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Subsequent Data

Report of Soils Quality Assurance Testing

3116P02787 W

Phase 1A and 1B

Trailridge Landfill

Jacksonville, Florida

LAW Project No. 446-01631-01

June 16, 1992

NORTHEAST DISTRICT
RECEIVED
JUN 18 1992
DER-JACKSONVILLE

LAW ENGINEERING
GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

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

Attention: Ms. Mary Nogas

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

Subject: Subsequent Data
Report of Soils Quality Assurance Testing
Phase 1-A nd 1-B
Trailridge Landfill
Jacksonville, Florida
Law Project No. 446-01631-01

Gentleman:

Law Engineering, Inc. (LAW) has observed and/or performed the necessary 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 final soils quality assurance testing results for Phase 1-A and 1-B. This data supplements our Report of Soils Quality Assurance Testing dated May 11, 1992. Our previous reports and the attached soils quality assurance test results indicate landfill components for Phase 1-A and 1-B were constructed substantially in accordance with the soils quality assurance consultant construction material testing program requirements.

The attachments are:

- Record of Daily Observation: Turkey Ridge borrow pit cushion sand for remainder off Phase 1-B May 13, 1992 through June 3, 1992.

- Laboratory Permeability Testing: Test #230 (Retest of No. 163)

Very truly yours,

LAW ENGINEERING, INC.

James J. Gallup
Senior Engineering Technician

for: Bryant B. Wilder

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

JAH/JJG:lmc

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LAW ENGINEERING

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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 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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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 yds^3 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	1.0×10^{-3}
167	" "	-24" to 90"	96	1.8×10^{-3}
168	640'NB2, 30'WBC	-9" to -18"	96	1.0×10^{-3}
168	" "	-18" to -84"	96	2.1×10^{-3}
169	640'NB2, 30'EBC	-6" to -18"	96	1.9×10^{-3}
169	" "	-18" to -84"	96	1.5×10^{-3}
170	600'NB2, 30'EBC	-12" to -24"	96	1.1×10^{-3}
170	" "	-24" to -72"	96	1.7×10^{-3}
171	550'NB2, 30'EBC	-6" to -36"	96	1.0×10^{-3}
171	" "	-36" to -72"	96	4.8×10^{-3}
172	550'NB2, 30'WBC	-6" to -42"	96	1.0×10^{-3}
172	" "	-42" to -78"	96	1.5×10^{-3}
173	640'NB2, 100'WBC	-6" to -18"	96	1.0×10^{-3}
173	" "	-18" to -78"	96	1.8×10^{-3}
174	500'NB2, 30'WBC	-6" to -36"	96	1.3×10^{-3}
174	" "	-36" to -78"	96	6.6×10^{-3}

Inspector Mark Coleman

Reviewed by

Bryant B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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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

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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 B. Wildes
Chief Engineering Technician

LAW ENGINEERING

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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

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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, INC.
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JACKSONVILLE, FLORIDA 32207
(904) 396-5173

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)
230	99.2	7.3×10^{-8}	RETEST OF 163	

Respectfully submitted,
LAW ENGINEERING, INC.

James J. Gallup

For Bryant B. Wildes
Chief Engineering Technician