the slab surface.

Jax Utilities placed the 8-inch leachate collection pipe in the leachate collection trench on Phase 1-C. The contractor then began placing the No. 3 aggregate in the leachate collection trench.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 10, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested by Mrs Mary Noges of the Florida Department of Environmental Regulation, Law Engineering, Inc. (LAW) is providing the dates of protective sand placement for Phase 1-A, Phase 1-B and Phase 1-C. The dates of protective sand placement are as follows:

Phase 1-A	April 13, 1992 to May 8, 1992
Phase 1-B	May 6, 1992 to June 3, 1992
Phase 1-C	June 5, 1992 to Present

Phase 1-C protective sand placement has not been completed as of this date.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 11, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 11, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval achieved compaction on the operations building access road and the non-contract drop-off area stabilized subgrade. Mr. Ron Taylor of Barco Duval was informed the standing water at the east end of the non-contract drop-off area needed to be removed to complete testing of the stabilized subgrade.

Sunshine State Surveyors informed LAW, National Seal had requested the layout of the rain flap running east and west on the ridge between Phase 2-A and 2-B at Sta. 95+60. Our representative confirmed with Mr. Doug Hurst of England, Thims and Miller, no rain flap was scheduled at that location.

Jax Utilities continued pumping the water out of Phase 1-B. Arco Construction continued placing concrete ditch paving along the west perimeter road.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 12, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 12, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Duval Construction achieved as-built elevations on the leachate collection trench of Phase 2-A. The as-built elevations were performed from Sta. 106+00 to Sta. 111+00 of the leachate collection trench. The east anchor trench clay cap was completed on Phase 1-B. Sunshine State Surveyors were rescheduled for 2:00 P.M. to complete the as-built elevations on Phase 1-B.

Inspector Harlon Wiggins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 13, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 13, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Arco Construction continued to place concrete ditch paving along the west perimeter road.

Barco Duval continued excavating the concrete ditch paving along the west perimeter road to the finished subgrade elevation.

Jax Utilities achieved compaction on the 15-inch RCP between inlets AS-8 and AS-9.

Our representative informed Tony of National Seal Company, employees of National Seal Company had violated the code of Federal Regulations for not wearing hard hats (Section 1926.100) and riding on construction equipment (Section 1926.601[8]).

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 15, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 15, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

One and one-half inches of rain was recorded for the previous weekend. Todays weather is partly cloudy with a 40 percent rain chance.

Barco-Duval continued to place protective sand on Phase 1-C. Limerock placement was continued on the non-contract drop-off area. The haul roads were maintained.

Duval Construction did not place clay subbase today. Clay subbase has not been placed since June 4, 1992 due to inclement weather.

Construction Industries Division continued to construct the oil/grease skimmer for the ancillary stormwater retention pond.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 16, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 16, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 1-C. Compaction was achieved on the initial lift of limerock base on the operations building access road.

Arco Construction continued placing concrete ditch paving along the west perimeter road.

Duval Construction continued placing clay subbase in Phase 2-C. Permeability sample Nos. 243 through 248 were obtained on the 3rd and 4th sections of Phase 2-C, respectively.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 17, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 17, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

One and one-half inches of rainfall was recorded from the previous night. Duval Construction attempted to place clay subbase but the clay was too wet to work. Arco Construction continued placing concrete ditch paving along the west perimeter road.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 18, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 18, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued to place protective sand on Phase 1-C. The access ramp to Phase 2-A is completed up to the perimeter of the anchor trench. Following completion of the anchor trench end liner detailing, Barco Duval plans to complete the ramp and begin stockpiling protective sand on Phase 2-A. Backfilling of the washouts along the main roadway was continued.

Arco Construction continued to place concrete ditch paving along the west perimeter roadway.

Duval Construction continued to place clay subbase in Phase 2-C. As-built elevations and clay subbase thicknesses were found to be acceptable on section Nos. 3, 4 and 5 of Phase 2-B. No permeability samples were obtained on the 5th section of Phase 2-C. Clay was not placed in the leachate collection trench due to the subgrade needing to be reworked.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 19, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 19, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. Compaction was achieved on the stabilized subgrade on the west end of the non-contract drop-off area, and the initial lift of limerock in the non-contract drop-off area.

Arco Construction continued placing concrete ditch paving along the west perimeter road.

Duval Construction continued placing clay subbase in Phase 2-C. As-built elevations and clay subbase thicknesses were found to be acceptable on the 6th, 7th and 8th sections of Phase 2-B. Clay permeability Nos. 249 through 254 were obtained on the 5th and 6th sections of Phase 2-C, respectively.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
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Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 22, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 22, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. The final lift of limerock was placed in the non-contract drop-off area.

Arco Construction continued placing concrete ditch paving along the west perimeter road.

Duval Construction continued placing clay subbase on Phase 2-C. As-built elevations were performed on the leachate collection trench in Phase 2-B, from Sta. 101+00 to Sta. 104+00.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 23, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 23, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Arco Construction began cleanup and sawcutting the concrete ditch paving along the west perimeter road. The 18-inch curb and gutter in the non-contract drop-off area and the operations area was formed today.

Jax Utilities placed the primary leachate collection pipe and No. 3 aggregate in Phase 1-C.

Duval Construction completed placing clay subbase up to Sta. 111+00 of Phase 2-C. Clay subbase material was then stockpiled on the east end of Phase 2-B, at Sta. 111+00. The east anchor trench clay cap placement began on Phase 1-C. Clay permeability Nos. 255 through 260 were obtained on the 7th and 8th sections of Phase 2-C. The 9th and 11th sections were not sampled due to the on site accident and inclement weather.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 24, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 24, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. The subgrade on Phase 2-B was reworked from Sta. 113+00 to Sta. 113+50. Fill material was placed on the administration building pad to achieve subgrade elevation.

Duval Construction continued placing the east anchor trench clay cap on Phase 1-C. No work was performed on the clay subbase in Phase 2-B or 2-C, due to the clay being too wet to work. One inch of rainfall was recorded from the previous night.

Arco Construction placed the concrete in the operations building and non-contract drop-off area curb and gutter.

Clay permeability Nos. 261 through 266 were obtained on the 9th and 10th sections of Phase 2-C.

Mr. Doug Hurst of England, Thims and Miller requested LAW inspect the first course of asphaltic concrete along with Mr. Ron Price and Mr. Ron Taylor of Barco Duval; Mr. Buckley Williams of Jax Utilities; and Mr. Robert Bates and Associates temporary on site representative.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
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RECORD OF DAILY OBSERVATION

DATE June 24, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

The items observed during this inspection are as follows:

1. Longitudinal cracking was observed from Sta. 18+50 to Sta. 20+00 in the right wheel path of the right lane of the main roadway.
2. Longitudinal cracking of the asphaltic concrete from Sta. 30+00 to Sta. 45+00 of the right lane of the main roadway, in the right wheel path.
3. A deflection of 2-1/2 inches was observed in the right wheel path of the right lane of the main roadway from Sta. 58+00 to Sta. 59+00.
4. Isolated longitudinal cracks were observed from Sta. 60+00 to Sta. 70+00 along the edge of the right lane and in the right wheel path of the right lane.
5. Longitudinal cracking was observed along the right wheel path of the right lane from Sta. 82+00 to Sta. 84+00 of the main roadway.

Locations were estimated from structure locations and roadway curb stations.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Enigneering Technician

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RECORD OF DAILY OBSERVATION

DATE June 25, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 25, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. Mr. Doug Hurst of England, Thims and Miller indicated the protective sand was being placed within three feet of the anchor trench. Mr. Ron Taylor of Barco Duval was informed by Mr. Jim Johnson of Jax Utilities, the clay cap extended 16 feet inside the anchor trench, and the protective sand shall be removed to allow for placement of the clay cap.

Jax Utilities began placing the 4-inch force main in the east anchor trench clay cap on Phase 1-C.

Arco Construction and Duval Construction were not on site today.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 26, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 26, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued working the subgrade on the tie in of Phase 2-B and Phase 2-C to Phase 1. The interceptor ditch was relocated. Compaction was achieved on the finished limerock in the non-contract drop-off area, with the exception of the east end of the limerock base which was wet and yielding.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE June 29, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 29, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Approximately one inch of rainfall was recorded for the previous day. Mr. Ron Taylor of Barco Duval was informed the relocated interceptor ditch had silted in and blocked the rain water flow. The blockage allowed the rain water to pond at the phase line of Phase 1-B. Mr. Taylor began moving equipment into the area to clear the blockage in the ditch and drain the ponded water. Mr. Tom Nelson of Waste Management, Inc. and Mr. John Gillyard of Geosyntec, Inc., were informed of the ponding water covering the rain flap on the west end of Phase 1-B. Mr. Nelson and Mr. Gillyard were informed National Seal was moving heavy equipment through the ponded water along the rain flap of Phase 1-B.

Duval Construction did not work on site today, due to the clay being too wet. Barco Duval continued placing protective sand on Phase 2-A.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE June 30, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on June 30, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. Duval Construction did not work today, due to the clay being too wet. 0.7 inches of rainfall was recorded for the previous day. The clay permeabilities for the 6th through the 10th sections of Phase 2-C were reported. These permeabilities met or exceeded the specified requirement of less than 1.0×10^{-5}.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 1, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 1, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

2-3/4 inches of rainfall was recorded from the previous evening. Inlets S24 and S25 were exposed due to erosion from the rain water traveling down the east-west interceptor ditch. A large washout around the inlets removed the fill material from around and underneath the 42-inch RCP previously placed between the inlets.

The north anchor trench clay cap on Phase 1-A near station 124+00 eroded and blocked the swale west of inlet S-21. The relocated north-south interceptor ditch on Phases 2-B and 2-C eroded and ponded water at the Phase 1-B, 2-B Phase line.

The geosynthetic liner on Phase 1-C at the east end of the temporary end treatment was washed out and water was running out from between the primary and secondary liners.

Mr. Jim Johnson of Jax Utilities and Mr. Ron Taylor of Barco Duval were aware of the items previously noted.

Inspector Harlon Wiggins

Reviewed by Bryant B Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 2, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 2, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued backfilling washouts along the main roadway. Excavation of the stormwater retention pond was continued. Work was limited due to the high water level in the pond.

Jax Utilities placed additional pumps in Phase 1-B to remove the rain water. The west perimeter road ditch paving is blocked and ponding water due to erosion of the slope west of the ditch paving.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE July 6, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 6, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. Compaction was achieved on the limerock base on the east end of the non-contract drop-off area. Compaction was achieved on the subgrade of Phase 2-B and Phase 2-C. Barco Duval performed additional clearing north of the administration building pad. Compaction was achieved on the operations building parking lot stabilized subgrade.

Duval Construction began placing the west anchor trench clay cap on Phase 2-A. Mr. Doug Hurst of England Thims and Miller informed Mr. Hugh McCrae of Duval Construction, the clay berm was not being compacted and shall be removed and replaced.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE July 7, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 7, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. The limerock base was placed in the operations building parking lot.

Duval Construction placed clay subbase on Phase 2-B. The placement of the west anchor trench clay cap was continued on Phase 2-A to the north anchor trench on Phase 2-A.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 7/7/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 7, 1992. The purpose of this visit was to monitor excavation of the cushion sand for the Trailridge Landfill.

Approximately 2227 yds^3 of sand was excavated on July 7, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 7/8/92

Client Waste Management, Inc.

Senior Technician

Project Trailridge Landfill

Technician Aaron Googins

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the Turkey Ridge borrow pit on July 8, 1992. The purpose of this visit was to monitor excavation of the cushion sand for the Trailridge Landfill.

Approximately 2040 yds^3 of sand was excavated on July 8, 1992.

Inspector Aaron Googins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE July 8, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 8, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. Compaction was achieved on the finished limerock base on the operations building parking lot.

Gradation sample No. 11 was obtained on the stockpiled aggregate representing the leachate collection trench on Phase 2-A.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE July 9, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 9, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. The prime coat was placed on the limerock base on the non-contract drop-off area and the operations building parking lot, respectively.

Duval Construction continued placing the west anchor trench clay cap on Phase 2-A. Clay subbase placement was continued on Phase 2-B. Clay subbase was placed on section Nos. 11 and 12 of Phase 2-B. Mr. Jim Johnson of Jax Utilities was informed the clay subbase shall be placed on the available subgrade in the 13th section of Phase 2-B, as was discussed in the previous scheduling meetings. Permeability sample Nos. 270 through 275 were obtained on the 11th and 12th sections of Phase 2-B, respectively.

Gradation No. 12 was obtained on the stockpiled aggregate for the leachate collection trench on Phase 2-A, as gradation No. 11 failed to meet the specified requirements.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

England-Thims & Miller, Inc.
Consulting & Design Engineers
3131 St. Johns Bluff Road So. Jacksonville, FL 32216
904-642-8990

PRINCIPALS
James E. England, P.E., President
Robert E. Thims, V.Pres., Sec.
Douglas C. Miller, P.E., V. Pres.
N. Hugh Mathews, P.E., V. Pres.

MEMORANDUM TO: Jim Horton, P.E.

MEMORANDUM FROM: Douglas W. Hurst, P.E.

REFERENCE: Clay Subbase Thickness Testing - Phase IIC
Trail Ridge Landfill
ET&M NO. E91-156-1

DATE: July 13, 1992

I personally performed the following thickness tests on the clay subbase on the west berm of the Phase IIC area. One test was taken in a localized depression and failed to meet the specified thickness criteria. Additional material of the same type was obtained from the clay stockpile in Phase IIC, was placed in the depressed area and compacted, and a retest indicated that the area meets the specified thickness criteria.

TEST NO.	LOCATION	TIME	DATE	THICKNESS	COMMENTS
1	91+10 N 100+90 E	3:20 PM	7-10-92	8"	
2	91+85 N 100+87 E	3:25 PM	7-10-92	4"	FAILED
3	91+90 N 100+87 E	3:27 PM	7-10-92	9"	
4	91+85 N 100+87 E	3:37 PM	7-10-92	9"	RETEST OF #2

cc: Harlon Wiggins, Law
Doug Miller, ETM

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RECORD OF DAILY OBSERVATION

DATE July 13, 1992

Client Waste Managmenet, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 13, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued to place protective sand on Phase 2-A. Duval Construction continued to place the west anchor trench clay cap on Phase 2-A and Phase 2-B. Mr. Hugh McCrae informed LAW the Phase 2 clay berm should be compacted sufficiently to allow for permeability testing.

Gradation No. 12 was reported passing the specified gradation requirements.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 14, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 14, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval continued placing protective sand on Phase 2-A. Duval Construction continued placing the west anchor trench clay cap on Phase 2-B. The clay subbase on the 1st, 2nd and 3rd sections of Phase 2-C were prepared for liner placement. Our representative met with Mr. Doug Hurst of England-Thims and Miller concerning grade stakes along the east-west ridge between Phase 2-B and 2-C had been broken off above the clay subbase and covered with liner. Our representative recommended to Mr. Hurst, the clay subbase be certified as ready for liner placement but not released for liner construction until the broken grade stakes were removed from the clay subbase along the ridge line. National Seal removed the grade stakes through Sta. 104+00, and the clay subbase was released for liner construction. Mr. Jack McNugh of National Seal was informed, our representative or Mr. Hurst will verify all broken grade stakes are removed as the clay subbase is certified throughout Phase 2-C.

Jax Utilities removed inlet S-24 and the 42" RCP between S-24 and S-25. Sock drain was placed in the excavation and the trench backfilled to the invert of the east-west interceptor ditch.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 15, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 15, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval did not haul protective sand. Protective sand placement is scheduled to continue on Monday, July 20, 1992.

Duval Construction continued placing the north anchor trench clay cap on Phase 2-A. The geosynthetic liner on the west berm of Phase 2-C has not been completed.

The clay subbase on the 4th and 5th sections of Phase 2-C was certified today. Mr. Doug Hurst of England, Thims and Miller informed LAW the broken grade stakes were removed on the remaining ridge line of Phase 2-B and 2-C.

Jax Utilities achieved compaction beneath the 42" RCP between inlets S-24 and S-25. The 42" RCP was laid and S-24 reset. Compaction will be completed on the backfill on July 16, 1992.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 16, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 16, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

A rain fall of 0.5 inches was recorded for the previous night. Duval Construction cancelled clay subbase elevations for today, as the clay was too wet. Duval Construction continued to place the north anchor trench clay cap on Phase 2-A. Permeability testing of the Phase 2 anchor trench clay cap has been delayed until the protective sand is placed up to the clay and compaction of the interior face of the clay cap has been performed.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 17, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 17, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval began placing the one foot berm on the westside of the west perimeter road concrete ditch paving.

Duval Construction continued placing the north anchor trench clay cap on Phase 2-A. As builts and clay subbase thicknesses were found to be acceptable on section Nos. 11 and 12 of Phase 2-B. Mr. Doug Hurst of England, Thims and Miller is scheduled to inspect the subject clay subbase at 3:00 P.M. The following clay permeabilities were reported today:

SAMPLE NO.	COEFFICIENT OF PERMEABILITY (CM/SEC)	COEFFICIENT OF PERMEABILITY (CM/SEC) - REQUIRED
267	4.3×10^{-8}	-1.0×10^{-7}
268	4.1×10^{-8}	-1.0×10^{-7}
269	3.1×10^{-8}	-1.0×10^{-7}
270	7.2×10^{-8}	-1.0×10^{-5}
271	3.4×10^{-8}	-1.0×10^{-5}
272	7.9×10^{-8}	-1.0×10^{-5}
273	1.8×10^{-7}	-1.0×10^{-5}
274	4.9×10^{-8}	-1.0×10^{-5}
275	5.6×10^{-8}	-1.0×10^{-5}

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 24, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 24, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Duval Construction achieved the as-built elevations and clay subbase thicknesses on the 6th, 7th and 8th sections of Phase 2-C.

Field density tests were performed on the administration building isolated footings. Fifty percent of the tests performed failed to meet the specified compaction. Retests will be performed Monday, July 27, 1992.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.

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RECORD OF DAILY OBSERVATION

DATE July 27, 1992

CLIENT Waste Management, Inc. **SENIOR TECHNICIAN** Harlon Wiggins

PROJECT Trailridge Landfill **TECHNICIAN**

LAW PROJECT NO. 446-01631-01 **TECHNICIAN**

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 27, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Construction Industries Division requested field density testing of the isolated footings on the administration building. The initial retest failed to meet the specified compaction. CID compacted the subject footings and additional compaction tests were performed. Two of the six footings tested failed to meet the specified compaction. Mr. Stanley Szmajda of CID informed LAW the two footings which failed to meet the specified compaction will be overexcavated and backfilled with twelve inches of No. 57 stone.

Duval Construction achieved as-built elevations and clay subbase thicknesses on the 9th and 10th sections of Phase 2-C. Placement of the west anchor trench clay cap was continued on Phase 2-C.

Barco Duval moved the dragline to the north end of the stormwater retention pond. The dragline excavation is nearing completion. Additional excavation will be completed with backhoes. Preparation of the west perimeter road for limerock placement was begun today.

Mr. Stanley Szmajda of CID requested additional field density testing on the remaining six footings in the administration building. Three of the six footings failed to meet the specified compaction requirements. Mr. Szajda informed LAW the suspect footings will be over-excavated and backfilled with No. 57 stone. A total of five of the twelve footings will be over-excavated and backfill with No. 57 stone,

INSPECTOR H. Wiggins **REVIEWED BY**

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.

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RECORD OF DAILY OBSERVATION

DATE July 27, 1992

CLIENT Waste Management, Inc. **SENIOR TECHNICIAN** Harlon Wiggins

PROJECT Trailridge Landfill **TECHNICIAN**

LAW PROJECT NO. 446-01631-01 **TECHNICIAN**

as directed by Haskell's structural engineer.

Mr. Doug Miller of England, Thims & Miller, Inc. stated that the deflecting pavement from Sta. 58+00 to Sta. 60+00 of the main roadway has deflected to 4 to 5 inches. Mr. Miller stated this area shall be removed and replaced prior to the final asphalt paving. Our representative informed Mr. Miller that insitu testing of the roadway materials and subgrade could be performed. Mr. Miller informed LAW to proceed with the evaluation of the roadway.

Our representative discussed the roadway deflection with Mr. Randy Knott of LAW. Mr. Knott agreed that three hand auger boring/dynamic cone penetrometer tests to a depth of five feet would be acceptable. Mr. Ron Price of Barco Duval was informed of the testing to be performed and the testing will be performed Wednesday, July 29, 1992 as requested by Mr. Price.

INSPECTOR Harlon Wiggins **REVIEWED BY** Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING, INC.

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RECORD OF DAILY OBSERVATION

DATE July 28, 1992

CLIENT Waste Management, Inc. SENIOR TECHNICIAN Harlon Wiggins

PROJECT Trailridge Landfill TECHNICIAN

LAW PROJECT NO. 446-01631-01 TECHNICIAN

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 28, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Jax Utilities ran the two inch water service across the east perimeter road to the leachate containment area.

Construction Industries Division placed the concrete in the isolated footings on the administration building.

Duval Construction continued to place clay subbase on Phase 2-C. The contractor changed clay sources and Mr. Jim Horton of LAW was informed of the change in clay material.

INSPECTOR Harlon Wiggins REVIEWED BY Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE July 29, 1992

CLIENT Waste Management, Inc. **SENIOR TECHNICIAN** Harlon Wiggins

PROJECT Trailridge Landfill **TECHNICIAN**

LAW PROJECT NO. 446-01631-01 **TECHNICIAN**

A representative of Law Engineering, Inc. (LAW) visited the subject project on July 29, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Two hand auger/dynamic cone penetrometer tests were performed on the deep pavement deflection on the main roadway between Sta. 58+00 and Sta. 60+00. The results of these tests were reported to Mr. Jim Horton of LAW. Present during testing were Mr. Doug Hurst of England, Thims & Miller, Inc.; Mr. Buckley Williams of Jax Utilities; Mr. Charlie Barco, Mr. Ron Price and Mr. Ron Taylor of Barco Duval; and Mr. Jerry Tillman of Anderson Columbia.

Duval Construction placed clay subbase on the 11th and 12th sections of Phase 2-C. Clay permeabilities 278 through 282 were obtained on the completed clay subbase.

INSPECTOR Harlon Wiggins **REVIEWED BY** Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE August 18, 1992

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 18, 1992. The purpose of this visit was to report clay permeability results for the Phase 2 anchor trench clay cap.

Permeability sample Nos. 287, 288, 291, 294 and 299 failed to meet the specified coefficient of permeability (-1.0×10^{-7}). Mr. Buckley Williams of Jax Utilities was informed of the locations of the failing permeabilities. Mr. Ron Taylor of Barco Duval was also informed of the failing permeabilities. Mr. Taylor was informed of excessive sand pockets and sand seams in the clay on the Phase 2 anchor trench clay cap.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE August 22, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 22, 1992. The purpose of this visit was to observe the placement of the final course of FDOT Type S-I asphaltic concrete for the subject project.

Anderson-Columbia, Inc. began placing the FDOT Type S-I asphaltic concrete on the non-contract drop-off area. Placement was begun on the main roadway after the existing asphaltic concrete had dried. Petromat and leveling courses were placed in the areas designated by LAW/ETM.

The deep rut between Sta. 58+00 and Sta. 60+00 was leveled with two leveling courses and compacted as one course. Mr. Jerry Tillman of Anderson Columbia, Inc. was informed this procedure was unacceptable. Mr. Tillman compacted this area with a loaded dump truck. A nuclear density tests was performed in this area and found to exceed the minimum 95 percent compaction required. Mr. Tillman was informed Anderson Columbia, Inc. will maintain responsibility for this area, as it was not constructed according to the memorandum generated by England, Thims & Miller, Inc. on August 6, 1992.

Placement of the final course of FDOT Type S-I was begun on the right lane of the main roadway. Placement began at Sta. 104+00±, and ended at Sta. 77+00±.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE August 23, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 23, 1992. The purpose of this visit was to observe the placement of FDOT Type S-I asphaltic concrete for the subject project.

Anderson-Columbia, Inc. completed placing the petromat in the areas designated by LAW/ETM. Asphaltic concrete placement was begun at Sta. 77+00±, of the right lane and continued to Sta. 11+20± of the right lane. The contractor then began placement from Sta. 11+20± of the left lane to Sta. 30+00± of the left lane.

The existing course of asphaltic concrete was yielding at the time of paving. The final course of asphaltic concrete was placed and began yielding during compaction. The yielding was observed on the right and left lanes of the roadway from Sta. 11+20± to Sta. 15+00±. Mr. Ron Price of Barco Duval and Mr. Doug Hurst of England, Thims & Miller, Inc. were present during paving operations this weekend.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/24/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 24, 1992. The purpose of this visit was to observe the placement of FDOT Type S-I asphaltic concrete for the subject project.

Anderson-Columbia, Inc. continued placing asphaltic concrete on the non-contract drop-off area.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/25/92

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 25, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Construction Industries Division obtained compaction on the isolated footings for the operations building. Three footings failed to meet the specified compaction. Mr. Stanley Szmajoa of CID informed LAW the deficient footings will be over excavated and 12 inches of No. 57 stone placed in the footings.

Mr. Jim Johnson of Jax Utilities; Mr. Doug Hurst of England, Thims and Miller; and Mr. Ron Taylor of Barco Duval were informed that clay permeability No. 306 failed to meet the specified coefficient of permeability. Sample No. 306 was a retest of sample No. 291. The above persons were informed the north anchor trench clay cap from Sta. 102+50 to Sta. 103+50 on Phase 2A will be removed and replaced, due to two failing permeability tests.

Anderson-Columbia continued placing the final course of FDOT Type S-I asphaltic concrete on the main roadway from Sta. 30+00± to Sta. 53+00±. The asphaltic concrete from approximately Sta. 50+00 to Sta. 53+00 was placed following rain. Mr. Jerry Tillman of Anderson-Columbia elected to place the mix at his own risk.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/26/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 26, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Anderson-Columbia continued placing the FDOT Type S-I asphaltic concrete on the main roadway. Placement began at Sta. 53+00± of the left lane and continued up to the eastside of the scale house. Mr. Ron Taylor of Barco Duval was informed the temporary asphalt ramps placed adjacent to the concrete approaches shall be removed.

Anderson-Columbia began placing the asphaltic concrete over the temporary ramps. Mr. Jerry Tillman of Anderson-Columbia was informed paving over the temporary ramps was unacceptable. Due to the subcontractor's arguing over who should remove the ramps, Mr. Tillman was informed to suspend paving operations.

Our representative met with Mr. Jim Johnson of Jax Utilities and Mr. Doug Hurst of England, Thims & Miller. Mr. Johnson asked if the temporary ramps needed to be removed, LAW informed Mr. Johnson the ramps would be cut out and replaced with approved mix of the proper thickness.

Construction Industries Division placed concrete in the isolated footings on the operations building.

Inspector Harlon Wiggins

Reviewed by For Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/27/92

Client: Waste Management, Inc.

Senior Technician: Harlon Wiggins

Project: Trailridge Landfill

Technician:

LAW Job Number: 446-01631-01

Technician:

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 27, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Anderson-Columbia continued placing the FDOT Type S-I asphaltic concrete on the east and west scale approaches; the main roadway up to the landfill; and the east perimeter road up to the class III access road.

Construction Industries Division obtained compaction on the monolithic footing on column line F of the opeations building. Ten cubic yards of 3000 PSI concrete, mix No. 42-4322 produced by Florida Rock, Ind. was placed in the monolithic footing.

Inspector: Harlon Wiggins

Reviewed by: Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/28/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 28, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Anderson-Columbia did not place asphaltic concrete due to rain this morning.

Duval Construction backfilled the interceptor ditch on Phase 2-C, south of the leachate collection trench. Clay subbase was placed from Sta. 113+00 to Sta. 113+80 and from Sta.91+10 to Sta. 89+60 of Phase 2-C. Compaction testing and thickness verification was performed on the trench backfill and clay subbase, respectively.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/29/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 29, 1992. The purpose of this visit was to observe the placement of the final course of FDOT Type S-I asphaltic concrete.

Anderson-Columbia began placing the FDOT Type S-I asphaltic concrete on the FDOT right-of-way of US Highway 301. 1-1/4 inches of asphaltic concrete was overlayed onto Highway 301 and the acceleration/deceleration lanes.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 8/30/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 30, 1992. The purpose of this visit was to observe the placement of FDOT Type S-I asphaltic concrete for the subject project.

Anderson-Columbia placed the final course of the asphaltic concrete on the main roadway from the west edge of Highway 301 up to the FDOT right-of-way limits; the bus parking lot; the by-pass road; the administration building parking area; the east perimeter road; and the operations building parking lot.

Speed bumps were constructed adjacent to the scale house and on the east perimeter road north of the main roadway as requested by Mr. Tom Nelson of Waste Management, Inc.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE August 31, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on August 31, 1992. The purpose of this visit was perform construction materials testing for the subject project.

Compaction tests were performed on the interceptor ditch backfill north of the leachate collection trench on Phase 2-C.

Duval Construction began placing clay subbase following the compaction tests.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE September 1, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on September 1, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Compaction tests were performed on the clay subbase from Sta. 113+00 to Sta. 114+00, and from Sta. 91+10 to Sta. 92+60 on Phase 2-C. The density and thickness of the clay subbase met the specified requirements.

Mr. Neil Rushing of Robert Bates and Associates asked if the rolling straight-edge was utilized on the wearing course of the main roadway. Mr Rushing was informed that Mr. Jerry Tillman of Anderson-Columbia, Inc. was informed the standard city specifications (Section 115.41.1) required the rolling straight-edge be performed. Mr. Ron Taylor of Barco Duval was informed that Anderson-Columbia, Inc. shall be scheduled to perform this work.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE September 2, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on September 2, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Compaction tests were performed on the backfill of the interceptor ditch, on the southside of Phase 2-B.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Jacksonville, Florida 32207
(904) 396-5173

REPORT of Asphalt Testing

Client: Waste Management, Inc.

Date: September 13, 1992

Project: Trailridge Landfill

Project No: 446-01631-01

As requested, Law Engineering, Inc. (LAW) has completed retesting of test location No. 64 of the class 3 roadway. The results of these tests are as follows:

SPECIMEN NUMBER	LOCATION	THICKNESS INCHES	SPECIFIC GRAVITY	COMPACTION PERCENT
96	Retest of Test #64	1-1/4	2.25804	101

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes, Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728—3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Asphalt Testing

Client: Waste Management, Inc.

Date: 9/13/92

Project: Trailridge Landfill

Project No: 446-01631-01

Law Engineering, Inc. (LAW) has completed the required tests for compaction and thickness on the asphaltic concrete pavement placed on the main roadway, the by-pass roadway, the east perimeter road, and the non-contract drop-off area. Drilled core specimens were obtained by our representative in the field and delivered to LAW's laboratory for testing. The results of these tests represent the wearing course of the asphaltic concrete pavement. The results of these tests are as follows:

SPECIMEN NUMBER	LOCATION	ACTUAL THICKNESS	SPECIFIED THICKNESS	SPECIFIC GRAVITY	COMPACTION PERCENT
97	Main roadway, Right lane at Sta. 12+00	1-3/4"	1-5/8"	2.18614	101
98	Main roadway, Right lane at Sta. 14+00	2"	1-5/8"	2.23692	103
99	Main roadway, Left lane at Sta. 12+00	2"	1-5/8"	2.15708	99
100	Main roadway, Left lane at Sta. 14+00	1-3/4"	1-5/8"	2.22192	102
101	Main roadway, Right lane at Sta. 16+00	1-1/2"	1-5/8"	2.17770	100
102	Main roadway, Left lane at Sta. 18+00	1-3/8"	1-5/8"	2.10258	97
103	Main roadway, Right lane at Sta. 20+00	1-5/8"	1-5/8"	2.21010	102
104	Main roadway, Left lane at Sta. 22+00	1-1/2"	1-5/8"	2.13156	98
105	Main roadway, Right lane at Sta. 24+00	1-5/8"	1-5/8"	2.18818	101
106	Main roadway, Left lane at Sta. 26+00	1-5/8"	1-5/8"	2.16297	100
107	Main roadway, Right lane at Sta. 28+00	1-3/4"	1-5/8"	2.18807	101

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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REPORT of Asphalt Testing

Client: Waste Management, Inc.

Date: 9/13/92

Project: Trailridge Landfill

Project No: 446-01631-01

SPECIMEN NUMBER	LOCATION	ACTUAL THICKNESS	SPECIFIED THICKNESS	SPECIFIC GRAVITY	COMPACTION PERCENT
108	Main roadway, Left lane at Sta. 30+00	1-3/8"	1-5/8"	2.11992	98
109	Main roadway, Right lane at Sta. 32+00	1-5/8"	1-5/8"	2.22619	102
110	Main roadway, Left lane at Sta. 34+00	1-3/8"	1-5/8"	2.11414	97
111	Main roadway, Right lane at Sta. 36+00	1-1/2"	1-5/8"	2.15882	99
112	Main roadway, Left lane at Sta. 38+00	1-1/2"	1-5/8"	2.17079	100
113	Main roadway, Right lane at Sta. 40+00	1-3/8"	1-5/8"	2.19739	101
114	Main roadway, Left lane at Sta. 42+00	1-1/2"	1-5/8"	2.15242	99
115	Main roadway, Right lane at Sta. 44+00	1-1/2"	1-5/8"	2.19992	101
116	Main roadway, Left lane at Sta. 46+00	1-3/4"	1-5/8"	2.17372	100
117	Main roadway, Right lane at Sta. 48+00	1-3/8"	1-5/8"	2.17773	100
118	Main roadway, Left lane at Sta. 50+00	1-1/2"	1-5/8"	2.12533	98
119	Main roadway, Right lane at Sta. 52+00	1-3/4"	1-5/8"	2.18713	101
120	Main roadway, Left lane at Sta. 54+00	1-3/8"	1-5/8"	2.10881	97
121	Main roadway, Right lane at Sta. 56+00	1-5/8"	1-5/8"	2.18125	100
122	Main roadway, Left lane at Sta. 58+00	1-3/8"	1-5/8"	2.13176	98

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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REPORT of Asphalt Testing

Client: Waste Management, Inc.

Date: 9/13/92

Project: Trailridge Landfill

Project No: 446-01631-01

SPECIMEN NUMBER	LOCATION	ACTUAL THICKNESS	SPECIFIED THICKNESS	SPECIFIC GRAVITY	COMPACTION PERCENT
123	Main roadway, Right lane at Sta. 60+00	1-5/8"	1-5/8"	2.19734	101
124	Main roadway, Left lane at Sta. 62+00	1-5/8"	1-5/8"	2.15817	99
125	Main roadway, Right lane at Sta. 64+00	1-5/8"	1-5/8"	2.18049	100
126	Main roadway, Left lane at Sta. 66+00	1-3/8"	1-5/8"	2.13076	98
127	Main roadway, Right lane at Sta. 68+00	1-5/8"	1-5/8"	2.17879	100
128	Main roadway, Left lane at Sta. 70+00	1-3/8"	1-5/8"	2.17483	100
129	Main roadway, Right lane at Sta. 72+00	1-5/8"	1-5/8"	2.17643	100
130	Main roadway, Left lane at Sta. 74+00	1-1/2"	1-5/8"	2.15420	99
131	Main roadway, Right lane at Sta. 76+00	2-5/8"	1-5/8"	2.20086	101
132	Main roadway, Left lane at Sta. 78+00	1-3/8"	1-5/8"	2.17956	100
133	Main roadway, Right lane at Sta. 80+00	1-1/2"	1-5/8"	2.10848	97
134	Main roadway, Left lane at Sta. 82+00	1-3/8"	1-5/8"	2.12536	98
135	Main roadway, Right lane at Sta. 84+00	1-3/4"	1-5/8"	2.16773	100
136	Main roadway, Left lane at Sta. 86+00	1-1/2"	1-5/8"	2.13741	98
137	Main roadway, Right lane at Sta. 88+00	1-5/8"	1-5/8"	2.13467	98

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING
P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Asphalt Testing

Client: Waste Management, Inc.

Date: 9/13/92

Project: Trailridge Landfill

Project No: 446-01631-01

SPECIMEN NUMBER	LOCATION	ACTUAL THICKNESS	SPECIFIED THICKNESS	SPECIFIC GRAVITY	COMPACTION PERCENT
138	Main roadway, Left lane at Sta. 90+00	1-5/8"	1-5/8"	2.06763	95
139	Main roadway, Right lane at Sta. 92+00	1-5/8"	1-5/8"	2.13862	98
140	Main roadway, Left lane at Sta. 94+00	*1-1/8"	1-5/8"	2.12861	98
141	Main roadway, Right lane at Sta. 96+00	1-5/8"	1-5/8"	2.17334	100
142	Main roadway, Left lane at Sta. 98+00	1-3/8"	1-5/8"	2.09563	96
143	Main roadway, Right lane at Sta. 100+00	1-3/4"	1-5/8"	2.16596	100
144	Main roadway, Left lane at Sta. 102+00	1-1/2"	1-5/8"	2.18836	101
145	Main roadway, Right lane at Sta. 104+00	1-1/2"	1-5/8"	2.16386	100
146	Main roadway, Left lane at Sta. 106+00	1-5/8"	1-5/8"	2.17005	100
147	By-Pass roadway, Right lane at Sta. 104+00	1-3/4"	1-5/8"	2.17493	100
148	By-Pass Roadway, Left lane at Sta. 106+00	1-7/8"	1-5/8"	2.19265	101
149	Main roadway, Right lane at Sta. 108+00	1-5/8"	1-5/8"	2.19250	101
150	Main roadway, Left lane at Sta. 110+00	1-1/2"	1-5/8"	2.16323	100
151	Main roadway, Right lane at Sta. 112+00	1-5/8"	1-5/8"	2.17106	100
152	Main roadway, Left lane at Sta. 114+00	1-3/8"	1-5/8"	2.16533	100

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Jacksonville, Florida 32207
(904) 396-5173

REPORT of Asphalt Testing

Client: Waste Management, Inc.

Date: 9/13/92

Project: Trailridge Landfill

Project No: 446-01631-01

SPECIMEN NUMBER	LOCATION	ACTUAL THICKNESS	SPECIFIED THICKNESS	SPECIFIC GRAVITY	COMPACTION PERCENT
153	Main roadway, Right lane at Sta. 116+00	1-1/2"	1-5/8"	2.14826	99
154	Main roadway, Left lane at Sta. 118+00	1-3/4"	1-5/8"	2.20470	101
155	Main roadway, Right lane at Sta. 120+00	*1-1/8"	1-5/8"	2.19509	101
156	Main roadway, Left lane at Sta. 122+00	1-1/2"	1-5/8"	2.17073	100
157	Main roadway, Right lane at Sta. 124+00	*1-1/8"	1-5/8"	2.19824	101
158	Main roadway, Left lane at Sta. 126+00	1-5/8"	1-5/8"	2.20825	102
159	East Perimeter Road, Right lane at Sta. 94+00	1-1/2"	1-5/8"	2.17690	100
160	Operations Pakring Lot, Right lane at Sta. 1+00	1-3/4"	1-1/2"	2.10447	97
161	Non-Contract Area, Left lane at Sta. 3+00	1-5/8"	1-1/2"	2.10909	97
162	Non-Concrete Area, Right lane at Sta. 5+00	1-1/2"	1-1/2"	2.13232	98
163	Non-Contract Area, Left lane at Sta. 7+00	1-3/8"	1-1/2"	2.17577	100
164	Non-Contract Area, Right lane at Sta. 9+00	1-1/2"	1-1/2"	2.06492	95

NOTE: * Failed to meet the specified thickness. 95 percent compaction required, based on a lab density of 135.6 pounds per cubic foot.

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
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(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 10/1/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on October 1, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Field density tests were performed on the subgrade in Phase 2-A. Barco Duval Engineering prepared the subgrade in the tire storage area. Mr. Ron Taylor was informed the subgrade soils appeared to have an excessive amount of organics. Mr. Taylor informed LAW that Mr. Ron Price would be informed of the organics.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 10/14/92

Client Waste Management, Inc.

Senior Technician Mark Coleman

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested, a representative of Law Engineering, Inc. (LAW) visited the subject project site on October 14, 1992.

The purpose of this visit was to obtain clay liner permeability samples from the 1-A, 2-A tie-in area.

Eight permeability samples were obtained (Test Nos. 311-318). Also, four asphalt cores were cut. Please see the table below for thickness results and core locations.

CORE NO.	STATION	CORE THICKNESS
140A	94+10	2-3/8"
140B	93+90	2-3/8"
155A	120+10	2-3/4"
157A	124+10	2-1/2"

Inspector Mark Coleman

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE October 14, 1992

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

As requested by Mr. Doug Miller of England, Thims & Miller, Inc., Law Engineering, Inc. (LAW) has completed the measurements of the deflection on the cross-section of the main roadway. The results of these tests are as follows:

STATION	LANE	MEASURED DEFLECTION	DISTANCE FROM ROADWAY CENTERLINE
100+00	Outbound	-1/8"	9'
100+00	Inbound	-1/8"	8'7"
70+00	Outbound	-1/8"	9'
70+00	Inbound	-1/16"	8'3"
60+00	Outbound	-1/16"	9'
60+00	Inbound	-1/8"	9'6"
59+50	Outbound	-1/8"	8'7"
59+50	Inbound	-1/8"	9'2"
59+00	Outbound	-1/8"	9'5"
59+00	Inbound	-1/8"	9'8"
58+50	Outbound	-1/16"	9'2"
58+50	Inbound	-1/16"	9'4"
40+00	Outbound	-1/16"	9'2"
40+00	Inbound	-1/16"	8'8"
25+00	Outbound	-1/16"	8'11"
25+00	Inbound	-1/16"	9'4"

The measured deflection was obtained utilizing a 15 foot manual straight-edge. City Standard Specification 115.14.3 allows a maximum of 1/4 inch deviation from cross-section template of the roadway.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

October 16, 1992

Mr. Doug Miller
England Thims & Miller, Inc.
3131 St. Johns Bluff Boulevard South
Jacksonville, Florida 32216

Subject: **Pavement Deflection Measurements**
Trailridge Landfill Entrance Road
Jacksonville, Florida
LAW Project No. 446-01631-01

Dear Mr. Miller:

As requested by Mr. Doug Miller of England Thims & Miller, Inc. on October 13, 1992, Law Engineering, Inc. (LAW) measured the relative pavement deflections for the subject roadway. The measurements were made on October 14, 1992. The measurement obtained was the maximum deviation of the pavement surface across a single lane using a 15-foot long aluminum straight edge. The measurement area of concentration was the Hells Bay Swamp roadway crossing (Station No. 58+50 through Station No. 60+00). In this area, measurements were made every 50 feet. As a comparison, four other areas were also measured. These areas, Station Nos. 25+00, 40+00, 70+00 and 100+00 were randomly selected. In all cases, both the inbound lane and outbound lane were measured. The following table documents the measurements obtained.

Station No.	Lane	Measured Deflection (Inches)	Distance From Roadway Centerline (Feet)
100+00	outbound inbound	-1/8 -1/8	9.0 8.6
70+00	outbound inbound	-1/8 -1/16	9.0 8.3
60+00	outbound inbound	-1/16 -1/16	9.0 9.5
59+50	outbound inbound	-1/8 -1/8	8.6 9.2
59+00	outbound inbound	-1/8 -1/8	9.4 9.7
58+50	outbound inbound	-1/16 -1/16	9.2 9.3
40+00	outbound inbound	-1/16 -1/16	9.2 8.7
25+00	outbound inbound	-1/16 -1/16	8.9 9.3

We have also reviewed Section 115.14.3 of the City of Jacksonville's Standard Specifications. We understand from this review that 1/4-inch of deflection is allowed. We note that this specification was prepared to control placement deficiencies while the above measurements are most likely due to densification of the asphalt in the wheel travel zone. Based on this information and the above measurements, it appears the deflections of the pavement surface after some wheel induced asphalt densification meets specifications.

We appreciate the opportunity to be of service on this phase of your project. If you have any questions, please contact us.

Sincerely,

LAW ENGINEERING, INC.

Harlon Wiggins

Harlon Wiggins
Engineering Technician

James A. Horton

James A. Horton, P.E.
Principal Geotechnical Engineer
Registered, Florida 23315

HW/JAH:kw

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 10/28/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A represetnative of Law Engineering, Inc. (LAW) visited the subject project on October 28, 1992. The purpose of this visit was to check the clay subbase on Phase 2-A. The 11th, 12th and 13th sections of Phase 2-A were found to be acceptable for Geosynthetic Liner Construction.

Mr. Eddie Chance of Jax Utilities Construction, requested LAW observe the saturated subgrade on the south by-pass roadway. Mr. Chance, Mr. Doug Hurst of England, Thims & miller and Mr. Tom Nelson of Waste Management, Inc. were informed the groundwater was one foot below the roadway. Mr. Hurst was informed underdrain may need to be placed in the south by-pass roadway. Mr. Nelson asked if a drainage ditch excavated adjacent to the roadway would lower the watertable. Mr. Nelson was informed, the by-pass road was relatively flat in elevation and the ditch may not drain.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 11/3/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative from Law Engineering, Inc. (LAW) visited the subject project on November 3, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Compaction tests were performed on the stabilized subgrade on the south by-pass roadway of the scale facility.

Construction Industries Division placed the 4-inch topping slab on the Operations Building slab on grade. Mr. Ron Taylor of Barco Duval Engineering informed LAW that six inches of No. 57 stone would be placed in the ditch paving subgrade in lieu of compaction tests. Our representative confirmed the No. 57 stone was acceptable with Mr. Doug Hurst of England, Thims & Miller.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 11/9/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on November 9, 1992. The purpose of this visit was to attend the construction meeting concerning the Phase IB/IIB and Phase IA/IIA tie-in of the geosynthetic liner system.

The clay subbase on the 12th section of Phase 2-B was reworked and the clay subbase thicknesses were retested. (See thicknesses recorded below.)

Mr. Luke DeBock of Waste Management, Mr. Doug Miller of England, Thims and Miller, Inc., Mr. Stephen Hurst of Jax Utilities and Mr. Ron Price of Barco-Duval Engineering were informed the concrete design mix submitted for the concrete ditch paving has a water/cement ratio of .63. The City Standard Specification (130.4) allows a maximum water/cement ratio of .46 for air entrained concrete. Mr. Price informed LAW a revised concret emix design will be resubmitted.

LOCATION	CLAY THICKNESS (INCHES)
Sta. 95+10N, 112+30E	7
Sta. 94+30N, 112+50E	7-1/2
Sta. 93+20N, 112+80E	7-3/4
Sta. 92+90N, 113+30E	6-1/2

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

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RECORD OF DAILY OBSERVATION

DATE 11/16/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on November 16, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Barco Duval placed the soc-drain dewatering system for the concrete ditch paving replacement along the north perimeter road. The limerock base in the tie storage area was primed and sanded today. The interceptor ditch on the northside of the leachate containment trench of Phase 2-B was backfilled.

The required compaction tests were performed prior to placement of the clay subbase. The clay subbase was tested for compaction and thickness. Please see the attached Report of Field Density Tests for these results. The clay subbase from Sta. 94+10N to Sta. 93+90N and from Sta. 113+90E to Sta. 113+80E was found to be 0.4 feet above the design elevation. Mr. Doug Miller informed Duval Construction that the clay subbase needed to be brought to the correct design elevation. This item was discussed during the weekly scheduling meeting.

LOCATION - STATION NUMBER	CLAY LINER THICKNESS (INCHES)
94+30N 113+70E	7
95+20N 113+60E	7-3/8

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 11/19/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on November 19, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Duval Construction reworked the clay subbase from Sta. 97+10N to Sta. 95+60N and from Sta. 112+50E to Sta. 114+00E; and from Sta. 97+10N to Sta. 99+10N and from Sta. 112+50E to Sta. 113+00E. Our representative tested the clay subbase prior to geosynthetic liner construction as Mr. Doug Hurst of England, Thims and Miller was inspecting ditch pavement subgrade.

Ocean Concrete Construction Placed concrete in the concrete ditch paving, Panel Nos. 69, 71, 72, 73 and 74.

LOCATION - STATION NUMBER	CLAY LINER THICKNESS (INCHES)
96+90N 113+70E	7
96+00N 113+30E	7-1/4

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 11/24/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on November 24, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Anderson-Columbia began placing the FDOT S-I asphaltic concrete on the tire storage area. Paving operations were suspended periodically due to light misting rain.

Ocean Concrete Construction continued placing concrete ditch pavement. Mr. Doug Hurst of England, Thims & Miller, Inc. was informed that the concrete mix design was changed to Product Code 8306AC.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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RECORD OF DAILY OBSERVATION

DATE 11/25/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on November 25, 1992. The purpose of this visit was to perform construction materials testing for the subject project.

Anderson-Columbia completed placing the FDOT S-I asphaltic concrete on the tire storage area and the south by-pass road.

Ocean Concrete Construction placed concrete ditch paving. The contractor changed to Product Code 8310AN for concrete mix design.

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

3901 Carmichael Avenue
Post Office Box 5728
Jacksonville, Florida 32207
(904) 396-5173

RECORD OF DAILY OBSERVATION

DATE 11/30/92

Client Waste Management, Inc.

Senior Technician Harlon Wiggins

Project Trailridge Landfill

Technician

LAW Job Number 446-01631-01

Technician

A representative of Law Engineering, Inc. (LAW) visited the subject project on November 30, 1992. The purpose of this visit was to perform construction materials testing.

Duval Construction and Barco Duval Engineering backfilled the interceptor ditch on Phase 2-A, north of the leachate collection trench. Duval Construction then placed the clay subbase over the compacted subgrade. The clay subbase from Sta. 97+10 to 99+10N, and from Sta. 113+00 to 114+00E was released for geosynthetic liner construction.

LOCATION - STATION NUMBER	CLAY LINER THICKNESS (INCHES)
97+40N, 113+50E	7-1/4"
98+70N, 113+70E	6-7/8"

Inspector Harlon Wiggins

Reviewed by Bryant B. Wildes
Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

P.O. Box 5728 — 3901 Carmichael Ave.
Jacksonville, Florida 32207
(904) 396-5173

REPORT of Asphaltic Concrete Testing

Client: Waste Management, Inc.

Date: 12/1/92

Project: Trailridge Landfill

Project No: 446-01631-01

A representative of Law Engineering, Inc. (LAW) obtained drilled core specimens from the FDOT Type S-I asphaltic concrete placed on the south by-pass roadway and the tire storage area. The specimens were returned to LAW's laboratory for density determination and measured thickness of the asphaltic concrete. The results of these tests are as follows:

CORE NUMBER	THICKNESS (INCHES)	SPECIFIED THICKNESS (INCHES)	SPECIFIC GRAVITY	WEIGHT PCF	PERCENT COMPACTION
165	2-1/2	2-1/2	2.146	133.9	99
166	2-3/8	2-1/2	2.166	135.1	100
167	1-1/4	1-1/2	2.191	136.7	101
168	1-1/2	1-1/2	2.050	127.9	94*
169	1-1/2	1-1/2	2.078	129.7	96
170	1-1/2	1-1/2	2.158	134.6	99
171	1-1/2	1-1/2	2.100	131.0	97
172	1-1/2	1-1/2	1.901	118.6	87*
173	1-1/2	1-1/2	2.112	131.8	97
174	3-3/8	3	2.087	130.2	96
175	1-3/4	1-1/2	2.143	133.7	99
176	1-3/8	1-1/2	2.138	133.4	98
177	1-3/8	1-1/2	2.102	131.1	97
178	1-1/2	1-1/2	2.112	131.8	99
179	1-3/4	1-1/2	2.165	135.1	100
180	1-3/8	1-1/2	2.050	127.9	94*
181	1-3/4	1-1/2	2.190	136.6	101
182	2	1-1/2	2.155	134.5	99
183	1-3/4	1-1/2	2.126	132.6	98

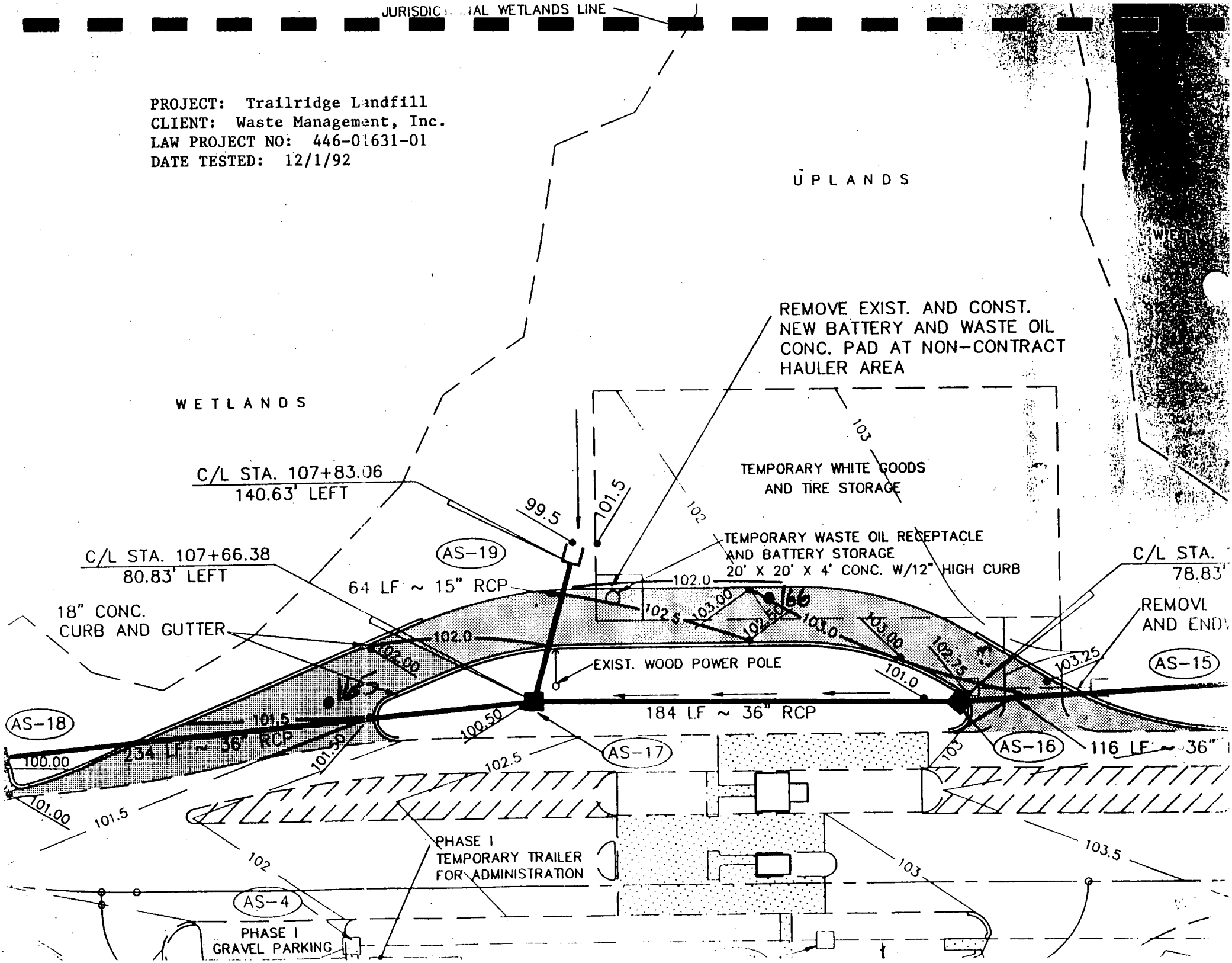
Percent compaction based on a maximum laboratory density of 135.6 PCF.

* Denotes tests failed to meet the specified compaction of 95 percent.

Respectfully submitted,
LAW ENGINEERING

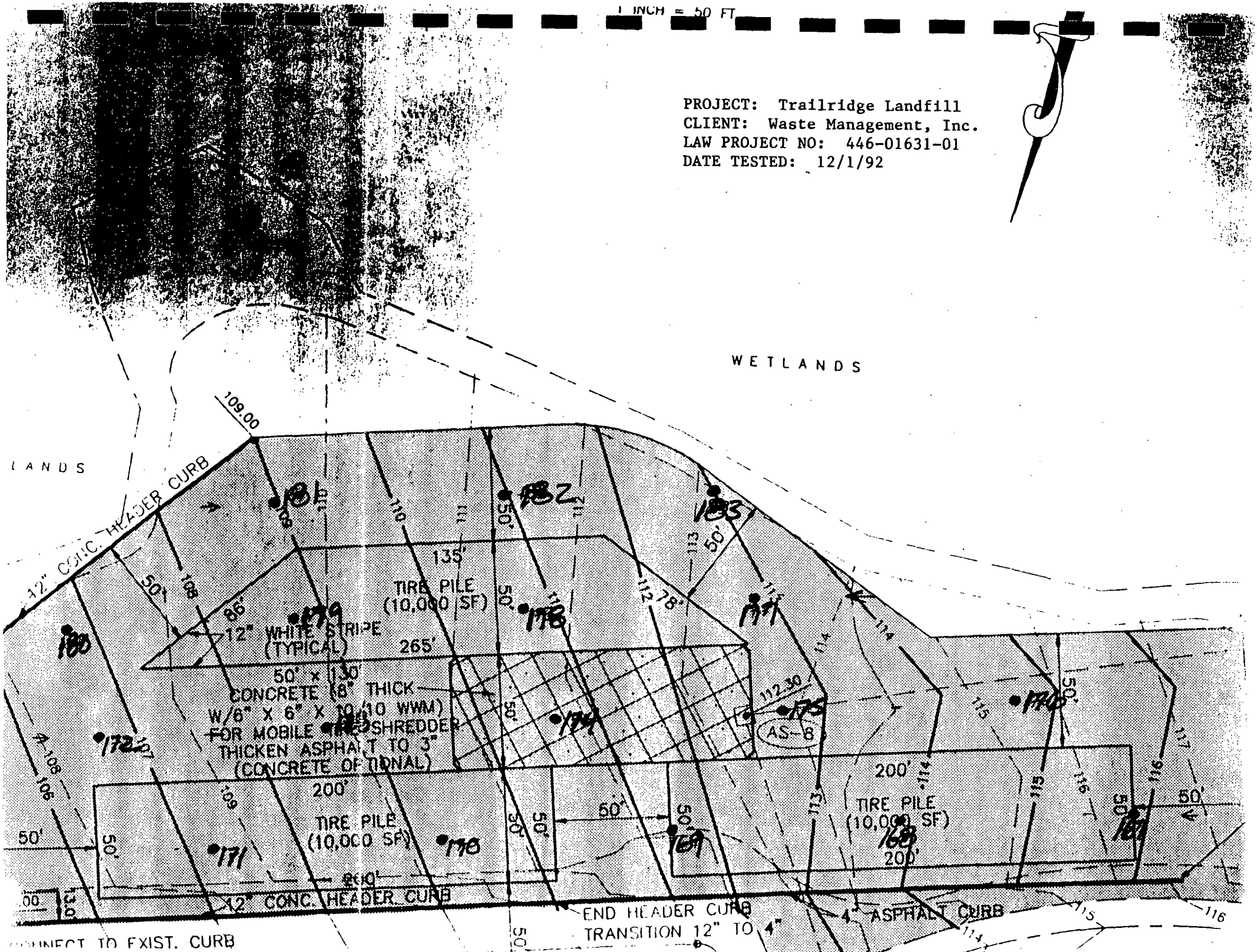
Bryant B. Wildes

Bryant B. Wildes, Chief Engineering Technician


JURISDICTIONAL WETLANDS LINE
PROJECT: Trailridge Landfill
CLIENT: Waste Management, Inc.
LAW PROJECT NO: 446-01631-01
DATE TESTED: 12/1/92
UPLANDS
WETLANDS
REMOVE EXIST. AND CONST.
NEW BATTERY AND WASTE OIL
CONC. PAD AT NON-CONTRACT
HAULER AREA
TEMPORARY WHITE GOODS
AND TIRE STORAGE
C/L STA. 107+83.06
140.63' LEFT
C/L STA. 107+66.38
80.83' LEFT
AS-19
64 LF ~ 15" RCP
18" CONC.
CURB AND GUTTER
TEMPORARY WASTE OIL RECEPTACLE
AND BATTERY STORAGE
20' X 20' X 4' CONC. W/12" HIGH CURB
EXIST. WOOD POWER POLE
184 LF ~ 36" RCP
AS-18
234 LF ~ 36" RCP
AS-17
AS-16
116 LF ~ 36"
AS-15
REMOVE
AND END
PHASE I
TEMPORARY TRAILER
FOR ADMINISTRATION
AS-4
PHASE I
GRAVEL PARKING
99.5
101.5
102
103
102.0
102.5
103.00
103.0
101.0
102.75
103.25
100.50
101.50
100.00
101.00
103.5

1 INCH = 50 FT

PROJECT: Trailridge Landfill
CLIENT: Waste Management, Inc.
LAW PROJECT NO: 446-01631-01
DATE TESTED: 12/1/92



LAW ENGINEERING

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REPORT of Asphaltic Concrete Testing

Client: Waste Management, Inc.

Date: 12/2/92

Project: Trailridge Landfill

Project No: 446-01631-01

A representative of Law Engineering, Inc. (LAW) visited the subject project. The purpose of this visit was to obtain drilled core specimens on the FDOT Type S-I asphaltic concrete placed on the tire storage area. The specimens were obtained to retest areas previously found decifient in compaction. The results of these tests are as follows:

CORE NO.	SPECIFIC GRAVITY	WEIGHT PCF	PERCENT COMPACTION	LOCATION
184	2.119	132.2	98	Retest of test No. 168
185	2.081	129.8	96	Retest of test No. 172
186	2.108	131.5	97	Retest of test No. 180

Percent compaction based on a maximum laboratory density of 135.6 PCF.

Respectfully submitted,
LAW ENGINEERING

Bryant B. Wilder

Bryant B. Wildes, Chief Engineering Technician