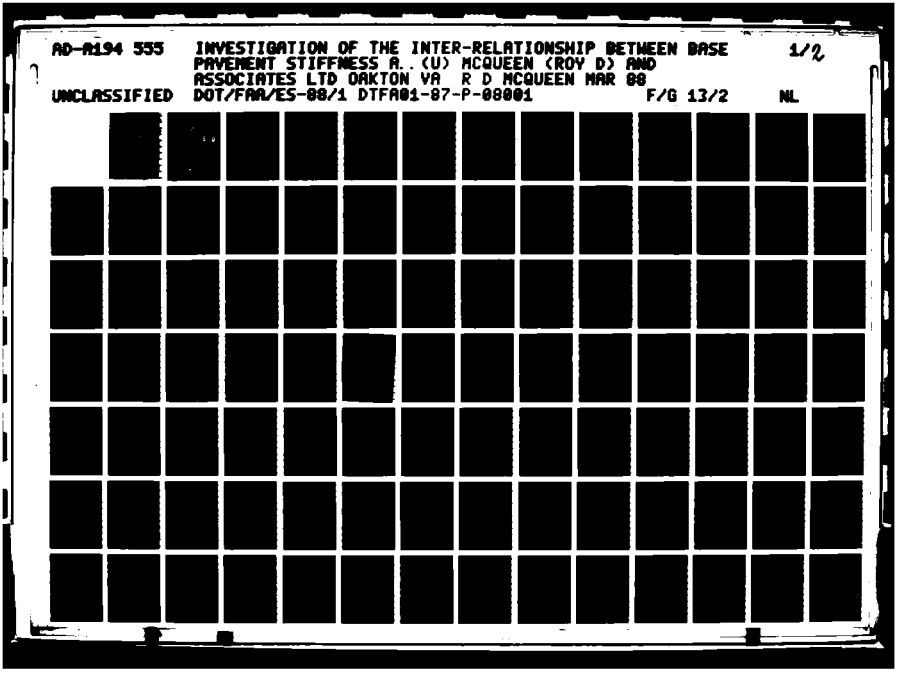
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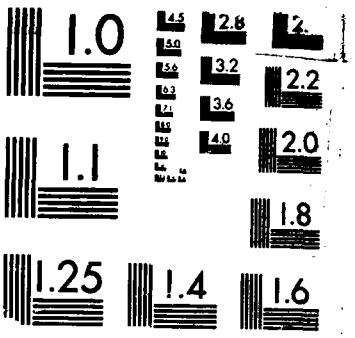

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Systems Engineering
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Washington, D.C. 20591

Investigation of the Inter-relationship Between Base Pavement Stiffness and Asphalt Overlay Compaction

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16. Abstract

This report summarizes a research project to investigate the degree, if any, that base pavement support influences the compactibility of an asphaltic concrete overlay. As a secondary objective, the study enabled a comparison of the FAA Eastern Region in-place air voids compaction standard with the FAA National percent Marshall density compaction standard.

Field data were collected on three paving projects in FAA's Eastern Region. Nondestructive testing (NDT) was used to quantify the stiffness of base pavements prior to overlay. After overlay construction, the unit weights of the asphalt overlays were determined at the same locations where NDTs were performed, and in-place air voids and percent Marshall densities computed. Statistical techniques were employed to investigate correlations between stiffness and asphaltic concrete density (i.e., unit weight, in-place air voids, and percent Marshall density).

Although a mild correlation between stiffness and density was found at one project, no general trends were detected for the other projects or from regression analyses performed on combined data bases. While this may suggest that base pavement stiffness is not a primary variable in affecting overlay compaction on airport pavements, the effect of stiffness may have been masked by other external variables, such as temperature, rolling, mix properties, quality control, etc. Finally, apparent inconsistencies were observed between FAA Eastern Region and FAA National density acceptance plans with regard to acceptable quality level and payment.

To better quantify the inter-relationship between base pavement stiffness and asphaltic concrete compaction, a designed experiment is recommended to eliminate the effect of outside variables. It is further recommended that the FAA Eastern Region and National density acceptance plans be re-evaluated to assure consistency.

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METRIC CONVERSION FACTORS

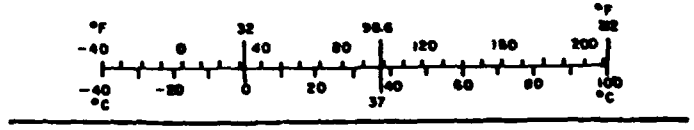
Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.5	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



PREFACE

This study was sponsored by the Federal Aviation Administration Program Engineering and Maintenance Service (APM) and performed by Mr. Roy D. McQueen of Roy D. McQueen & Associates, Ltd. (RDM). Significant contributions were made by Bob R. Aycock of RDM, and Carl Steinhauer and William DeGraaff of FAA. Dr. Aston McLaughlin was the FAA Project Manager for the study, and his assistance and counsel are greatly appreciated. RDM also wishes to acknowledge the cooperation of Pan Am World Services, Campbell and Paris, Engineers, and Greiner, Inc. for providing the acceptance testing data that was incorporated in this study.

TABLE OF CONTENTS

		Page
I.	Introduction	1
II.	Objectives	4
III.	Project Descriptions	7
IV.	Data Collection	10
V.	Data Analysis	24
VI.	Compaction Standards	35
VII.	Summary and Conclusions	40
VIII.	Recommendations	45
IX.	References	48

TABLES

1.	Correlation Analysis - Nuclear/Cores	
	A. Teterboro Runway 1-19	19
	B. Leesburg Taxiway	20
	C. Ocean City Apron	21
2.	Results of Regression Analyses on Nuclear Gauge and Core Mat Densities	22
3.	Marshall Test Data Summary	23
4.	Results of Regression Analyses - Teterboro	31
5.	Results of Regression Analyses - Leesburg	32
6.	Results of Regression Analyses - Ocean City	33

TABLES (Continued)

		Page
7.	Results of Regression Analyses - Combined Data Base	34
8.	Comparison of Compaction Standards	39
9.	Summary of Combined Data Base Results (Nuclear Device)	39

APPENDICES

APPENDIX A - NDT RESULTS

APPENDIX B - NUCLEAR DENSITY DATA

APPENDIX C - MARSHALL ACCEPTANCE TEST RESULTS

APPENDIX D - REGRESSION ANALYSES DATA BASES AND DATA PLOTS

APPENDIX E - CLASS GROUPINGS

I. INTRODUCTION

Due to the high tire pressures and gross wheel loads of modern aircraft, airport pavement construction requirements are necessarily more demanding than those required for road construction. This is especially true of asphaltic concrete, both in terms of material and compaction requirements. Where highway specifications normally require an asphalt surface to be compacted to a percentage of 50 blow Marshall density, the Federal Aviation Administration's (FAA) P-401 specification[1] requires asphaltic concrete to be compacted to a target density of 98% of 75 blow Marshall density for air carrier airports.

With incorporation of a statistically based acceptance procedure for asphaltic concrete into the FAA P-401 specification, payment adjustment factors were specified for various levels of noncompliance to the density standard. The use of a prescribed acceptance procedure tended to make the specification more enforceable, especially in terms of assessing reduced payments for material not complying with the specification.

While these acceptance procedures may have heightened a contractor's awareness of the need for meeting the compaction standard, it also resulted in concern that in some instances, achieving the standard may not always be possible. Both contractors and engineers were particularly concerned that the density requirements may be overly restrictive for overlays on existing pavements that were either extremely weak or variable, which was reportedly the case at many smaller general aviation or commuter airports.

In his study on field compaction of bituminous mixes[2], McLaughlin identified 14 parameters which affect pavement compactibility. Of these, high stability, low material temperature, improper equipment, testing error, or weak support systems were found most often to be at fault.

While contractors generally disagree that lack of compaction is in any way related to process control, their most common view is that lack of compaction is most often due to weak or yielding pavement layers. While proofrolling was sometimes attempted prior to an asphalt overlay to identify areas which could be exempted from the compaction standards, the results were often inconclusive due to the subjective nature of this process. With many thousands of dollars, as well as the future serviceability of a rehabilitated pavement system at stake, it is generally agreed that a more objective quantitative evaluation process is required.

However, although the effect of base pavement support on asphalt compactibility does have intuitive appeal, there is no general agreement that base pavement support is a primary variable in influencing the compaction of an asphaltic concrete overlay. The FAA has argued that in developing the acceptance limits for P-401 density, a wide variety of support systems were examined.[3,4] According to FAA, this resulted in a choice of an Acceptance Quality Level (AQL) for asphalt density, which not only addressed the needs of the FAA, but also the condition of the base pavement.

With nondestructive testing (NDT) generally recognized as a valid analytical tool for pavement evaluation, it was believed that NDT could be used to objectively determine whether or not base pavement stiffness affects asphalt compaction, and if it does, to what extent. If the stiffness of the support system does affect compaction, then it is

hoped that a limiting pavement stiffness can be established below which a lesser density standard, or a methods specification, can be applied.

II. OBJECTIVES

The basic objective of the research was to determine the degree, if any, that base pavement support influences the compactibility of an asphaltic concrete overlay. If pavement support was found to affect overlay compaction, and, if that effect could be quantified then a limiting support condition would be determined, below which consideration could be given to modifying the current P-401 density standard.

To achieve these objectives, it was decided to utilize NDT to quantify pre-overlay pavement support conditions. Since primary FAA guidance on nondestructive testing involves the use of the Dynamic Stiffness Modulus (DSM)[5,6], pavement support would be defined as the DSM at a particular test location.

As required by the FAA, asphalt compaction is defined as the percent Marshall density of field samples. To allow for economical acquisition of a large data base without operational disruption or damage to the new pavement surface, the field unit weight of the overlay was determined by nuclear density testing. Any required calibration of the nuclear density device was accomplished through correlation with core density samples.

To accomplish the basic objectives of the study, specific procedures were determined as follows:

1. Perform nondestructive testing at three airports in FAA's Eastern Region to obtain data on pavement support conditions prior to programmed overlays.

The NDT program was designed to obtain data for DSM computation and for possible future layered elastic analyses. Approximately 100 NDT's were performed at each location, within one or two days of the scheduled overlay.

2. Upon completion of the overlay, perform nuclear density testing at the same locations as the NDTs to determine the unit weights and relative density of the overlays. Several cores were also taken at NDT locations at each airport to establish a core density data base and for correlation of the nuclear density device. Since the FAA's Eastern Region uses in-place air voids[7] as its compaction standard, the unit weights were used to determine both the percent Marshall density and the in-place air voids at each location.

3. Perform linear and nonlinear regression analyses to determine whether a correlation between DSM and asphalt density (i.e., percent Marshall density or in-place air voids) exists and could be quantified.

4. Determine whether a limiting base pavement stiffness (i.e., DSM) could be identified, below which acceptance procedures other than those currently in use could more aptly apply.

5. Collect construction acceptance test data to evaluate mix properties or other variables which may have influenced compaction.

6. Although not originally envisioned as part of the research, the collection of both percent Marshall density and in-place air voids data enabled a comparison of both compaction standards.

III. PROJECT DESCRIPTIONS

For field data acquisition, three candidate airports were selected in FAA's Eastern Region. In selecting sites, an attempt was made to obtain data at airports having relatively weak and stiff support conditions, with differing base pavement thicknesses and subgrade soils. Also, since most concerns on compactibility were expressed for overlay construction, it was decided to limit initial candidate sites to those with overlay construction.

After consultation with the FAA, the following projects were identified for field data collection:

1. Teterboro Municipal Airport -
   Runway 1-19 Overlay

2. Leesburg Municipal Airport -
   Parallel Taxiway Overlay

3. Ocean City Municipal Airport -
   Apron Overlay and Parallel Taxiway Extension

TETERBORO MUNICIPAL AIRPORT PROJECT

Runway 1-19 was constructed in the 1960's and had been rehabilitated in several stages. The runway was most recently overlaid in 1974 with a variable thickness overlay ranging from one to five inches. This resulted in an average pavement section of 7 to 11 inches of asphalt on a 4 to 5 inch crushed stone base. The pavement was constructed on

approximately four feet of sandy fill underlain by a silty subgrade. Subgrade CBR was reported as two (2) to six (6).

The project under study required an average three inch overlay to be constructed with a variable thickness truing and leveling course, followed by a uniform two inch final surface. Prior to overlay construction, an extensive crack sealing program was undertaken. All nondestructive tests were performed after construction of the truing and leveling courses, with density tests performed after construction of the two inch wearing surface. This was in an attempt to factor out any effects that variable thickness overlay construction might have on the compactibility of an asphalt overlay. The project was constructed during July-August 1987. The governing specification for overlay construction was the FAA Eastern Region P-401 specification.

LEESBURG MUNICIPAL AIRPORT PROJECT

The parallel taxiway to the airport's only runway (Runway 17-35) was constructed in the late 1960's. Very little rehabilitation had been accomplished prior to this project. The pavement structure prior to overlay consisted of three inches of asphalt on a six inch crushed stone base. Pavements were constructed on a silty clay subgrade with a reported CBR of approximately 10.

The project required construction of a uniform two inch overlay over the length of the taxiway after a crack sealing program. Nondestructive tests were performed on the surface of the existing pavement with density tests performed after overlay construction. The project was constructed in July 1987. The governing specification for the overlay was the FAA Eastern Region P-401 specification.

OCEAN CITY MUNICIPAL AIRPORT PROJECT

The apron at the Ocean City Municipal Airport was constructed in the mid-1960's. Very little rehabilitation had been accomplished prior to this project. The existing pavement consisted of one to one and a half inches of asphalt on a six inch soil cement base. The pavement was constructed on a sandy (SM, SC, SP) subgrade with reported CBR of approximately 10.

Due to the deteriorated nature of the existing asphalt surface from soil cement reflection cracking, most of the existing asphalt surface was milled. A variable thickness, one inch minimum leveling course was constructed prior to construction of a 1.5 inch uniform thickness surface course. Nondestructive tests were performed after leveling course construction in order to factor out the effects of variable thickness overlay construction on compactibility. Density tests were performed after construction of the 1.5 inch wearing surface. Specifications for overlay construction conformed to the FAA Eastern Region P-401 specification.

The project also consisted of construction of an extension to the airport's parallel taxiway system. Required pavement thickness consisted of seven inches full depth asphalt pavement on compacted subgrade constructed in three lifts of three inches, two inches and a final two inch lift. Nondestructive tests were performed after construction of the second lift (i.e., on five inch asphalt pavement) with density tests performed after construction of the final uniform two inch surface. Again, project specification required asphalt pavement construction to conform to the FAA Eastern Region P-401 specification.

IV. DATA COLLECTION

At each project, field data collection consisted of:

1. Assembling contract documents (i.e., plans and specifications).

2. Laying out nondestructive and density test locations using reproducible control points.

3. Performing nondestructive tests (NDT) prior to overlay construction.

4. Assembling acceptance and quality control test results (performed by others) as required by the FAA Eastern Region P-401 specification.

5. Performing density tests at previously referenced nondestructive test locations after overlay construction.

6. Obtaining core density test data (performed by others) at selected nuclear test locations for calibration of nuclear test devices.

NONDESTRUCTIVE TESTING

Since FAA guidance on nondestructive testing references the Dynamic Stiffness Modulus (DSM) using a vibratory test

device[5,6], this was the control test utilized for the correlation analysis. In normal practice, the primary purpose of NDT is to determine the dynamic properties of pavement systems without need for disruptive conventional testing. Pavement response to the dynamic loading simulates the effect of moving wheel loads. The resultant data can be used as reliable input for computer analysis which utilizes both conventional and elastic theories for pavement design and evaluation. Advantages of NDT include: (a) little interference with airport operations; (b) rapid data acquisition; and (c) low cost of test operation and data processing. Thus, it becomes feasible to acquire the quantitative data base necessary to meaningfully evaluate the varied performance of existing pavements.

For the purposes of this study, nondestructive testing was utilized to determine the stiffness of various pavement structures prior to receiving an overlay. Thus, in this case, NDT was not used as a tool to evaluate the expected performance of a pavement system with respect to aircraft loading, but rather to quantify pavement support conditions and determine if, or to what extent, these conditions could affect the compactibility of an asphalt concrete overlay.

NDT EQUIPMENT

The NDT equipment (Dynamic Loading System) used for the testing program was designed to generate a dynamic load on the pavement surface and measure the resultant vertical response of the pavement system, including subgrade, base courses, and surface layers. The equipment utilizes a micro-computer which allows rapid data processing during testing.

Roy D. McQueen & Associates' heavy mass Dynamic Loading System was used for the testing program. The machine is well capable of exceeding the minimum pavement deflection of 0.005 inch as required by the U.S. FAA and DOD, and is capable of performing Deflection Basin, Load Sweep (i.e., DSM), and Frequency Sweep test sequences.

The equipment generates a steady state sinusoidal dynamic load over a broad frequency range, and has the following performance features:

Static Weight	7,500 lbs.
Vibratory Force Range	500 lbs. to 10,000 lbs.
Frequency Range	3 Hz to 100 Hz
Load Plate	18-inch Diameter

Four response monitoring sensors were utilized for data recordation. The sensors were placed at the center of the loading plate, and at radial offsets of 18, 36, and 48 inches.

Although the equipment has been recently upgraded to include impulse testing, only the vibratory testing sequence was utilized for this project.

In a Federal Highway Administration (FHWA) research program conducted by the State of Connecticut[8], the Dynamic Loading System ranked first, followed by the French Curviameter and Phoenix Falling Weight Deflectometer (FWD) respectively, in repeatability and operational reliability. Further, in a study conducted by Roy D. McQueen & Associates[9], the Dynamic Loading System produced DSM results comparable to those obtained by the Waterways Experiment Station 16-kip Vibrator.

TEST PROCEDURES

Although the Work Scope for this project specified measurement of the Dynamic Stiffness Modulus of various pavements, the Deflection Basin test sequence was performed simultaneously with the Load Sweep test (for DSM computation), to provide data for possible future analysis.

The DSM (or Load Sweep) test procedure is described in References 5 and 6. The test is conducted at 15 Hz at two force levels, with the DSM defined as the slope of the resulting load/deflection curve, or:

$$DSM = \frac{F_1 - F_2}{D_1 - D_2}$$

where,

$F_{1,2}$ = Input Force, in kips

$D_{1,2}$ = Resultant Pavement Response at Center of Loading Plate, in Inches

For asphalt pavements, the DSM at test temperature is adjusted to the DSM at standard 70 degrees F for pavements with asphalt three inches or greater (e.g., Leesburg and Teterboro), using the procedures detailed in the references. For regression analyses (see Section V), both the temperature adjusted and unadjusted DSM's were used. Although the pavement stiffness (i.e., Force/Deflection) could have also been used for analysis, the DSM has been shown to correlate closely with stiffness[10].

As described in Reference 10, the Deflection Basin test can be used to back calculate the elastic moduli of individual pavement layers and subgrade. Several computational procedures are available to determine a set of modulus values that provide a best fit between the measured Deflection Basin and a computed Deflection Basin. Although not used, the Deflection Basin data were retained for possible future study.

NDT RESULTS

The nondestructive testing field data and temperature adjusted DSM's for each airport project are contained in Appendix A. To minimize the effects of nondestructive testing variance, each test was performed twice at each test location with the results averaged for the regression analysis. The average DSM and Deflection Basin results used for analysis are included in Appendix A.

As discussed, all nondestructive tests were performed prior to overlay construction, as close to the construction time as was practical, recognizing scheduling constraints. At Teterboro, nondestructive tests were performed on July 9, 1987, with the runway overlaid between July 13 to July 22, 1987. Ocean City was tested on May 11 and 12, 1987, with construction accomplished on May 13 and 14, 1987. Leesburg was tested on July 27, 1987, with the taxiway overlaid on August 4, 1987.

NUCLEAR DENSITY TESTING

Nuclear density tests were performed at NDT locations within one to two weeks after overlay construction. Test points

were carefully located to be as close as possible to the NDT locations.

At each site, nuclear density tests were performed with a Troxler 3411-B nuclear density device used in the backscatter mode. According to manufacturer's recommendations[11], backscatter tests were performed at the same locations both before and after overlay construction, to factor out the effects of the base pavement unit weight in measuring the unit weight of the relatively thin overlays. The density tests with the Troxler 3411-B were performed by averaging four 15-second tests, with the gauge rotated 90 degrees after each 15-second test, holding the probe in the same location.

At Teterboro, an independent set of nuclear tests were performed with the Troxler 4640 Thin Lift nuclear gauge, owned and operated by the Troxler Corporation. Thin Lift measurements were taken at the same locations as the 3411-B measurements. Although the Thin Lift gauge was also available at Ocean City and Leesburg, due to time constraints, only a limited amount of data were collected. Nuclear density data are included in Appendix B.

REGRESSION ANALYSIS

Since the FAA standard for asphalt density testing is by cores measured in accordance with ASTM 2726, several nuclear density tests were performed in close proximity to cores taken for normal project acceptance testing. A comparison of nuclear versus core unit weights is shown on Table 1. Regression analyses were conducted on the data from each project, based on the following:

1. Thin Lift data versus core data (Teterboro Only).

2. 3411-B data uncorrected for mat thickness versus core data.

3. 3411-B data corrected for mat thickness versus core data (Leesburg and Ocean City Only).

The linear regressions were performed using the gauge results as the independent variable and the core results as the dependent variable. The results of the analyses are summarized on Table 2.

From Tables contained in Reference 12, the significance of the correlation was examined, by comparing the probability (P) of obtaining a given R (correlation coefficient) for a given data set to accepted rules. A commonly used rule of thumb in interpreting values of R is to regard the correlation as significant if there is less than 1 chance in 20 ($P = 0.05$) that the value will occur by chance.

Thus, for Teterboro, a significant correlation ($P < .001$) between the Thin Lift results and cores was obtained. Essentially, the analysis indicates that at Teterboro, the Thin Lift results could be used without correction. Although the data bases were smaller, it should be noted that poorer correlations were obtained with the Thin Lift gauge at Ocean City and Leesburg.

At Leesburg, a significant correlation ($P < .001$) was obtained for the 3411-B gauge without the thickness correction suggested by the manufacturer. It should be noted

that the regression equation obtained at Leesburg was similar to that reported by Burati at Morristown[13].

Correlations of lesser significance were obtained at Ocean City. This may be due to the smaller data base obtained at that airport.

Based on analysis of core versus nuclear densities, the following data were used at each project:

1. Teterboro — Thin Lift gauge without correction.

2. Leesburg — 3411-B gauge without thickness correction using the equation: Core Density = 50.63 + .634 * Nuclear Density.

3. Ocean City — 3411-B gauge without thickness correction using the equation: Core Density = 40.89 + .736 * Nuclear Density.

MARSHALL TEST DATA

Since the FAA Eastern Region and National P-401 specifications require daily Marshall testing, normal Marshall acceptance test data were collected for each project. All samples for Marshall testing were selected by random sampling on a lot basis per FAA Eastern Region standards[14], with a lot defined as one day's production. The data were used to compute percent Marshall density and in-place air voids at each nuclear test location for correlation with NDT DSM data. Marshall test data for each day's

production under study are contained in Appendix C, with the averages for each airport summarized on Table 3.

TABLE 1

CORRELATION ANALYSIS - NUCLEAR/CORES

A. TETERBORO RW 1-19

DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	DSM k/in	CORE UNIT WT pcf	3411 UNIT WT UNCORR	THIN LIFT UNIT WT pcf
7-13-87	7	31.00	43 L	73	RD-1	430	152.3	153.5	152.0
7-14-87	8	33.00	43 L	74	RD-3	488	148.8	151.0	148.9
		33.00	56 R	2	RD-2	429	148.9	153.9	148.6
		34.00	18 L	56	RD-5	466	151.0	152.7	151.2
		34.00	68 L	92	RD-4	1273	148.4	150.8	148.9
7-15-87	9	38.00	18 L	58	RD-6	781	151.5	155.6	150.2
		39.00	6.5 R	41	RD-7	826	154.3	160.4	153.5
		41.00	56 R	6	RD-8	1395	153.5	160.8	152.8
7-16-87	10	45.00	56 R	8	RD-9	521	149.8	153.6	150.3
		46.00	32 R	26	RD-10	401	149.6	153.5	150.2
		47.00	43 L	81	RD-11	444	152.3	155.3	151.6
7-20-87	12	55.00	43 L	85	RD-14	1663	155.1	157.6	155.4
		55.00	56 R	13	RD-12	1408	152.4	155.7	153.4
		55.00	6.5 R	49	RD-13	1941	154.5	158.1	154.9
7-21-87	13	56.00	18 L	67	RD-15	1309	151.8	156.4	153.5
		58.00	68 L	104	RD-16	1327	153.4	156.5	154.7
		59.00	56 R	15	RD-17	802	152.1	153.3	150.6
7-22-87	14	64.00	32 R	35	RD-19	706	151.8	153.5	152.4
						AVG	151.8	155.1	151.8

TABLE 1 (Continued)

B. LEESBURG TAXIWAY

DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	DSM k/in		CORE UNIT WT pcf	3411 UNIT WT UNCORR	THIN LIFT UNIT WT pcf
CORES/THIN LIFT										
8-4-87	1	2.53	15L		C-1	374		159.3	162.7	155.5
		6.07	5L		C-2	394		156.9	160.0	148.5
		8.59	5R		C-3	245		157.0	160.1	151.2
		13.50	15R	94	C-4	309		156.7	158.6	151.0
		15.50	5R	68	C-5	363		157.7	163.1	152.9
			5L		C-6	608		155.1		148.1
		22.50	15L	12	C-7	470		156.9	158.6	154.8
		26.09	5L		C-8	313		155.1	160.6	150.7
		28.62	15L		C-9	579		152.0	154.9	145.7
		29.62	5R		C-10	440		155.7	160.6	151.7
		1.50	15R	88	C-11	441		156.4	160.4	151.6
		7.62	15R		C-12	247		157.9	162.5	154.4
							AVG	156.4	160.2	151.3

TABLE 1 (Continued)

C. OCEAN CITY APRON

DATE	LOT	STA	OFFSET	NDT	CORE NO.	DSM		CORE UNIT WT pcf	3411 UNIT WT UNCORR	THIN LIFT UNIT WT pcf
CORES 3411										
5-13-87	1	47.00	4 L	104	3-1	521		147.4	144.4	
		42.50	5 R	138	3-2	311		147.4	143.7	
		2.50	4 L	206	4-1	339		146.4	145.8	
		46.75	95 R	15	4-2	392		148.5	145.7	148.5
					4-3					147.0
		46.98	28 R	47	4-4	566		146.6	143.7	146.6
					5-2					145.5
					5-4			150.4	147.6	
							AVG	147.8	145.2	146.9

TABLE 2

RESULTS OF REGRESSION ANALYSES ON NUCLEAR GAUGE AND CORE MAT DENSITIES

Gauge	n	Thickness Correction	Slope	Intercept	R	P
A. Teterboro Project						
Thin Lift	18	No	.870*	19.71*	.914	<.001
3411-B	17	No	.634	53.63	.411	.1
B. Leesburg Project						
3411-B	11	No	.664	50.17	.825	<.001
3411-B	11	Yes	.209	123.51	.754	.01
C. Ocean City Project						
3411-B	6	No	.736	40.89	.754	.08
3411-B	6	Yes	-.730	252.21	.817	.06

* By applying standard errors, slope is essentially 1 and intercept is essentially 0.

TABLE 3

MARSHALL TEST DATA SUMMARY

Project	Gmb	Gmm	%AC	Stability (lbs)	Flow (.01 in)	Voids	Unit Wt (pcf)
Teterboro	2.528	2.612	5.2	2303	10.9	3.2	157.7
Leesburg	2.605	2.677	5.3	2826	12.8	2.7	162.5
Ocean City	2.441	2.501	5.45	2215	11.1	2.4	152.3

Gmb = Bulk Specific Gravity of Marshall Specimen

Gmm = Maximum Theoretical Density of Mixture

%AC = Average Asphalt Content During Production

V. DATA ANALYSIS

The basic objective of this study was to investigate any inter-relationship between the stiffness of a base pavement and the compactibility of an asphalt overlay. As discussed, base pavement stiffness was characterized by the Dynamic Stiffness Modulus (DSM). Since the FAA Eastern Region and National P-401 specifications require different measures of density, for this study (i.e., in-place air voids and percent Marshall density, respectively), the results of contractor compaction efforts were defined as:

1. Percent Marshall Density
2. In-Place Air Voids
3. Field Unit Weight

Percent Marshall density was computed by dividing the nuclear gauge unit weight at each test location by the average laboratory Marshall unit weight (75 blow) for a particular production day. The in-place air voids were computed from the nuclear gauge unit weight (Gmb) at each test location and the average maximum unit weight for a particular production day using procedures detailed in Reference 14. As discussed in Section IV, the nuclear gauge unit weights listed are those obtained from calibration to cores using the Troxler 3411-B (Leesburg and Ocean City) and the Troxler Thin Lift gauge (Teterboro).

All data are organized for regression analysis on Tables D-1 through D-8 in Appendix D. Tables D-1 through D-4 are individual project and combined data bases using nuclear

gauge generated density data and Tables D-5 through D-8 contain core generated density.

REGRESSION ANALYSIS

Linear and parabolic regression analyses were performed on the data contained in Appendix D. For each case, the Dynamic Stiffness Modulus (DSM) was considered the independent variable (x) and percent Marshall density, in-place air voids, and mat unit weight considered dependent variables (y). In other words, for each airport an attempt was made to develop regression equations for:

1. Percent Marshall density as a function of DSM.

2. In-place air voids as a function of DSM.

3. Mat unit weight as a function of DSM.

Due to unit weight variances between projects, regression analyses were only performed for DSM versus percent Marshall density and in-place air voids for the combined data base.

The results of the analyses are summarized on Tables 4-7. In all cases, the parabola did not fit the data better than a straight line; therefore, only the linear regression equations are reported. For each analysis, the data are plotted on Figures 1-29 in Appendix D for the nuclear gauge data bases.

In reviewing Tables 4-7, the following observations are noted:

1. For the Teterboro project (Table 4), significant (i.e., $P < 0.05$) correlations between DSM and all "y" parameters (i.e., percent Marshall density, in-place air voids, and unit weight) were found. However, since the average percent Marshall density for the project, at 96.5%, is less than the FAA target average of 98.0%, the predictive equations may not be appropriate. This was found for regression analyses conducted on data bases using both the temperature corrected and uncorrected DSM results.

2. For the Leesburg (Table 13) and Ocean City (Table 14) projects, no correlations were found between DSM and either percent Marshall density, in-place air voids, or unit weight. The slope of the regression line in all cases was essentially zero. This was found for regression analyses conducted on data bases using both the temperature corrected and uncorrected DSM results.

3. Regression analyses on the combined data base for all projects also found no correlation between DSM results (both temperature corrected and uncorrected) and either percent Marshall density or in-place air voids.

4. In all cases, similar results from regression analyses were found using both nuclear and core generated density data.

CLASS GROUPINGS

In a second attempt to evaluate the data, the DSM results (uncorrected for temperature) for each project and the combined data base were sorted in ascending order, with corresponding percent Marshall density, in-place air voids, and unit weights. Class intervals of each hundred measure of DSM (i.e., 200, 300, 400, etc.) were chosen, and DSM (without temperature correction), percent Marshall density, in-place air voids and unit weights were statistically processed to yield the mean, standard deviation, and coefficient of variance of each parameter within each interval. The results for each project and the combined data base are included on Tables E-1 through E-4 in Appendix E.

As shown on the Tables, no trends are readily apparent either from comparison of averages or coefficients of variance of the data. In other words, the data suggest that under the conditions of this study, a stiffer support system (as characterized by the DSM), did not result in a higher degree of compaction. Further, variability in base pavement stiffness does not necessarily result in variability in compactibility.

DISCUSSION OF RESULTS

A broad range of DSM values (approximately 200 to 2,000 k/in.) was involved in the study, representing an approximate

10-fold increase in pavement support conditions. Thus, the range of the independent variable in the study should have been sufficient to detect any significant trends in the dependent variables.

However, analysis of the regression and class grouping results found no consistent correlation between base pavement stiffness and compactibility. Although statistically significant correlations were obtained at Teterboro for all parameters, the fact that the correlation coefficients improved for regression analyses on data using the temperature corrected DSM results may suggest that the correlations are less robust than suggested by the correlation coefficients.

With this background, analysis of the data collected during this study can broadly be interpreted in two ways:

1. Although base pavement support conditions may influence compaction of an asphalt overlay, the effect of the base pavement may be masked by numerous other variables discussed in Reference 2. This can mean that either the other variables (e.g., equipment, quality control, temperature, etc.) "overwhelmed" the effect of base pavement stiffness, or base pavement stiffness is not a significant variable in influencing compaction. In other words, if proper mix design and construction procedures are followed, base pavement stiffness (or lack thereof) may only then be observed to influence the compactibility of an asphalt mat.

2. Base pavement stiffness on airports designed according to FAA standards has little or no effect on the compactibility of an asphalt overlay.

In developing the research study, it was thought that concentrating the data collection to individual airports with the same contractors, mix, and equipment at each project, would represent a "real world" situation, yet reduce the effect of outside variables. However, the scope of the study did not allow detailed observation of construction, or analysis of mix properties, quality control, compaction temperatures, etc. The purpose was to collect appropriate data as objectively as possible for statistical analysis.

It should also be noted that the sensitivity of the measurement processes may also influence the ability to obtain correlations. In other words, if the variances associated with sampling and testing exceeds the actual material variance, then the data obtained by normal testing procedures would result in more randomness than may actually exist. While the NDT equipment and procedures utilized have proven to result in a high degree of repeatability (see Reference 8 and Appendix A), density data obtained by cores and with nuclear devices may not be as repeatable (see Reference 15 and Appendix B). This apparent randomness would be compounded by the fact that all dependent variables (i.e., percent Marshall, percent air-voids, and unit weight) would tend to cluster in a narrow range. Thus, large sampling and testing variances would tend to outweigh the actual material variability.

Therefore, without multi-variate analysis and a designed experiment to further eliminate the effect of other

variables, the results may be considered inconclusive. This is reinforced by the fact that statistically significant correlations were obtained at one (Teterboro) out of three projects. Interestingly, the Teterboro correlations were obtained at the airport with the best (i.e., stiffest) support conditions. This would again suggest that a correlation between base pavement stiffness and asphalt compaction may exist, but is difficult to quantify without elimination of other influencing variables, or simply base pavement stiffness is not a significant variable in influencing compactibility in all cases.

TABLE 4

RESULTS OF REGRESSION ANALYSES
TETERBORO PROJECT

$$Y = AX + B$$

X	Y	n	Slope (a)	Intercept (b)	R	P
A.	Nuclear Gauge Data - DSM Not Temperature Corrected					
DSM	% Marshall	104	0.000011	0.955	0.252	0.01
DSM	% Air Voids	104	-0.00001	0.080	-0.308	<0.01
DSM	Unit Wt	104	0.00242	150.04	0.326	<0.01
B.	Nuclear Gauge Data - Temperature Corrected DSM					
DSM	% Marshall	104	0.000009	0.954	0.291	0.01
DSM	% Air Voids	104	-0.00001	0.081	-0.354	<0.01
DSM	Unit Wt	104	0.00203	150.0	0.364	<0.01
C.	Core Data - DSM Not Temperature Corrected					
DSM	% Marshall	18	0.000012	0.951	0.555	0.02
DSM	% Air Voids	18	-0.00001	0.085	0.598	0.01
DSM	Unit Wt	18	0.00246	149.49	0.598	0.01
D.	Core Data - Temperature Corrected DSM					
DSM	% Marshall	18	0.000009	0.952	0.565	0.01
DSM	% Air Voids	18	-0.00001	0.084	-0.612	<0.01
DSM	Unit Wt	18	0.00195	149.59	0.612	<0.01

TABLE 5

RESULTS OF REGRESSION ANALYSES
LEESBURG PROJECT

$$Y = AX + B$$

X	Y	n	Slope (a)	Intercept (b)	R	P
A.	Nuclear Gauge Data - DSM Not Temperature Corrected					
DSM	% Marshall	95	0.00001*	0.971	-0.112	>0.10
DSM	% Air Voids	95	0.000014*	0.056	0.113	>0.10
DSM	Unit Wt	95	-0.00238*	157.75	-0.113	>0.10
B.	Nuclear Gauge Data - Temperature Corrected DSM					
DSM	% Marshall	95	-0.0	0.968	-0.066	>0.10
DSM	% Air Voids	95	0.000006*	0.058	0.066	>0.10
DSM	Unit Wt	95	0.00113*	157.38	-0.066	>0.10
C.	Core Data - DSM Not Temperature Corrected					
DSM	% Marshall	11	-0.00006*	0.989	-0.598	0.054
DSM	% Air Voids	11	0.000066*	0.038	0.598	0.054
DSM	Unit Wt	11	-0.01109*	160.72	-0.598	0.054
D.	Core Data - Temperature Corrected DSM					
DSM	% Marshall	11	-0.00005*	0.988	-0.540	0.09
DSM	% Air Voids	11	0.000052*	0.039	0.540	0.09
DSM	Unit Wt	11	-0.00874*	160.55	-0.540	0.09

* Slope essentially zero by applying standard error.

TABLE 6

RESULTS OF REGRESSION ANALYSES
OCEAN CITY PROJECT

Y = AX + B

X	Y	n	Slope (a)	Intercept (b)	R	P
A.	Nuclear Gauge Data - Apron Overlay - DSM Not Temperature Corrected					
DSM	% Marshall	79	-0.0	0.969	-0.048	>0.10
DSM	% Air Voids	79	0.000002*	0.0578	0.0518	>0.10
DSM	Unit Wt	79	-0.00001*	147.09	-0.051	>0.10
B.	Core Data - Apron Overlay and Taxiway Extension - DSM Not Temperature Corrected					
DSM	% Marshall	5	-0.0	0.974	-0.168	>0.10
DSM	% Air Voids	5	0.000007*	0.053	0.168	>0.10
DSM	Unit Wt	5	-0.00123*	147.79	-0.160	>0.10
C.	Nuclear Gauge Data - Taxiway Extension - DSM Not Temperature Corrected					
DSM	% Marshall	41	0.00002*	0.960	0.244	>0.10
DSM	% Air Voids	41	-0.00001*	0.067	-0.244	>0.10
DSM	Unit Wt	41	0.003104*	145.62	0.244	>0.10
D.	Nuclear Gauge Data - Taxiway Extension - Temperature Corrected DSM					
DSM	% Marshall	41	0.000014	0.960	0.244	>0.10
DSM	% Air Voids	41	-0.00001*	0.067	-0.244	>0.10
DSM	Unit Wt	41	0.002171	145.62	0.244	>0.10

* Slope essentially zero by applying standard error.

TABLE 7

RESULTS OF REGRESSION ANALYSES
COMBINED DATA BASE

$$Y = AX + B$$

X	Y	n	Slope (a)	Intercept (b)	R	P
A.	Nuclear Gauge Data - DSM Not Temperature Corrected					
DSM	% Marshall	319	0.0	0.969	0.024	>0.10
DSM	% Air Voids	319	0.000004	0.050	0.111	0.05
B.	Nuclear Gauge Data - Temperature Corrected DSM					
DSM	% Marshall	199	0.000003*	0.962	0.118	>0.05
DSM	% Air Voids	199	0.0	0.064	0.022	>0.10
C.	Core Data - DSM Not Temperature Corrected					
DSM	% Marshall	29	0.000006*	0.958	0.286	>0.10
DSM	% Air Voids	29	-0.0	0.071	-0.164	>0.10
D.	Core Data - Temperature Corrected DSM					
DSM	% Marshall	29	0.000005*	0.958	0.311	>0.10
DSM	% Air Voids	29	-0.0	0.071	-0.199	>0.10

* Slope essentially zero by applying standard error.

VI. COMPACTION STANDARDS

At the outset of the project, it was recognized that there were differences in density testing requirements between the FAA National[1] and Eastern Region[7] P-401 specifications. Although the research study required evaluating correlations based on both percent Marshall density (National requirement) and in-place air voids (Eastern Region requirement), it was thought that the two requirements were essentially different measurements of the same standard. However, in evaluating the density data collected at the airports, it appears that the two specification requirements, or application of the two statistical acceptance plans, may be resulting in different density standards.

In the way of background, the National P-401 specification defines compaction in terms of a percentage of the 75 blow Marshall density. A target (i.e., average) density of 98% was established with substantial compliance (i.e., full payment) defined as 90% of the material in a lot having a density greater than 96.7%. The lower tolerance limit of 96.7% was established by working back from the target density at an assumed standard deviation of 1%. The 1% standard deviation for percent Marshall density was confirmed in this study from test results from both nuclear devices and cores (Tables D-4 and D-8). Marshall voids are specified to fall between 3.0% to 5.0%.

On the other hand, the Eastern Region P-401 specification defines compaction in terms of in-place air voids. Although no target density is specified, substantial compliance is defined as 90% of the material falling within lower and upper tolerance limits of between 1.0% to 7.0%. Marshall voids are

specified to fall within lower and upper limits of from 1.0% to 5.0%.

In equating the two requirements, one can take the percent Marshall target density and the mid-range Marshall air voids for the National specification, and compare these to the mid-range of in-place and Marshall air voids for the Eastern Region specification. Based on the National requirements, this would result in an average in-place air voids, at the assumed one percent standard deviation, of approximately 6.0%, compared to an average in-place air voids content of 4.0% with the Eastern Region specification. With a mid-range Marshall air voids content of 3.0% required by the Eastern Region, approximately 99% Marshall density would be needed to achieve the mid-range requirement of 4.0%.

Further, in applying the upper limits of both criteria to obtain full acceptance, the National specification will allow a maximum average in-place air voids content of 7.0% (5.0% Marshall laboratory voids plus 2.0% from 98% compaction). Applying the Eastern Region's acceptance criteria, the maximum allowable air voids for full payment (i.e., 90 percent within limits) is approximately 5.7%, assuming a 1.0% standard deviation for in-place air voids. Applying the acceptance criteria for laboratory Marshall air voids, an acceptable average Marshall voids content to meet 90% within limits would be 2.2%, at a 1.0% standard deviation. Using the 0.6% standard deviation for Marshall air voids suggested in the Eastern Region specification would result in a minimum acceptable void content of approximately 1.7% at 90% within limits. Therefore, translating to percent Marshall density, the Eastern Region specification would allow full payment with an average percent Marshall density from compaction of approximately 95.9% to 96.4%, depending on the choice of standard deviation. For convenience, if 2.0% is considered a

minimum practical average for Marshall air voids, a minimum average required Marshall density from compaction of 96.3% would be required to meet the upper limit 5.7% in-place air voids for full payment.

Comparison of the criteria from each specification is summarized on Table 8.

Therefore, in applying the extreme limits of the acceptance criteria from both specifications, it appears that the two specifications may have different criteria for defining acceptable material. Although not an exact match, the acceptance data summarized on Table 9 also suggest some inconsistency between the two specification requirements.

Further, applying the payment schedule formulas from each specification would result in different contractor payments from each specification. Assuming a normal distribution for the combined data collected during the study (Table 9), the percent of material within specification limits would be less than 50% under the National specification, versus approximately 77% of material within limits (PWL) with the Eastern Region specification. This would result in 50% payment under the National specification versus 94% payment under the Eastern Region specification for the same material.

The problem can be further compounded with the Eastern Region specification if the Marshall air voids criteria are not rigidly enforced. For example, it would be advantageous for a contractor to design a mix with low laboratory voids so as to decrease the amount of compactive effort required to achieve the required in-place air voids for full payment. If the asphalt content is kept low and the voids are filled with bag house fines or mineral filler, a durability problem may result from improper coating.

Based on the above discussion, it appears that both specification requirements should be re-evaluated to assure consistency and establishment of an appropriate, acceptable quality level.

TABLE 8

COMPARISON OF COMPACTION STANDARDS

Spec	Mid-Range Marshall Air Voids	Mid-Range Percent Marshall Density	Mid-Range In-Place Place Air Voids	Minimum Average Marshall Density	Maximum In-Place Air Voids
National	4%	98%	6%	98%	7%
Eastern Region	3%	99%	4%	96.3%	5.7%

TABLE 9

SUMMARY OF COMBINED DATA BASE RESULTS (NUCLEAR DEVICE)

	Average Marshall Air Voids	Average In-Place Air Voids	Stand. Dev.	Average Percent Marshall Density	Stand. Dev.	Percent Asphalt Content
Nuclear Device	2.8%	6.2%	1.1%	96.6%	1.0%	5.3%

VII. SUMMARY AND CONCLUSIONS

This report has summarized the results of a research project to investigate the inter-relationship between the stiffness of a base pavement and the compactibility of an asphalt overlay. The stiffness of the base pavement was defined in terms of the Dynamic Stiffness Modulus (DSM) as defined in References 5 and 6. Asphalt compaction was defined in terms of percent Marshall density as required by the National P-401 specification[1] and in terms of in-place air voids as required by the Eastern Region P-401 specification[7].

The DSM was determined by nondestructive testing[5,6,10] on the base pavement prior to overlay. Field densities of the subsequent overlay for computation of percent Marshall density and in-place air voids were determined using a nuclear density device. To assure consistency with both National and Eastern Region test procedures[14], nuclear density readings were corrected using regression analysis on companion nuclear and core densities determined at the same locations.

Field data acquisition was accomplished at three airports in FAA's Eastern Region (Teterboro, New Jersey, Leesburg, Virginia, and Ocean City, Maryland). Linear and nonlinear regression analyses were performed on the three data bases, and on the combined data base from the three projects, to determine whether significant correlations exist between DSM and percent Marshall density, in-place air voids, and mat unit weight (only for the three individual projects). The data were also grouped into DSM class intervals to further investigate potential correlations by comparing average DSM's for a particular interval with average percent Marshall and in-place air voids. Coefficients of variance for each

parameter were also computed and compared to detect whether variability in pavement support will affect compactibility.

Finally, since the National and Eastern Region P-401 specifications utilize different criteria for density acceptance (i.e., percent Marshall density for the National specification and in-place air voids for the Eastern Region), the compatibility of each compaction standard was examined, in terms of consistency in acceptance and payment, and in defining acceptable quality levels for mat density.

Based on the results generated in this study, the following conclusions are offered:

1. A significant correlation between unit weight determined by the Troxler 3411-B nuclear density device and that determined from cores was established at the Leesburg Airport similar to that reported in Reference 13.

2. The Troxler 4640 Thin Lift nuclear gauge densities correlated with core densities at Teterboro without correction. However, poor correlations were obtained at the Leesburg and Ocean City projects.

3. Based on the compaction data obtained at the three study airports, a 1.0% standard deviation was found for percent Marshall density from both core and nuclear devices, and a 1.1% standard deviation was found for in-place air voids with the nuclear devices, with a 1.2% standard deviation from cores.

4. For the Teterboro project (Table 4), significant (i.e., $P < 0.05$) correlations between DSM and all "x" parameters (i.e., percent Marshall density, in-place air voids, and unit weight) were found. However, since the average percent Marshall density for the project, at 96.5% is less than FAA's target average of 98.0%, the predictive equations may not be appropriate.

5. For the Leesburg (Table 5) and Ocean City (Table 6) projects, no correlations were found between DSM and either percent Marshall density, in-place air voids, or unit weight. The slope of the regression line in all cases was essentially zero.

6. Regression analyses on the combined data base for all projects (Table 7) also found no correlation between either percent Marshall density or in-place air voids.

7. Similar results for each project and the combined data bases were found using both nuclear and core density data, and using both temperature corrected and uncorrected DSM results.

8. In grouping the data in class intervals as a function of DSM (Appendix E), no trends are readily apparent either from comparison of averages or coefficients of

variance of the data bases. This suggests that under the conditions of the study, a stiffer support system does not necessarily result in a higher degree of asphalt compaction.

9. Based on analysis of all data for this project, base pavement stiffness appears to have no consistent effect on asphalt compactibility. This can be interpreted either as other outside variables (e.g., equipment, mix characteristics, temperature, quality control, etc.) masked the effect of base pavement stiffness, or simply, base pavement stiffness is not a significant variable in influencing compaction.

10. Aside from construction related variables, the sensitivity of the measurement processes may influence the apparent randomness of the data. This may be particularly significant for the dependent variables used for regression analyses, if large sampling and testing variances "overwhelmed" the actual material variance.

11. It is possible that existing support conditions at airports designed to FAA standards are too stiff to reveal any loss in compactibility due to weak or yielding base pavements. Conversely, under present FAA base pavement requirements, the effect of yielding

support conditions on compactibility may never be revealed.

12. Evaluation of acceptance procedures for mat density required by the National and Eastern Region P-401 specifications suggest that the specifications may be inconsistent in requiring different acceptable quality levels, resulting in different contractor payments for the same material.

VIII. RECOMMENDATIONS

While the study provided useful information, the data did not conclusively prove the existence or nonexistence of a robust correlation between base pavement stiffness and asphalt compactibility.

While the data obtained at one project did suggest that the compactibility of an asphalt overlay can be influenced by base pavement support conditions, no correlations were obtained at the other two projects. As stated, this may suggest that either stiffness is not a significant variable, or that the conditions associated with data collection resulted in the effect of stiffness being masked by other influencing variables. This indicates that investigation of the inter-relationship between stiffness and compaction will require data acquisition under a more controlled environment.

However, the study did provide additional useful information on the use of nuclear density devices for acceptance or quality control testing during asphalt overlay construction. The correlation obtained between nuclear and core unit weights was similar to that reported in Reference 13 for the Troxler 3411-B gauge, and the newly introduced Thin Lift nuclear gauge shows promise for future use in quality control and acceptance testing.

Further, the study did suggest that apparent inconsistencies may exist between the density acceptance procedures required by the National and Eastern Region P-401 specifications. This can result in different acceptance decisions and payment for material of equal quality depending on which specification is applied.

Additional research efforts may provide more definitive data on quantifying the inter-relationships between base pavement stiffness and asphalt compaction, as well as possible refinement of either National or Eastern Region density acceptance procedures to assure consistency between each procedure.

Based on the above, the following recommendations are offered:

1. Due to the good correlation between unit weights obtained by the Troxler Thin Lift nuclear gauge and core weights at Teterboro, the use of the Thin Lift gauge as an acceptance or quality control tool should be further researched. If this gauge proves to be more precise and repeatable than other gauges[15], yielding results consistent with core densities, then use of the nuclear gauge would enable a greater number of acceptance tests to be performed at little or no additional cost. This would increase the reliability of the acceptance procedures (currently at n = 4) for mat density, by yielding a larger data base for decision making.

2. To research the inter-relationship between base pavement stiffness and asphalt compaction, the effects of extraneous variables should be eliminated. This can be accomplished by construction of several test strips,

using the same material, contractor, construction equipment, and quality control procedures. It is recommended that the test strips be constructed on three subgrades with different elastic moduli, or CBR (i.e., weak, average and stiff), with two different pavement structures (i.e., thin pavement with granular base, and thicker pavement on stabilized base) constructed on each subgrade. All overlay construction should be accomplished during the same day under the same temperature conditions. All overlays should be constructed using the same equipment, personnel, material from the same plant, and under close supervision to minimize the effects of other variables as much as possible. Data obtained for regression analyses should be based on repeat testing to minimize test variance to better isolate actual material variance.

3. The basis for the National and Eastern Region acceptance plans should be re-evaluated to define a consistent acceptable quality level and basis of payment for materials of the same quality. The study may also consist of re-evaluation of the basic characteristics necessary for durable asphalt pavement construction, and for identification of acceptance characteristics and associated acceptable quality levels.

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APPENDIX A

NDT RESULTS

TABLE A-1

TETERBORO - NDT DATA

TETERBORO

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in	DSM TC kip/in
1	31.00	56 R	5.03	4.80	3.14	1.78	1.22	1.05	6.99	7.15	4.83	2.65	1.76	0.98	1.18	836	986
2	33.00	56 R	4.97	8.03	5.17	2.34	1.27	0.62	7.01	12.78	8.17	3.70	2.01	0.55	1.18	429	507
3	35.00	56 R	5.00	4.79	3.36	2.12	1.48	1.04	7.01	7.17	5.03	3.25	2.22	0.98	1.18	846	999
4	37.15	56 R	5.03	4.19	3.05	1.91	1.34	1.20	6.99	6.22	4.26	2.82	2.00	1.12	1.18	966	1139
5	39.00	56 R	4.98	4.50	3.15	1.88	1.29	1.11	7.02	6.79	4.73	2.83	1.92	1.03	1.18	891	1051
6	41.00	56 R	5.01	3.23	2.42	1.62	1.20	1.55	6.97	4.64	3.41	2.25	1.67	1.50	1.18	1395	1646
7	43.00	56 R	5.00	3.45	2.45	1.51	1.08	1.45	6.97	5.06	3.48	2.16	1.55	1.38	1.18	1224	1444
8	45.00	56 R	4.97	6.95	4.57	2.12	1.26	0.72	7.04	10.92	6.87	3.26	1.89	0.64	1.18	521	615
9	47.00	56 R	5.02	4.06	2.83	1.67	1.19	1.24	6.94	5.87	4.05	2.42	1.72	1.18	1.18	1058	1248
10	49.00	56 R	4.99	4.89	3.41	2.16	1.55	1.02	6.98	7.21	5.18	3.16	2.27	0.97	1.25	858	1072
11	51.00	56 R	4.96	6.15	4.24	2.59	1.83	0.81	6.99	9.42	6.72	4.14	2.86	0.74	1.27	621	789
12	53.00	56 R	5.01	4.08	2.75	1.53	1.08	1.23	7.02	6.14	3.93	2.21	1.55	1.14	1.27	978	1242
13	55.00	56 R	5.03	3.09	2.28	1.64	1.34	1.63	7.00	4.49	3.25	2.30	1.90	1.56	1.27	1408	1788
14	57.00	56 R	4.96	3.93	2.98	2.04	1.56	1.26	6.98	5.75	4.12	2.83	2.24	1.21	1.27	1110	1409
15	59.00	56 R	4.96	5.60	4.10	2.93	2.35	0.89	7.00	8.14	6.07	4.23	3.36	0.86	1.27	802	1018
16	61.00	56 R	4.99	6.44	4.63	3.05	2.37	0.78	7.00	9.73	6.73	4.41	3.42	0.72	1.27	612	777
17	63.00	56 R	5.00	5.99	4.03	2.26	1.59	0.84	6.97	8.96	6.14	3.38	2.30	0.78	1.27	663	842
18	65.00	56 R	4.98	4.97	3.13	1.68	1.14	1.00	7.00	7.53	4.66	2.40	1.63	0.93	1.27	788	1000
19	32.00	32 R	4.98	6.90	4.48	2.31	1.45	0.72	6.96	10.73	6.82	3.56	2.20	0.65	1.25	517	647
20	34.00	32 R	5.00	6.05	3.75	1.77	1.06	0.83	7.02	9.49	6.03	2.83	1.59	0.74	1.25	587	734
21	36.00	32 R	4.97	5.19	3.50	1.86	1.17	0.96	7.00	8.00	5.30	2.74	1.74	0.88	1.25	722	902
22	38.00	32 R	5.01	5.49	3.68	2.08	1.38	0.91	6.98	8.30	5.63	3.24	2.09	0.84	1.25	701	876
23	40.00	32 R	5.01	6.80	4.62	2.47	1.62	0.74	6.95	10.26	6.92	3.72	2.45	0.68	1.25	562	702
24	42.00	32 R	5.01	4.62	3.09	1.78	1.17	1.09	7.00	6.92	4.56	2.56	1.70	1.01	1.25	865	1082
25	44.00	32 R	4.98	6.30	3.95	1.74	1.03	0.79	6.99	9.50	6.06	2.69	1.52	0.74	1.25	629	786
26	46.00	32 R	4.97	8.52	5.19	2.15	1.27	0.58	7.03	13.66	8.23	3.28	1.90	0.51	1.25	401	501
27	48.00	32 R	5.00	4.65	2.84	1.39	0.89	1.08	7.00	7.10	4.33	2.08	1.31	0.99	1.25	816	1021
28	50.00	32 R	5.01	4.38	2.66	1.38	0.95	1.15	6.97	6.66	4.07	2.03	1.33	1.05	1.38	858	1184
29	52.00	32 R	4.99	4.54	2.33	1.27	0.91	1.10	6.98	6.84	3.50	1.90	1.34	1.02	1.42	865	1229
30	54.00	32 R	5.02	4.29	2.54	1.57	1.14	1.17	7.01	6.48	3.92	2.30	1.67	1.08	1.42	907	1287
31	56.00	32 R	5.00	3.72	2.39	1.56	1.22	1.35	6.95	5.43	3.56	2.31	1.76	1.28	1.42	1137	1615
32	58.00	32 R	4.99	4.21	2.84	1.92	1.57	1.19	7.02	6.25	4.23	2.76	2.20	1.12	1.42	998	1417
33	60.00	32 R	4.96	6.34	4.42	2.72	2.10	0.78	6.99	9.35	6.52	4.03	3.10	0.75	1.42	675	958
34	62.00	32 R	5.00	5.77	3.69	2.18	1.64	0.87	7.01	8.82	5.67	3.24	2.41	0.79	1.42	658	934
35	64.00	32 R	4.99	5.69	3.54	1.97	1.43	0.88	7.00	8.54	5.46	3.01	2.07	0.82	1.42	706	1003
36																	
37	31.00	6.5 R	4.96	4.43	2.94	1.41	1.14	1.12	6.96	6.73	4.58	2.49	1.70	1.03	1.25	868	1085
38	33.00	6.5 R	5.01	4.87	3.30	1.86	1.25	1.03	7.03	7.52	5.26	3.03	1.95	0.93	1.25	761	951
39	35.00	6.5 R	4.97	5.14	3.28	1.77	1.18	0.97	7.00	7.91	5.04	2.73	1.79	0.88	1.25	732	914
40	37.15	6.5 R	5.00	4.15	2.69	1.55	1.05	1.20	6.96	6.21	4.07	2.39	1.56	1.12	1.25	952	1190
41	39.00	6.5 R	4.96	4.50	2.98	1.76	1.23	1.10	6.95	6.91	4.46	2.66	1.81	1.01	1.25	826	1032
42	41.00	6.5 R	4.99	4.40	3.08	1.95	1.38	1.13	7.01	6.68	4.61	2.92	2.10	1.05	1.25	886	1107
43	43.00	6.5 R	4.97	3.96	2.69	1.61	1.16	1.26	7.02	6.06	3.96	2.36	1.71	1.16	1.25	974	1217
44	45.00	6.5 R	5.00	4.36	2.88	1.67	1.15	1.15	6.99	6.58	4.55	2.65	1.74	1.06	1.25	897	1121
45	47.00	6.5 R	5.01	5.98	3.80	1.86	1.19	0.84	7.03	9.38	5.98	2.86	1.83	0.75	1.25	594	743
46	49.00	6.5 R	4.99	4.00	2.56	1.44	0.99	1.25	6.97	6.12	3.93	2.21	1.46	1.14	1.37	936	1283
47	51.00	6.5 R	5.00	3.17	2.06	1.30	0.97	1.58	6.98	4.77	3.11	1.98	1.44	1.46	1.41	1238	1745
48	53.00	6.5 R	4.99	3.39	2.10	1.32	0.99	1.47	7.03	5.10	3.20	2.00	1.47	1.38	1.41	1193	1682

Table A-1 (Cont'd)

TETERBORO

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in	DSM TC kip/in
49	55.00	6.5 R	5.01	2.32	1.55	1.17	1.02	2.16	6.96	3.32	2.20	1.68	1.42	2.10	1.41	1941	2737
50	57.00	6.5 R	5.03	3.56	2.47	1.68	1.35	1.41	7.03	5.41	3.76	2.54	2.02	1.30	1.41	1083	1527
51	59.00	6.5 R	5.00	4.31	2.95	2.07	1.78	1.16	7.01	6.39	4.41	3.06	2.57	1.10	1.41	969	1366
52	61.00	6.5 R	4.99	4.65	3.19	2.21	1.79	1.07	7.00	6.96	4.65	3.17	2.56	1.01	1.45	868	1259
53	63.00	6.5 R	4.97	4.71	2.82	1.60	1.24	1.06	7.01	7.41	4.37	2.53	1.90	0.95	1.45	757	1097
54	65.00	6.5 R	4.99	4.79	2.72	1.42	1.08	1.04	6.99	7.54	4.26	2.21	1.60	0.93	1.45	727	1055
55	32.00	18 L	5.01	5.93	3.76	1.83	1.13	0.85	6.98	8.81	5.64	2.83	1.69	0.79	1.16	684	794
56	34.00	18 L	5.04	7.00	4.32	1.92	1.21	0.72	7.01	11.23	7.00	3.05	1.89	0.62	1.16	466	541
57	36.00	18 L	4.98	5.50	3.48	1.71	1.05	0.91	7.01	8.62	5.40	2.68	1.58	0.81	1.16	651	755
58	38.00	18 L	5.03	4.84	3.08	1.74	1.18	1.04	6.96	7.31	4.68	2.54	1.72	0.95	1.16	781	906
59	40.00	18 L	5.04	5.31	3.59	2.17	1.50	0.95	7.00	7.90	5.46	3.37	2.29	0.89	1.16	755	876
60	42.00	18 L	4.97	4.24	2.84	1.70	1.16	1.17	6.99	6.42	4.28	2.60	1.79	1.09	1.09	929	1013
61	44.00	18 L	4.97	4.27	2.77	1.56	1.05	1.16	7.00	6.53	4.04	2.28	1.51	1.07	1.09	898	979
62	46.00	18 L	5.01	5.93	3.88	2.08	1.34	0.85	6.96	8.97	5.83	3.13	1.96	0.78	1.09	640	698
63	48.00	18 L	5.01	3.85	2.36	1.21	0.85	1.30	7.00	6.00	3.59	1.76	1.18	1.17	1.11	926	1028
64	50.00	18 L	5.01	3.96	2.28	1.19	0.88	1.27	7.02	6.33	3.56	1.72	1.26	1.11	1.11	848	941
65	52.00	18 L	4.98	3.74	2.27	1.20	0.89	1.33	7.06	5.92	3.62	1.76	1.30	1.19	1.12	956	1071
66	54.00	18 L	4.97	3.53	2.16	1.28	0.99	1.41	7.00	5.45	3.25	1.92	1.42	1.29	1.12	1057	1184
67	56.00	18 L	4.97	3.27	2.33	1.61	1.33	1.52	6.98	4.81	3.42	2.31	1.85	1.45	1.12	1309	1467
68	58.00	18 L	5.04	3.46	2.25	1.41	1.11	1.46	7.01	5.13	3.40	2.09	1.60	1.37	1.12	1183	1325
69	60.00	18 L	4.99	6.36	4.41	2.85	2.23	0.79	6.98	9.48	6.63	4.24	3.24	0.74	1.12	637	713
70	62.00	18 L	4.98	5.03	3.29	1.90	1.45	0.99	6.94	7.81	5.13	2.94	2.17	0.89	1.12	705	790
71	64.00	18 L	4.97	4.71	3.09	1.76	1.29	1.06	7.02	7.31	4.69	2.71	1.99	0.96	1.12	787	881
72																	
73	31.00	43 L	5.00	7.67	5.00	1.97	1.15	0.65	6.96	12.23	8.02	3.04	1.71	0.57	1.10	430	473
74	33.00	43 L	5.00	6.94	4.33	2.02	1.22	0.72	7.00	11.04	6.73	3.09	1.83	0.63	1.10	488	537
75	35.00	43 L	4.99	5.82	4.00	2.06	1.22	0.86	6.97	8.69	5.86	2.97	1.82	0.80	1.10	689	758
76	37.15	43 L	5.02	7.04	4.56	2.25	1.35	0.71	6.98	10.74	6.95	3.49	2.09	0.65	1.10	530	583
77	39.00	43 L	5.01	5.97	3.92	1.99	1.25	0.84	6.95	8.99	5.97	2.98	1.83	0.77	1.10	643	708
78	41.00	43 L	5.02	5.10	3.41	1.92	1.29	0.99	6.98	7.61	5.08	2.83	1.90	0.92	1.10	781	859
79	43.00	43 L	5.00	5.32	3.53	1.86	1.19	0.94	6.99	8.10	5.32	2.86	1.83	0.86	1.10	716	787
80	45.00	43 L	5.01	5.94	3.68	2.01	1.38	0.84	6.99	9.10	5.69	3.09	2.03	0.77	1.10	627	690
81	47.00	43 L	5.00	8.14	4.89	1.98	1.10	0.61	6.97	12.58	7.19	2.89	1.61	0.55	1.10	444	489
82	49.00	43 L	4.98	5.89	3.67	1.80	1.09	0.85	6.96	9.32	5.79	2.69	1.55	0.75	1.12	577	647
83	51.00	43 L	4.97	3.96	2.67	1.64	1.20	1.26	7.03	6.07	3.91	2.37	1.73	1.16	1.13	976	1103
84	53.00	43 L	4.97	4.67	2.73	1.40	1.02	1.06	6.94	6.90	4.05	2.00	1.46	1.01	1.13	883	998
85	55.00	43 L	4.97	2.68	1.92	1.37	1.18	1.86	6.99	3.89	2.79	1.93	1.63	1.80	1.13	1663	1879
86	57.00	43 L	4.98	3.73	2.68	1.75	1.36	1.34	6.98	5.50	3.86	2.52	1.98	1.27	1.13	1130	1277
87	59.00	43 L	4.99	4.19	2.89	1.89	1.52	1.19	6.99	6.27	4.33	2.77	2.18	1.11	1.13	961	1086
88	61.00	43 L	4.99	6.13	4.25	2.62	1.92	0.81	6.98	9.33	6.45	3.92	2.83	0.75	1.14	622	709
89	63.00	43 L	4.96	5.03	3.20	1.79	1.31	0.99	6.95	7.61	4.70	2.59	1.92	0.91	1.14	772	880
90	65.00	43 L	5.00	5.10	3.18	1.76	1.28	0.98	6.98	7.67	4.81	2.63	1.85	0.91	1.14	772	880
91	32.00	68 L	4.97	4.49	3.02	1.79	1.21	1.11	6.96	6.65	3.57	2.26	1.83	1.05	1.11	921	1023
92	34.00	68 L	5.00	3.38	2.39	1.40	1.01	1.48	6.98	4.94	3.48	2.13	1.47	1.41	1.11	1273	1413
93	36.00	68 L	4.98	3.93	2.77	1.66	1.16	1.27	6.98	5.81	3.96	2.41	1.70	1.20	1.11	1064	1181
94	38.00	68 L	5.01	3.69	2.64	1.71	1.27	1.36	7.03	5.48	3.93	2.47	1.78	1.28	1.11	1129	1253
95	40.00	68 L	4.96	4.30	2.93	1.72	1.22	1.15	7.00	6.40	4.25	2.56	1.76	1.09	1.11	974	1081
96	42.00	68 L	5.02	4.35	2.87	1.58	1.11	1.15	7.01	6.61	4.23	2.26	1.55	1.06	1.11	883	980

Table A-1 (Cont'd.)

TETERBORO

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in	DSM TC kip/in
97	44.00	68 L	4.99	5.39	3.56	1.84	1.16	0.93	7.04	8.23	5.27	2.77	1.70	0.86	1.11	723	803
98	46.00	68 L	4.98	4.57	2.93	1.64	1.11	1.09	6.94	6.69	4.31	2.40	1.60	1.04	1.11	927	1029
99	48.00	68 L	5.00	4.55	2.84	1.50	0.97	1.10	7.03	6.86	4.34	2.20	1.44	1.02	1.11	877	973
100	50.00	68 L	4.97	5.09	3.25	1.73	1.18	0.98	6.99	7.92	4.88	2.55	1.70	0.88	1.13	714	806
101	52.00	68 L	5.02	4.52	2.99	1.71	1.23	1.11	7.04	6.87	4.65	2.56	1.78	1.02	1.14	860	980
102	54.00	68 L	4.99	4.00	2.61	1.57	1.15	1.25	6.97	5.93	3.83	2.29	1.68	1.18	1.14	1026	1170
103	56.00	68 L	5.01	3.64	2.59	1.73	1.33	1.38	6.94	5.13	3.62	2.42	1.85	1.35	1.14	1291	1472
104	58.00	68 L	4.98	3.38	2.37	1.55	1.21	1.48	6.99	4.89	3.45	2.26	1.71	1.43	1.14	1327	1512
105	60.00	68 L	4.99	4.87	3.16	1.82	1.36	1.02	6.99	7.28	5.14	2.75	1.99	0.96	1.14	830	946
106	62.00	68 L	5.01	6.52	3.44	1.86	1.30	0.77	7.01	9.86	5.01	2.65	1.85	0.71	1.14	599	683

TABLE A-2

LEESBURG - NDT DATA

LEESBURG

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	TCF	DSM kip/in	DSM TC kip/in
1	0.50	15L	4.99	8.46	3.46	0.42	0.16	0.59	6.99	14.17	5.63	0.57	0.21	0.49	1.27	350	445
2	2.50	15L	4.98	7.95	2.70	0.21	0.03	0.63	7.01	13.37	4.34	0.32	0.07	0.52	1.27	374	475
3	4.50	15L	5.01	5.26	1.69	0.13	0.07	0.95	6.98	8.30	2.72	0.23	0.10	0.84	1.27	648	823
4	6.50	15L	4.99	10.53	4.25	0.84	0.20	0.47	6.95	17.73	7.08	1.24	0.28	0.39	1.27	273	347
5	8.50	15L	5.00	7.12	2.35	0.31	0.25	0.70	7.03	12.07	3.75	0.39	0.33	0.58	1.27	410	521
6	10.50	15L	5.02	8.19	3.36	0.53	0.04	0.61	6.97	13.68	5.49	0.86	0.09	0.51	1.27	356	452
7	12.50	15L	5.01	7.64	3.24	0.69	0.13	0.66	6.97	12.56	5.31	1.12	0.19	0.56	1.27	399	506
8	14.50	15L	5.00	6.70	2.96	0.60	0.05	0.75	7.03	11.29	4.78	0.96	0.07	0.62	1.27	443	562
9	16.50	15L	5.01	5.61	1.89	0.11	0.11	0.89	7.00	9.21	3.12	0.21	0.19	0.76	1.27	553	702
10	18.50	15L	4.98	10.06	4.61	2.16	1.39	0.50	7.00	17.03	7.38	3.39	2.16	0.41	1.27	290	368
11	20.50	15L	5.00	9.78	4.29	1.57	0.95	0.51	6.97	16.33	6.76	2.31	1.38	0.43	1.27	302	384
12	22.50	15L	5.00	7.56	3.57	1.52	1.00	0.66	6.98	11.78	5.29	2.13	1.40	0.59	1.18	470	554
13	24.50	15L	5.00	10.11	5.58	2.49	1.21	0.49	6.99	16.72	8.79	3.79	1.81	0.42	1.18	302	356
14	26.50	15L	4.98	11.16	5.62	2.31	1.18	0.45	6.99	18.82	9.05	3.50	1.77	0.37	1.18	263	310
15	28.50	15L	5.00	5.56	2.18	0.46	0.19	0.90	7.04	9.09	3.43	0.67	0.24	0.77	1.18	579	683
16	30.50	15L	5.01	8.57	3.57	0.77	0.18	0.58	6.98	14.56	6.12	1.28	0.24	0.48	1.18	329	389
17	32.50	15L	4.96	9.02	4.00	1.68	1.07	0.55	7.01	15.02	6.63	2.52	1.56	0.47	1.18	341	403
18	34.50	15L	5.00	6.19	2.67	1.21	0.83	0.81	7.02	9.71	4.16	1.78	1.23	0.72	1.18	573	676
19	1.00	5L	5.01	8.66	3.59	0.77	0.16	0.58	6.96	14.00	5.68	1.17	0.20	0.50	1.27	365	464
20	2.05	5L	4.97	6.96	2.47	0.27	0.08	0.71	6.97	11.63	4.09	0.39	0.16	0.60	1.27	429	544
21	3.00	5L	4.99	7.05	1.75	0.09	0.06	0.71	7.01	11.93	2.76	0.05	0.06	0.59	1.27	414	526
22	4.10	5L	4.99	8.10	2.87	0.33	0.08	0.62	6.98	13.91	4.74	0.49	0.20	0.50	1.27	344	436
23	5.00	5L	4.97	7.58	2.58	0.19	0.13	0.66	6.98	12.83	4.27	0.26	0.26	0.54	1.27	383	486
24	6.00	5L	5.00	8.08	3.15	0.55	0.06	0.62	6.98	13.11	5.00	0.85	0.09	0.53	1.27	394	500
25	7.00	5L	5.00	8.84	2.94	0.57	0.37	0.57	6.97	14.37	4.66	0.72	0.48	0.49	1.27	356	452
26	8.00	5L	4.97	11.05	4.89	1.37	0.56	0.45	6.98	18.42	7.87	2.03	0.71	0.38	1.27	273	347
27	9.00	5L	4.96	8.29	3.37	0.73	0.14	0.60	6.98	13.70	5.29	1.11	0.17	0.51	1.27	374	475
28	10.00	5L	4.98	9.38	3.79	0.73	0.06	0.53	6.96	15.75	6.38	1.17	0.12	0.44	1.27	311	395
29	11.00	5L	5.00	7.51	3.01	0.61	0.10	0.67	7.03	12.24	4.73	0.92	0.15	0.57	1.27	430	546
30	12.00	5L	4.98	7.87	3.43	0.79	0.11	0.63	7.02	13.18	5.73	1.34	0.18	0.53	1.27	385	489
31	13.00	5L	4.98	8.66	3.22	0.80	0.35	0.58	7.04	14.74	5.11	1.13	0.46	0.48	1.27	339	430
32	14.00	5L	4.97	10.73	3.98	0.74	0.20	0.46	6.99	17.88	6.41	1.02	0.24	0.39	1.27	283	359
33	15.00	5L	4.99	8.90	3.13	0.65	0.28	0.56	6.99	15.03	5.03	0.94	0.38	0.47	1.27	326	414
34	16.00	5L	4.97	6.36	2.10	0.31	0.06	0.78	7.02	10.50	3.30	0.44	0.06	0.67	1.27	496	629
35	17.00	5L	4.97	6.92	2.30	0.28	0.05	0.72	6.97	11.51	3.82	0.45	0.11	0.61	1.27	437	554
36	18.00	5L	5.01	5.44	2.42	0.95	0.44	0.92	6.98	8.68	3.90	1.45	0.62	0.80	1.27	608	772
37	19.00	5L	4.96	8.87	4.85	2.39	1.49	0.56	6.99	14.46	7.60	3.51	2.15	0.48	1.27	364	462
38	20.00	5L	5.02	8.71	4.03	1.84	1.14	0.58	7.03	14.09	6.29	2.77	1.67	0.50	1.27	375	476
39	21.00	5L	4.98	8.32	4.13	1.88	1.14	0.60	6.96	13.35	6.29	2.78	1.62	0.52	1.27	393	500
40	22.25	5L	4.99	6.74	3.48	1.60	0.93	0.74	7.01	10.72	5.42	2.37	1.37	0.65	1.19	508	604
41	23.00	5L	5.00	7.39	3.76	1.85	1.24	0.68	6.99	11.59	5.84	2.72	1.73	0.60	1.19	474	564
42	24.00	5L	4.99	8.89	4.45	2.04	1.30	0.56	6.97	14.76	7.15	3.13	1.84	0.47	1.19	338	402
43	25.00	5L	4.98	8.11	4.18	1.96	1.20	0.61	7.02	13.41	6.75	2.88	1.76	0.52	1.19	385	458
44	26.00	5L	5.01	9.63	5.15	2.28	1.19	0.52	7.02	16.06	8.37	3.59	1.75	0.44	1.19	313	373
45	27.00	5L	4.99	9.91	5.33	2.47	1.32	0.50	6.97	16.34	8.73	3.67	1.94	0.43	1.19	308	367
46	28.00	5L	5.01	7.22	3.25	1.06	0.49	0.69	6.96	11.75	5.12	1.58	0.66	0.59	1.19	430	512
47	29.00	5L	5.02	7.38	3.45	1.14	0.45	0.68	6.97	12.15	5.54	1.82	0.64	0.57	1.19	409	487
48	30.00	5L	4.98	8.55	4.13	1.34	0.40	0.58	6.99	14.71	6.88	2.18	0.64	0.48	1.19	326	388
49	31.00	5L	5.01	8.67	4.31	1.51	0.61	0.58	7.00	14.37	6.79	2.29	0.90	0.49	1.19	349	416
50	32.00	5L	5.01	7.21	3.19	1.09	0.48	0.70	7.02	12.02	5.09	1.70	0.70	0.58	1.19	418	497
51	33.00	5L	5.00	6.91	3.55	1.89	1.31	0.72	7.00	11.30	5.60	2.88	1.98	0.62	1.19	456	542
52	34.00	5L	4.99	8.49	4.40	2.18	1.43	0.59	7.00	14.03	7.15	3.43	2.10	0.50	1.19	363	432
53	0.50	15R	5.02	8.49	1.79	0.05	0.03	0.59	7.02	13.75	2.70	0.17	0.06	0.51	1.25	380	475
54	1.50	5R	4.99	8.56	3.34	0.62	0.10	0.58	7.01	14.32	5.28	0.86	0.12	0.49	1.25	351	438

Table A-2 (Cont'd.)

LEESBURG

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	TCF	DSM kip/in	DSM TC kip/in
55	2.50	5R	5.01	7.93	2.75	0.36	0.04	0.63	6.95	12.61	4.19	0.49	0.07	0.55	1.25	414	518
56	3.50	5R	5.00	7.32	2.70	0.52	0.12	0.68	6.95	12.01	4.34	0.73	0.15	0.58	1.25	416	520
57	4.50	5R	5.01	9.20	3.43	0.46	0.06	0.54	6.97	15.42	5.53	0.67	0.15	0.45	1.25	315	394
58	5.50	5R	4.98	7.98	2.95	0.40	0.05	0.62	6.99	13.11	4.75	0.60	0.09	0.53	1.25	393	491
59	6.50	5R	4.99	9.17	3.64	0.47	0.09	0.54	6.97	15.65	5.93	0.75	0.20	0.45	1.25	306	382
60	7.50	5R	4.98	9.90	3.89	0.85	0.39	0.50	7.00	16.30	6.27	1.19	0.48	0.43	1.25	316	395
61	8.50	5R	4.97	11.88	4.95	1.09	0.22	0.42	6.96	20.00	8.10	1.54	0.30	0.35	1.25	245	306
62	9.50	5R	4.99	9.67	3.89	0.83	0.15	0.52	7.02	16.55	6.70	1.32	0.19	0.42	1.25	295	369
63	10.50	5R	4.97	9.51	4.38	1.28	0.29	0.52	7.05	16.14	7.36	2.05	0.42	0.44	1.25	314	392
64	11.50	5R	5.00	7.50	2.95	0.50	0.04	0.67	7.03	12.39	4.67	0.79	0.06	0.57	1.25	415	519
65	12.50	5R	4.99	7.67	3.39	0.97	0.26	0.65	6.98	12.36	5.50	1.52	0.38	0.56	1.25	425	531
66	13.50	5R	4.96	9.09	2.98	0.75	0.37	0.55	7.01	15.63	4.77	1.03	0.49	0.45	1.25	313	392
67	14.50	5R	4.96	13.02	4.47	0.51	0.15	0.38	3.02	6.53	2.20	0.35	0.16	0.46	1.25	299	374
68	15.50	5R	4.97	7.75	2.19	0.38	0.17	0.64	7.03	13.42	3.55	0.55	0.23	0.52	1.25	363	454
69	16.50	5R	5.02	8.01	1.88	0.11	0.19	0.63	7.03	13.49	2.92	0.30	0.36	0.52	1.25	367	458
70	17.50	5R	5.00	6.17	1.68	0.15	0.06	0.81	6.97	10.11	2.60	0.19	0.04	0.69	1.25	499	624
71	18.50	5R	4.96	8.42	3.47	1.18	0.54	0.59	7.00	14.23	5.74	1.72	0.77	0.49	1.25	351	439
72	19.50	5R	5.04	11.84	5.19	2.08	1.17	0.43	7.03	20.00	8.36	3.16	1.72	0.35	1.25	244	305
73	20.50	5R	5.00	10.41	4.81	1.80	0.99	0.48	6.97	17.46	7.44	2.58	1.37	0.40	1.25	279	349
74	21.50	5R	4.98	8.96	3.87	1.68	1.07	0.56	7.00	14.84	6.13	2.55	1.58	0.47	1.25	344	430
75	22.50	5R	4.96	6.74	3.15	1.38	0.87	0.74	6.99	10.97	5.00	1.99	1.22	0.64	1.17	480	562
76	23.50	5R	4.99	8.18	4.28	2.25	1.46	0.61	6.97	13.27	6.77	3.41	2.13	0.53	1.17	389	455
77	24.50	5R	5.02	8.29	4.07	1.90	1.17	0.61	7.00	13.56	6.66	3.03	1.71	0.52	1.17	376	440
78	25.50	5R	5.00	9.33	5.31	2.70	1.68	0.54	6.98	15.38	8.31	4.14	2.51	0.45	1.17	328	383
79	26.50	5R	5.01	9.00	4.78	2.17	1.21	0.56	7.02	15.05	7.70	3.28	1.77	0.47	1.17	332	388
80	27.50	5R	4.96	8.02	4.00	1.88	1.08	0.62	6.98	13.22	6.63	2.92	1.63	0.53	1.17	389	455
81	28.50	5R	5.03	5.88	2.70	1.04	0.46	0.86	7.01	9.38	4.38	1.58	0.65	0.75	1.17	566	662
82	29.50	5R	5.02	6.69	3.06	0.88	0.17	0.75	7.00	11.19	5.12	1.48	0.25	0.63	1.17	440	515
83	30.50	5R	4.98	6.80	2.97	0.59	0.04	0.73	7.03	11.57	4.90	0.96	0.10	0.61	1.17	429	502
84	31.50	5R	5.01	5.82	2.51	0.99	0.56	0.86	6.99	9.53	4.00	1.51	0.79	0.73	1.17	534	624
85	32.50	5R	4.98	6.92	3.32	1.33	0.69	0.72	7.05	11.42	5.38	2.00	0.99	0.62	1.17	461	539
86	33.50	5R	4.99	5.35	2.77	1.44	1.00	0.93	6.94	8.56	4.32	2.14	1.42	0.81	1.17	608	712
87	34.25	5R	4.97	6.98	3.85	2.02	1.40	0.71	7.00	11.18	5.94	3.03	2.00	0.63	1.17	483	566
88	1.50	15R	4.97	6.97	2.17	0.09	0.09	0.71	7.01	11.60	3.45	0.13	0.17	0.60	1.23	441	542
89	3.50	15R	4.99	9.03	2.46	0.16	0.04	0.55	6.98	15.50	4.09	0.19	0.08	0.45	1.23	308	378
90	5.50	15R	4.98	8.79	2.94	0.07	0.16	0.57	6.95	14.63	4.82	0.17	0.30	0.48	1.23	337	415
91	7.50	15R	4.98	11.82	4.57	0.88	0.40	0.42	7.00	20.00	7.64	1.30	0.64	0.35	1.23	247	304
92	9.50	15R	5.01	8.98	4.14	1.02	0.17	0.56	6.99	14.84	6.64	1.67	0.25	0.47	1.23	338	416
93	11.50	15R	5.02	7.17	2.71	0.35	0.10	0.70	6.98	11.60	4.37	0.60	0.17	0.60	1.23	442	544
94	13.50	15R	5.00	9.30	2.58	0.45	0.18	0.54	6.97	15.67	4.03	0.56	0.24	0.44	1.23	309	380
95	15.50	15R	5.01	6.88	2.31	0.38	0.19	0.73	7.00	11.32	3.93	0.59	0.26	0.62	1.23	448	552
96	17.50	15R	5.01	6.84	2.02	0.09	0.05	0.73	7.02	11.43	3.34	0.11	0.09	0.61	1.23	438	538
97	19.50	15R	4.97	10.96	4.24	1.44	1.05	0.45	6.97	18.19	6.84	2.03	1.45	0.38	1.23	277	340
98	21.50	15R	4.98	8.83	4.13	1.43	0.95	0.56	7.04	15.28	7.01	2.21	1.31	0.46	1.23	319	393
99	23.50	15L	4.98	8.77	4.51	1.95	1.22	0.57	6.97	14.19	7.31	2.96	1.76	0.49	1.17	367	429
100	25.50	15L	4.96	10.34	5.42	2.47	1.54	0.48	7.00	16.96	8.65	3.60	2.22	0.41	1.17	308	360
101	27.50	15L	4.98	10.87	5.29	1.99	0.90	0.46	7.01	18.20	8.55	2.95	1.30	0.39	1.17	277	324
102	29.50	15L	4.99	6.89	2.95	0.55	0.04	0.72	6.98	11.69	5.03	0.91	0.06	0.60	1.17	415	485
103	31.50	15L	4.96	9.57	3.73	0.81	0.24	0.52	7.00	16.51	6.52	1.21	0.31	0.42	1.17	295	345
104	33.50	15L	5.01	7.95	3.68	1.70	1.24	0.63	7.03	13.11	5.85	2.39	1.70	0.54	1.17	391	458

TABLE A-3

OCEAN CITY - NDT DATA

OCEAN CITY - TERMINAL APRON & CONN TW

NDT NO.	STATION ft	OFFSET ft		F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
1	49.50	105	R	5.00	7.63	4.14	1.53	0.88	0.66	6.99	11.74	5.96	2.25	1.31	0.60	484
2	49.00	105	R	4.99	7.32	4.68	2.79	1.96	0.68	6.96	10.73	6.93	4.11	2.86	0.65	581
3	48.50	105	R	5.00	7.76	4.89	2.50	1.55	0.64	7.00	11.72	7.31	3.70	2.23	0.60	505
4	48.00	105	R	5.04	10.69	5.22	1.99	1.14	0.47	6.98	16.72	8.05	3.03	1.72	0.42	322
5	47.50	105	R	4.99	8.92	5.05	2.46	1.31	0.56	6.97	13.55	7.71	3.66	1.92	0.51	428
6	47.00	105	R	4.98	8.69	5.42	2.49	1.46	0.57	6.96	13.37	8.05	3.56	2.15	0.52	424
7	46.50	105	R	5.00	6.79	4.08	1.65	0.95	0.74	6.99	10.40	6.15	2.43	1.34	0.67	551
8	46.00	105	R	4.99	6.27	3.97	2.08	1.29	0.80	6.94	9.31	6.04	3.15	1.90	0.75	642
9	45.50	105	R	4.99	7.36	3.97	2.01	1.19	0.68	7.00	11.26	6.08	3.07	1.81	0.62	516
10	49.25	93	R	4.99	8.68	3.62	1.50	0.98	0.57	7.00	13.50	5.43	2.19	1.46	0.52	417
11	48.75	93	R	5.02	7.76	4.66	2.67	1.90	0.65	6.98	11.40	6.78	3.89	2.37	0.61	538
12	48.25	93	R	5.02	9.69	4.94	2.22	1.32	0.52	6.97	15.00	7.50	3.41	2.03	0.46	368
13	47.75	93	R	5.03	12.88	6.48	2.65	1.57	0.39	2.99	7.37	3.76	1.54	0.90	0.41	370
14	47.25	93	R	5.01	9.87	5.55	2.15	1.30	0.51	7.01	15.66	8.76	3.43	2.01	0.45	346
15	46.75	93	R	4.99	8.78	3.49	1.30	0.78	0.57	6.96	13.81	5.31	1.98	1.18	0.50	392
16	46.25	93	R	4.97	5.20	3.41	1.80	1.17	0.96	7.03	7.87	5.04	2.73	1.79	0.89	773
17	45.75	93	R	4.98	5.05	3.22	1.88	1.32	0.99	6.97	7.58	4.86	2.85	1.92	0.92	787
18	45.25	93	R	4.99	8.05	5.13	2.29	1.22	0.62	7.00	12.59	8.01	3.60	1.89	0.56	443
19	49.50	80	R	4.99	6.68	3.96	1.92	1.19	0.75	7.02	10.28	5.78	2.83	1.73	0.68	564
20	49.00	80	R	4.99	11.72	7.09	3.58	2.34	0.43	7.02	19.29	11.54	5.76	3.81	0.36	270
21	48.50	80	R	4.97	8.28	5.28	2.82	1.73	0.60	6.96	12.70	8.15	4.34	2.65	0.55	450
22	48.00	80	R	5.03	8.99	4.41	2.03	1.28	0.56	6.95	13.62	6.52	3.03	1.90	0.51	414
23	47.50	80	R	5.00	8.10	5.20	2.54	1.72	0.62	7.03	12.21	7.39	3.64	2.50	0.58	495
24	47.00	80	R	5.00	6.37	4.06	1.79	1.08	0.79	6.95	9.53	5.91	2.57	1.59	0.73	617
25	46.50	80	R	4.98	6.46	3.48	2.16	1.51	0.77	7.00	9.93	5.10	3.10	2.15	0.70	583
26	46.00	80	R	4.99	4.34	3.06	1.86	1.26	1.15	7.06	6.35	4.37	2.69	1.83	1.11	1030
27	45.50	80	R	5.01	6.72	3.80	1.88	1.22	0.75	7.02	10.38	5.79	2.80	1.80	0.68	550
28	49.50	65	R	5.02	8.56	4.52	1.66	1.08	0.59	6.95	12.91	6.51	2.41	1.58	0.54	443
29	48.50	65	R	4.98	10.78	5.27	2.04	1.28	0.46	6.95	17.08	8.07	3.00	1.88	0.41	313
30	47.50	65	R	4.98	9.01	5.49	2.47	1.31	0.55	6.96	14.20	8.15	3.65	1.91	0.49	382
31	46.50	65	R	4.97	6.49	4.13	2.29	1.48	0.77	6.96	9.73	6.22	3.49	2.20	0.72	615
32	45.50	65	R	5.00	6.59	3.39	1.59	1.01	0.76	6.99	10.03	5.02	2.34	1.46	0.70	579
33	44.50	65	R	4.97	6.87	3.35	1.28	0.89	0.72	6.96	10.94	5.03	1.86	1.29	0.64	488
34	49.00	52	R	5.00	4.44	3.42	2.35	1.77	1.13	6.97	6.34	4.87	3.37	2.53	1.10	1034
35	48.00	52	R	5.00	11.98	5.54	2.24	1.42	0.42	6.95	19.51	8.98	3.46	2.21	0.36	259
36	47.00	52	R	4.99	10.06	5.51	2.12	1.23	0.50	6.98	16.76	8.74	3.32	1.90	0.42	297
37	46.00	52	R	5.00	8.03	3.70	1.76	1.11	0.62	7.01	12.50	5.23	2.54	1.68	0.56	451
38	45.00	52	R	4.96	12.29	4.93	1.56	1.03	0.40	2.99	6.80	2.76	0.90	0.60	0.44	359
39	49.50	39	R	4.99	5.41	4.07	2.72	1.99	0.92	6.95	7.90	5.89	3.96	2.89	0.88	789
40	48.50	39	R	4.97	9.68	3.90	1.68	1.13	0.51	7.00	16.19	6.09	2.63	1.82	0.43	313
41	47.50	39	R	4.99	9.92	4.83	2.01	1.31	0.50	6.99	15.80	7.53	3.06	1.94	0.44	340
42	46.50	39	R	4.96	7.53	3.87	1.67	1.07	0.66	6.97	11.15	5.68	2.34	1.50	0.63	555
43	45.50	39	R	4.98	9.39	4.28	1.47	0.95	0.53	7.02	15.22	6.15	2.19	1.53	0.46	350
44	44.50	39	R	5.00	7.60	3.81	1.35	0.91	0.66	6.94	11.88	5.86	2.07	1.35	0.58	454
45	49.00	26	R	5.00	5.14	3.83	2.34	1.54	0.97	7.01	7.61	5.64	3.47	2.26	0.92	813
46	48.00	26	R	4.98	11.66	5.34	1.62	1.03	0.43	6.98	18.32	8.11	2.29	1.48	0.38	301
47	47.00	26	R	4.97	6.45	4.04	2.08	1.35	0.77	7.03	10.09	6.17	3.09	2.02	0.70	566
48	46.00	26	R	5.00	5.45	3.39	1.72	1.10	0.92	7.00	8.21	5.06	2.55	1.62	0.85	725
49	45.00	26	R	4.99	7.89	3.61	1.29	0.86	0.63	6.98	12.56	5.48	1.91	1.21	0.56	427
50	49.50	13	R	5.00	11.26	6.12	2.07	1.34	0.44	6.98	17.51	9.13	3.00	1.94	0.40	317
51	48.50	13	R	4.99	11.26	5.40	1.80	1.10	0.44	6.94	17.59	8.03	2.56	1.59	0.39	308
52	47.50	13	R	5.00	9.21	4.53	1.81	1.20	0.54	6.99	14.35	6.76	2.71	1.82	0.49	387
53	46.50	13	R	4.99	5.74	3.48	1.82	1.17	0.87	7.00	8.66	5.14	2.67	1.74	0.81	688
54	45.50	13	R	4.99	6.42	3.94	1.95	1.22	0.78	6.95	9.65	5.75	2.90	1.80	0.72	607

Table A-3 (Cont'd.)

OCEAN CITY - TERMINAL APRON & CONN TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
55	49.50	13 R	4.97	7.01	4.09	1.65	1.06	0.71	7.04	10.94	6.21	2.38	1.52	0.64	528
56	49.00	BL	4.99	7.67	4.20	1.99	1.29	0.65	6.97	11.74	6.23	2.92	1.90	0.59	487
57	48.00	BL	4.99	9.38	5.03	1.77	1.05	0.53	7.01	14.82	7.85	2.66	1.55	0.47	371
59	46.00	BL	5.00	7.01	3.18	1.62	1.09	0.71	7.00	10.75	4.82	2.31	1.56	0.65	535
60	45.00	BL	5.01	7.68	4.74	2.43	1.54	0.65	6.99	11.85	6.94	3.61	2.29	0.59	476
61	49.50	13 L	4.98	11.65	5.80	2.28	1.35	0.43	6.96	19.00	9.44	3.49	2.06	0.37	269
62	48.50	13 L	5.02	10.50	5.31	2.11	1.35	0.48	7.01	15.82	8.01	3.12	1.98	0.44	374
63	47.50	13 L	5.01	6.39	4.07	2.05	1.34	0.78	7.02	9.63	6.10	3.08	2.00	0.73	619
64	49.50	103 L	4.98	9.02	4.83	2.20	1.40	0.55	7.02	14.10	7.54	3.38	2.10	0.50	402
65	48.50	103 L	4.99	8.13	5.28	2.43	1.65	0.61	6.97	12.31	8.14	3.64	2.40	0.57	474
200	1.00	5 R	5.02	8.38	5.66	2.32	1.43	0.60	6.96	13.05	8.94	3.77	2.23	0.53	415
201	2.00	5 R	5.02	9.46	5.22	1.75	1.01	0.53	6.97	15.11	8.16	2.74	1.65	0.46	346
202	3.00	5 R	5.02	6.60	3.91	1.79	1.03	0.76	6.97	10.09	5.95	2.76	1.58	0.69	559
203	4.00	5 R	4.99	8.87	5.36	1.76	0.83	0.56	7.02	14.28	8.48	2.81	1.28	0.49	376
204	4.50	5 L	4.96	7.74	4.04	1.48	1.03	0.64	7.02	12.10	6.22	2.25	1.52	0.58	472
205	3.50	5 L	5.00	9.56	3.84	0.97	0.53	0.52	7.02	15.12	6.12	1.47	0.77	0.46	363
206	2.50	5 L	4.97	9.31	3.51	1.09	0.78	0.53	7.01	15.33	5.61	1.68	1.21	0.46	339
207	1.50	5 L	5.00	10.64	5.42	1.68	1.07	0.47	6.99	17.13	8.68	2.77	1.79	0.41	307
208	1.50	15 R	4.98	9.77	5.67	1.94	1.19	0.51	7.02	16.12	9.03	3.10	1.93	0.44	322
209	2.50	15 R	5.01	5.86	3.79	1.59	0.91	0.86	6.95	8.86	5.50	2.33	1.33	0.78	648
210	3.50	15 R	5.01	9.47	4.73	1.01	0.59	0.53	7.02	15.28	7.16	1.46	0.82	0.46	346
211	4.50	15 R	4.97	5.91	3.57	1.70	1.09	0.84	6.98	8.93	5.37	2.60	1.68	0.78	666
212	4.00	15 L	4.99	7.01	4.48	2.25	1.28	0.71	6.99	10.74	7.03	3.52	2.04	0.65	537
213	3.00	15 L	5.01	8.01	4.41	1.82	1.10	0.63	6.99	12.11	6.45	2.58	1.59	0.58	483
214	2.00	15 L	4.99	9.84	5.45	1.66	0.92	0.51	7.04	15.91	8.84	2.59	1.44	0.44	338
215	1.00	15 L	5.00	9.30	4.96	1.69	1.04	0.54	6.99	14.68	7.75	2.59	1.62	0.48	370

Table A-3 (Cont'd.)

OCEAN CITY - NEW PARALLEL TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM k/in	DSM TC k/in
100	49.00	5 L	4.98	7.80	4.06	1.66	1.19	0.64	6.96	11.90	6.23	2.55	1.83	0.59	1.43	484	692
101	48.50	5 L	4.98	7.64	3.80	1.55	1.14	0.65	7.02	11.84	5.81	2.40	1.81	0.59	1.43	486	695
102	48.00	5 L	4.98	8.27	4.35	1.84	1.36	0.60	6.95	12.53	6.46	2.73	2.01	0.55	1.43	463	663
103	47.50	5 L	5.03	8.91	4.52	1.77	1.26	0.56	7.05	13.78	7.06	2.75	1.98	0.51	1.43	415	593
104	47.00	5 L	4.99	7.47	3.92	1.66	1.20	0.67	6.98	11.29	6.04	2.44	1.81	0.62	1.43	521	745
105	46.50	5 L	4.97	7.88	4.28	1.78	1.29	0.63	6.96	11.90	6.42	2.64	1.91	0.59	1.43	496	709
106	46.00	5 L	5.04	8.32	4.51	1.76	1.28	0.61	7.05	12.83	6.75	2.66	1.92	0.55	1.43	446	638
107	45.50	5 L	4.99	7.86	4.62	1.85	1.30	0.63	7.01	12.07	6.89	2.78	1.97	0.58	1.43	480	686
108	49.25	5 R	5.04	6.69	4.18	1.92	1.30	0.75	6.98	9.82	6.23	2.82	1.94	0.71	1.43	619	885
109	48.75	5 R	5.03	6.29	3.80	1.70	1.22	0.80	6.99	9.27	5.55	2.52	1.78	0.75	1.43	658	941
110	48.25	5 R	4.98	7.05	3.97	1.54	1.09	0.71	7.03	10.71	5.99	2.29	1.59	0.66	1.43	559	800
111	47.78	5 R	4.98	7.13	4.04	1.67	1.20	0.70	6.94	10.67	5.98	2.49	1.81	0.65	1.43	553	791
112	47.25	5 R	4.96	7.36	3.96	1.68	1.23	0.67	7.00	11.14	5.83	2.48	1.80	0.63	1.43	540	773
113	46.75	5 R	4.96	7.37	4.04	1.54	1.10	0.67	6.99	11.10	5.81	2.27	1.66	0.63	1.43	545	779
114	46.25	5 R	5.01	7.87	4.34	1.78	1.24	0.64	6.97	12.04	6.57	2.73	1.94	0.58	1.43	471	673
115	45.75	5 R	4.96	7.22	4.19	1.67	1.19	0.69	6.99	10.89	6.26	2.48	1.72	0.64	1.43	554	792
116	45.25	5 R	5.04	10.64	7.26	3.42	1.85	0.47	6.95	16.48	11.10	5.39	2.97	0.42	1.43	327	467
117	49.00	15 R	5.01	7.68	4.35	1.89	1.33	0.65	6.99	11.71	6.73	2.94	2.06	0.60	1.43	491	703
118	48.00	15 R	4.97	7.91	4.41	1.88	1.36	0.63	7.05	12.05	6.55	2.81	2.04	0.59	1.43	502	719
119	47.00	15 R	4.96	7.91	4.06	1.69	1.24	0.63	6.99	12.21	6.05	2.53	1.89	0.57	1.43	472	674
120	46.00	15 R	5.00	8.91	4.58	1.65	1.13	0.56	6.98	13.71	7.02	2.50	1.66	0.51	1.43	413	590
121	44.00	15 R	5.00	11.80	7.64	2.25	1.08	0.42	6.94	19.57	12.71	3.70	1.85	0.35	1.43	250	357
122	43.00	15 R	4.97	10.28	6.11	1.64	0.74	0.48	7.02	16.89	10.22	2.73	1.16	0.42	1.43	310	443
123	42.00	15 R	5.00	11.68	7.02	2.27	1.13	0.43	6.99	18.99	11.99	3.79	1.90	0.37	1.43	272	389
124	41.00	15 R	4.98	10.83	5.63	1.57	0.85	0.46	6.97	17.60	9.15	2.44	1.29	0.40	1.43	294	421
125	41.50	15 L	4.96	16.56	11.12	3.90	1.82	0.30	2.98	8.07	5.27	1.75	0.84	0.37	1.43	234	335
126	42.50	15 L	5.01	11.93	6.84	1.98	1.08	0.42	7.00	19.35	11.52	3.35	1.80	0.36	1.43	268	383
127	43.50	15 L	4.97	9.92	5.07	1.60	1.00	0.50	6.94	15.63	8.21	2.49	1.54	0.44	1.43	345	494
128	44.50	15 L	5.02	10.52	5.38	1.44	0.78	0.48	7.01	17.27	8.75	2.33	1.25	0.41	1.43	295	422
129	45.50	15 L	5.00	8.51	4.57	1.64	1.10	0.59	6.95	13.19	6.82	2.38	1.64	0.53	1.43	416	595
130	46.50	15 L	4.97	9.36	5.15	1.87	1.28	0.53	6.97	14.70	7.85	2.85	1.95	0.47	1.43	375	536
131	47.50	15 L	5.00	8.26	4.28	1.64	1.19	0.61	6.99	12.87	6.70	2.59	1.91	0.54	1.43	432	618
132	48.50	15 L	5.03	7.61	3.67	1.54	1.15	0.66	6.96	11.53	5.49	2.31	1.73	0.60	1.43	492	703
133	44.00	5 L	4.98	9.54	5.44	1.68	0.91	0.52	7.01	15.36	8.82	2.70	1.46	0.46	1.43	348	498
134	43.00	5 L	4.98	10.26	5.81	2.02	1.10	0.49	6.96	16.38	9.39	3.34	1.85	0.42	1.43	324	463
135	42.00	5 L	5.02	12.48	7.53	2.56	1.32	0.40	3.01	6.76	4.07	1.40	0.75	0.45	1.43	352	503
136	41.00	5 L	5.02	12.39	7.62	2.79	1.43	0.41	2.99	6.39	3.78	1.37	0.73	0.47	1.43	339	484
137	41.50	5 R	4.99	10.22	6.17	1.91	0.97	0.49	7.01	16.42	9.64	3.09	1.54	0.43	1.43	326	465
138	42.50	5 R	5.00	10.61	6.17	1.77	0.88	0.47	6.97	16.95	9.71	2.85	1.45	0.41	1.43	311	445
139	43.50	5 R	5.03	9.01	5.20	1.65	1.00	0.56	6.99	14.09	8.03	2.55	1.53	0.50	1.43	386	552
140	44.50	5 R	4.99	9.95	5.34	1.57	0.87	0.50	6.96	15.91	8.52	2.53	1.37	0.44	1.43	331	473

TABLE A-4

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
1	31.00	56 R	5.02	4.79	3.06	1.72	1.20	1.05	6.98	7.12	4.83	2.59	1.75	0.98	1.18	841
		56 R	5.04	4.81	3.22	1.83	1.24	1.05	7.00	7.17	4.83	2.70	1.76	0.98	1.18	831
		AVG	5.03	4.80	3.14	1.78	1.22	1.05	6.99	7.15	4.83	2.65	1.76	0.98	1.18	836
2	33.00	56 R	4.98	7.93	5.09	2.30	1.24	0.63	6.96	12.59	8.12	3.66	2.04	0.55	1.18	425
		56 R	4.96	8.12	5.24	2.37	1.30	0.61	7.06	12.96	8.22	3.74	1.97	0.54	1.18	434
		AVG	4.97	8.03	5.17	2.34	1.27	0.62	7.01	12.78	8.17	3.70	2.01	0.55	1.18	429
3	35.00	56 R	4.96	4.75	3.27	2.05	1.45	1.04	7.02	7.18	4.86	3.18	2.23	0.98	1.18	848
		56 R	5.04	4.83	3.45	2.18	1.51	1.04	7.00	7.15	5.20	3.31	2.20	0.98	1.18	845
		AVG	5.00	4.79	3.36	2.12	1.48	1.04	7.01	7.17	5.03	3.25	2.22	0.98	1.18	846
4	37.15	56 R	5.04	4.17	3.05	1.92	1.32	1.21	7.00	6.20	4.26	2.78	1.97	1.13	1.18	966
		56 R	5.02	4.21	3.04	1.90	1.36	1.19	6.98	6.24	4.25	2.86	2.03	1.12	1.18	966
		AVG	5.03	4.19	3.05	1.91	1.34	1.20	6.99	6.22	4.26	2.82	2.00	1.12	1.18	966
5	39.00	56 R	4.96	4.44	3.11	1.85	1.24	1.12	7.02	6.75	4.70	2.82	1.89	1.04	1.18	892
		56 R	5.00	4.55	3.19	1.91	1.33	1.10	7.02	6.82	4.76	2.83	1.94	1.03	1.18	890
		AVG	4.98	4.50	3.15	1.88	1.29	1.11	7.02	6.79	4.73	2.83	1.92	1.03	1.18	891
6	41.00	56 R	4.98	3.20	2.41	1.62	1.18	1.56	6.94	4.61	3.41	2.18	1.63	1.51	1.18	1390
		56 R	5.04	3.26	2.42	1.62	1.22	1.55	7.00	4.66	3.41	2.31	1.70	1.50	1.18	1400
		AVG	5.01	3.23	2.42	1.62	1.20	1.55	6.97	4.64	3.41	2.25	1.67	1.50	1.18	1395
7	43.00	56 R	5.00	3.44	2.44	1.51	1.08	1.45	7.00	5.08	3.45	2.19	1.54	1.38	1.18	1220
		56 R	5.00	3.45	2.46	1.50	1.07	1.45	6.94	5.03	3.50	2.13	1.55	1.38	1.18	1228
		AVG	5.00	3.45	2.45	1.51	1.08	1.45	6.97	5.06	3.48	2.16	1.55	1.38	1.18	1224
8	45.00	56 R	4.98	6.97	4.47	2.05	1.28	0.71	7.06	10.98	6.98	3.34	1.94	0.64	1.18	519
		56 R	4.96	6.92	4.67	2.19	1.23	0.72	7.02	10.85	6.75	3.17	1.83	0.65	1.18	524
		AVG	4.97	6.95	4.57	2.12	1.26	0.72	7.04	10.92	6.87	3.26	1.89	0.64	1.18	521
9	47.00	56 R	5.02	4.05	2.82	1.64	1.16	1.24	6.94	5.88	4.05	2.41	1.77	1.18	1.18	1049
		56 R	5.02	4.06	2.84	1.69	1.22	1.24	6.94	5.86	4.05	2.42	1.67	1.18	1.18	1067
		AVG	5.02	4.06	2.83	1.67	1.19	1.24	6.94	5.87	4.05	2.42	1.72	1.18	1.18	1058
10	49.00	56 R	5.02	4.89	3.33	2.15	1.52	1.03	6.96	7.19	5.12	3.17	2.26	0.97	1.25	843
		56 R	4.96	4.88	3.48	2.16	1.58	1.02	7.00	7.22	5.24	3.15	2.27	0.97	1.25	872
		AVG	4.99	4.89	3.41	2.16	1.55	1.02	6.98	7.21	5.18	3.16	2.27	0.97	1.25	858

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
11	51.00	56 R	4.96	6.02	4.20	2.55	1.77	0.82	6.98	9.33	6.73	4.10	2.84	0.75	1.27	610
		56 R	4.96	6.28	4.28	2.62	1.88	0.79	7.00	9.51	6.70	4.18	2.87	0.74	1.27	632
		AVG	4.96	6.15	4.24	2.59	1.83	0.81	6.99	9.42	6.72	4.14	2.86	0.74	1.27	621
12	53.00	56 R	5.00	4.07	2.74	1.54	1.05	1.23	7.06	6.15	3.82	2.12	1.53	1.15	1.27	990
		56 R	5.02	4.09	2.76	1.51	1.11	1.23	6.98	6.12	4.04	2.29	1.57	1.14	1.27	966
		AVG	5.01	4.08	2.75	1.53	1.08	1.23	7.02	6.14	3.93	2.21	1.55	1.14	1.27	978
13	55.00	56 R	5.02	3.06	2.26	1.62	1.33	1.64	7.02	4.50	3.15	2.28	1.93	1.56	1.27	1389
		56 R	5.04	3.11	2.30	1.66	1.35	1.62	6.98	4.47	3.34	2.32	1.87	1.56	1.27	1426
		AVG	5.03	3.09	2.28	1.64	1.34	1.63	7.00	4.49	3.25	2.30	1.90	1.56	1.27	1408
14	57.00	56 R	4.96	3.91	2.92	2.01	1.55	1.27	6.94	5.70	4.09	2.81	2.23	1.22	1.27	1106
		56 R	4.96	3.95	3.03	2.07	1.56	1.26	7.02	5.80	4.15	2.85	2.25	1.21	1.27	1114
		AVG	4.96	3.93	2.98	2.04	1.56	1.26	6.98	5.75	4.12	2.83	2.24	1.21	1.27	1110
15	59.00	56 R	4.96	5.53	4.00	2.92	2.34	0.90	7.02	8.13	6.20	4.33	3.42	0.86	1.27	792
		56 R	4.96	5.66	4.20	2.94	2.36	0.88	6.98	8.15	5.93	4.13	3.30	0.86	1.27	811
		AVG	4.96	5.60	4.10	2.93	2.35	0.89	7.00	8.14	6.07	4.23	3.36	0.86	1.27	802
16	61.00	56 R	5.00	6.33	4.53	2.99	2.38	0.79	7.02	9.70	6.70	4.36	3.43	0.72	1.27	599
		56 R	4.98	6.55	4.73	3.10	2.35	0.76	6.98	9.75	6.75	4.46	3.40	0.72	1.27	625
		AVG	4.99	6.44	4.63	3.05	2.37	0.78	7.00	9.73	6.73	4.41	3.42	0.72	1.27	612
17	63.00	56 R	5.00	5.95	3.84	2.17	1.55	0.84	6.96	8.89	6.10	3.42	2.26	0.78	1.27	667
		56 R	5.00	6.02	4.21	2.35	1.63	0.83	6.98	9.02	6.18	3.33	2.34	0.77	1.27	660
		AVG	5.00	5.99	4.03	2.26	1.59	0.84	6.97	8.96	6.14	3.38	2.30	0.78	1.27	663
18	65.00	56 R	4.96	4.85	2.93	1.61	1.12	1.02	7.04	7.49	4.74	2.45	1.68	0.94	1.27	788
		56 R	5.00	5.08	3.32	1.74	1.15	0.98	6.96	7.57	4.57	2.34	1.58	0.92	1.27	787
		AVG	4.98	4.97	3.13	1.68	1.14	1.00	7.00	7.53	4.66	2.40	1.63	0.93	1.27	788
19	32.00	32 R	4.98	6.79	4.43	2.26	1.45	0.73	6.98	10.75	6.62	3.43	2.12	0.65	1.25	505
		32 R	4.98	7.00	4.52	2.35	1.45	0.71	6.94	10.70	7.02	3.68	2.27	0.65	1.25	530
		AVG	4.98	6.90	4.48	2.31	1.45	0.72	6.96	10.73	6.82	3.56	2.20	0.65	1.25	517

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
20	34.00	32 R	4.96	5.86	3.56	1.69	1.04	0.85	7.06	9.46	6.12	2.88	1.61	0.75	1.25	583
		32 R	5.04	6.24	3.93	1.85	1.08	0.81	6.98	9.52	5.93	2.77	1.56	0.73	1.25	591
		AVG	5.00	6.05	3.75	1.77	1.06	0.83	7.02	9.49	6.03	2.83	1.59	0.74	1.25	587
21	36.00	32 R	4.98	5.12	3.46	1.84	1.14	0.97	7.06	8.07	5.27	2.76	1.77	0.87	1.25	705
		32 R	4.96	5.25	3.54	1.88	1.20	0.94	6.94	7.93	5.32	2.71	1.71	0.88	1.25	739
		AVG	4.97	5.19	3.50	1.86	1.17	0.96	7.00	8.00	5.30	2.74	1.74	0.88	1.25	722
22	38.00	32 R	5.04	5.49	3.61	2.09	1.39	0.92	7.02	8.31	5.63	3.19	2.03	0.84	1.25	702
		32 R	4.98	5.49	3.75	2.07	1.36	0.91	6.94	8.29	5.62	3.29	2.14	0.84	1.25	700
		AVG	5.01	5.49	3.68	2.08	1.38	0.91	6.98	8.30	5.63	3.24	2.09	0.84	1.25	701
23	40.00	32 R	5.04	6.70	4.54	2.43	1.61	0.75	6.96	10.29	6.93	3.66	2.46	0.68	1.25	535
		32 R	4.98	6.90	4.69	2.50	1.63	0.72	6.94	10.23	6.91	3.77	2.44	0.68	1.25	589
		AVG	5.01	6.80	4.62	2.47	1.62	0.74	6.95	10.26	6.92	3.72	2.45	0.68	1.25	562
24	42.00	32 R	5.00	4.54	3.02	1.75	1.17	1.10	6.98	6.85	4.64	2.52	1.68	1.02	1.25	857
		32 R	5.02	4.69	3.15	1.81	1.16	1.07	7.02	6.98	4.47	2.59	1.72	1.01	1.25	873
		AVG	5.01	4.62	3.09	1.78	1.17	1.09	7.00	6.92	4.56	2.56	1.70	1.01	1.25	865
25	44.00	32 R	4.98	6.30	3.90	1.73	1.03	0.79	7.04	9.52	6.10	2.72	1.51	0.74	1.25	640
		32 R	4.98	6.30	4.00	1.74	1.02	0.79	6.94	9.47	6.02	2.65	1.53	0.73	1.25	618
		AVG	4.98	6.30	3.95	1.74	1.03	0.79	6.99	9.50	6.06	2.69	1.52	0.74	1.25	629
26	46.00	32 R	4.96	8.46	5.15	2.11	1.28	0.59	7.02	13.56	8.13	3.24	1.85	0.52	1.25	404
		32 R	4.98	8.57	5.23	2.19	1.26	0.58	7.04	13.75	8.33	3.32	1.95	0.51	1.25	398
		AVG	4.97	8.52	5.19	2.15	1.27	0.58	7.03	13.66	8.23	3.28	1.90	0.51	1.25	401
27	48.00	32 R	5.02	4.65	2.83	1.40	0.89	1.08	7.06	7.16	4.33	2.11	1.33	0.99	1.25	813
		32 R	4.98	4.65	2.85	1.37	0.88	1.07	6.94	7.04	4.33	2.04	1.28	0.99	1.25	820
		AVG	5.00	4.65	2.84	1.39	0.89	1.08	7.00	7.10	4.33	2.08	1.31	0.99	1.25	816
28	50.00	32 R	4.98	4.33	2.64	1.35	0.95	1.15	6.98	6.66	4.08	2.02	1.35	1.05	1.38	858
		32 R	5.04	4.42	2.68	1.41	0.94	1.14	6.96	6.66	4.05	2.03	1.30	1.05	1.38	857
		AVG	5.01	4.38	2.66	1.38	0.95	1.15	6.97	6.66	4.07	2.03	1.33	1.05	1.38	858
29	52.00	32 R	5.02	4.53	2.37	1.27	0.91	1.11	6.94	6.83	3.54	1.93	1.33	1.02	1.42	835
		32 R	4.96	4.55	2.29	1.27	0.90	1.09	7.02	6.85	3.46	1.87	1.35	1.02	1.42	896
		AVG	4.99	4.54	2.33	1.27	0.91	1.10	6.98	6.84	3.50	1.90	1.34	1.02	1.42	865

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
30	54.00	32 R	5.00	4.23	2.54	1.55	1.13	1.18	6.98	6.43	3.84	2.35	1.71	1.09	1.42	900
		32 R	5.04	4.34	2.54	1.59	1.15	1.16	7.04	6.53	3.99	2.24	1.62	1.08	1.42	913
		AVG	5.02	4.29	2.54	1.57	1.14	1.17	7.01	6.48	3.92	2.30	1.67	1.08	1.42	907
31	56.00	32 R	4.98	3.68	2.39	1.56	1.22	1.35	6.94	5.41	3.53	2.32	1.77	1.28	1.42	1133
		32 R	5.02	3.75	2.38	1.55	1.21	1.34	6.96	5.45	3.58	2.30	1.75	1.28	1.42	1141
		AVG	5.00	3.72	2.39	1.56	1.22	1.35	6.95	5.43	3.56	2.31	1.76	1.28	1.42	1137
32	58.00	32 R	5.02	4.20	2.72	1.85	1.54	1.20	7.06	6.29	4.23	2.71	2.21	1.12	1.42	976
		32 R	4.96	4.22	2.95	1.98	1.60	1.18	6.98	6.20	4.22	2.81	2.19	1.13	1.42	1020
		AVG	4.99	4.21	2.84	1.92	1.57	1.19	7.02	6.25	4.23	2.76	2.20	1.12	1.42	998
33	60.00	32 R	4.96	6.30	4.37	2.73	2.11	0.79	6.94	9.19	6.38	3.97	3.02	0.76	1.42	685
		32 R	4.96	6.38	4.46	2.71	2.09	0.78	7.04	9.51	6.65	4.08	3.18	0.74	1.42	665
		AVG	4.96	6.34	4.42	2.72	2.10	0.78	6.99	9.35	6.52	4.03	3.10	0.75	1.42	675
34	62.00	32 R	4.96	5.70	3.61	2.13	1.62	0.87	7.04	8.85	5.60	3.23	2.36	0.80	1.42	660
		32 R	5.04	5.83	3.76	2.23	1.65	0.86	6.98	8.79	5.73	3.24	2.45	0.79	1.42	655
		AVG	5.00	5.77	3.69	2.18	1.64	0.87	7.01	8.82	5.67	3.24	2.41	0.79	1.42	658
35	64.00	32 R	4.98	5.67	3.57	1.96	1.43	0.88	7.02	8.55	5.43	2.98	2.12	0.82	1.42	708
		32 R	5.00	5.71	3.51	1.98	1.42	0.88	6.98	8.52	5.49	3.04	2.02	0.82	1.42	705
		AVG	4.99	5.69	3.54	1.97	1.43	0.88	7.00	8.54	5.46	3.01	2.07	0.82	1.42	706
37	31.00	6.5 R	4.96	4.40	2.97	1.65	1.14	1.13	6.98	6.72	4.54	2.47	1.72	1.04	1.25	871
		6.5 R	4.96	4.45	2.91	1.17		1.11	6.94	6.74	4.61	2.51	1.68	1.03	1.25	865
		AVG	4.96	4.43	2.94	1.41	1.14	1.12	6.96	6.73	4.58	2.49	1.70	1.03	1.25	868
38	33.00	6.5 R	5.00	4.81	3.35	1.85	1.23	1.04	7.02	7.47	5.21	3.02	1.90	0.94	1.25	759
		6.5 R	5.02	4.92	3.25	1.86	1.27	1.02	7.04	7.57	5.30	3.03	2.00	0.93	1.25	762
		AVG	5.01	4.87	3.30	1.86	1.25	1.03	7.03	7.52	5.26	3.03	1.95	0.93	1.25	761
39	35.00	6.5 R	4.96	5.11	3.28	1.74	1.16	0.97	6.9[illegible]	7.87	5.04	2.70	1.75	0.89	1.25	732
		6.5 R	4.98	5.16	3.28	1.79	1.19	0.97	7.02	7.95	5.03	2.76	1.82	0.88	1.25	731
		AVG	4.97	5.14	3.28	1.77	1.18	0.97	7.00	7.91	5.04	2.73	1.79	0.88	1.25	732

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
40	37.15	6.5 R	5.04	4.20	2.66	1.54	1.05	1.20	6.98	6.20	4.07	2.39	1.58	1.13	1.25	970
		6.5 R	4.96	4.10	2.72	1.56	1.05	1.21	6.94	6.22	4.06	2.39	1.53	1.12	1.25	934
		AVG	5.00	4.15	2.69	1.55	1.05	1.20	6.96	6.21	4.07	2.39	1.56	1.12	1.25	952
41	39.00	6.5 R	4.96	4.44	2.93	1.73	1.20	1.12	6.96	6.87	4.54	2.74	1.82	1.01	1.25	823
		6.5 R	4.96	4.56	3.03	1.78	1.25	1.09	6.94	6.95	4.37	2.58	1.80	1.00	1.25	828
		AVG	4.96	4.50	2.98	1.76	1.23	1.10	6.95	6.91	4.46	2.66	1.81	1.01	1.25	826
42	41.00	6.5 R	4.98	4.35	3.09	1.96	1.37	1.14	6.98	6.62	4.53	2.89	2.09	1.05	1.25	881
		6.5 R	5.00	4.45	3.07	1.94	1.39	1.12	7.04	6.74	4.68	2.95	2.10	1.04	1.25	891
		AVG	4.99	4.40	3.08	1.95	1.38	1.13	7.01	6.68	4.61	2.92	2.10	1.05	1.25	886
43	43.00	6.5 R	4.98	3.90	2.66	1.58	1.15	1.28	7.06	6.03	4.07	2.40	1.73	1.17	1.25	977
		6.5 R	4.96	4.01	2.71	1.64	1.16	1.24	6.98	6.09	3.85	2.32	1.68	1.15	1.25	971
		AVG	4.97	3.96	2.69	1.61	1.16	1.26	7.02	6.06	3.96	2.36	1.71	1.16	1.25	974
44	45.00	6.5 R	4.98	4.31	2.78	1.62	1.13	1.16	7.04	6.63	4.62	2.69	1.71	1.06	1.25	888
		6.5 R	5.02	4.41	2.98	1.72	1.16	1.14	6.94	6.53	4.47	2.61	1.77	1.06	1.25	906
		AVG	5.00	4.36	2.88	1.67	1.15	1.15	6.99	6.58	4.55	2.65	1.74	1.06	1.25	897
45	47.00	6.5 R	5.00	5.96	3.78	1.87	1.19	0.84	7.04	9.40	5.96	2.88	1.80	0.75	1.25	593
		6.5 R	5.02	6.00	3.82	1.85	1.18	0.84	7.02	9.36	5.99	2.84	1.86	0.75	1.25	595
		AVG	5.01	5.98	3.80	1.86	1.19	0.84	7.03	9.38	5.98	2.86	1.83	0.75	1.25	594
46	49.00	6.5 R	5.00	4.00	2.52	1.43	0.99	1.25	6.96	6.08	3.98	2.23	1.44	1.14	1.37	942
		6.5 R	4.98	4.00	2.59	1.44	0.99	1.25	6.98	6.15	3.88	2.19	1.47	1.13	1.37	930
		AVG	4.99	4.00	2.56	1.44	0.99	1.25	6.97	6.12	3.93	2.21	1.46	1.14	1.37	936
47	51.00	6.5 R	5.00	3.16	2.06	1.31	0.96	1.58	7.00	4.76	3.07	1.98	1.46	1.47	1.41	1250
		6.5 R	5.00	3.17	2.05	1.29	0.97	1.58	6.96	4.77	3.14	1.98	1.42	1.46	1.41	1225
		AVG	5.00	3.17	2.06	1.30	0.97	1.58	6.98	4.77	3.11	1.98	1.44	1.46	1.41	1238
48	53.00	6.5 R	4.98	3.37	2.05	1.29	0.98	1.48	7.02	5.07	3.17	1.99	1.48	1.38	1.41	1200
		6.5 R	5.00	3.40	2.14	1.34	1.00	1.47	7.04	5.12	3.23	2.01	1.46	1.38	1.41	1186
		AVG	4.99	3.39	2.10	1.32	0.99	1.47	7.03	5.10	3.20	2.00	1.47	1.38	1.41	1193
49	55.00	6.5 R	5.00	2.30	1.53	1.16	1.00	2.17	6.94	3.32	2.26	1.72	1.41	2.09	1.41	1902
		6.5 R	5.02	2.33	1.56	1.18	1.04	2.15	6.98	3.32	2.14	1.64	1.42	2.10	1.41	1980
		AVG	5.01	2.32	1.55	1.17	1.02	2.16	6.96	3.32	2.20	1.68	1.42	2.10	1.41	1941

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
50	57.00	6.5 R	5.02	3.46	2.47	1.69	1.33	1.45	7.00	5.38	3.75	2.50	2.00	1.30	1.41	1031
		6.5 R	5.04	3.66	2.46	1.66	1.36	1.38	7.06	5.44	3.77	2.58	2.03	1.30	1.41	1135
		AVG	5.03	3.56	2.47	1.68	1.35	1.41	7.03	5.41	3.76	2.54	2.02	1.30	1.41	1083
51	59.00	6.5 R	4.96	4.23	2.85	2.01	1.75	1.17	7.02	6.36	4.40	3.05	2.55	1.10	1.41	967
		6.5 R	5.04	4.39	3.04	2.12	1.81	1.15	7.00	6.41	4.42	3.07	2.58	1.09	1.41	970
		AVG	5.00	4.31	2.95	2.07	1.78	1.16	7.01	6.39	4.41	3.06	2.57	1.10	1.41	969
52	61.00	6.5 R	5.02	4.65	3.17	2.19	1.79	1.08	7.04	6.99	4.77	3.15	2.54	1.01	1.45	863
		6.5 R	4.96	4.64	3.20	2.22	1.78	1.07	6.96	6.93	4.52	3.19	2.57	1.00	1.45	873
		AVG	4.99	4.65	3.19	2.21	1.79	1.07	7.00	6.96	4.65	3.17	2.56	1.01	1.45	868
53	63.00	6.5 R	4.98	4.65	2.76	1.56	1.22	1.07	7.06	7.37	4.35	2.52	1.89	0.96	1.45	765
		6.5 R	4.96	4.77	2.87	1.64	1.25	1.04	6.96	7.44	4.38	2.53	1.90	0.94	1.45	749
		AVG	4.97	4.71	2.82	1.60	1.24	1.06	7.01	7.41	4.37	2.53	1.90	0.95	1.45	757
54	65.00	6.5 R	4.98	4.75	2.69	1.40	1.05	1.05	7.00	7.55	4.24	2.21	1.63	0.93	1.45	721
		6.5 R	5.00	4.82	2.75	1.44	1.10	1.04	6.98	7.52	4.27	2.21	1.56	0.93	1.45	733
		AVG	4.99	4.79	2.72	1.42	1.08	1.04	6.99	7.54	4.26	2.21	1.60	0.93	1.45	727
55	32.00	18 L	5.04	5.95	3.85	1.84	1.13	0.85	7.00	8.89	5.68	2.85	1.70	0.79	1.16	667
		18 L	4.98	5.90	3.66	1.81	1.12	0.84	6.96	8.72	5.60	2.80	1.68	0.80	1.16	702
		AVG	5.01	5.93	3.76	1.83	1.13	0.85	6.98	8.81	5.64	2.83	1.69	0.79	1.16	684
56	34.00	18 L	5.04	6.86	4.30	1.91	1.21	0.73	7.02	11.12	6.90	3.04	1.89	0.63	1.16	465
		18 L	5.04	7.14	4.34	1.93	1.20	0.71	7.00	11.33	7.09	3.06	1.88	0.62	1.16	468
		AVG	5.04	7.00	4.32	1.92	1.21	0.72	7.01	11.23	7.00	3.05	1.89	0.62	1.16	466
57	36.00	18 L	5.00	5.50	3.51	1.72	1.06	0.91	7.04	8.59	5.45	2.72	1.61	0.82	1.16	660
		18 L	4.96	5.50	3.45	1.70	1.04	0.90	6.98	8.65	5.34	2.63	1.55	0.81	1.16	641
		AVG	4.98	5.50	3.48	1.71	1.05	0.91	7.01	8.62	5.40	2.68	1.58	0.81	1.16	651
58	38.00	18 L	5.02	4.79	3.07	1.70	1.16	1.05	6.98	7.30	4.65	2.53	1.72	0.96	1.16	781
		18 L	5.04	4.88	3.09	1.77	1.19	1.03	6.94	7.31	4.71	2.55	1.72	0.95	1.16	782
		AVG	5.03	4.84	3.08	1.74	1.18	1.04	6.96	7.31	4.68	2.54	1.72	0.95	1.16	781

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
59	40.00	18 L	5.04	5.26	3.56	2.15	1.47	0.96	6.96	7.82	5.50	3.34	2.28	0.89	1.16	750
		18 L	5.04	5.35	3.62	2.18	1.53	0.94	7.04	7.98	5.42	3.40	2.30	0.88	1.16	760
		AVG	5.04	5.31	3.59	2.17	1.50	0.95	7.00	7.90	5.46	3.37	2.29	0.89	1.16	755
60	42.00	18 L	4.98	4.25	2.81	1.67	1.16	1.17	7.04	6.51	4.33	2.59	1.78	1.08	1.09	912
		18 L	4.96	4.23	2.86	1.73	1.15	1.17	6.94	6.32	4.22	2.61	1.80	1.10	1.09	947
		AVG	4.97	4.24	2.84	1.70	1.16	1.17	6.99	6.42	4.28	2.60	1.79	1.09	1.09	929
61	44.00	18 L	4.96	4.24	2.74	1.56	1.05	1.17	6.96	6.48	4.02	2.25	1.48	1.07	1.09	893
		18 L	4.98	4.30	2.80	1.56	1.05	1.16	7.04	6.58	4.06	2.30	1.53	1.07	1.09	904
		AVG	4.97	4.27	2.77	1.56	1.05	1.16	7.00	6.53	4.04	2.28	1.51	1.07	1.09	898
62	46.00	18 L	5.04	5.92	3.83	2.05	1.32	0.85	6.94	8.88	5.74	3.07	1.99	0.78	1.09	642
		18 L	4.98	5.93	3.92	2.10	1.35	0.84	6.98	9.06	5.91	3.19	1.93	0.77	1.09	639
		AVG	5.01	5.93	3.88	2.08	1.34	0.85	6.96	8.97	5.83	3.13	1.96	0.78	1.09	640
63	48.00	18 L	4.98	3.79	2.34	1.20	0.84	1.31	7.06	6.06	3.62	1.72	1.18	1.17	1.11	916
		18 L	5.04	3.91	2.37	1.21	0.86	1.29	6.94	5.94	3.56	1.79	1.18	1.17	1.11	936
		AVG	5.01	3.85	2.36	1.21	0.85	1.30	7.00	6.00	3.59	1.76	1.18	1.17	1.11	926
64	50.00	18 L	5.02	3.95	2.25	1.16	0.86	1.27	6.98	6.26	3.55	1.70	1.26	1.12	1.11	848
		18 L	5.00	3.97	2.31	1.21	0.90	1.26	7.06	6.40	3.56	1.74	1.25	1.10	1.11	848
		AVG	5.01	3.96	2.28	1.19	0.88	1.27	7.02	6.33	3.56	1.72	1.26	1.11	1.11	848
65	52.00	18 L	4.96	3.70	2.28	1.21	0.88	1.34	7.06	5.90	3.55	1.72	1.29	1.20	1.12	955
		18 L	5.00	3.78	2.25	1.18	0.89	1.32	7.06	5.93	3.69	1.79	1.30	1.19	1.12	958
		AVG	4.98	3.74	2.27	1.20	0.89	1.33	7.06	5.92	3.62	1.76	1.30	1.19	1.12	956
66	54.00	18 L	4.98	3.52	2.15	1.29	1.01	1.41	7.02	5.45	3.26	1.92	1.38	1.29	1.12	1057
		18 L	4.96	3.53	2.17	1.26	0.96	1.41	6.98	5.44	3.24	1.91	1.45	1.28	1.12	1058
		AVG	4.97	3.53	2.16	1.28	0.99	1.41	7.00	5.45	3.25	1.92	1.42	1.29	1.12	1057
67	56.00	18 L	4.96	3.26	2.31	1.59	1.33	1.52	6.94	4.78	3.39	2.24	1.78	1.45	1.12	1303
		18 L	4.98	3.28	2.35	1.63	1.32	1.52	7.02	4.83	3.44	2.38	1.91	1.45	1.12	1316
		AVG	4.97	3.27	2.33	1.61	1.33	1.52	6.98	4.81	3.42	2.31	1.85	1.45	1.12	1309
68	58.00	18 L	5.04	3.46	2.25	1.40	1.12	1.46	6.98	5.09	3.39	2.07	1.58	1.37	1.12	1190
		18 L	5.04	3.46	2.24	1.41	1.10	1.46	7.04	5.16	3.41	2.11	1.62	1.36	1.12	1176
		AVG	5.04	3.46	2.25	1.41	1.11	1.46	7.01	5.13	3.40	2.09	1.60	1.37	1.12	1183

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
69	60.00	18 L	4.98	6.32	4.49	2.87	2.25	0.79	7.02	9.51	6.60	4.24	3.25	0.74	1.12	639
		18 L	5.00	6.39	4.33	2.83	2.21	0.78	6.94	9.45	6.65	4.24	3.22	0.73	1.12	634
		AVG	4.99	6.36	4.41	2.85	2.23	0.79	6.98	9.48	6.63	4.24	3.24	0.74	1.12	637
70	62.00	18 L	4.98	5.03	3.29	1.90	1.45	0.99	6.94	7.81	5.13	2.94	2.17	0.89	1.12	705
71	64.00	18 L	4.96	4.64	3.04	1.75	1.28	1.07	7.02	7.28	4.65	2.69	1.97	0.96	1.12	780
		18 L	4.98	4.77	3.14	1.76	1.30	1.04	7.02	7.34	4.73	2.73	2.00	0.96	1.12	794
		AVG	4.97	4.71	3.09	1.76	1.29	1.06	7.02	7.31	4.69	2.71	1.99	0.96	1.12	787
73	31.00	43 L	4.98	7.50	4.76	1.90	1.12	0.66	6.98	12.19	7.87	2.97	1.73	0.57	1.10	426
		43 L	5.02	7.84	5.24	2.04	1.17	0.64	6.94	12.27	8.17	3.10	1.69	0.57	1.10	433
		AVG	5.00	7.67	5.00	1.97	1.15	0.65	6.96	12.23	8.02	3.04	1.71	0.57	1.10	430
74	33.00	43 L	5.00	6.89	4.28	1.97	1.19	0.73	7.00	11.01	6.71	3.16	1.87	0.64	1.10	485
		43 L	5.00	6.99	4.38	2.06	1.24	0.72	7.00	11.06	6.74	3.02	1.78	0.63	1.10	491
		AVG	5.00	6.94	4.33	2.02	1.22	0.72	7.00	11.04	6.73	3.09	1.83	0.63	1.10	488
75	35.00	43 L	4.96	5.78	3.99	2.08	1.22	0.86	6.94	8.59	5.78	2.93	1.79	0.81	1.10	705
		43 L	5.02	5.85	4.01	2.03	1.22	0.86	7.00	8.79	5.93	3.00	1.84	0.80	1.10	673
		AVG	4.99	5.82	4.00	2.06	1.22	0.86	6.97	8.69	5.86	2.97	1.82	0.80	1.10	689
76	37.15	43 L	5.02	6.96	4.49	2.21	1.33	0.72	7.02	10.81	6.99	3.57	2.15	0.65	1.10	519
		43 L	5.02	7.12	4.63	2.29	1.36	0.71	6.94	10.67	6.91	3.40	2.03	0.65	1.10	541
		AVG	5.02	7.04	4.56	2.25	1.35	0.71	6.98	10.74	6.95	3.49	2.09	0.65	1.10	530
77	39.00	43 L	4.98	5.89	3.84	1.94	1.22	0.85	6.94	8.92	5.95	2.98	1.83	0.78	1.10	647
		43 L	5.04	6.05	3.99	2.04	1.28	0.83	6.96	9.05	5.98	2.98	1.82	0.77	1.10	640
		AVG	5.01	5.97	3.92	1.99	1.25	0.84	6.95	8.99	5.97	2.98	1.83	0.77	1.10	643
78	41.00	43 L	5.00	5.03	3.36	1.90	1.27	0.99	6.98	7.60	5.01	2.84	1.87	0.92	1.10	770
		43 L	5.04	5.16	3.45	1.94	1.30	0.98	6.98	7.61	5.14	2.82	1.92	0.92	1.10	792
		AVG	5.02	5.10	3.41	1.92	1.29	0.99	6.98	7.61	5.08	2.83	1.90	0.92	1.10	781
79	43.00	43 L	5.04	5.32	3.51	1.85	1.18	0.95	6.94	7.92	5.22	2.86	1.81	0.88	1.10	731
		43 L	4.96	5.31	3.54	1.86	1.19	0.93	7.04	8.28	5.42	2.86	1.84	0.85	1.10	700
		AVG	5.00	5.32	3.53	1.86	1.19	0.94	6.99	8.10	5.32	2.86	1.83	0.86	1.10	716

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
80	45.00	43 L	4.98	5.83	3.66	2.00	1.37	0.85	7.02	9.16	5.70	3.12	2.10	0.77	1.10	613
		43 L	5.04	6.04	3.70	2.02	1.38	0.83	6.96	9.03	5.68	3.05	1.95	0.77	1.10	642
		AVG	5.01	5.94	3.68	2.01	1.38	0.84	6.99	9.10	5.69	3.09	2.03	0.77	1.10	627
81	47.00	43 L	5.00	8.04	4.90	2.00	1.13	0.62	6.94	12.41	7.29	2.86	1.63	0.56	1.10	444
		43 L	5.00	8.24	4.88	1.96	1.06	0.61	7.00	12.74	7.08	2.92	1.58	0.55	1.10	444
		AVG	5.00	8.14	4.89	1.98	1.10	0.61	6.97	12.58	7.19	2.89	1.61	0.55	1.10	444
82	49.00	43 L	4.96	5.81	3.59	1.77	1.08	0.85	6.98	9.35	5.90	2.57	1.52	0.75	1.12	571
		43 L	5.00	5.97	3.75	1.82	1.10	0.84	6.94	9.29	5.77	2.80	1.57	0.75	1.12	584
		AVG	4.98	5.89	3.67	1.80	1.09	0.85	6.96	9.32	5.79	2.69	1.55	0.75	1.12	577
83	51.00	43 L	4.98	3.91	2.64	1.65	1.21	1.27	7.02	6.01	3.90	2.37	1.72	1.17	1.13	971
		43 L	4.96	4.00	2.70	1.63	1.19	1.24	7.04	6.12	3.92	2.37	1.74	1.15	1.13	981
		AVG	4.97	3.96	2.67	1.64	1.20	1.26	7.03	6.07	3.91	2.37	1.73	1.16	1.13	976
84	53.00	43 L	4.98	4.70	2.70	1.39	1.00	1.06	6.94	6.93	4.03	1.97	1.43	1.00	1.13	879
		43 L	4.96	4.64	2.76	1.40	1.03	1.07	6.94	6.87	4.06	2.03	1.49	1.01	1.13	888
		AVG	4.97	4.67	2.73	1.40	1.02	1.06	6.94	6.90	4.05	2.00	1.46	1.01	1.13	883
85	55.00	43 L	4.96	2.67	1.91	1.37	1.18	1.86	6.94	3.85	2.77	1.94	1.65	1.80	1.13	1678
		43 L	4.98	2.68	1.92	1.37	1.18	1.86	7.04	3.93	2.81	1.91	1.61	1.79	1.13	1648
		AVG	4.97	2.68	1.92	1.37	1.18	1.86	6.99	3.89	2.79	1.93	1.63	1.80	1.13	1663
86	57.00	43 L	4.98	3.72	2.67	1.74	1.35	1.34	7.00	5.52	3.76	2.49	1.98	1.27	1.13	1122
		43 L	4.98	3.74	2.69	1.76	1.36	1.33	6.96	5.48	3.95	2.54	1.98	1.27	1.13	1138
		AVG	4.98	3.73	2.68	1.75	1.36	1.34	6.98	5.50	3.86	2.52	1.98	1.27	1.13	1130
87	59.00	43 L	4.98	4.17	2.85	1.87	1.51	1.19	7.02	6.26	4.29	2.74	2.18	1.12	1.13	976
		43 L	5.00	4.21	2.92	1.91	1.52	1.19	6.96	6.28	4.36	2.79	2.18	1.11	1.13	947
		AVG	4.99	4.19	2.89	1.89	1.52	1.19	6.99	6.27	4.33	2.77	2.18	1.11	1.13	961
88	61.00	43 L	4.98	6.05	4.16	2.56	1.90	0.82	6.96	9.27	6.38	3.88	2.82	0.75	1.14	615
		43 L	5.00	6.21	4.33	2.67	1.94	0.81	7.00	9.39	6.51	3.95	2.83	0.75	1.14	629
		AVG	4.99	6.13	4.25	2.62	1.92	0.81	6.98	9.33	6.45	3.92	2.83	0.75	1.14	622

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
89	63.00	43 L	4.96	5.00	3.12	1.75	1.33	0.99	6.96	7.64	4.75	2.60	1.92	0.91	1.14	758
		43 L	4.96	5.06	3.28	1.82	1.29	0.98	6.94	7.58	4.64	2.58	1.91	0.92	1.14	786
		AVG	4.96	5.03	3.20	1.79	1.31	0.99	6.95	7.61	4.70	2.59	1.92	0.91	1.14	772
90	65.00	43 L	5.00	5.07	3.13	1.73	1.27	0.99	6.96	7.67	4.67	2.56	1.84	0.91	1.14	754
		43 L	5.00	5.13	3.23	1.79	1.29	0.97	7.00	7.66	4.94	2.69	1.85	0.91	1.14	791
		AVG	5.00	5.10	3.18	1.76	1.28	0.98	6.98	7.67	4.81	2.63	1.85	0.91	1.14	772
91	32.00	68 L	4.96	4.47	2.97	1.76	1.20	1.11	6.94	6.60	2.60	1.84		1.05	1.11	930
		68 L	4.98	4.51	3.06	1.82	1.21	1.10	6.98	6.70	4.53	2.67	1.83	1.04	1.11	913
		AVG	4.97	4.49	3.02	1.79	1.21	1.11	6.96	6.65	3.57	2.26	1.83	1.05	1.11	921
92	34.00	68 L	5.00	3.38	2.38	1.38	0.98	1.48	6.96	4.92	3.47	2.11	1.43	1.41	1.11	1273
		68 L	5.00	3.38	2.39	1.42	1.03	1.48	7.00	4.95	3.49	2.14	1.50	1.41	1.11	1274
		AVG	5.00	3.38	2.39	1.40	1.01	1.48	6.98	4.94	3.48	2.13	1.47	1.41	1.11	1273
93	36.00	68 L	5.00	3.92	2.75	1.67	1.16	1.28	6.98	5.80	3.89	2.38	1.67	1.20	1.11	1053
		68 L	4.96	3.94	2.78	1.65	1.16	1.26	6.98	5.82	4.03	2.44	1.72	1.20	1.11	1074
		AVG	4.98	3.93	2.77	1.66	1.16	1.27	6.98	5.81	3.96	2.41	1.70	1.20	1.11	1064
94	38.00	68 L	5.02	3.68	2.61	1.71	1.28	1.36	7.04	5.45	3.90	2.52	1.78	1.29	1.11	1141
		68 L	5.00	3.69	2.66	1.70	1.26	1.36	7.02	5.50	3.95	2.42	1.77	1.28	1.11	1116
		AVG	5.01	3.69	2.64	1.71	1.27	1.36	7.03	5.48	3.93	2.47	1.78	1.28	1.11	1129
95	40.00	68 L	4.96	4.29	2.91	1.70	1.23	1.16	7.00	6.37	4.27	2.57	1.77	1.10	1.11	981
		68 L	4.96	4.31	2.94	1.74	1.20	1.15	7.00	6.42	4.23	2.54	1.74	1.09	1.11	967
		AVG	4.96	4.30	2.93	1.72	1.22	1.15	7.00	6.40	4.25	2.56	1.76	1.09	1.11	974
96	42.00	68 L	5.02	4.31	2.85	1.58	1.10	1.16	7.00	6.62	4.26	2.24	1.54	1.06	1.11	857
		68 L	5.02	4.39	2.88	1.58	1.11	1.14	7.02	6.59	4.20	2.27	1.56	1.07	1.11	909
		AVG	5.02	4.35	2.87	1.58	1.11	1.15	7.01	6.61	4.23	2.26	1.55	1.06	1.11	883
97	44.00	68 L	5.00	5.35	3.50	1.80	1.15	0.93	7.06	8.24	5.40	2.79	1.66	0.86	1.11	713
		68 L	4.98	5.43	3.62	1.87	1.17	0.92	7.02	8.21	5.13	2.75	1.74	0.86	1.11	734
		AVG	4.99	5.39	3.56	1.84	1.16	0.93	7.04	8.23	5.27	2.77	1.70	0.86	1.11	723
98	46.00	68 L	4.96	4.52	2.91	1.63	1.10	1.10	6.94	6.64	4.28	2.40	1.58	1.05	1.11	934
		68 L	5.00	4.62	2.94	1.65	1.11	1.08	6.94	6.73	4.33	2.40	1.61	1.03	1.11	919
		AVG	4.98	4.57	2.93	1.64	1.11	1.09	6.94	6.69	4.31	2.40	1.60	1.04	1.11	927

Table A-4 (Cont'd.)

TETERBORO FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	TCF	DSM kip/in
99	48.00	68 L	5.00	4.53	2.78	1.48	0.97	1.10	7.04	6.88	4.39	2.19	1.44	1.02	1.11	868
		68 L	5.00	4.56	2.89	1.51	0.97	1.10	7.02	6.84	4.29	2.21	1.43	1.03	1.11	886
		AVG	5.00	4.55	2.84	1.50	0.97	1.10	7.03	6.86	4.34	2.20	1.44	1.02	1.11	877
100	50.00	68 L	4.98	5.05	3.20	1.70	1.19	0.99	6.94	7.81	4.99	2.59	1.73	0.89	1.13	710
		68 L	4.96	5.12	3.29	1.75	1.17	0.97	7.04	8.02	4.77	2.50	1.66	0.88	1.13	717
		AVG	4.97	5.09	3.25	1.73	1.18	0.98	6.99	7.92	4.88	2.55	1.70	0.88	1.13	714
101	52.00	68 L	5.04	4.53	2.94	1.68	1.21	1.11	7.04	6.84	4.63	2.56	1.77	1.03	1.14	866
		68 L	5.00	4.51	3.04	1.73	1.24	1.11	7.04	6.90	4.66	2.56	1.79	1.02	1.14	854
		AVG	5.02	4.52	2.99	1.71	1.23	1.11	7.04	6.87	4.65	2.56	1.78	1.02	1.14	860
102	54.00	68 L	5.00	3.98	2.57	1.55	1.16	1.26	6.96	5.91	3.81	2.29	1.68	1.18	1.14	1016
		68 L	4.98	4.01	2.64	1.58	1.14	1.24	6.98	5.94	3.85	2.29	1.67	1.18	1.14	1036
		AVG	4.99	4.00	2.61	1.57	1.15	1.25	6.97	5.93	3.83	2.29	1.68	1.18	1.14	1026
103	56.00	68 L	5.04	3.66	2.60	1.74	1.35	1.38	6.94	5.13	3.59	2.41	1.83	1.35	1.14	1293
		68 L	4.98	3.61	2.57	1.71	1.31	1.38	6.94	5.13	3.65	2.43	1.86	1.35	1.14	1289
		AVG	5.01	3.64	2.59	1.73	1.33	1.38	6.94	5.13	3.62	2.42	1.85	1.35	1.14	1291
104	58.00	68 L	5.00	3.37	2.35	1.53	1.19	1.48	6.96	4.88	3.33	2.18	1.68	1.43	1.14	1298
		68 L	4.96	3.38	2.39	1.57	1.23	1.47	7.02	4.90	3.56	2.34	1.73	1.43	1.14	1355
		AVG	4.98	3.38	2.37	1.55	1.21	1.48	6.99	4.89	3.45	2.26	1.71	1.43	1.14	1327
105	60.00	68 L	4.96	4.84	3.11	1.76	1.33	1.02	6.96	7.25	4.70	2.78	2.02	0.96	1.14	830
		68 L	5.02	4.90	3.21	1.87	1.38	1.02	7.02	7.31	5.57	2.71	1.95	0.96	1.14	830
		AVG	4.99	4.87	3.16	1.82	1.36	1.02	6.99	7.28	5.14	2.75	1.99	0.96	1.14	830
106	62.00	68 L	5.02	6.47	3.46	1.86	1.29	0.78	7.02	9.80	4.85	2.60	1.84	0.72	1.14	601
		68 L	5.00	6.56	3.41	1.85	1.30	0.76	7.00	9.91	5.16	2.70	1.85	0.71	1.14	597
		AVG	5.01	6.52	3.44	1.86	1.30	0.77	7.01	9.86	5.01	2.65	1.85	0.71	1.14	599

TABLE A-5

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
1	0.50	15L	5.00	8.36	3.40	0.41	0.16	0.60	6.98	14.19	5.68	0.57	0.22	0.49	340
			4.98	8.56	3.52	0.42	0.16	0.58	7.00	14.15	5.57	0.56	0.20	0.49	361
		AVG	4.99	8.46	3.46	0.42	0.16	0.59	6.99	14.17	5.63	0.57	0.21	0.49	350
2	2.50	15L	4.96	7.89	2.68	0.21	0.03	0.63	7.04	13.38	4.42	0.32	0.08	0.53	379
			5.00	8.00	2.72	0.21	0.03	0.63	6.98	13.36	4.25	0.32	0.06	0.52	369
		AVG	4.98	7.95	2.70	0.21	0.03	0.63	7.01	13.37	4.34	0.32	0.07	0.52	374
3	4.50	15L	5.02	5.26	1.63	0.12	0.07	0.95	7.02	8.43	2.73	0.21	0.10	0.83	631
			5.00	5.25	1.74	0.14	0.07	0.95	6.94	8.17	2.71	0.25	0.10	0.85	664
		AVG	5.01	5.26	1.69	0.13	0.07	0.95	6.98	8.30	2.72	0.23	0.10	0.84	648
4	6.50	15L	4.96	10.30	4.13	0.83	0.21	0.48	6.94	17.96	7.30	1.21	0.28	0.39	258
			5.02	10.75	4.37	0.85	0.19	0.47	6.96	17.49	6.86	1.27	0.28	0.40	288
		AVG	4.99	10.53	4.25	0.84	0.20	0.47	6.95	17.73	7.08	1.24	0.28	0.39	273
5	8.50	15L	4.96	7.10	2.31	0.31	0.25	0.70	7.00	12.04	3.82	0.39	0.33	0.58	413
			5.04	7.13	2.39	0.31	0.25	0.71	7.06	12.09	3.68	0.39	0.32	0.58	407
		AVG	5.00	7.12	2.35	0.31	0.25	0.70	7.03	12.07	3.75	0.39	0.33	0.58	410
6	10.50	15L	5.00	8.04	3.28	0.51	0.04	0.62	6.98	13.79	5.48	0.86	0.07	0.51	344
			5.04	8.33	3.44	0.55	0.04	0.61	6.96	13.56	5.49	0.86	0.10	0.51	367
		AVG	5.02	8.19	3.36	0.53	0.04	0.61	6.97	13.68	5.49	0.86	0.09	0.51	356
7	12.50	15L	5.00	7.57	3.18	0.67	0.13	0.66	6.98	12.63	5.39	1.13	0.20	0.55	391
			5.02	7.70	3.29	0.71	0.13	0.65	6.96	12.48	5.22	1.11	0.18	0.56	406
		AVG	5.01	7.64	3.24	0.69	0.13	0.66	6.97	12.56	5.31	1.12	0.19	0.56	399
8	14.50	15L	4.98	6.59	2.95	0.59	0.04	0.76	7.02	11.30	4.79	0.95	0.06	0.62	433
			5.02	6.81	2.96	0.60	0.05	0.74	7.04	11.28	4.76	0.97	0.07	0.62	452
		AVG	5.00	6.70	2.96	0.60	0.05	0.75	7.03	11.29	4.78	0.96	0.07	0.62	443
9	16.50	15L	4.98	5.62	1.89	0.10	0.11	0.89	7.04	9.35	3.13	0.20	0.19	0.75	552
			5.04	5.60	1.88	0.11	0.11	0.90	6.96	9.07	3.10	0.22	0.18	0.77	553
		AVG	5.01	5.61	1.89	0.11	0.11	0.89	7.00	9.21	3.12	0.21	0.19	0.76	553
10	18.50	15L	4.98	9.91	4.51	2.16	1.38	0.50	6.98	17.07	7.51	3.43	2.19	0.41	279
			4.98	10.21	4.70	2.16	1.40	0.49	7.02	16.99	7.25	3.35	2.12	0.41	301
		AVG	4.98	10.06	4.61	2.16	1.39	0.50	7.00	17.03	7.38	3.39	2.16	0.41	290

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
11	20.50	15L	4.98	9.64	4.20	1.56	0.94	0.52	7.00	16.70	6.90	2.32	1.39	0.42	286
			5.02	9.91	4.37	1.58	0.96	0.51	6.94	15.95	6.61	2.29	1.37	0.44	318
		AVG	5.00	9.78	4.29	1.57	0.95	0.51	6.97	16.33	6.76	2.31	1.38	0.43	302
19	1.00	5L	5.04	8.58	3.53	0.73	0.15	0.59	6.94	13.88	5.60	1.13	0.20	0.50	358
			4.98	8.73	3.65	0.81	0.16	0.57	6.98	14.11	5.76	1.20	0.20	0.49	372
		AVG	5.01	8.66	3.59	0.77	0.16	0.58	6.96	14.00	5.68	1.17	0.20	0.50	365
20	2.05	5L	4.96	6.89	2.49	0.26	0.08	0.72	6.94	11.65	4.12	0.38	0.16	0.60	416
			4.98	7.02	2.45	0.27	0.07	0.71	7.00	11.60	4.06	0.39	0.15	0.60	441
		AVG	4.97	6.96	2.47	0.27	0.08	0.71	6.97	11.63	4.09	0.39	0.16	0.60	429
21	3.00	5L	5.00	7.06	1.72	0.10	0.08	0.71	6.96	11.84	2.72	0.05	0.05	0.59	410
			4.98	7.04	1.77	0.08	0.04	0.71	7.06	12.02	2.80	0.05	0.06	0.59	418
		AVG	4.99	7.05	1.75	0.09	0.06	0.71	7.01	11.93	2.76	0.05	0.06	0.59	414
22	4.10	5L	5.02	8.19	2.84	0.32	0.08	0.61	6.94	13.60	4.63	0.47	0.20	0.51	355
			4.96	8.01	2.90	0.34	0.08	0.62	7.02	14.21	4.84	0.50	0.20	0.49	332
		AVG	4.99	8.10	2.87	0.33	0.08	0.62	6.98	13.91	4.74	0.49	0.20	0.50	344
23	5.00	5L	4.98	7.54	2.53	0.18	0.12	0.66	7.02	12.88	4.23	0.26	0.26	0.55	382
			4.96	7.61	2.62	0.19	0.13	0.65	6.94	12.78	4.31	0.26	0.25	0.54	383
		AVG	4.97	7.58	2.58	0.19	0.13	0.66	6.98	12.83	4.27	0.26	0.26	0.54	383
24	6.00	5L	5.02	7.92	3.11	0.54	0.06	0.63	6.94	12.94	4.98	0.84	0.10	0.54	382
			4.98	8.23	3.19	0.55	0.06	0.61	7.02	13.27	5.02	0.85	0.08	0.53	405
		AVG	5.00	8.08	3.15	0.55	0.06	0.62	6.98	13.11	5.00	0.85	0.09	0.53	394
25	7.00	5L	4.98	8.72	2.94	0.57	0.37	0.57	7.00	14.43	4.68	0.74	0.50	0.49	354
			5.02	8.95	2.94	0.56	0.37	0.56	6.94	14.31	4.63	0.70	0.45	0.48	358
		AVG	5.00	8.84	2.94	0.57	0.37	0.57	6.97	14.37	4.66	0.72	0.48	0.49	356
26	8.00	5L	4.98	10.98	4.85	1.37	0.55	0.45	7.02	18.66	7.91	2.02	0.69	0.38	266
			4.96	11.12	4.92	1.37	0.57	0.45	6.94	18.18	7.82	2.04	0.72	0.38	280
		AVG	4.97	11.05	4.89	1.37	0.56	0.45	6.98	18.42	7.87	2.03	0.71	0.38	273
27	9.00	5L	4.96	8.22	3.31	0.69	0.13	0.60	7.02	13.87	5.18	1.06	0.16	0.51	365
			4.96	8.35	3.43	0.77	0.14	0.59	6.94	13.52	5.39	1.16	0.18	0.51	383
		AVG	4.96	8.29	3.37	0.73	0.14	0.60	6.98	13.70	5.29	1.11	0.17	0.51	374
28	10.00	5L	4.96	9.18	3.62	0.68	0.04	0.54	6.94	15.81	6.44	1.16	0.12	0.44	299
			5.00	9.57	3.96	0.77	0.07	0.52	6.98	15.68	6.32	1.17	0.11	0.45	324
		AVG	4.98	9.38	3.79	0.73	0.06	0.53	6.96	15.75	6.38	1.17	0.12	0.44	311

Table A-5 (Cont.d)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
29	11.00	5L	5.00	7.43	2.91	0.59	0.10	0.67	7.06	12.44	4.63	0.90	0.15	0.57	411
			5.00	7.58	3.10	0.62	0.09	0.66	7.00	12.03	4.83	0.93	0.15	0.58	449
		AVG	5.00	7.51	3.01	0.61	0.10	0.67	7.03	12.24	4.73	0.92	0.15	0.57	430
30	12.00	5L	4.98	7.66	3.33	0.78	0.11	0.65	7.06	13.30	5.79	1.35	0.17	0.53	369
			4.98	8.07	3.52	0.79	0.11	0.62	6.98	13.06	5.67	1.33	0.19	0.53	401
		AVG	4.98	7.87	3.43	0.79	0.11	0.63	7.02	13.18	5.73	1.34	0.18	0.53	385
31	13.00	5L	4.98	8.55	3.12	0.78	0.34	0.58	7.02	14.80	5.04	1.10	0.44	0.47	326
			4.98	8.76	3.31	0.81	0.35	0.57	7.06	14.68	5.17	1.16	0.48	0.48	351
		AVG	4.98	8.66	3.22	0.80	0.35	0.58	7.04	14.74	5.11	1.13	0.46	0.48	339
32	14.00	5L	4.98	10.65	3.89	0.72	0.20	0.47	6.98	17.87	6.33	1.00	0.24	0.39	277
			4.96	10.80	4.06	0.75	0.19	0.46	7.00	17.88	6.48	1.03	0.24	0.39	288
		AVG	4.97	10.73	3.98	0.74	0.20	0.46	6.99	17.88	6.41	1.02	0.24	0.39	283
33	15.00	5L	5.02	8.89	3.08	0.65	0.29	0.56	6.94	14.91	4.99	0.91	0.37	0.47	319
			4.96	8.90	3.18	0.65	0.26	0.56	7.04	15.14	5.07	0.96	0.38	0.46	333
		AVG	4.99	8.90	3.13	0.65	0.28	0.56	6.99	15.03	5.03	0.94	0.38	0.47	326
34	16.00	5L	4.98	6.37	2.07	0.31	0.06	0.78	7.06	10.67	3.32	0.44	0.06	0.66	484
			4.96	6.35	2.13	0.31	0.05	0.78	6.98	10.33	3.28	0.44	0.06	0.68	508
		AVG	4.97	6.36	2.10	0.31	0.06	0.78	7.02	10.50	3.30	0.44	0.06	0.67	496
35	17.00	5L	4.96	6.87	2.26	0.26	0.05	0.72	7.00	11.64	3.79	0.44	0.12	0.60	428
			4.98	6.97	2.33	0.30	0.05	0.71	6.94	11.37	3.84	0.45	0.10	0.61	445
		AVG	4.97	6.92	2.30	0.28	0.05	0.72	6.97	11.51	3.82	0.45	0.11	0.61	437
36	18.00	5L	5.02	5.41	2.45	0.96	0.44	0.93	6.96	8.64	3.88	1.40	0.61	0.81	601
			5.00	5.47	2.39	0.93	0.43	0.91	7.00	8.72	3.92	1.50	0.63	0.80	615
		AVG	5.01	5.44	2.42	0.95	0.44	0.92	6.98	8.68	3.90	1.45	0.62	0.80	608
37	19.00	5L	4.96	8.81	4.74	2.34	1.48	0.56	6.94	14.45	7.60	3.57	2.17	0.48	351
			4.96	8.93	4.96	2.44	1.49	0.56	7.04	14.46	7.60	3.45	2.12	0.49	376
		AVG	4.96	8.87	4.85	2.39	1.49	0.56	6.99	14.46	7.60	3.51	2.15	0.48	364
38	20.00	5L	5.02	8.57	4.00	1.84	1.13	0.59	7.02	14.22	6.31	2.76	1.66	0.49	354
			5.02	8.85	4.05	1.84	1.15	0.57	7.04	13.95	6.26	2.78	1.68	0.50	396
		AVG	5.02	8.71	4.03	1.84	1.14	0.58	7.03	14.09	6.29	2.77	1.67	0.50	375

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
39	21.00	5L	4.96	8.23	4.12	1.90	1.15	0.60	6.98	13.41	6.30	2.80	1.61	0.52	390
			5.00	8.40	4.14	1.86	1.12	0.60	6.94	13.29	6.28	2.76	1.62	0.52	397
		AVG	4.98	8.32	4.13	1.88	1.14	0.60	6.96	13.35	6.29	2.78	1.62	0.52	393
54	1.50	5R	4.98	8.35	3.18	0.59	0.10	0.60	7.02	14.31	5.34	0.85	0.12	0.49	342
			5.00	8.76	3.50	0.65	0.10	0.57	7.00	14.33	5.21	0.86	0.12	0.49	359
		AVG	4.99	8.56	3.34	0.62	0.10	0.58	7.01	14.32	5.28	0.86	0.12	0.49	351
55	2.50	5R	5.04	7.90	2.67	0.35	0.04	0.64	6.94	12.59	4.23	0.48	0.08	0.55	405
			4.98	7.95	2.82	0.36	0.04	0.63	6.96	12.63	4.15	0.50	0.06	0.55	423
		AVG	5.01	7.93	2.75	0.36	0.04	0.63	6.95	12.61	4.19	0.49	0.07	0.55	414
56	3.50	5R	4.96	7.25	2.66	0.50	0.12	0.68	6.94	11.88	4.23	0.69	0.15	0.58	428
			5.04	7.39	2.74	0.53	0.12	0.68	6.96	12.14	4.44	0.77	0.14	0.57	404
		AVG	5.00	7.32	2.70	0.52	0.12	0.68	6.95	12.01	4.34	0.73	0.15	0.58	416
57	4.50	5R	5.02	9.09	3.31	0.43	0.05	0.55	6.94	15.32	5.37	0.65	0.15	0.45	308
			5.00	9.30	3.54	0.49	0.06	0.54	7.00	15.52	5.69	0.69	0.15	0.45	322
		AVG	5.01	9.20	3.43	0.46	0.06	0.54	6.97	15.42	5.53	0.67	0.15	0.45	315
58	5.50	5R	4.96	7.83	2.85	0.38	0.05	0.63	7.00	13.15	4.79	0.60	0.09	0.53	383
			5.00	8.13	3.04	0.42	0.05	0.62	6.98	13.06	4.70	0.60	0.08	0.53	402
		AVG	4.98	7.98	2.95	0.40	0.05	0.62	6.99	13.11	4.75	0.60	0.09	0.53	393
59	6.50	5R	4.98	9.06	3.56	0.45	0.08	0.55	7.00	15.75	5.81	0.73	0.20	0.44	302
			5.00	9.28	3.72	0.48	0.09	0.54	6.94	15.54	6.04	0.77	0.19	0.45	310
		AVG	4.99	9.17	3.64	0.47	0.09	0.54	6.97	15.65	5.93	0.75	0.20	0.45	306
60	7.50	5R	4.98	9.87	3.86	0.85	0.40	0.50	7.02	16.36	6.19	1.17	0.48	0.43	314
			4.98	9.92	3.91	0.85	0.37	0.50	6.98	16.23	6.34	1.21	0.47	0.43	317
		AVG	4.98	9.90	3.89	0.85	0.39	0.50	7.00	16.30	6.27	1.19	0.48	0.43	316
61	8.50	5R	4.96	11.86	4.92	1.08	0.22	0.42	6.98	20.00	8.03	1.54	0.29	0.35	248
			4.98	11.90	4.98	1.10	0.22	0.42	6.94	20.00	8.16	1.54	0.30	0.35	242
		AVG	4.97	11.88	4.95	1.09	0.22	0.42	6.96	20.00	8.10	1.54	0.30	0.35	245
62	9.50	5R	5.00	9.64	3.78	0.80	0.15	0.52	6.98	16.47	6.70	1.32	0.17	0.42	290
			4.98	9.69	4.00	0.86	0.14	0.51	7.06	16.62	6.70	1.31	0.20	0.42	300
		AVG	4.99	9.67	3.89	0.83	0.15	0.52	7.02	16.55	6.70	1.32	0.19	0.42	295

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
63	10.50	5R	4.98	9.39	4.27	1.25	0.28	0.53	7.04	16.13	7.26	1.99	0.42	0.44	306
			4.96	9.63	4.49	1.30	0.29	0.52	7.06	16.15	7.46	2.10	0.42	0.44	322
		AVG	4.97	9.51	4.38	1.28	0.29	0.52	7.05	16.14	7.36	2.05	0.42	0.44	314
64	11.50	5R	5.04	7.48	2.91	0.48	0.04	0.67	7.02	12.41	4.74	0.79	0.06	0.57	402
			4.96	7.51	2.98	0.51	0.03	0.66	7.04	12.36	4.60	0.79	0.06	0.57	429
		AVG	5.00	7.50	2.95	0.50	0.04	0.67	7.03	12.39	4.67	0.79	0.06	0.57	415
65	12.50	5R	5.02	7.66	3.42	0.96	0.26	0.66	6.96	12.24	5.42	1.54	0.38	0.57	424
			4.96	7.68	3.35	0.97	0.26	0.65	7.00	12.47	5.57	1.50	0.38	0.56	426
		AVG	4.99	7.67	3.39	0.97	0.26	0.65	6.98	12.36	5.50	1.52	0.38	0.56	425
66	13.50	5R	4.96	8.88	2.88	0.74	0.38	0.56	6.98	15.54	4.71	1.03	0.49	0.45	303
			4.96	9.29	3.08	0.75	0.36	0.53	7.04	15.72	4.83	1.02	0.48	0.45	323
		AVG	4.96	9.09	2.98	0.75	0.37	0.55	7.01	15.63	4.77	1.03	0.49	0.45	313
67	14.50	5R	4.96	13.02	4.47	0.51	0.15	0.38	3.02	6.53	2.20	0.35	0.16	0.46	299
68	15.50	5R	4.96	7.59	2.14	0.36	0.16	0.65	7.02	13.47	3.58	0.55	0.23	0.52	350
			4.98	7.90	2.24	0.39	0.17	0.63	7.04	13.37	3.52	0.54	0.23	0.53	377
		AVG	4.97	7.75	2.19	0.38	0.17	0.64	7.03	13.42	3.55	0.55	0.23	0.52	363
69	16.50	5R	5.02	7.96	1.79	0.10	0.18	0.63	7.00	13.37	2.88	0.30	0.35	0.52	366
			5.02	8.06	1.96	0.11	0.19	0.62	7.06	13.61	2.95	0.30	0.36	0.52	368
		AVG	5.02	8.01	1.88	0.11	0.19	0.63	7.03	13.49	2.92	0.30	0.36	0.52	367
70	17.50	5R	4.96	6.10	1.65	0.15	0.05	0.81	6.94	10.09	2.56	0.18	0.04	0.69	496
			5.04	6.23	1.71	0.15	0.07	0.81	7.00	10.13	2.64	0.19	0.04	0.69	503
		AVG	5.00	6.17	1.68	0.15	0.06	0.81	6.97	10.11	2.60	0.19	0.04	0.69	499
71	18.50	5R	4.96	8.35	3.42	1.16	0.53	0.59	7.04	14.34	5.76	1.67	0.75	0.49	347
			4.96	8.48	3.52	1.20	0.55	0.58	6.96	14.11	5.71	1.76	0.79	0.49	355
		AVG	4.96	8.42	3.47	1.18	0.54	0.59	7.00	14.23	5.74	1.72	0.77	0.49	351
72	19.50	5R	5.04	11.73	4.98	2.01	1.17	0.43	7.04	20.00	8.38	3.15	1.72	0.35	242
			5.04	11.95	5.40	2.14	1.16	0.42	7.02	19.99	8.34	3.17	1.71	0.35	246
		AVG	5.04	11.84	5.19	2.08	1.17	0.43	7.03	20.00	8.36	3.16	1.72	0.35	244
73	20.50	5R	4.96	10.24	4.76	1.79	1.02	0.48	6.98	17.36	7.61	2.58	1.35	0.40	284
			5.04	10.57	4.85	1.81	0.96	0.48	6.96	17.56	7.26	2.58	1.38	0.40	275
		AVG	5.00	10.41	4.81	1.80	0.99	0.48	6.97	17.46	7.44	2.58	1.37	0.40	279

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
96	17.50	15R	5.00	6.87	2.02	0.09	0.04	0.73	7.06	11.65	3.35	0.10	0.09	0.61	431
			5.02	6.80	2.02	0.09	0.06	0.74	6.98	11.21	3.32	0.11	0.09	0.62	444
		AVG	5.01	6.84	2.02	0.09	0.05	0.73	7.02	11.43	3.34	0.11	0.09	0.61	438
97	19.50	15R	4.96	11.15	4.21	1.41	1.04	0.44	6.96	18.32	6.89	2.01	1.46	0.38	279
			4.98	10.76	4.27	1.47	1.05	0.46	6.98	18.05	6.79	2.05	1.43	0.39	274
		AVG	4.97	10.96	4.24	1.44	1.05	0.45	6.97	18.19	6.84	2.03	1.45	0.38	277
98	21.50	15R	4.98	8.83	4.13	1.43	0.95	0.56	7.04	15.28	7.01	2.21	1.31	0.46	319
12	22.50	15L	5.00	7.57	3.51	1.50	1.00	0.66	7.02	11.83	5.20	2.10	1.39	0.59	474
			5.00	7.55	3.62	1.54	1.00	0.66	6.94	11.72	5.37	2.16	1.41	0.59	465
		AVG	5.00	7.56	3.57	1.52	1.00	0.66	6.98	11.78	5.29	2.13	1.40	0.59	470
13	24.50	15L	5.00	10.09	5.44	2.47	1.21	0.50	7.02	17.01	8.94	3.89	1.83	0.41	292
			5.00	10.13	5.71	2.50	1.20	0.49	6.96	16.43	8.63	3.69	1.79	0.42	311
		AVG	5.00	10.11	5.58	2.49	1.21	0.49	6.99	16.72	8.79	3.79	1.81	0.42	302
14	26.50	15L	4.96	10.99	5.49	2.28	1.19	0.45	7.04	18.99	9.35	3.61	1.82	0.37	260
			5.00	11.32	5.74	2.34	1.16	0.44	6.94	18.64	8.75	3.38	1.71	0.37	265
		AVG	4.98	11.16	5.62	2.31	1.18	0.45	6.99	18.82	9.05	3.50	1.77	0.37	263
15	28.50	15L	5.00	5.60	2.15	0.46	0.19	0.89	7.04	9.15	3.34	0.67	0.24	0.77	575
			5.00	5.52	2.21	0.45	0.18	0.91	7.04	9.02	3.52	0.67	0.24	0.78	583
		AVG	5.00	5.56	2.18	0.46	0.19	0.90	7.04	9.09	3.43	0.67	0.24	0.77	579
16	30.50	15L	5.00	8.57	3.53	0.74	0.17	0.58	6.98	14.72	6.36	1.33	0.23	0.47	322
			5.02	8.57	3.60	0.79	0.18	0.59	6.98	14.39	5.88	1.23	0.24	0.49	337
		AVG	5.01	8.57	3.57	0.77	0.18	0.58	6.98	14.56	6.12	1.28	0.24	0.48	329
17	32.50	15L	4.96	9.02	3.90	1.62	1.04	0.55	6.96	14.90	6.56	2.55	1.58	0.47	340
			4.96	9.01	4.10	1.74	1.10	0.55	7.06	15.14	6.70	2.49	1.54	0.47	343
		AVG	4.96	9.02	4.00	1.68	1.07	0.55	7.01	15.02	6.63	2.52	1.56	0.47	341
18	34.50	15L	5.04	6.17	2.65	1.21	0.84	0.82	7.02	9.59	4.19	1.79	1.23	0.73	579
			4.96	6.20	2.69	1.21	0.82	0.80	7.02	9.83	4.12	1.77	1.23	0.71	567
		AVG	5.00	6.19	2.67	1.21	0.83	0.81	7.02	9.71	4.16	1.78	1.23	0.72	573
40	22.25	5L	5.02	6.79	3.44	1.58	0.93	0.74	7.04	10.88	5.46	2.29	1.37	0.65	494
			4.96	6.68	3.52	1.61	0.93	0.74	6.98	10.55	5.38	2.44	1.36	0.66	522
		AVG	4.99	6.74	3.48	1.60	0.93	0.74	7.01	10.72	5.42	2.37	1.37	0.65	508

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
41	23.00	5L	4.98	7.29	3.67	1.82	1.22	0.68	7.00	11.68	5.97	2.80	1.74	0.60	460
			5.02	7.48	3.85	1.87	1.26	0.67	6.98	11.50	5.70	2.64	1.72	0.61	488
		AVG	5.00	7.39	3.76	1.85	1.24	0.68	6.99	11.59	5.84	2.72	1.73	0.60	474
42	24.00	5L	4.96	8.74	4.33	1.99	1.27	0.57	6.96	14.61	6.89	3.02	1.83	0.48	341
			5.02	9.04	4.56	2.09	1.33	0.56	6.98	14.90	7.40	3.23	1.85	0.47	334
		AVG	4.99	8.89	4.45	2.04	1.30	0.56	6.97	14.76	7.15	3.13	1.84	0.47	338
43	25.00	5L	5.00	8.00	4.10	1.93	1.20	0.63	7.02	13.39	6.69	2.91	1.81	0.52	375
			4.96	8.21	4.26	1.98	1.20	0.60	7.02	13.42	6.81	2.85	1.71	0.52	395
		AVG	4.98	8.11	4.18	1.96	1.20	0.61	7.02	13.41	6.75	2.88	1.76	0.52	385
44	26.00	5L	5.02	9.42	5.07	2.27	1.19	0.53	7.04	16.08	8.34	3.66	1.83	0.44	303
			5.00	9.84	5.23	2.29	1.19	0.51	7.00	16.03	8.39	3.52	1.67	0.44	323
		AVG	5.01	9.63	5.15	2.28	1.19	0.52	7.02	16.06	8.37	3.59	1.75	0.44	313
45	27.00	5L	4.96	9.63	5.15	2.44	1.32	0.52	6.96	16.33	8.61	3.65	1.89	0.43	299
			5.02	10.18	5.50	2.49	1.32	0.49	6.98	16.34	8.84	3.68	1.98	0.43	318
		AVG	4.99	9.91	5.33	2.47	1.32	0.50	6.97	16.34	8.73	3.67	1.94	0.43	308
46	28.00	5L	5.04	7.20	3.23	1.06	0.48	0.70	6.96	11.68	5.15	1.59	0.66	0.60	429
			4.98	7.23	3.27	1.06	0.50	0.69	6.96	11.81	5.08	1.56	0.66	0.59	432
		AVG	5.01	7.22	3.25	1.06	0.49	0.69	6.96	11.75	5.12	1.58	0.66	0.59	430
47	29.00	5L	5.02	7.46	3.51	1.16	0.45	0.67	6.96	12.12	5.54	1.78	0.63	0.57	416
			5.02	7.30	3.38	1.12	0.44	0.69	6.98	12.18	5.53	1.86	0.64	0.57	402
		AVG	5.02	7.38	3.45	1.14	0.45	0.68	6.97	12.15	5.54	1.82	0.64	0.57	409
48	30.00	5L	4.98	8.49	4.02	1.28	0.39	0.59	6.94	14.61	6.62	2.10	0.62	0.48	320
			4.98	8.60	4.24	1.40	0.40	0.58	7.04	14.81	7.13	2.25	0.65	0.48	332
		AVG	4.98	8.55	4.13	1.34	0.40	0.58	6.99	14.71	6.88	2.18	0.64	0.48	326
49	31.00	5L	5.04	8.70	4.28	1.48	0.62	0.58	7.06	14.36	6.69	2.27	0.90	0.49	357
			4.98	8.64	4.34	1.53	0.60	0.58	6.94	14.38	6.88	2.30	0.90	0.48	341
		AVG	5.01	8.67	4.31	1.51	0.61	0.58	7.00	14.37	6.79	2.29	0.90	0.49	349
50	32.00	5L	5.02	7.12	3.10	1.06	0.47	0.71	7.06	12.07	5.00	1.65	0.69	0.58	412
			5.00	7.29	3.28	1.12	0.48	0.69	6.98	11.96	5.17	1.75	0.71	0.58	424
		AVG	5.01	7.21	3.19	1.09	0.48	0.70	7.02	12.02	5.09	1.70	0.70	0.58	418

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
51	33.00	5L	4.98	6.93	3.49	1.90	1.32	0.72	7.00	11.30	5.61	2.89	2.01	0.62	462
			5.02	6.88	3.60	1.88	1.30	0.73	7.00	11.29	5.58	2.87	1.96	0.62	449
		AVG	5.00	6.91	3.55	1.89	1.31	0.72	7.00	11.30	5.60	2.88	1.98	0.62	456
52	34.00	5L	5.00	8.45	4.37	2.17	1.42	0.59	7.02	14.18	7.20	3.50	2.14	0.50	353
			4.98	8.52	4.42	2.18	1.43	0.58	6.98	13.87	7.09	3.35	2.05	0.50	374
		AVG	4.99	8.49	4.40	2.18	1.43	0.59	7.00	14.03	7.15	3.43	2.10	0.50	363
75	22.50	5R	4.96	6.69	3.11	1.36	0.87	0.74	6.96	10.94	4.92	1.92	1.20	0.64	471
			4.96	6.78	3.18	1.39	0.87	0.73	7.02	10.99	5.08	2.07	1.23	0.64	489
		AVG	4.96	6.74	3.15	1.38	0.87	0.74	6.99	10.97	5.00	1.99	1.22	0.64	480
76	23.50	5R	4.96	8.06	4.27	2.21	1.43	0.62	7.00	13.25	6.73	3.45	2.15	0.53	393
			5.02	8.29	4.28	2.28	1.48	0.61	6.94	13.29	6.80	3.37	2.10	0.52	384
		AVG	4.99	8.18	4.28	2.25	1.46	0.61	6.97	13.27	6.77	3.41	2.13	0.53	389
77	24.50	5R	5.02	8.40	4.05	1.89	1.20	0.60	7.00	13.70	6.52	2.99	1.74	0.51	374
			5.02	8.17	4.09	1.90	1.14	0.61	7.00	13.41	6.80	3.06	1.68	0.52	378
		AVG	5.02	8.29	4.07	1.90	1.17	0.61	7.00	13.56	6.66	3.03	1.71	0.52	376
78	25 50	5R	5 02	9.38	5.32	2.62	1.66	0.54	6.98	15.30	8.50	4.24	2.52	0.46	331
			4.98	9.28	5.30	2.77	1.70	0.54	6.98	15.45	8.12	4.03	2.50	0.45	324
		AVG	5.00	9.33	5.31	2.70	1.68	0.54	6.98	15.38	8.31	4.14	2.51	0.45	328
79	26.50	5R	5.02	8.98	4.68	2.10	1.21	0.56	6.98	15.00	7.62	3.34	1.81	0.47	326
			5.00	9.01	4.88	2.24	1.20	0.55	7.06	15.10	7.78	3.21	1.73	0.47	338
		AVG	5.01	9.00	4.78	2.17	1.21	0.56	7.02	15.05	7.70	3.28	1.77	0.47	332
80	27.50	5R	4.96	7.97	3.88	1.80	1.04	0.62	6.96	12.97	6.58	2.90	1.58	0.54	400
			4.96	8.06	4.11	1.96	1.11	0.62	7.00	13.46	6.67	2.94	1.67	0.52	378
		AVG	4.96	8.02	4.00	1.88	1.08	0.62	6.98	13.22	6.63	2.92	1.63	0.53	389
81	28.50	5R	5.02	5.80	2.70	1.05	0.46	0.87	7.06	9.45	4.37	1.56	0.64	0.75	559
			5.04	5.95	2.69	1.02	0.45	0.85	6.96	9.30	4.39	1.59	0.66	0.75	573
		AVG	5.03	5.88	2.70	1.04	0.46	0.86	7.01	9.38	4.38	1.58	0.65	0.75	566
82	29.50	5R	5.02	6.65	2.96	0.86	0.17	0.75	7.06	11.38	5.13	1.48	0.24	0.62	431
			5.02	6.73	3.15	0.89	0.16	0.75	6.94	11.00	5.11	1.47	0.26	0.63	450
		AVG	5.02	6.69	3.06	0.88	0.17	0.75	7.00	11.19	5.12	1.48	0.25	0.63	440

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
74	21.50	5R	5.00	8.89	3.80	1.70	1.08	0.56	6.96	14.78	6.18	2.55	1.60	0.47	333
			4.96	9.03	3.93	1.66	1.06	0.55	7.04	14.89	6.07	2.54	1.55	0.47	355
		AVG	4.98	8.96	3.87	1.68	1.07	0.56	7.00	14.84	6.13	2.55	1.58	0.47	344
53	0.50	15R	5.00	8.48	1.78	0.04	0.02	0.59	7.02	13.75	2.70	0.16	0.05	0.51	383
			5.04	8.49	1.79	0.06	0.04	0.59	7.02	13.75	2.70	0.17	0.06	0.51	376
		AVG	5.02	8.49	1.79	0.05	0.03	0.59	7.02	13.75	2.70	0.17	0.06	0.51	380
88	1.50	15R	4.98	6.91	2.13	0.09	0.09	0.72	7.00	11.55	3.53	0.13	0.17	0.61	435
			4.96	7.03	2.20	0.09	0.09	0.71	7.02	11.65	3.36	0.13	0.17	0.60	446
		AVG	4.97	6.97	2.17	0.09	0.09	0.71	7.01	11.60	3.45	0.13	0.17	0.60	441
89	3.50	15R	5.02	8.89	2.37	0.14	0.04	0.56	6.98	15.46	4.17	0.18	0.09	0.45	298
			4.96	9.17	2.54	0.17	0.04	0.54	6.98	15.54	4.00	0.19	0.07	0.45	317
		AVG	4.99	9.03	2.46	0.16	0.04	0.55	6.98	15.50	4.09	0.19	0.08	0.45	308
90	5.50	15R	4.96	8.72	2.87	0.06	0.16	0.57	6.96	14.58	4.54	0.15	0.29	0.48	341
			5.00	8.86	3.00	0.07	0.16	0.56	6.94	14.68	5.09	0.18	0.30	0.47	333
		AVG	4.98	8.79	2.94	0.07	0.16	0.57	6.95	14.63	4.82	0.17	0.30	0.48	337
91	7.50	15R	4.98	11.94	4.64	0.88	0.41	0.42	7.06	20.00	7.77	1.30	0.64	0.35	258
			4.98	11.70	4.50	0.87	0.39	0.43	6.94	20.00	7.51	1.30	0.64	0.35	236
		AVG	4.98	11.82	4.57	0.88	0.40	0.42	7.00	20.00	7.64	1.30	0.64	0.35	247
92	9.50	15R	4.98	8.83	4.03	1.00	0.16	0.56	7.02	14.98	6.49	1.58	0.24	0.47	332
			5.04	9.12	4.25	1.04	0.17	0.55	6.96	14.69	6.79	1.75	0.25	0.47	345
		AVG	5.01	8.98	4.14	1.02	0.17	0.56	6.99	14.84	6.64	1.67	0.25	0.47	338
93	11.50	15R	5.04	7.11	2.61	0.34	0.10	0.71	7.00	11.68	4.47	0.61	0.17	0.60	429
			5.00	7.22	2.80	0.36	0.10	0.69	6.96	11.52	4.26	0.58	0.16	0.60	456
		AVG	5.02	7.17	2.71	0.35	0.10	0.70	6.98	11.60	4.37	0.60	0.17	0.60	442
94	13.50	15R	5.00	9.18	2.54	0.45	0.18	0.54	7.00	15.73	3.99	0.57	0.24	0.45	305
			5.00	9.41	2.61	0.44	0.18	0.53	6.94	15.61	4.06	0.55	0.23	0.44	313
		AVG	5.00	9.30	2.58	0.45	0.18	0.54	6.97	15.67	4.03	0.56	0.24	0.44	309
95	15.50	15R	5.00	6.89	2.32	0.38	0.19	0.73	6.98	11.22	3.95	0.60	0.25	0.62	457
			5.02	6.87	2.29	0.38	0.19	0.73	7.02	11.42	3.90	0.58	0.26	0.61	440
		AVG	5.01	6.88	2.31	0.38	0.19	0.73	7.00	11.32	3.93	0.59	0.26	0.62	448

Table A-5 (Cont'd.)

LEESBURG FIELD DATA

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S1 k/mil	F2 kip	D1 (0) mil	D2(18) mil	D3(30) mil	D4(42) mil	S2 k/mil	DSM kip/in
83	30.50	5R	5.00	6.86	2.95	0.57	0.04	0.73	7.00	11.57	4.77	0.93	0.09	0.61	425
			4.96	6.73	2.99	0.60	0.04	0.74	7.06	11.57	5.02	0.98	0.10	0.61	434
		AVG	4.98	6.80	2.97	0.59	0.04	0.73	7.03	11.57	4.90	0.96	0.10	0.61	429
84	31.50	5R	5.02	5.77	2.43	0.97	0.55	0.87	6.99	9.58	4.10	1.55	0.82	0.73	517
			5.00	5.87	2.58	1.01	0.56	0.85	6.98	9.47	3.89	1.46	0.76	0.74	550
		AVG	5.01	5.82	2.51	0.99	0.56	0.86	6.99	9.53	4.00	1.51	0.79	0.73	534
85	32.50	5R	4.98	6.88	3.26	1.30	0.69	0.72	7.04	11.40	5.37	2.05	0.97	0.62	456
			4.98	6.96	3.38	1.35	0.68	0.72	7.06	11.43	5.38	1.95	1.00	0.62	465
		AVG	4.98	6.92	3.32	1.33	0.69	0.72	7.05	11.42	5.38	2.00	0.99	0.62	461
86	33.50	5R	5.00	5.29	2.74	1.43	1.02	0.95	6.94	8.46	4.32	2.14	1.40	0.82	612
			4.98	5.41	2.80	1.44	0.97	0.92	6.94	8.65	4.32	2.14	1.43	0.80	605
		AVG	4.99	5.35	2.77	1.44	1.00	0.93	6.94	8.56	4.32	2.14	1.42	0.81	608
87	34.25	5R	4.96	6.88	3.78	2.02	1.40	0.72	6.98	11.00	6.00	3.05	1.99	0.63	490
			4.98	7.07	3.92	2.01	1.39	0.70	7.02	11.35	5.88	3.00	2.01	0.62	477
		AVG	4.97	6.98	3.85	2.02	1.40	0.71	7.00	11.18	5.94	3.03	2.00	0.63	483
99	23.50	15L	5.00	8.84	4.53	1.95	1.22	0.57	6.95	14.04	7.32	2.92	1.74	0.50	375
			4.96	8.70	4.49	1.95	1.21	0.57	6.98	14.33	7.30	2.99	1.77	0.49	359
		AVG	4.98	8.77	4.51	1.95	1.22	0.57	6.97	14.19	7.31	2.96	1.76	0.49	367
100	25.50	15L	4.96	10.26	5.25	2.41	1.55	0.48	7.00	16.86	8.46	3.62	2.24	0.42	309
			4.96	10.41	5.59	2.53	1.53	0.48	7.00	17.06	8.84	3.57	2.20	0.41	307
		AVG	4.96	10.34	5.42	2.47	1.54	0.48	7.00	16.96	8.65	3.60	2.22	0.41	308
101	27.50	15L	4.98	10.63	5.16	1.95	0.90	0.47	7.00	18.06	8.38	2.98	1.32	0.39	272
			4.98	11.10	5.42	2.02	0.90	0.45	7.02	18.33	8.72	2.92	1.28	0.38	282
		AVG	4.98	10.87	5.29	1.99	0.90	0.46	7.01	18.20	8.55	2.95	1.30	0.39	277
102	29.50	15L	5.02	6.93	2.94	0.54	0.02	0.72	6.94	11.63	5.03	0.92	0.06	0.60	409
			4.96	6.85	2.96	0.55	0.05	0.72	7.02	11.74	5.02	0.90	0.06	0.60	421
		AVG	4.99	6.89	2.95	0.55	0.04	0.72	6.98	11.69	5.03	0.91	0.06	0.60	415
103	31.50	15L	4.96	9.57	3.75	0.81	0.24	0.52	7.02	16.87	6.45	1.17	0.31	0.42	282
			4.96	9.56	3.71	0.80	0.24	0.52	6.98	16.14	6.58	1.24	0.31	0.43	307
		AVG	4.96	9.57	3.73	0.81	0.24	0.52	7.00	16.51	6.52	1.21	0.31	0.42	295
104	33.50	15L	5.00	7.90	3.62	1.67	1.22	0.63	7.00	13.01	5.76	2.42	1.72	0.54	391
			5.02	8.00	3.73	1.72	1.25	0.63	7.06	13.21	5.93	2.36	1.68	0.53	392
		AVG	5.01	7.95	3.68	1.70	1.24	0.63	7.03	13.11	5.85	2.39	1.70	0.54	391

TABLE A-6

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
1	49.50	105 R	4.98	7.58	4.04	1.50	0.87	0.66	7.02	11.88	6.00	2.22	1.30	0.59	474
1	49.50	105 R	5.02	7.67	4.23	1.56	0.88	0.65	6.96	11.60	5.92	2.28	1.31	0.60	494
		AVG	5.00	7.63	4.14	1.53	0.88	0.66	6.99	11.74	5.96	2.25	1.31	0.60	484
2	49.00	105 R	4.98	7.41	4.73	2.84	1.97	0.67	6.96	10.61	6.93	4.11	2.90	0.66	619
2	49.00	105 R	5.00	7.23	4.63	2.74	1.95	0.69	6.96	10.84	6.93	4.10	2.82	0.64	543
		AVG	4.99	7.32	4.68	2.79	1.96	0.68	6.96	10.73	6.93	4.11	2.86	0.65	581
3	48.50	105 R	4.96	7.66	4.87	2.49	1.57	0.65	7.02	11.79	7.39	3.64	2.20	0.60	499
3	48.50	105 R	5.04	7.85	4.91	2.50	1.53	0.64	6.98	11.65	7.23	3.76	2.26	0.60	511
		AVG	5.00	7.76	4.89	2.50	1.55	0.64	7.00	11.72	7.31	3.70	2.23	0.60	505
4	48.00	105 R	5.04	10.62	5.15	1.97	1.15	0.47	6.94	16.42	7.96	3.04	1.70	0.42	328
4	48.00	105 R	5.04	10.76	5.29	2.00	1.13	0.47	7.02	17.02	8.13	3.01	1.73	0.41	316
		AVG	5.04	10.69	5.22	1.99	1.14	0.47	6.98	16.72	8.05	3.03	1.72	0.42	322
5	47.50	105 R	5.02	8.91	4.89	2.41	1.30	0.56	6.96	13.57	7.70	3.59	1.89	0.51	416
5	47.50	105 R	4.96	8.93	5.21	2.51	1.31	0.56	6.98	13.53	7.72	3.73	1.95	0.52	439
		AVG	4.99	8.92	5.05	2.46	1.31	0.56	6.97	13.55	7.71	3.66	1.92	0.51	428
6	47.00	105 R	5.00	8.75	5.48	2.51	1.46	0.57	6.98	13.36	7.84	3.57	2.15	0.52	430
6	47.00	105 R	4.96	8.63	5.36	2.46	1.46	0.57	6.94	13.37	8.25	3.54	2.14	0.52	418
		AVG	4.98	8.69	5.42	2.49	1.46	0.57	6.96	13.37	8.05	3.56	2.15	0.52	424
7	46.50	105 R	5.04	6.76	4.04	1.64	0.92	0.75	7.00	10.30	6.17	2.36	1.30	0.68	554
7	46.50	105 R	4.96	6.81	4.11	1.66	0.97	0.73	6.98	10.50	6.12	2.49	1.37	0.66	547
		AVG	5.00	6.79	4.08	1.65	0.95	0.74	6.99	10.40	6.15	2.43	1.34	0.67	551
8	46.00	105 R	5.00	6.25	3.89	2.03	1.27	0.80	6.94	9.22	6.02	3.13	1.89	0.75	653
8	46.00	105 R	4.98	6.28	4.05	2.12	1.31	0.79	6.94	9.39	6.06	3.16	1.91	0.74	630
		AVG	4.99	6.27	3.97	2.08	1.29	0.80	6.94	9.31	6.04	3.15	1.90	0.75	642
9	45.50	105 R	5.00	7.34	3.98	2.03	1.20	0.68	7.06	11.39	6.03	3.04	1.83	0.62	509
9	45.50	105 R	4.98	7.38	3.95	1.98	1.17	0.67	6.94	11.13	6.12	3.09	1.78	0.62	523
		AVG	4.99	7.36	3.97	2.01	1.19	0.68	7.00	11.26	6.08	3.07	1.81	0.62	516
10	49.25	93 R	5.00	8.65	3.62	1.51	0.99	0.58	7.00	13.44	5.58	2.23	1.48	0.52	418
10	49.25	93 R	4.98	8.71	3.61	1.48	0.97	0.57	7.00	13.55	5.27	2.15	1.44	0.52	417
		AVG	4.99	8.68	3.62	1.50	0.98	0.57	7.00	13.50	5.43	2.19	1.46	0.52	417

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
11	48.75	93 R	5.04	7.77	4.67	2.62	1.87	0.65	7.02	11.56	6.59	3.82	2.74	0.61	522
11	48.75	93 R	5.00	7.74	4.65	2.71	1.92	0.65	6.94	11.24	6.96	3.95	2.00	0.62	554
		AVG	5.02	7.76	4.66	2.67	1.90	0.65	6.98	11.40	6.78	3.89	2.37	0.61	538
12	48.25	93 R	5.04	9.67	4.91	2.19	1.31	0.52	6.94	14.83	7.32	3.45	2.04	0.47	368
12	48.25	93 R	5.00	9.71	4.96	2.25	1.32	0.51	7.00	15.16	7.68	3.36	2.01	0.46	367
		AVG	5.02	9.69	4.94	2.22	1.32	0.52	6.97	15.00	7.50	3.41	2.03	0.46	368
13	47.75	93 R	5.04	13.02	6.62	2.71	1.62	0.39	2.98	7.34	3.73	1.51	0.90	0.41	363
13	47.75	93 R	5.02	12.73	6.33	2.59	1.52	0.39	3.00	7.39	3.79	1.56	0.90	0.41	378
		AVG	5.03	12.88	6.48	2.65	1.57	0.39	2.99	7.37	3.76	1.54	0.90	0.41	370
14	47.25	93 R	5.04	9.74	5.48	2.14	1.25	0.52	7.04	15.72	8.90	3.48	1.99	0.45	334
14	47.25	93 R	4.98	9.99	5.62	2.16	1.35	0.50	6.98	15.59	8.62	3.38	2.03	0.45	357
		AVG	5.01	9.87	5.55	2.15	1.30	0.51	7.01	15.66	8.76	3.43	2.01	0.45	346
15	46.75	93 R	4.98	8.78	3.50	1.32	0.78	0.57	6 94	13.65	5.30	2.01	1.18	0.51	402
15	46.75	93 R	5.00	8.77	3.48	1.28	0.77	0.57	6.98	13.97	5.32	1.96	1.17	0.50	381
		AVG	4.99	8.78	3.49	1.30	0.78	0.57	6.96	13.81	5.31	1.98	1.18	0.50	392
16	46.25	93 R	4.98	5.15	3.31	1.73	1.12	0.97	7.02	7.81	4.94	2.76	1.78	0.90	767
16	46.25	93 R	4.96	5.25	3.50	1.87	1.21	0.94	7.04	7.92	5.13	2.69	1.79	0.89	779
		AVG	4.97	5.20	3.41	1.80	1.17	0.96	7.03	7.87	5.04	2.73	1.79	0.89	773
17	45.75	93 R	4.98	5.03	3.28	1.92	1.36	0.99	6.96	7.54	4.74	2.76	1.95	0.92	789
17	45.75	93 R	4.98	5.07	3.16	1.83	1.28	0.98	6.98	7.62	4.98	2.94	1.89	0.92	784
		AVG	4.98	5.05	3.22	1.88	1.32	0.99	6.97	7.58	4.86	2.85	1.92	0.92	787
18	45.25	93 R	5.00	7.96	5.10	2.23	1.19	0.63	6.94	12.47	7.93	3.60	1.88	0.56	430
18	45.25	93 R	4.98	8.14	5.16	2.35	1.25	0.61	7.06	12.70	8.08	3.59	1.90	0.56	456
		AVG	4.99	8.05	5.13	2.29	1.22	0.62	7.00	12.59	8.01	3.60	1.89	0.56	443
19	49.50	80 R	5.02	6.63	4.01	1.95	1.18	0.76	7.00	10.17	5.88	2.76	1.74	0.69	559
19	49.50	80 R	4.96	6.73	3.90	1.89	1.19	0.74	7.04	10.39	5.67	2.89	1.72	0.68	568
		AVG	4.99	6.68	3.96	1.92	1.19	0.75	7.02	10.28	5.78	2.83	1.73	0.68	564
20	49.00	80 R	5.02	11.53	6.85	3.48	2.30	0.44	7.06	19.77	11.66	5.77	3.83	0.36	248
20	49.00	80 R	4.96	11.91	7.33	3.67	2.37	0.42	6.98	18.80	11.42	5.75	3.78	0.37	293
		AVG	4.99	11.72	7.09	3.58	2.34	0.43	7.02	19.29	11.54	5.76	3.81	0.36	270

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
21	48.50	80 R	4.96	8.16	5.21	2.83	1.73	0.61	6.94	12.55	7.97	4.20	2.57	0.55	451
21	48.50	80 R	4.98	8.39	5.34	2.81	1.72	0.59	6.98	12.84	8.32	4.47	2.73	0.54	449
		AVG	4.97	8.28	5.28	2.82	1.73	0.60	6.96	12.70	8.15	4.34	2.65	0.55	450
22	48.00	80 R	5.04	8.98	4.36	2.02	1.26	0.56	6.94	13.49	6.43	2.94	1.93	0.51	421
22	48.00	80 R	5.02	8.99	4.45	2.04	1.29	0.56	6.96	13.75	6.60	3.12	1.86	0.51	408
		AVG	5.03	8.99	4.41	2.03	1.28	0.56	6.95	13.62	6.52	3.03	1.90	0.51	414
23	47.50	80 R	4.98	7.96	5.09	2.50	1.70	0.63	7.02	12.20	7.35	3.61	2.48	0.58	481
23	47.50	80 R	5.02	8.24	5.30	2.57	1.73	0.61	7.04	12.21	7.43	3.66	2.51	0.58	509
		AVG	5.00	8.10	5.20	2.54	1.72	0.62	7.03	12.21	7.39	3.64	2.50	0.58	495
24	47.00	80 R	4.96	6.24	3.96	1.74	1.07	0.79	6.96	9.56	5.77	2.55	1.60	0.73	602
24	47.00	80 R	5.04	6.49	4.15	1.83	1.09	0.78	6.94	9.50	6.04	2.58	1.57	0.73	631
		AVG	5.00	6.37	4.06	1.79	1.08	0.79	6.95	9.53	5.91	2.57	1.59	0.73	617
25	46.50	80 R	5.00	6.33	3.44	2.10	1.46	0.79	7.04	9.99	5.00	3.11	2.11	0.70	557
25	46.50	80 R	4.96	6.58	3.51	2.22	1.56	0.75	6.96	9.87	5.20	3.08	2.18	0.71	608
		AVG	4.98	6.46	3.48	2.16	1.51	0.77	7.00	9.93	5.10	3.10	2.15	0.70	583
26	46.00	80 R	5.02	4.37	3.07	1.82	1.26	1.15	7.06	6.39	4.28	2.57	1.80	1.10	1010
26	46.00	80 R	4.96	4.31	3.04	1.89	1.25	1.15	7.06	6.31	4.46	2.80	1.86	1.12	1050
		AVG	4.99	4.34	3.06	1.86	1.26	1.15	7.06	6.35	4.37	2.69	1.83	1.11	1030
27	45.50	80 R	5.00	6.57	3.74	1.88	1.22	0.76	7.04	10.37	5.86	2.85	1.85	0.68	537
27	45.50	80 R	5.02	6.86	3.85	1.88	1.21	0.73	7.00	10.38	5.71	2.74	1.75	0.67	563
		AVG	5.01	6.72	3.80	1.88	1.22	0.75	7.02	10.38	5.79	2.80	1.80	0.68	550
28	49.50	65 R	5.02	8.44	4.46	1.62	1.07	0.59	6.94	12.80	6.45	2.40	1.56	0.54	440
28	49.50	65 R	5.02	8.67	4.57	1.70	1.08	0.58	6.96	13.02	6.56	2.41	1.59	0.53	446
		AVG	5.02	8.56	4.52	1.66	1.08	0.59	6.95	12.91	6.51	2.41	1.58	0.54	443
29	48.50	65 R	5.00	10.74	5.24	2.05	1.29	0.47	6.94	17.03	8.18	3.02	1.88	0.41	308
29	48.50	65 R	4.96	10.81	5.30	2.03	1.27	0.46	6.96	17.12	7.96	2.97	1.87	0.41	317
		AVG	4.98	10.78	5.27	2.04	1.28	0.46	6.95	17.08	8.07	3.00	1.88	0.41	313
30	47.50	65 R	5.00	8.88	5.41	2.43	1.29	0.56	6.96	14.02	7.92	3.54	1.87	0.50	381
30	47.50	65 R	4.96	9.13	5.56	2.50	1.33	0.54	6.96	14.37	8.38	3.75	1.94	0.48	382
		AVG	4.98	9.01	5.49	2.47	1.31	0.55	6.96	14.20	8.15	3.65	1.91	0.49	382

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
31	46.50	65 R	4.98	6.42	4.10	2.26	1.47	0.78	6.98	9.75	6.23	3.51	2.14	0.72	601
31	46.50	65 R	4.96	6.56	4.15	2.32	1.49	0.76	6.94	9.71	6.20	3.46	2.25	0.71	629
		AVG	4.97	6.49	4.13	2.29	1.48	0.77	6.96	9.73	6.22	3.49	2.20	0.72	615
32	45.50	65 R	5.02	6.51	3.32	1.57	1.01	0.77	6.98	9.92	5.00	2.35	1.45	0.70	575
32	45.50	65 R	4.98	6.67	3.46	1.60	1.01	0.75	7.00	10.13	5.03	2.32	1.47	0.69	584
		AVG	5.00	6.59	3.39	1.59	1.01	0.76	6.99	10.03	5.02	2.34	1.46	0.70	579
33	44.50	65 R	4.98	6.88	3.28	1.26	0.87	0.72	6.96	10.90	5.03	1.88	1.30	0.64	493
33	44.50	65 R	4.96	6.85	3.42	1.30	0.90	0.72	6.96	10.98	5.03	1.83	1.28	0.63	484
		AVG	4.97	6.87	3.35	1.28	0.89	0.72	6.96	10.94	5.03	1.86	1.29	0.64	488
34	49.00	52 R	5.02	4.42	3.40	2.34	1.75	1.14	6.98	6.33	4.94	3.41	2.56	1.10	1026
34	49.00	52 R	4.98	4.45	3.43	2.36	1.78	1.12	6.96	6.35	4.80	3.33	2.49	1.10	1042
		AVG	5.00	4.44	3.42	2.35	1.77	1.13	6.97	6.34	4.87	3.37	2.53	1.10	1034
35	48.00	52 R	5.04	11.95	5.43	2.20	1.39	0.42	6.94	19.45	8.92	3.40	2.26	0.36	253
35	48.00	52 R	4.96	12.00	5.64	2.27	1.44	0.41	6.96	19.56	9.03	3.51	2.16	0.36	265
		AVG	5.00	11.98	5.54	2.24	1.42	0.42	6.95	19.51	8.98	3.46	2.21	0.36	259
36	47.00	52 R	5.00	9.62	5.29	2.06	1.22	0.52	6.96	16.41	8.64	3.27	1.86	0.42	289
36	47.00	52 R	4.98	10.49	5.73	2.17	1.24	0.47	7.00	17.11	8.84	3.37	1.93	0.41	305
		AVG	4.99	10.06	5.51	2.12	1.23	0.50	6.98	16.76	8.74	3.32	1.90	0.42	297
37	46.00	52 R	5.04	7.95	3.62	1.69	1.09	0.63	7.06	12.56	5.12	2.48	1.65	0.56	438
37	46.00	52 R	4.96	8.11	3.77	1.82	1.12	0.61	6.96	12.43	5.34	2.59	1.71	0.56	463
		AVG	5.00	8.03	3.70	1.76	1.11	0.62	7.01	12.50	5.23	2.54	1.68	0.56	451
38	45.00	52 R	4.96	12.33	4.94	1.55	1.04	0.40	3.00	6.80	2.70	0.89	0.60	0.44	354
38	45.00	52 R	4.96	12.24	4.92	1.56	1.01	0.41	2.98	6.80	2.82	0.91	0.60	0.44	364
		AVG	4.96	12.29	4.93	1.56	1.03	0.40	2.99	6.80	2.76	0.90	0.60	0.44	359
39	49.50	39 R	4.96	5.30	3.91	2.60	1.90	0.94	6.96	7.84	5.87	3.96	2.89	0.89	787
39	49.50	39 R	5.02	5.52	4.23	2.84	2.08	0.91	6.94	7.95	5.91	3.96	2.88	0.87	790
		AVG	4.99	5.41	4.07	2.72	1.99	0.92	6.95	7.90	5.89	3.96	2.89	0.88	789
40	48.50	39 R	4.96	10.02	4.01	1.75	1.19	0.50	6.98	16.18	6.27	2.71	1.87	0.43	328
40	48.50	39 R	4.98	9.34	3.78	1.60	1.06	0.53	7.02	16.19	5.91	2.55	1.77	0.43	298
		AVG	4.97	9.68	3.90	1.68	1.13	0.51	7.00	16.19	6.09	2.63	1.82	0.43	313

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
41	47.50	39 R	4.98	9.85	4.77	1.97	1.26	0.51	6.98	15.80	7.50	3.12	1.94	0.44	336
41	47.50	39 R	5.00	9.99	4.89	2.04	1.36	0.50	7.00	15.80	7.56	2.99	1.94	0.44	344
		AVG	4.99	9.92	4.83	2.01	1.31	0.50	6.99	15.80	7.53	3.06	1.94	0.44	340
42	46.50	39 R	4.96	7.48	3.82	1.62	1.04	0.66	6.96	11.10	5.59	2.34	1.50	0.63	552
42	46.50	39 R	4.96	7.57	3.92	1.71	1.10	0.66	6.98	11.19	5.76	2.33	1.50	0.62	558
		AVG	4.96	7.53	3.87	1.67	1.07	0.66	6.97	11.15	5.68	2.34	1.50	0.63	555
43	45.50	39 R	4.96	9.33	3.89	1.47	1.03	0.53	7.00	15.17	6.21	2.20	1.53	0.46	349
43	45.50	39 R	5.00	9.45	4.66	1.46	0.86	0.53	7.04	15.27	6.08	2.17	1.53	0.46	351
		AVG	4.98	9.39	4.28	1.47	0.95	0.53	7.02	15.22	6.15	2.19	1.53	0.46	350
44	44.50	39 R	4.98	7.47	3.77	1.34	0.92	0.67	6.94	11.88	5.92	2.07	1.35	0.58	444
44	45.50	39 R	5.02	7.72	3.84	1.35	0.89	0.65	6.94	11.87	5.79	2.06	1.34	0.58	463
		AVG	5.00	7.60	3.81	1.35	0.91	0.66	6.94	11.88	5.86	2.07	1.35	0.58	454
45	49.00	26 R	5.02	5.08	3.86	2.38	1.55	0.99	7.04	7.62	5.64	3.47	2.29	0.92	795
45	49.00	26 R	4.98	5.19	3.79	2.30	1.52	0.96	6.98	7.60	5.64	3.46	2.23	0.92	830
		AVG	5.00	5.14	3.83	2.34	1.54	0.97	7.01	7.61	5.64	3.47	2.26	0.92	813
46	48.00	26 R	4.96	11.36	5.15	1.55	1.02	0.44	7.02	18.47	8.15	2.30	1.49	0.38	290
46	48.00	26 R	5.00	11.95	5.52	1.68	1.04	0.42	6.94	18.16	8.07	2.27	1.46	0.38	312
		AVG	4.98	11.66	5.34	1.62	1.03	0.43	6.98	18.32	8.11	2.29	1.48	0.38	301
47	47.00	26 R	4.98	6.37	3.97	2.06	1.32	0.78	7.02	10.01	6.14	3.02	2.01	0.70	560
47	47.00	26 R	4.96	6.52	4.11	2.10	1.38	0.76	7.04	10.16	6.19	3.15	2.03	0.69	571
		AVG	4.97	6.45	4.04	2.08	1.35	0.77	7.03	10.09	6.17	3.09	2.02	0.70	566
48	46.00	26 R	5.04	5.47	3.40	1.70	1.09	0.92	7.02	8.20	5.04	2.46	1.66	0.86	725
48	46.00	26 R	4.96	5.42	3.37	1.74	1.10	0.92	6.98	8.21	5.08	2.64	1.57	0.85	724
		AVG	5.00	5.45	3.39	1.72	1.10	0.92	7.00	8.21	5.06	2.55	1.62	0.85	725
49	45.00	26 R	5.00	7.81	3.55	1.26	0.86	0.64	7.00	12.65	5.39	1.88	1.23	0.55	413
49	45.00	26 R	4.98	7.96	3.66	1.31	0.85	0.63	6.96	12.46	5.56	1.94	1.19	0.56	440
		AVG	4.99	7.89	3.61	1.29	0.86	0.63	6.98	12.56	5.48	1.91	1.21	0.56	427
50	49.50	13 R	5.02	11.23	6.03	2.07	1.36	0.45	7.00	17.65	9.06	3.03	1.95	0.40	308
50	49.50	13 R	4.98	11.28	6.21	2.07	1.31	0.44	6.96	17.37	9.19	2.96	1.92	0.40	325
		AVG	5.00	11.26	6.12	2.07	1.34	0.44	6.98	17.51	9.13	3.00	1.94	0.40	317

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
51	48.50	13 R	4.96	11.14	5.40	1.82	1.12	0.45	6.94	17.50	7.84	2.53	1.55	0.40	311
51	48.50	13 R	5.02	11.37	5.39	1.77	1.07	0.44	6.94	17.67	8.22	2.58	1.62	0.39	305
		AVG	4.99	11.26	5.40	1.80	1.10	0.44	6.94	17.59	8.03	2.56	1.59	0.39	308
52	47.50	13 R	5.02	9.19	4.42	1.78	1.19	0.55	6.98	14.27	6.83	2.73	1.81	0.49	386
52	47.50	13 R	4.98	9.22	4.64	1.83	1.21	0.54	7.00	14.43	6.68	2.69	1.82	0.49	388
		AVG	5.00	9.21	4.53	1.81	1.20	0.54	6.99	14.35	6.76	2.71	1.82	0.49	387
53	46.50	13 R	4.96	5.65	3.42	1.83	1.15	0.88	7.00	8.65	5.07	2.72	1.75	0.81	680
53	46.50	13 R	5.02	5.82	3.53	1.80	1.18	0.86	7.00	8.66	5.21	2.62	1.73	0.81	696
		AVG	4.99	5.74	3.48	1.82	1.17	0.87	7.00	8.66	5.14	2.67	1.74	0.81	688
54	45.50	13 R	5.00	6.37	3.89	1.90	1.18	0.78	6.94	9.56	5.62	2.82	1.78	0.73	608
54	45.50	13 R	4.98	6.47	3.99	2.01	1.25	0.77	6.96	9.74	5.88	2.97	1.81	0.71	606
		AVG	4.99	6.42	3.94	1.95	1.22	0.78	6.95	9.65	5.75	2.90	1.80	0.72	607
55	49.50	13 R	4.96	6.92	4.05	1.65	1.07	0.72	7.06	10.94	6.20	2.39	1.54	0.65	523
55	49.50	13 R	4.98	7.10	4.12	1.65	1.04	0.70	7.02	10.93	6.22	2.37	1.49	0.64	533
		AVG	4.97	7.01	4.09	1.65	1.06	0.71	7.04	10.94	6.21	2.38	1.52	0.64	528
56	49.00	BL	5.02	7.71	4.22	2.00	1.28	0.65	6.96	11.69	6.33	2.94	1.92	0.60	487
56	49.00	BL	4.96	7.62	4.18	1.97	1.29	0.65	6.98	11.78	6.12	2.89	1.88	0.59	486
		AVG	4.99	7.67	4.20	1.99	1.29	0.65	6.97	11.74	6.23	2.92	1.90	0.59	487
57	48.00	BL	5.00	9.26	4.94	1.75	1.02	0.54	7.00	14.71	7.83	2.64	1.56	0.48	367
57	48.00	BL	4.98	9.49	5.12	1.78	1.07	0.52	7.02	14.92	7.86	2.68	1.54	0.47	376
		AVG	4.99	9.38	5.03	1.77	1.05	0.53	7.01	14.82	7.85	2.66	1.55	0.47	371
59	46.00	BL	5.02	6.97	3.21	1.62	1.09	0.72	7.02	10.64	4.75	2.34	1.58	0.66	545
59	46.00	BL	4.98	7.05	3.15	1.62	1.08	0.71	6.98	10.86	4.89	2.27	1.53	0.64	525
		AVG	5.00	7.01	3.18	1.62	1.09	0.71	7.00	10.75	4.82	2.31	1.56	0.65	535
60	45.00	BL	4.98	7.50	4.63	2.39	1.50	0.66	7.00	11.82	6.93	3.60	2.28	0.59	468
60	45.00	BL	5.04	7.86	4.85	2.46	1.57	0.64	6.98	11.87	6.95	3.61	2.29	0.59	484
		AVG	5.01	7.68	4.74	2.43	1.54	0.65	6.99	11.85	6.94	3.61	2.29	0.59	476
61	49.50	13 L	4.98	11.65	5.80	2.28	1.35	0.43	6.96	19.00	9.44	3.49	2.06	0.37	269

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - TERMINAL APRON

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
62	48.50	13 L	5.04	10.54	5.24	2.10	1.36	0.48	7.04	15.71	7.91	3.07	2.02	0.45	387
62	48.50	13 L	5.00	10.45	5.37	2.12	1.34	0.48	6.98	15.92	8.11	3.16	1.93	0.44	362
		AVG	5.02	10.50	5.31	2.11	1.35	0.48	7.01	15.82	8.01	3.12	1.98	0.44	374
63	47.50	13 L	5.04	6.36	4.00	2.06	1.34	0.79	6.98	9.54	6.03	3.05	2.00	0.73	610
63	47.50	13 L	4.98	6.41	4.13	2.04	1.34	0.78	7.06	9.72	6.17	3.11	2.00	0.73	628
		AVG	5.01	6.39	4.07	2.05	1.34	0.78	7.02	9.63	6.10	3.08	2.00	0.73	619
64	49.50	103 L	5.00	8.95	4.67	2.13	1.36	0.56	6.98	13.89	7.55	3.35	2.09	0.50	401
64	49.50	103 L	4.96	9.09	4.98	2.27	1.43	0.55	7.06	14.30	7.53	3.40	2.10	0.49	403
		AVG	4.98	9.02	4.83	2.20	1.40	0.55	7.02	14.10	7.54	3.38	2.10	0.50	402
65	48.50	103 L	4.98	8.00	5.21	2.39	1.64	0.62	6.96	12.23	8.08	3.55	2.44	0.57	468
65	48.50	103 L	5.00	8.26	5.35	2.46	1.66	0.61	6.98	12.38	8.19	3.72	2.36	0.56	481
		AVG	4.99	8.13	5.28	2.43	1.65	0.61	6.97	12.31	8.14	3.64	2.40	0.57	474

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - CONNECTOR TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
200	1.00	5 R	5.00	8.24	5.58	2.30	1.42	0.61	6.98	13.04	8.96	3.67	2.16	0.54	413
200	1.00		5.04	8.51	5.73	2.34	1.43	0.59	6.94	13.06	8.91	3.87	2.30	0.53	418
		AVG	5.02	8.38	5.66	2.32	1.43	0.60	6.96	13.05	8.94	3.77	2.23	0.53	415
201	2.00	5 R	5.02	9.28	5.23	1.76	0.99	0.54	6.96	15.00	7.75	2.60	1.58	0.46	339
201	2.00		5.02	9.64	5.20	1.74	1.03	0.52	6.98	15.21	8.56	2.87	1.72	0.46	352
		AVG	5.02	9.46	5.22	1.75	1.01	0.53	6.97	15.11	8.16	2.74	1.65	0.46	346
202	3.00	5 R	5.02	6.52	3.85	1.78	1.02	0.77	6.96	9.95	5.81	2.74	1.56	0.70	566
202	3.00		5.02	6.68	3.96	1.80	1.03	0.75	6.98	10.23	6.09	2.77	1.59	0.68	552
		AVG	5.02	6.60	3.91	1.79	1.03	0.76	6.97	10.09	5.95	2.76	1.58	0.69	559
203	4.00	5 R	5.00	8.72	5.20	1.70	0.82	0.57	7.04	14.38	8.22	2.72	1.28	0.49	360
203	4.00		4.98	9.01	5.51	1.82	0.84	0.55	7.00	14.18	8.73	2.89	1.28	0.49	391
		AVG	4.99	8.87	5.36	1.76	0.83	0.56	7.02	14.28	8.48	2.81	1.28	0.49	376
204	4.50	5 L	4.96	7.73	4.10	1.51	1.05	0.64	7.06	12.23	6.17	2.27	1.52	0.58	467
204	4.50		4.96	7.74	3.97	1.45	1.00	0.64	6.98	11.97	6.27	2.22	1.52	0.58	478
		AVG	4.96	7.74	4.04	1.48	1.03	0.64	7.02	12.10	6.22	2.25	1.52	0.58	472
205	3.50	5 L	4.96	9.65	3.76	0.96	0.54	0.51	7.04	15.25	6.10	1.49	0.80	0.46	371
205	3.50		5.04	9.47	3.91	0.97	0.52	0.53	7.00	14.99	6.13	1.44	0.73	0.47	355
		AVG	5.00	9.56	3.84	0.97	0.53	0.52	7.02	15.12	6.12	1.47	0.77	0.46	363
206	2.50	5 L	4.98	9.22	3.46	1.07	0.77	0.54	7.00	15.32	5.58	1.72	1.23	0.46	331
206	2.50		4.96	9.40	3.56	1.11	0.79	0.53	7.02	15.33	5.63	1.63	1.18	0.46	347
		AVG	4.97	9.31	3.51	1.09	0.78	0.53	7.01	15.33	5.61	1.68	1.21	0.46	339
207	1.50	5 L	5.00	10.49	5.40	1.66	1.06	0.48	7.04	17.24	8.69	2.78	1.83	0.41	302
207	1.50		5.00	10.79	5.43	1.69	1.07	0.46	6.94	17.02	8.66	2.76	1.74	0.41	311
		AVG	5.00	10.64	5.42	1.68	1.07	0.47	6.99	17.13	8.68	2.77	1.79	0.41	307
208	1.50	15 R	5.00	9.77	5.63	1.94	1.18	0.51	7.04	16.08	9.06	3.14	1.91	0.44	323
208	1.50		4.96	9.77	5.70	1.93	1.20	0.51	7.00	16.15	9.00	3.05	1.94	0.43	320
		AVG	4.98	9.77	5.67	1.94	1.19	0.51	7.02	16.12	9.03	3.10	1.93	0.44	322
209	2.50	15 R	5.00	5.73	3.73	1.53	0.88	0.87	6.94	8.82	5.63	2.39	1.35	0.79	628
209	2.50		5.02	5.99	3.85	1.64	0.93	0.84	6.96	8.89	5.36	2.27	1.30	0.78	669
		AVG	5.01	5.86	3.79	1.59	0.91	0.86	6.95	8.86	5.50	2.33	1.33	0.78	648

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - CONNECTOR TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
210	3.50	15 R	5.00	9.30	4.62	1.00	0.59	0.54	7.06	15.20	6.83	1.44	0.84	0.46	349
210	3.50		5.02	9.64	4.83	1.02	0.59	0.52	6.98	15.35	7.49	1.48	0.80	0.45	343
		AVG	5.01	9.47	4.73	1.01	0.59	0.53	7.02	15.28	7.16	1.46	0.82	0.46	346
211	4.50	15 R	4.98	5.82	3.52	1.67	1.09	0.86	6.98	8.90	5.34	2.54	1.67	0.78	649
211	4.50		4.96	5.99	3.62	1.72	1.09	0.83	6.98	8.95	5.39	2.65	1.69	0.78	682
		AVG	4.97	5.91	3.57	1.70	1.09	0.84	6.98	8.93	5.37	2.60	1.68	0.78	666
212	4.00	15 L	4.96	6.88	4.46	2.25	1.26	0.72	7.00	10.82	7.07	3.55	2.02	0.65	518
212	4.00		5.02	7.14	4.50	2.24	1.29	0.70	6.98	10.66	6.99	3.48	2.06	0.65	557
		AVG	4.99	7.01	4.48	2.25	1.28	0.71	6.99	10.74	7.03	3.52	2.04	0.65	537
213	3.00	15 L	5.04	8.01	4.35	1.84	1.11	0.63	6.94	11.94	6.66	2.59	1.57	0.58	483
213	3.00		4.98	8.01	4.47	1.79	1.09	0.62	7.04	12.28	6.24	2.57	1.60	0.57	482
		AVG	5.01	8.01	4.41	1.82	1.10	0.63	6.99	12.11	6.45	2.58	1.59	0.58	483
214	2.00	15 L	4.96	9.65	5.32	1.64	0.90	0.51	7.02	15.74	8.66	2.53	1.41	0.45	338
214	2.00		5.02	10.02	5.58	1.68	0.94	0.50	7.06	16.07	9.02	2.64	1.46	0.44	337
		AVG	4.99	9.84	5.45	1.66	0.92	0.51	7.04	15.91	8.84	2.59	1.44	0.44	338
215	1.00	15 L	5.04	9.33	4.87	1.70	1.04	0.54	6.94	14.56	7.82	2.51	1.57	0.48	363
215	1.00		4.96	9.27	5.04	1.68	1.03	0.54	7.04	14.79	7.67	2.67	1.66	0.48	377
		AVG	5.00	9.30	4.96	1.69	1.04	0.54	6.99	14.68	7.75	2.59	1.62	0.48	370

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - NEW PARALLEL TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
100	49.00	5 L	4.96	7.74	3.94	1.65	1.18	0.64	6.98	11.94	6.14	2.50	1.82	0.58	481
100	49.00		5.00	7.86	4.18	1.67	1.20	0.64	6.94	11.85	6.32	2.60	1.83	0.59	486
		AVG	4.98	7.80	4.06	1.66	1.19	0.64	6.96	11.90	6.23	2.55	1.83	0.59	484
101	48.50	5 L	4.96	7.49	3.68	1.49	1.11	0.66	7.04	11.86	5.85	2.36	1.77	0.59	476
101	48.50		5.00	7.79	3.92	1.60	1.17	0.64	7.00	11.82	5.77	2.44	1.84	0.59	496
		AVG	4.98	7.64	3.80	1.55	1.14	0.65	7.02	11.84	5.81	2.40	1.81	0.59	486
102	48.00	5 L	4.96	8.16	4.24	1.84	1.37	0.61	6.96	12.59	6.40	2.70	2.02	0.55	451
102	48.00		5.00	8.38	4.45	1.83	1.34	0.60	6.94	12.46	6.52	2.75	2.00	0.56	475
		AVG	4.98	8.27	4.35	1.84	1.36	0.60	6.95	12.53	6.46	2.73	2.01	0.55	463
103	47.50	5 L	5.04	8.89	4.47	1.74	1.24	0.57	7.04	13.73	6.98	2.68	1.93	0.51	413
103	47.50		5.02	8.92	4.56	1.80	1.27	0.56	7.06	13.82	7.13	2.81	2.02	0.51	416
		AVG	5.03	8.91	4.52	1.77	1.26	0.56	7.05	13.78	7.06	2.75	1.98	0.51	415
104	47.00	5 L	4.96	7.34	3.95	1.64	1.21	0.68	7.00	11.36	6.09	2.42	1.76	0.62	507
104	47.00		5.02	7.59	3.88	1.67	1.19	0.66	6.96	11.22	5.98	2.46	1.86	0.62	534
		AVG	4.99	7.47	3.92	1.66	1.20	0.67	6.98	11.29	6.04	2.44	1.81	0.62	521
105	46.50	5 L	4.98	7.81	4.25	1.79	1.28	0.64	6.94	11.81	6.53	2.65	1.91	0.59	490
105	46.50		4.96	7.95	4.30	1.77	1.30	0.62	6.98	11.98	6.31	2.63	1.90	0.58	501
		AVG	4.97	7.88	4.28	1.78	1.29	0.63	6.96	11.90	6.42	2.64	1.91	0.59	496
106	46.00	5 L	5.04	8.30	4.46	1.73	1.28	0.61	7.06	12.79	6.52	2.57	1.87	0.55	450
106	46.00		5.04	8.34	4.56	1.79	1.27	0.60	7.04	12.86	6.97	2.74	1.97	0.55	442
		AVG	5.04	8.32	4.51	1.76	1.28	0.61	7.05	12.83	6.75	2.66	1.92	0.55	446
107	45.50	5 L	5.00	7.82	4.58	1.84	1.28	0.64	6.98	12.00	6.67	2.72	1.92	0.58	474
107	45.50		4.98	7.90	4.65	1.86	1.31	0.63	7.04	12.14	7.11	2.83	2.03	0.58	486
		AVG	4.99	7.86	4.62	1.85	1.30	0.63	7.01	12.07	6.89	2.78	1.97	0.58	480
108	49.25	5 R	5.04	6.71	4.15	1.93	1.32	0.75	6.94	9.74	6.28	2.78	1.89	0.71	627
108	49.25		5.04	6.66	4.20	1.91	1.28	0.76	7.02	9.90	6.17	2.85	1.98	0.71	611
		AVG	5.04	6.69	4.18	1.92	1.30	0.75	6.98	9.82	6.23	2.82	1.94	0.71	619
109	48.75	5 R	5.02	6.26	3.76	1.68	1.24	0.80	6.96	9.23	5.65	2.49	1.75	0.75	653
109	48.75		5.04	6.32	3.83	1.71	1.20	0.80	7.02	9.31	5.45	2.55	1.80	0.75	662
		AVG	5.03	6.29	3.80	1.70	1.22	0.80	6.99	9.27	5.55	2.52	1.78	0.75	658

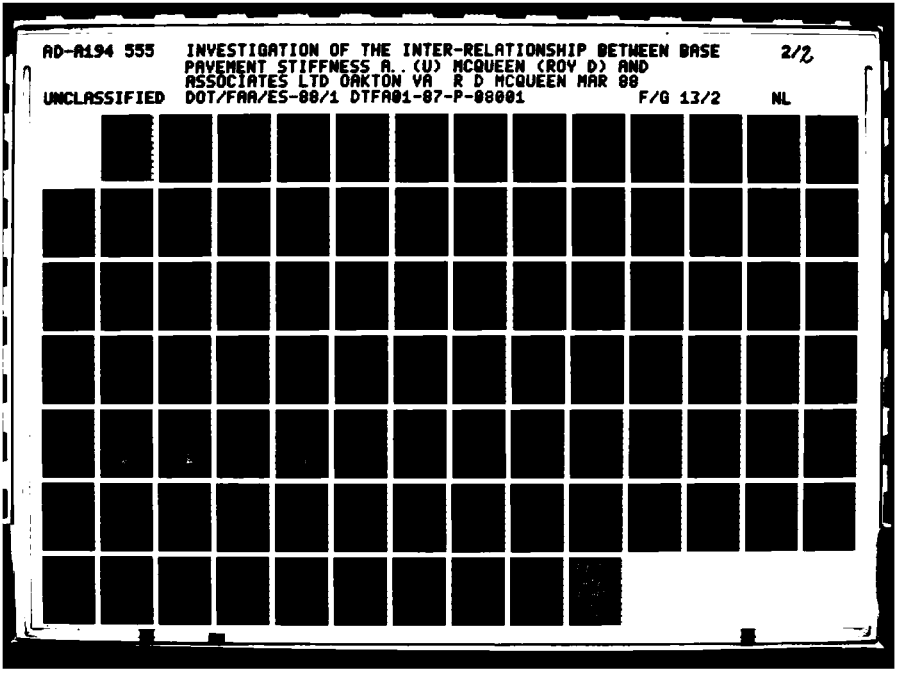
Table A-6 (Cont'd.)

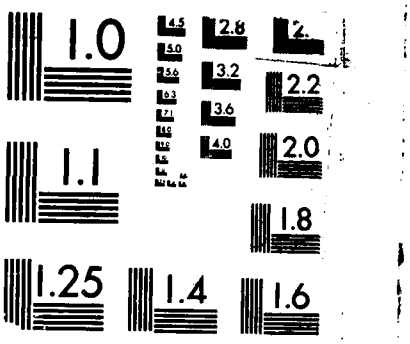
OCEAN CITY FIELD DATA - NEW PARALLEL TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
110	48.25	5 R	4.96	7.02	3.92	1.55	1.09	0.71	7.02	10.74	5.99	2.20	1.53	0.65	554
110	48.25		5.00	7.07	4.01	1.53	1.09	0.71	7.04	10.68	5.99	2.37	1.64	0.66	565
		AVG	4.98	7.05	3.97	1.54	1.09	0.71	7.03	10.71	5.99	2.29	1.59	0.66	559
111	47.78	5 R	4.96	7.10	4.04	1.66	1.19	0.70	6.94	10.68	5.87	2.45	1.80	0.65	553
111	47.78		5.00	7.15	4.03	1.68	1.21	0.70	6.94	10.66	6.09	2.53	1.81	0.65	553
		AVG	4.98	7.13	4.04	1.67	1.20	0.70	6.94	10.67	5.98	2.49	1.81	0.65	553
112	47.25	5 R	4.96	7.35	3.89	1.61	1.19	0.67	7.04	11.30	5.67	2.42	1.79	0.62	527
112	47.25		4.96	7.36	4.03	1.75	1.27	0.67	6.96	10.97	5.99	2.54	1.80	0.63	554
		AVG	4.96	7.36	3.96	1.68	1.23	0.67	7.00	11.14	5.83	2.48	1.80	0.63	540
113	46.75	5 R	4.96	7.40	4.04	1.56	1.12	0.67	7.00	11.11	5.67	2.19	1.60	0.63	550
113	46.75		4.96	7.34	4.04	1.52	1.08	0.68	6.98	11.08	5.95	2.35	1.71	0.63	540
		AVG	4.96	7.37	4.04	1.54	1.10	0.67	6.99	11.10	5.81	2.27	1.66	0.63	545
114	46.25	5 R	5.04	7.79	4.29	1.80	1.24	0.65	6.96	12.08	6.53	2.75	1.96	0.58	448
114	46.25		4.98	7.95	4.39	1.76	1.24	0.63	6.98	12.00	6.60	2.71	1.91	0.58	494
		AVG	5.01	7.87	4.34	1.78	1.24	0.64	6.97	12.04	6.57	2.73	1.94	0.58	471
115	45.75	5 R	4.96	7.19	4.14	1.64	1.17	0.69	7.04	10.84	6.16	2.44	1.70	0.65	570
115	45.75		4.96	7.25	4.23	1.70	1.21	0.68	6.94	10.93	6.35	2.51	1.73	0.63	538
		AVG	4.96	7.22	4.19	1.67	1.19	0.69	6.99	10.89	6.26	2.48	1.72	0.64	554
116	45.25	5 R	5.04	10.64	7.26	3.39	1.84	0.47	6.94	16.55	10.95	5.33	2.98	0.42	321
116	45.25		5.04	10.63	7.25	3.44	1.86	0.47	6.96	16.41	11.24	5.45	2.96	0.42	332
		AVG	5.04	10.64	7.26	3.42	1.85	0.47	6.95	16.48	11.10	5.39	2.97	0.42	327
117	49.00	15 R	5.00	7.60	4.31	1.89	1.33	0.66	6.98	11.57	6.60	2.86	2.03	0.60	499
117	49.00		5.02	7.76	4.39	1.89	1.33	0.65	7.00	11.85	6.86	3.02	2.08	0.59	484
		AVG	5.01	7.68	4.35	1.89	1.33	0.65	6.99	11.71	6.73	2.94	2.06	0.60	491
118	48.00	15 R	4.98	7.87	4.40	1.90	1.36	0.63	7.04	12.04	6.48	2.85	2.08	0.58	494
118	48.00		4.96	7.94	4.42	1.86	1.35	0.62	7.06	12.05	6.61	2.76	2.00	0.59	511
		AVG	4.97	7.91	4.41	1.88	1.36	0.63	7.05	12.05	6.55	2.81	2.04	0.59	502
119	47.00	15 R	4.96	7.85	3.98	1.67	1.22	0.63	6.98	12.18	5.91	2.50	1.84	0.57	467
119	47.00		4.96	7.96	4.13	1.71	1.26	0.62	7.00	12.24	6.19	2.55	1.93	0.57	477
		AVG	4.96	7.91	4.06	1.69	1.24	0.63	6.99	12.21	6.05	2.53	1.89	0.57	472

AD-A194 555 INVESTIGATION OF THE INTER-RELATIONSHIP BETWEEN BASE PAVEMENT STIFFNESS A..(U) MCQUEEN (ROY D) AND ASSOCIATES LTD OAKTON VA R D MCQUEEN MAR 88 2/2

UNCLASSIFIED DOT/FAA/ES-88/1 DTFA01-87-P-88001 F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART

BUREAU OF STANDARDS-1963-A

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - NEW PARALLEL TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
120	46.00	15 R	5.00	8.85	4.54	1.64	1.14	0.56	6.96	13.78	7.04	2.46	1.64	0.51	398
120	46.00		5.00	8.96	4.61	1.66	1.11	0.56	7.00	13.63	6.99	2.54	1.68	0.51	428
		AVG	5.00	8.91	4.58	1.65	1.13	0.56	6.98	13.71	7.02	2.50	1.66	0.51	413
121	44.00	15 R	5.00	11.80	7.64	2.25	1.08	0.42	6.94	19.57	12.71	3.70	1.85	0.35	250
122	43.00	15 R	4.98	10.47	6.24	1.66	0.74	0.48	7.06	17.13	10.36	2.69	1.12	0.41	312
122	43.00		4.96	10.08	5.98	1.62	0.73	0.49	6.98	16.65	10.07	2.76	1.19	0.42	307
		AVG	4.97	10.28	6.11	1.64	0.74	0.48	7.02	16.89	10.22	2.73	1.16	0.42	310
123	42.00	15 R	5.00	11.76	7.00	2.28	1.08	0.43	6.98	19.11	12.21	3.78	1.86	0.37	269
123	42.00		5.00	11.59	7.03	2.25	1.17	0.43	7.00	18.87	11.76	3.79	1.94	0.37	275
		AVG	5.00	11.68	7.02	2.27	1.13	0.43	6.99	18.99	11.99	3.79	1.90	0.37	272
124	41.00	15 R	4.96	10.89	5.62	1.52	0.81	0.46	6.98	17.72	9.11	2.40	1.29	0.39	296
124	41.00	15 R	5.00	10.77	5.64	1.61	0.88	0.46	6.96	17.47	9.19	2.48	1.29	0.40	293
		AVG	4.98	10.83	5.63	1.57	0.85	0.46	6.97	17.60	9.15	2.44	1.29	0.40	294
125	41.50	15 L	4.96	17.32	11.60	4.14	1.89	0.29	2.98	8.27	5.44	1.76	0.83	0.36	219
125	41.50	15 L	4.96	15.79	10.64	3.66	1.74	0.31	2.98	7.86	5.10	1.74	0.84	0.38	250
		AVG	4.96	16.56	11.12	3.90	1.82	0.30	2.98	8.07	5.27	1.75	0.84	0.37	234
126	42.50	15 L	4.98	11.91	6.83	1.95	1.07	0.42	7.06	19.39	11.53	3.40	1.79	0.36	278
126	42.50		5.04	11.94	6.84	2.00	1.08	0.42	6.94	19.30	11.51	3.30	1.80	0.36	258
		AVG	5.01	11.93	6.84	1.98	1.08	0.42	7.00	19.35	11.52	3.35	1.80	0.36	268
127	43.50	15 L	4.98	10.04	5.21	1.61	0.99	0.50	6.94	15.84	8.15	2.51	1.54	0.44	338
127	43.50		4.96	9.80	4.93	1.58	1.00	0.51	6.94	15.41	8.27	2.47	1.53	0.45	353
		AVG	4.97	9.92	5.07	1.60	1.00	0.50	6.94	15.63	8.21	2.49	1.54	0.44	345
128	44.50	15 L	5.02	10.45	5.32	1.41	0.77	0.48	7.04	17.50	8.47	2.25	1.24	0.40	287
128	44.50		5.02	10.59	5.44	1.47	0.79	0.47	6.98	17.03	9.02	2.41	1.26	0.41	304
		AVG	5.02	10.52	5.38	1.44	0.78	0.48	7.01	17.27	8.75	2.33	1.25	0.41	295
129	45.50	15 L	4.98	8.42	4.49	1.58	1.08	0.59	6.96	13.18	6.64	2.33	1.58	0.53	416
129	45.50		5.02	8.59	4.64	1.69	1.11	0.58	6.94	13.20	7.00	2.43	1.69	0.53	416
		AVG	5.00	8.51	4.57	1.64	1.10	0.59	6.95	13.19	6.82	2.38	1.64	0.53	416
130	46.50	15 L	4.98	9.31	5.06	1.80	1.24	0.53	7.00	14.89	7.78	2.84	1.94	0.47	362
130	46.50		4.96	9.40	5.24	1.94	1.31	0.53	6.94	14.50	7.92	2.85	1.96	0.48	388
		AVG	4.97	9.36	5.15	1.87	1.28	0.53	6.97	14.70	7.85	2.85	1.95	0.47	375

Table A-6 (Cont'd.)

OCEAN CITY FIELD DATA - NEW PARALLEL TW

NDT NO.	STATION ft	OFFSET ft	F1 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S1 k/mil	F2 kip	D1(0) mil	D2(18) mil	D3(36) mil	D4(48) mil	S2 k/mil	DSM k/in
131	47.50	15 L	5.02	8.23	4.29	1.60	1.16	0.61	7.04	12.97	6.75	2.56	1.89	0.54	426
131	47.50		4.98	8.29	4.26	1.68	1.21	0.60	6.94	12.77	6.64	2.61	1.92	0.54	437
		AVG	5.00	8.26	4.28	1.64	1.19	0.61	6.99	12.87	6.70	2.59	1.91	0.54	432
132	48.50	15 L	5.04	7.55	3.52	1.49	1.12	0.67	6.94	11.47	5.58	2.34	1.75	0.61	485
132	48.50		5.02	7.66	3.81	1.59	1.17	0.66	6.98	11.59	5.40	2.28	1.70	0.60	499
		AVG	5.03	7.61	3.67	1.54	1.15	0.66	6.96	11.53	5.49	2.31	1.73	0.60	492
133	44.00	5 L	4.98	9.58	5.35	1.60	0.89	0.52	7.00	15.41	9.04	2.72	1.48	0.45	346
133	44.00		4.98	9.49	5.52	1.75	0.92	0.52	7.02	15.31	8.59	2.68	1.44	0.46	351
		AVG	4.98	9.54	5.44	1.68	0.91	0.52	7.01	15.36	8.82	2.70	1.46	0.46	348
134	43.00	5 L	5.00	10.35	5.81	2.00	1.10	0.48	6.96	16.45	9.47	3.29	1.88	0.42	321
134	43.00		4.96	10.17	5.80	2.03	1.10	0.49	6.96	16.31	9.31	3.39	1.82	0.43	326
		AVG	4.98	10.26	5.81	2.02	1.10	0.49	6.96	16.38	9.39	3.34	1.85	0.42	324
135	42.00	5 L	5.00	12.62	7.55	2.56	1.31	0.40	3.00	6.75	4.09	1.39	0.74	0.44	341
135	42.00		5.04	12.33	7.51	2.55	1.32	0.41	3.02	6.76	4.04	1.41	0.75	0.45	362
		AVG	5.02	12.48	7.53	2.56	1.32	0.40	3.01	6.76	4.07	1.40	0.75	0.45	352
136	41.00	5 L	5.02	12.58	7.78	2.89	1.46	0.40	3.00	6.45	3.84	1.39	0.74	0.47	330
136	41.00		5.02	12.19	7.45	2.68	1.39	0.41	2.98	6.32	3.71	1.34	0.71	0.47	348
		AVG	5.02	12.39	7.62	2.79	1.43	0.41	2.99	6.39	3.78	1.37	0.73	0.47	339
137	41.50	5 R	4.98	10.23	6.23	1.88	0.96	0.49	6.96	16.40	9.28	2.97	1.53	0.42	321
137	41.50		5.00	10.20	6.10	1.93	0.98	0.49	7.06	16.44	10.00	3.21	1.54	0.43	330
		AVG	4.99	10.22	6.17	1.91	0.97	0.49	7.01	16.42	9.64	3.09	1.54	0.43	326
138	42.50	5 R	5.00	10.72	6.15	1.74	0.86	0.47	7.00	17.21	9.79	2.88	1.49	0.41	308
138	42.50		5.00	10.50	6.18	1.79	0.89	0.48	6.94	16.68	9.62	2.82	1.41	0.42	314
		AVG	5.00	10.61	6.17	1.77	0.88	0.47	6.97	16.95	9.71	2.85	1.45	0.41	311
139	43.50	5 R	5.04	9.11	5.18	1.65	1.01	0.55	6.98	14.32	8.06	2.53	1.54	0.49	372
139	43.50		5.02	8.90	5.22	1.64	0.98	0.56	7.00	13.85	8.00	2.56	1.51	0.51	400
		AVG	5.03	9.01	5.20	1.65	1.00	0.56	6.99	14.09	8.03	2.55	1.53	0.50	386
140	44.50	5 R	4.98	9.87	5.09	1.49	0.84	0.50	6.98	16.09	8.58	2.53	1.34	0.43	322
140	44.50		5.00	10.03	5.59	1.64	0.90	0.50	6.94	15.73	8.45	2.52	1.40	0.44	340
		AVG	4.99	9.95	5.34	1.57	0.87	0.50	6.96	15.91	8.52	2.53	1.37	0.44	331

APPENDIX B

NUCLEAR DENSITY DATA

TETERBORO RUNWAY 1-19

TABLE B-1

TETERBORO RUNWAY 1-19 OVERLAY

MDT NO.	STA ft	OFFSET ft	TRUING AND LEVELING NUCLEAR UNIT WTS					CORE NO.	FINAL SURFACE COURSE NUCLEAR UNIT WTS					THIN LFT NUCLEAR UNIT WT
			1	2	3	4	AVG		1	2	3	4	AVG	
1	31.00	56 R	157.6	156.4	158.6	154.7	156.8		155.5	155.9	155.9	156.6	156.0	152.5
2	33.00	56 R	152.5	154.8	154.7	153.9	154.0	RD-2	154.5	153.9	153.5	153.8	153.9	148.6
3	35.00	56 R	150.7	152.4	148.4	149.5	150.3		152.3	155.6	154.1	153.3	153.8	148.3
4	37.15	56 R	152.1	151.1	150.3	151.7	151.3		158.2	158.7	158.2	155.9	157.8	150.9
5	39.00	56 R	150.4	150.7	150.6	150.0	150.4		155.9	157.5	157.3	159.0	157.4	151.4
6	41.00	56 R	150.5	154.1	152.1	151.3	152.0	RD-8	161.7	160.5	160.6	160.3	160.8	152.8
7	43.00	56 R	152.5	149.2	149.5	151.6	150.7		156.4	156.1	153.3	155.8	155.4	150.0
8	45.00	56 R	147.1	149.4	147.6	149.9	148.5	RD-9	152.0	152.9	155.0	154.6	153.6	150.3
9	47.00	56 R	153.7	153.6	153.8	156.9	154.5		153.1	155.5	152.4	153.0	153.5	150.6
10	49.00	56 R	153.5	151.6	151.4	149.4	151.5		155.7	156.6	157.4	153.6	155.8	152.4
11	51.00	56 R	154.1	152.6	150.8	153.8	152.8		158.8	159.6	157.8	155.2	157.9	153.5
12	53.00	56 R	152.4	153.0	153.4	155.0	153.5		155.7	156.2	155.6	154.5	155.5	153.3
13	55.00	56 R	151.2	152.6	151.1	153.3	152.1	RD-12	158.6	155.8	154.0	154.2	155.7	153.4
14	57.00	56 R	154.5	152.3	153.5	152.7	153.3		155.6	156.4	158.2	158.0	157.1	153.0
15	59.00	56 R	149.0	148.8	147.1	147.0	148.0	RD-17	153.6	152.8	153.6	153.1	153.3	150.6
16	61.00	56 R	152.4	153.3	150.2	149.7	151.4		154.8	152.8	154.1	154.2	154.0	150.8
17	63.00	56 R	143.8	143.9	145.4	147.2	145.1		154.2	152.8	152.0	152.5	152.9	152.8
18	65.00	56 R	148.7	148.0	149.6	148.3	148.7		155.7	155.3	153.7	155.9	155.2	153.1
19	32.00	32 R	151.5	152.5	151.9	147.9	151.0		152.6	152.6	155.4	154.6	153.8	148.8
20	34.00	32 R	147.4	150.3	149.3	148.5	148.9		152.4	151.2	154.5	150.6	152.2	145.1
21	36.00	32 R	151.1	151.0	148.6	150.1	150.2		156.6	154.4	156.9	153.1	155.3	148.9
22	38.00	32 R	152.2	152.7	149.0	151.8	151.4		153.4	155.7	154.2	155.5	154.7	151.6
23	40.00	32 R	154.6	156.5	154.4	153.7	154.8		158.7	155.8	156.6	154.6	156.4	151.4
24	42.00	32 R	154.8	152.2	153.3	154.2	153.6		157.8	156.6	157.0	155.0	156.6	152.8
25	44.00	32 R	157.4	154.8	157.2	155.8	156.3		154.6	153.5	153.1	152.9	153.5	151.6
26	46.00	32 R	148.8	152.3	150.6	152.7	151.1	RD-10	153.3	154.5	153.1	153.1	153.5	150.2
27	48.00	32 R	155.1	153.1	155.7	153.3	154.3		152.2	150.8	150.2	151.8	151.3	150.0
28	50.00	32 R	154.2	152.6	154.6	152.8	153.6		155.6	155.1	154.5	155.8	155.3	154.3
29	52.00	32 R	155.0	154.5	154.4	157.1	155.3		156.3	158.5	156.3	158.5	157.4	154.7
30	54.00	32 R	155.7	156.2	154.0	154.8	155.2		158.2	160.1	157.8	159.8	159.0	154.4
31	56.00	32 R	152.5	156.4	153.7	155.3	154.5		157.6	156.3	158.0	158.8	157.7	153.6
32	58.00	32 R	151.6	155.0	153.3	151.4	152.8		157.1	157.1	153.9	154.4	155.6	153.9
33	60.00	32 R	151.7	149.5	149.6	150.3	150.3		160.1	157.9	161.7	160.3	160.0	152.9
34	62.00	32 R	150.9	152.2	152.5	150.6	151.6		150.4	154.7	154.3	152.4	153.0	152.1
35	64.00	32 R	149.6	151.7	150.2	153.2	151.2	RD-19	151.5	154.4	154.6	153.3	153.5	152.4
36	66.00	32 R	154.6	154.5	153.0	155.6	154.4		156.1	153.6	153.6	152.9	154.1	151.1
37	31.00	6.5 R	158.8	157.0	158.3	158.1	158.1		160.6	159.1	161.2	161.3	160.6	154.3
38	33.00	6.5 R	155.8	156.5	154.2	155.8	155.6		155.2	158.6	157.3	156.6	156.9	152.3
39	35.00	6.5 R	154.2	153.7	154.8	153.0	153.9		156.5	156.3	155.2	154.5	155.6	150.8
40	37.15	6.5 R	154.0	155.4	155.1	156.0	155.1		157.5	160.5	159.3	160.6	159.5	155.6
41	39.00	6.5 R	155.5	154.3	152.6	155.1	154.4	RD-7	161.2	158.4	160.8	161.3	160.4	153.5
42	41.00	6.5 R							161.3	159.8	159.2	159.7	160.0	154.7
43	43.00	6.5 R	155.1	153.3	155.0	152.2	153.9		158.9	156.4	156.4	159.8	157.9	153.0
44	45.00	6.5 R	159.6	156.0	158.6	158.6	158.2		158.3	154.1	157.7	157.6	156.9	148.7
45	47.00	6.5 R	153.3	154.4	154.4	154.2	154.1		155.6	155.9	154.3	155.5	155.3	151.7

Table B-1 (Cont'd.)

TETERBORO RUNWAY 1-19

TETERBORO RUNWAY 1-19 OVERLAY

NDT NO.	STA ft	OFFSET ft	TRUING AND LEVELING NUCLEAR UNIT WTS 1	2	3	4	AVG	CORE NO.	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	AVG	THIN LFT NUCLEAR UNIT WT
46	49.00	6.5 R	158.1	160.4	156.5	157.6	158.2		158.2	157.3	156.2	159.7	157.9	153.1
47	51.00	6.5 R	152.2	154.4	154.9	156.1	154.4		158.5	155.8	154.8	159.1	157.1	153.3
48	53.00	6.5 R	155.4	156.0	153.9	156.5	155.5		156.7	154.3	153.8	153.5	154.6	151.9
49	55.00	6.5 R	154.3	154.5	152.8	152.9	153.6	RD-13	156.6	158.5	157.7	159.7	158.1	154.9
50	57.00	6.5 R	157.6	155.1	156.0	157.9	156.7		157.0	156.7	158.2	159.7	157.9	154.6
51	59.00	6.5 R	149.0	151.8	150.5	151.1	150.6		155.5	153.5	154.7	156.8	155.1	151.1
52	61.00	6.5 R	157.3	154.9	155.0	156.5	155.9		151.6	151.5	153.2	152.0	152.1	151.3
53	63.00	6.5 R	154.3	152.2	153.1	155.3	153.7		157.0	159.5	156.3	156.9	157.4	155.1
54	65.00	6.5 R	153.3	155.4	154.5	153.6	154.2		157.6	154.5	155.8	154.5	155.6	153.2
55	32.00	18 L	153.7	154.7	153.5	151.8	153.4		158.2	158.3	156.9	160.0	158.4	151.4
56	34.00	18 L	151.9	152.7	152.8	153.5	152.7	RD-5	152.1	153.1	152.2	153.4	152.7	151.2
57	36.00	18 L	149.9	148.7	151.8	151.7	150.5		155.6	157.7	155.5	158.5	156.8	153.4
58	38.00	18 L	155.8	158.9	158.7	155.8	157.3	RD-6	155.0	155.9	154.9	156.5	155.6	150.2
59	40.00	18 L	155.3	157.2	154.3	153.6	155.1		155.9	155.6	155.9	154.8	155.6	154.2
60	42.00	18 L	150.9	152.0	153.9	151.9	152.2		158.2	155.5	157.6	157.0	157.1	156.3
61	44.00	18 L	154.4	156.4	156.7	154.6	155.5		156.3	154.0	158.7	154.7	155.9	150.3
62	46.00	18 L	153.5	153.5	154.9	154.5	154.1		154.6	153.8	153.6	154.5	154.1	152.6
63	48.00	18 L	154.5	153.1	157.2	157.7	155.6		154.9	157.5	156.3	158.4	156.8	152.1
64	50.00	18 L	154.8	155.3	157.7	155.1	155.7		154.2	155.9	158.4	155.7	156.1	153.7
65	52.00	18 L	155.9	155.4	155.4	155.4	155.5		158.2	156.4	158.6	157.9	157.8	153.3
66	54.00	18 L	141.0	142.5	140.0	143.3	141.7		156.1	156.2	156.7	155.0	156.0	151.3
67	56.00	18 L	153.5	155.5	154.2	153.8	154.3	RD-15	156.8	154.3	157.8	156.7	156.4	153.5
68	58.00	18 L	155.0	155.9	154.5	156.9	155.6		156.7	159.5	156.0	157.7	157.5	154.2
69	60.00	18 L	155.4	155.6	156.1	155.2	155.6		155.6	157.6	155.8	155.8	156.2	152.2
70	62.00	18 L	156.8	153.9	151.8	155.2	154.4		156.2	158.5	154.7	157.4	156.7	155.4
71	64.00	18 L	149.7	149.1	149.8	148.7	149.3		152.5	154.5	152.4	152.1	152.9	152.3
72	66.00	18 L	153.6	153.4	151.7	149.7	152.1		159.5	159.4	157.1	155.6	157.9	154.6
73	31.00	43 L	154.8	153.4	154.4	153.4	154.0	RD-1	152.7	154.1	154.2	152.9	153.5	152.0
74	33.00	43 L	149.6	150.9	150.2	151.2	150.5	RD-3	150.5	152.3	150.8	150.4	151.0	148.9
75	35.00	43 L	150.7	149.6	149.6	147.9	149.5		152.2	152.0	153.0	154.6	153.0	150.3
76	37.15	43 L	148.8	153.7	151.6	149.9	151.0		153.5	152.2	151.1	154.2	152.8	149.2
77	39.00	43 L	148.4	146.5	148.8	146.8	147.6		155.9	156.2	153.4	155.3	155.2	153.3
78	41.00	43 L	145.9	146.5	148.5	150.1	147.8		153.0	152.4	150.3	151.3	151.8	149.8
79	43.00	43 L	148.2	148.0	151.5	151.9	149.9		156.4	153.4	154.3	153.7	154.5	152.7
80	45.00	43 L	154.4	152.1	154.6	153.5	153.7		154.7	156.7	154.5	156.3	155.6	149.9
81	47.00	43 L	155.1	152.9	155.4	155.4	154.7	RD-11	155.0	155.7	155.1	155.5	155.3	151.6
82	49.00	43 L	153.0	152.7	153.2	151.5	152.6		155.6	157.6	157.0	156.5	156.7	153.6
83	51.00	43 L	148.7	150.5	149.8	148.5	149.4		158.0	156.7	156.2	157.3	157.1	152.3
84	53.00	43 L	147.8	151.2	149.7	150.8	149.9		152.0	155.0	153.6	153.1	153.4	153.3
85	55.00	43 L	148.7	148.8	147.4	149.4	148.6	RD-14	157.6	158.7	157.6	156.5	157.6	155.4
86	57.00	43 L	147.7	151.0	149.3	150.9	149.7		154.1	153.9	155.1	154.7	154.5	152.7
87	59.00	43 L	146.1	146.9	145.5	146.6	146.3		155.5	154.3	153.7	153.0	154.1	151.6
88	61.00	43 L	151.0	147.2	150.5	149.6	149.6		153.7	152.5	154.7	152.7	153.4	153.4
89	63.00	43 L	144.1	145.2	145.0	142.3	144.2		155.2	156.5	154.8	155.2	155.4	153.4
90	65.00	43 L	140.8	143.8	141.5	143.7	142.5		154.5	152.3	155.1	156.0	154.5	152.6

Table B-1 (Cont'd.)

TETERBORO RUNWAY 1-19

TETERBORO RUNWAY 1-19 OVERLAY

NDT NO.	STA ft	OFFSET ft	TRUING AND LEVELING NUCLEAR UNIT WTS 1	2	3	4	AVG	CORE NO.	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	AVG	THIN LFT NUCLEAR UNIT WT
91	32.00	68 L	146.2	144.3	147.3	143.0	145.2		152.1	151.9	153.6	153.3	152.7	150.3
92	34.00	68 L	151.2	153.7	149.9	150.2	151.3	RD-4	151.2	150.0	151.7	150.1	150.8	148.9
93	36.00	68 L	149.8	154.1	149.3	152.7	151.5		158.4	155.4	158.7	157.4	157.5	150.6
94	38.00	68 L	153.2	154.4	152.9	153.1	153.4		153.8	153.3	151.6	154.2	153.2	151.4
95	40.00	68 L	155.0	158.1	156.4	155.2	156.2		151.0	154.5	153.9	152.5	153.0	149.5
96	42.00	68 L	154.7	155.3	155.8	153.1	154.7		156.2	154.3	153.8	155.4	154.9	150.1
97	44.00	68 L	155.1	152.8	154.4	156.1	154.6		155.2	155.8	156.8	154.4	155.6	151.4
98	46.00	68 L	153.7	154.6	152.3	153.9	153.6		153.0	152.6	151.9	151.1	152.2	149.7
99	48.00	68 L	153.1	154.7	154.4	151.6	153.5		158.7	157.4	157.5	156.8	157.6	151.7
100	50.00	68 L	154.0	154.8	152.9	151.5	153.3		158.2	160.0	160.8	160.3	159.8	153.5
101	52.00	68 L	147.8	145.0	145.1	145.1	145.8		159.2	156.1	157.7	159.1	158.0	152.6
102	54.00	68 L	144.9	147.4	146.1	146.6	146.3		154.9	155.7	154.7	155.8	155.3	151.0
103	56.00	68 L	150.5	146.8	147.0	148.8	148.3		156.7	156.1	155.8	155.3	156.0	154.9
104	58.00	68 L	149.6	146.1	148.7	150.7	148.8	RD-16	156.9	154.4	156.2	158.3	156.5	154.7
105	60.00	68 L	145.3	143.8	145.8	146.7	145.4		152.9	152.5	152.5	154.3	153.1	151.8
106	62.00	68 L						RD-18	156.2	158.5	156.9	157.8	157.4	154.0
107	64.00	68 L							151.2	147.8	148.7	151.9	149.9	148.5
108	66.00	68 L							151.2	148.4	151.2	153.6	151.1	150.6

TABLE B-2

LEESBURG MUNICIPAL AIRPORT, VA

NDT NO.			NUCLEAR UNIT WTS PRIOR TO OVERLAY 1	2	3	4	AVG	REMARKS	CORE NO.	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG UNCORR	THN LFT UNIT WT
1	0.50	15 L	152.6	157.1	154.5	155.3	154.9			166.7	162.0	159.4	164.5	163.2	
2	2.50	15 L	153.6	154.3	152.3	149.8	152.5			164.1	164.0	163.5	163.2	163.7	
3	4.50	15 L	151.7	154.2	151.0	153.6	152.6			160.0	161.4	161.1	159.8	160.6	
4	6.50	15 L	150.2	150.9	152.5	148.8	150.6			161.8	158.3	159.8	158.5	159.6	
5	8.50	15 L	146.0	149.7	148.0	150.0	148.4			162.5	160.4	164.5	160.7	162.0	
6	10.50	15 L	151.1	151.9	150.0	148.7	150.4			157.2	155.6	155.4	158.5	156.7	
7	12.50	15 L	150.3	149.4	152.4	155.0	151.8			165.5	163.0	161.9	160.7	162.8	
8	14.50	15 L	152.6	153.5	157.9	153.3	154.3			161.9	162.6	159.7	161.6	161.5	
9	16.50	15 L	152.7	153.7	154.5	154.7	153.9			161.2	161.8	160.7	157.5	160.3	
10	18.50	15 L	155.4	158.3	156.7	155.4	156.5	IRREGULAR TRANSVERSE CRACK		164.9	163.9	166.5	164.6	165.0	
11	20.50	15 L	159.0	159.2	157.3	159.3	158.7			162.2	161.6	164.1	163.1	162.8	
12	22.50	15 L	156.5	154.1	154.3	155.3	155.1		C-7	157.5	158.4	157.1	161.4	158.6	154.8
13	24.50	15 L	159.4	158.8	163.7	159.9	160.5			161.3	159.7	161.0	158.4	160.1	
14	26.50	15 L	157.1	162.9	160.6	159.1	159.9			157.1	159.8	159.5	158.9	158.8	
15	28.50	15 L	154.3	153.4	155.4	152.2	153.8			156.1	153.3	158.4	155.9	155.9	
16	30.50	15 L	155.3	156.4	157.1	156.8	156.4			153.9	155.5	153.5	156.5	154.9	
17	32.50	15 L	148.6	148.7	148.5	153.3	149.8			156.5	159.4	159.8	157.0	158.2	
18	34.50	15 L	155.4	156.2	157.2	154.5	155.8			160.9	164.3	159.7	159.5	161.1	
19	1.00	5 L	153.2	154.7	155.0	153.8	154.2			160.3	160.4	164.8	164.3	162.5	
20	2.00	5 L	158.7	158.5	155.7	158.1	157.8			155.5	153.5	157.9	154.8	155.4	
21	3.00	5 L	155.9	155.6	156.4	158.2	156.5			160.7	157.8	158.1	159.2	159.0	
22	4.00	5 L	155.5	159.0	155.9	157.7	157.0			157.8	160.8	160.6	160.4	159.9	
23	5.00	5 L	157.8	154.8	157.8	156.9	156.8			163.1	154.5	161.8	162.9	160.6	
24	6.00	5 L	156.7	157.7	155.5	159.5	157.4			161.0	161.4	159.5	160.1	160.5	
25	7.00	5 L	151.6	150.5	150.5	152.9	151.4			164.2	164.2	163.1	161.9	163.4	
26	8.00	5 L	154.3	155.7	158.9	155.8	156.2			162.2	159.8	158.8	160.2	160.3	
27	9.00	5 L	153.5	155.2	154.0	155.4	154.5			158.1	158.3	156.3	159.6	158.1	
28	10.00	5 L	157.2	157.8	157.4	158.7	157.8			159.7	158.6	160.6	160.4	159.8	
29	11.00	5 L	157.8	158.1	156.4	157.5	157.5			159.6	159.0	160.1	159.3	159.5	
30	12.00	5 L	155.3	156.2	158.2	155.3	156.3			163.1	163.0	162.7	160.4	162.3	
31	13.00	5 L	155.1	157.8	159.2	159.2	157.8			164.2	164.1	166.5	163.7	164.6	
32	14.00	5 L	158.7	158.3	160.2	158.2	158.9			160.4	160.2	161.1	159.0	160.2	
33	15.00	5 L	156.9	154.6	157.1	154.6	155.8			162.2	158.0	164.1	162.0	161.6	
34	16.00	5 L	156.1	158.2	158.1	156.5	157.2			160.5	160.4	161.2	158.9	160.3	
35	17.00	5 L	155.1	153.8	156.2	155.6	155.2			158.5	158.7	161.2	156.2	158.7	
36	18.00	5 L	161.2	163.0	158.1	160.2	160.6		C-6		not tested				148.1
37	19.00	5 L	161.8	161.9	161.1	160.4	161.3			162.6	162.9	164.0	162.1	162.9	
38	20.00	5 L	157.2	159.8	161.1	156.5	158.7			161.1	160.0	160.1	159.8	160.3	
39	21.00	5 L	158.3	157.3	157.3	159.3	158.1			158.0	158.9	159.0	160.3	159.1	
40	22.00	5 L	153.9	156.1	157.7	154.3	155.5			157.0	161.7	159.8	160.9	159.9	
41	23.00	5 L	158.1	157.7	160.6	154.9	157.8			160.3	159.6	162.7	159.9	160.6	
42	24.00	5 L	156.6	157.1	153.4	154.0	155.3	MINOR STRESS CRACKING		160.4	163.1	160.6	162.3	161.6	
43	25.00	5 L	158.8	163.3	163.4	158.6	161.0			160.9	159.2	160.8	157.3	159.6	
44	26.00	5 L	156.0	157.0	156.0	157.1	156.5			161.5	160.3	162.9	159.2	161.0	
45	27.00	5 L	156.4	156.3	158.8	159.7	157.8	NEAR TRANSVERSE CRACK		161.0	159.9	159.8	160.8	160.4	

Table B-2 (Cont'd.)

LEESBURG MUNICIPAL AIRPORT, VA

NDT NO.			NUCLEAR UNIT WTS PRIOR TO OVERLAY 1	2	3	4	AVG	REMARKS	CORE NO.	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG UNCORR	THN LFT UNIT WT
46	28.00	5 L	156.8	157.6	157.1	159.7	157.8			161.0	158.1	159.4	158.8	159.3	
47	29.00	5 L	152.4	152.1	152.5	152.8	152.5			157.2	160.2	160.9	159.3	159.4	
48	30.00	5 L	151.4	150.4	150.6	152.7	151.3			156.2	159.0	158.8	159.7	158.4	
49	31.00	5 L	154.3	151.2	154.5	153.3	153.3			156.2	157.5	159.4	159.4	158.1	
50	32.00	5 L	154.2	152.5	155.5	151.6	153.5			156.3	161.1	156.8	160.3	158.6	
51	33.00	5 L	152.4	155.9	153.6	152.1	153.5			160.7	159.5	161.0	158.9	160.0	
52	34.00	5 L	159.1	160.0	158.7	159.6	159.4			163.4	160.3	161.5	161.9	161.8	
53	0.50	15 R	150.1	145.1	149.0	155.1	149.8	RUN-UP AREA		157.7	157.2	156.6	159.9	157.9	
54	1.50	5 R	157.6	155.8	157.4	157.1	157.0			160.4	160.4	163.0	164.7	162.1	
55	2.50	5 R	155.3	157.0	155.0	153.7	155.3			167.1	164.7	167.9	165.2	166.2	
56	3.50	5 R	159.0	158.8	155.0	157.9	157.7			162.3	163.0	161.3	165.1	162.9	
57	4.50	5 R	155.0	151.2	154.9	156.5	154.4			161.0	160.4	158.2	162.0	160.4	
58	5.50	5 R	157.5	156.0	161.4	160.2	158.8			165.3	167.0	166.4	167.1	166.5	
59	6.50	5 R	159.6	159.3	157.8	156.7	158.4			164.2	165.8	166.8	167.7	166.1	
60	7.50	5 R	153.9	153.3	154.1	155.3	154.2			162.1	161.2	161.9	160.9	161.5	
61	8.50	5 R	148.6	153.0	147.4	149.1	149.5			159.6	160.8	159.0	158.4	159.5	
62	9.50	5 R	153.7	155.4	152.2	154.8	154.0			163.3	161.6	160.8	162.9	162.2	
63	10.50	5 R	155.1	157.5	157.2	157.7	156.9			160.1	163.6	164.4	165.8	163.5	
64	11.50	5 R	157.4	157.0	155.7	153.5	155.9			160.5	159.7	160.6	161.8	160.7	
65	12.50	5 R	157.3	155.7	157.3	155.8	156.5			160.6	159.5	160.9	163.3	161.1	
66	13.50	5 R	155.0	153.1	153.6	150.0	152.9			162.8	160.9	163.1	162.1	162.2	
67	14.50	5 R	156.2	158.8	157.1	155.3	156.9			164.1	163.9	164.7	165.0	164.4	
68	15.50	5 R	159.2	159.2	157.4	155.9	157.9	STRESS CRACKING	C-5	161.9	164.5	161.3	164.5	163.1	152.9
69	16.50	5 R	156.5	161.3	160.1	158.8	159.2	LONGITUDINAL STRESS CRACKIN		160.3	162.1	159.7	163.4	161.4	
70	17.50	5 R	162.6	159.1	159.4	160.8	160.5	LONGITUDINAL STRESS CRACKIN		161.6	163.8	163.2	162.5	162.8	
71	18.50	5 R	159.7	160.9	158.3	160.6	159.9			163.1	165.2	165.2	166.6	165.0	
72	19.50	5 R	164.4	162.6	162.0	161.3	162.6	STRESS CRACKING		159.4	161.9	157.1	158.3	159.2	
73	20.50	5 R	158.0	164.0	164.3	159.8	161.5			161.6	160.7	162.1	163.3	161.9	
74	21.50	5 R	163.7	162.1	162.1	164.2	163.0			165.8	165.4	163.5	161.0	163.9	
75	22.50	5 R	163.8	164.9	165.5	166.2	165.1			165.6	163.9	161.5	164.0	163.8	
76	23.50	5 R	158.0	159.8	157.3	159.9	158.8			159.8	161.2	161.1	161.8	161.0	
77	24.50	5 R	157.4	156.5	154.9	158.0	156.7	MINOR STRESS CRACKING		164.1	164.4	163.3	165.0	164.2	
78	25.50	5 R	161.6	159.7	159.9	160.2	160.4			163.1	164.1	165.7	163.8	164.2	
79	26.50	5 R	154.9	154.7	156.8	158.7	156.3			160.1	155.5	158.6	155.9	157.5	
80	27.50	5 R	157.8	157.7	158.3	160.9	158.7			156.4	158.0	158.8	158.8	158.0	
81	28.50	5 R	159.4	156.2	157.3	158.5	157.9			157.1	158.4	157.4	158.7	157.9	
82	29.50	5 R	155.2	156.4	157.0	157.7	156.6			158.8	156.6	158.9	156.7	157.8	
83	30.50	5 R	156.7	153.9	154.5	151.6	154.2			162.8	160.2	159.9	164.5	161.9	
84	31.50	5 R	159.9	158.3	160.0	159.8	159.5			160.2	159.9	160.4	160.3	160.2	
85	32.50	5 R	156.0	155.1	154.3	153.4	154.7			166.6	157.0	165.0	156.0	161.2	
86	33.50	5 R	153.9	153.6	155.2	156.2	154.7			146.7	150.2	146.2	148.1	147.8	
87	34.25	5 R	157.6	156.9	159.3	154.0	157.0			163.0	156.6	162.1	156.1	159.5	
88	1.50	15 R	153.4	155.5	157.3	153.6	155.0		C-11	159.0	160.3	160.2	161.9	160.4	151.6
89	3.50	15 R	155.2	152.5	154.0	152.9	153.7	SEVERE CHECK CRACKS		156.5	156.7	158.7	160.7	158.2	
90	5.50	15 R	151.3	151.7	152.7	153.3	152.3			162.5	163.9	162.9	165.9	163.8	
91	7.50	15 R	151.1	152.3	147.7	148.1	149.8			163.3	162.9	161.9	161.5	162.4	

Table B-2 (Cont'd.)

LEESBURG MUNICIPAL AIRPORT, VA

NDT NO.			NUCLEAR UNIT WTS PRIOR TO OVERLAY 1	2	3	4	AVG	REMARKS	CORE NO.	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG UNCORR	THN LFT UNIT WT
92	9.50	15 R	155.1	156.8	155.4	151.7	154.8			158.2	161.2	159.1	157.2	158.9	
93	11.50	15 R	151.5	150.0	147.7	152.3	150.4			161.1	160.9	160.0	157.8	160.0	
94	13.50	15 R	158.9	153.6	154.5	155.5	155.6		C-4	159.2	159.5	156.9	158.8	158.6	151.0
95	15.50	15 R	153.7	156.4	156.0	156.7	155.7			158.9	155.6	156.8	159.8	157.8	
96	17.50	15 R	159.2	159.6	155.5	157.5	158.0			165.8	166.8	163.7	166.2	165.6	
97	19.50	15 R	153.9	155.5	156.1	156.4	155.5	IRREGULAR TRANSVERSE CRACK		160.5	162.0	158.3	161.0	160.5	
98	21.50	15 R	151.9	152.0	154.4	154.3	153.2			156.4	156.8	154.8	158.7	156.7	
99	23.50	15 R	155.3	151.6	153.5	151.9	153.1			158.4	161.6	160.3	160.1	160.1	
100	25.50	15 R	149.6	152.6	153.0	152.1	151.8			156.8	157.7	160.6	158.3	158.4	
101	27.50	15 R	147.9	149.7	149.5	145.9	148.3			160.0	156.3	157.9	159.2	158.4	
102	29.50	15 R	149.3	150.7	149.2	149.3	149.6			160.4	156.4	156.8	156.7	157.6	
103	31.50	15 R	156.7	153.8	158.8	154.5	156.0			159.4	160.1	157.2	157.4	158.5	
104	33.50	15 R	155.5	154.7	153.3	154.1	154.4			163.7	161.7	163.1	164.8	163.3	
	2.53	15 L							C-1	162.2	164.0	161.2	163.2	162.7	155.5
	29.62	5 R							C-10	161.1	161.7	160.5	159.0	160.6	151.7
	7.62	15 R							C-12	162.7	161.5	162.4	163.2	162.5	154.4
	6.07	5 L							C-2	159.1	158.8	160.9	161.0	160.0	148.5
	8.59	5 R							C-3	157.1	159.3	162.2	161.9	160.1	151.2
	26.09	5 L							C-8	160.2	160.4	162.7	159.1	160.6	150.7
	28.62	15 L							C-9	154.7	155.6	155.2	154.2	154.9	145.7

TABLE B-3

OCEAN CITY MUNICIPAL AIRPORT

TERMINAL APRON AND CONNECTOR TAXIWAY OVERLAY

NDT NO.	STA ft	OFFSET ft	TRUEING/LEVELING COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG UNCORR	THIN LIFT UNIT WT
TERMINAL APRON AND CONNECTOR TAXIWAY													
1	49.50	105 R	142.4	140.7	140.8	140.3	141.1	146.0	145.3	148.9	144.1	146.1	
2	49.00	105 R	136.7	135.9	137.1	137.1	136.7	143.8	146.8	145.8	146.9	145.8	143.5
3	48.50	105 R	139.4	138.8	140.6	141.5	140.1	142.9	144.9	143.5	145.5	144.2	
4	48.00	105 R	134.5	138.8	140.6	141.5	138.9	143.1	145.0	143.6	143.1	143.7	141.4
5	47.50	105 R	134.5	138.3	137.7	136.6	136.8	144.9	143.1	144.5	144.6	144.3	145.0
6	47.00	105 R	137.1	134.9	134.5	137.3	136.0	143.8	144.6	142.9	144.1	143.9	137.4
7	46.50	105 R	131.6	131.6	133.5	131.8	132.1	143.3	141.6	142.8	142.0	142.4	143.4
8	46.00	105 R	129.3	129.8	131.2	132.9	130.8	142.6	143.3	145.6	143.8	143.8	145.4
9	45.50	105 R	136.2	138.3	134.0	132.8	135.3	143.4	141.9	143.4	140.8	142.4	140.6
10	49.25	93 R	135.7	133.2	131.1	132.0	133.0	142.8	143.7	144.7	146.1	144.3	
11	48.75	93 R	132.2	134.4	132.7	132.3	132.9	146.3	144.1	148.6	144.0	145.8	146.5
12	48.25	93 R	131.7	132.7	133.8	137.0	133.8	138.3	140.2	138.9	139.3	139.2	142.1
13	47.75	93 R	133.7	133.1	132.9	134.0	133.4	144.3	146.5	145.2	143.4	144.9	144.9
14	47.25	93 R	126.4	124.6	126.6	128.7	126.6	139.1	143.2	142.0	143.0	141.8	141.4
15	46.75	93 R	132.4	130.7	130.8	130.3	131.1	146.5	146.0	144.5	145.9	145.7	143.9
16	46.25	93 R	129.8	134.0	131.5	133.0	132.1	143.0	145.0	143.2	142.9	143.5	
17	45.75	93 R	131.5	133.5	130.9	134.2	132.5	140.3	140.5	139.5	141.7	140.5	140.6
18	45.25	93 R	130.3	133.9	130.0	132.5	131.7	142.4	141.1	142.1	141.8	141.9	142.8
19	49.50	80 R	134.9	139.9	132.1	136.4	135.8	143.5	148.8	147.5	145.4	146.3	
20	49.00	80 R	136.8	135.3	134.0	135.9	135.5	145.6	146.7	144.3	142.3	144.7	
21	48.50	80 R	130.8	131.7	134.7	134.1	132.8	141.5	140.2	138.5	138.1	139.6	140.9
22	48.00	80 R	134.8	133.7	133.7	134.4	134.2	139.8	141.7	143.7	141.2	141.6	141.1
23	47.50	80 R	140.2	137.2	137.9	137.5	138.2	142.7	142.3	142.9	141.2	142.3	145.5
24	47.00	80 R	136.4	135.1	135.6	136.9	136.0	142.0	143.7	143.8	143.5	143.3	144.4
25	46.50	80 R	137.9	139.4	139.6	137.3	138.6	142.8	144.1	145.0	145.0	144.2	147.0
26	46.00	80 R	132.8	131.2	131.5	134.1	132.4	138.5	137.9	138.7	138.5	138.4	140.8
27	45.50	80 R	133.2	134.5	133.7	133.7	133.8	140.1	142.5	142.1	142.7	141.9	142.8
28	49.50	65 R	140.4	141.2	141.3	142.3	141.3	145.9	144.2	144.0	144.3	144.6	143.5
29	48.50	65 R	139.6	142.5	142.9	144.2	142.3	141.7	142.2	143.6	144.2	142.9	143.4
30	47.50	65 R	144.9	145.5	141.3	140.4	143.0	143.5	143.9	144.7	146.0	144.5	145.7
31	46.50	65 R	140.1	143.3	141.2	142.1	141.7	145.8	148.8	147.1	146.4	147.0	143.8
32	45.50	65 R	137.8	140.9	139.0	139.6	139.3	143.8	144.2	142.0	144.0	143.5	145.7
33	44.50	65 R	144.3	143.3	146.6	144.1	144.6	143.3	144.1	141.5	143.8	143.2	143.1
34	49.00	52 R	143.3	141.4	143.4	142.7	142.7	145.9	142.9	146.0	143.5	144.6	142.9
35	48.00	52 R	144.2	146.6	146.6	143.3	145.2	144.8	145.9	143.6	143.7	144.5	145.1
36	47.00	52 R	132.7	130.9	133.5	134.2	132.8	145.3	144.1	144.5	144.3	144.6	145.1
37	46.00	52 R	138.7	138.5	136.0	138.3	137.9	142.8	144.8	143.1	144.3	143.8	144.5
38	45.00	52 R	139.9	139.8	138.2	138.2	139.0	142.6	141.7	143.3	144.7	143.1	140.1
39	49.50	39 R	139.9	139.5	141.7	141.0	140.5	145.6	145.6	146.9	144.3	145.6	143.5
40	48.50	39 R	134.8	133.1	133.4	135.2	134.1	138.8	141.2	140.2	141.1	140.3	141.0

Table B-3 (Cont'd.)

OCEAN CITY MUNICIPAL AIRPORT

TERMINAL APRON AND CONNECTOR TAXIWAY OVERLAY

NDT NO.	STA ft	OFFSET ft	TRUEING/LEVELING COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG UNCORR	THIN LIFT UNIT WT
41	47.50	39 R	143.5	143.1	141.4	144.4	143.1	145.7	146.8	146.1	145.7	146.1	144.4
42	46.50	39 R	133.5	134.9	137.1	136.9	135.6	142.1	141.4	141.1	143.7	142.1	141.5
43	45.50	39 R	144.5	141.3	145.3	144.7	144.0	142.4	144.7	143.6	143.4	143.5	143.9
44	44.50	39 R	148.8	148.2	147.8	148.9	148.4	144.5	145.2	147.6	143.3	145.2	145.9
45	49.00	26 R	144.4	144.3	145.0	144.9	144.7	146.8	147.8	147.5	150.5	148.2	146.9
46	48.00	26 R	148.8	147.4	142.9	143.7	145.7	141.3	143.4	142.8	142.0	142.4	140.9
47	47.00	26 R	147.2	148.6	145.0	146.4	146.8	144.8	145.2	141.6	143.1	143.7	143.2
48	46.00	26 R	139.9	139.0	140.8	139.5	139.8	142.4	144.3	144.6	145.4	144.2	144.3
49	45.00	26 R	142.4	141.5	140.3	143.0	141.8	145.7	146.6	145.6	144.6	145.6	143.2
50	49.50	13 R	142.9	144.6	142.5	142.5	143.1	146.0	145.3	145.0	144.3	145.2	140.9
51	48.50	13 R	140.3	140.4	137.9	137.8	139.1	145.6	146.7	147.0	145.0	146.1	144.7
52	47.50	13 R	143.1	141.5	141.0	143.2	142.2	146.8	145.3	147.7	146.9	146.7	143.0
53	46.50	13 R	141.0	145.7	143.5	143.2	143.4	145.0	144.1	142.6	143.6	143.8	143.4
54	45.50	13 R	140.9	142.2	141.4	142.6	141.8	144.8	143.6	143.4	143.2	143.8	144.0
55	44.50	13 R	145.5	150.4	147.7	148.6	148.1	142.4	141.6	141.9	140.4	141.6	139.3
56	49.00	BL	142.1	142.8	141.9	140.2	141.8	143.7	142.7	142.6	147.3	144.1	
57	48.00	BL	143.2	143.9	144.4	143.6	143.8	144.1	146.2	142.6	143.3	144.1	143.7
58	47.00	BL	139.5	136.1	139.2	139.8	138.7	143.6	144.2	144.4	144.2	144.1	143.5
59	46.00	BL	142.1	142.3	145.4	140.3	142.5	145.4	145.2	143.8	144.7	144.8	145.9
60	45.00	BL	141.5	144.8	144.7	142.7	143.4	147.4	146.7	146.4	145.5	146.5	142.3
61	49.50	13 L	141.3	140.9	140.9	140.6	140.9	144.3	144.5	141.4	143.1	143.3	
62	48.50	13 L	139.5	141.9	136.7	139.6	139.4	140.8	142.2	142.8	139.6	141.4	
63	47.50	13 L	142.7	139.0	142.8	141.5	141.5	145.5	144.5	141.9	143.7	143.9	
64	49.50	103 L	144.4	142.0	143.5	142.3	143.1	146.8	143.2	146.2	145.8	145.5	
65	48.50	103 L	145.8	143.4	143.7	142.3	143.8	145.8	146.7	148.2	151.0	147.9	
200	1.00	5 R	141.9	142.7	141.7	142.7	142.3	143.4	141.5		141.2	142.0	
201	2.00	5 R	142.3	142.9	142.8	143.6	142.9	146.2	143.3	145.7	143.8	144.8	
202	3.00	5 R	140.5	141.3	140.6	143.2	141.4	144.5	139.2		141.9	141.9	
203	4.00	5 R	144.5	142.4	142.1	142.1	142.8	139.8	142.2		141.9	141.3	
204	4.50	5 L	141.3	145.7	142.7	143.1	143.2	144.2	145.1	145.1	143.6	144.5	
205	3.50	5 L	142.4	142.6	141.8	143.1	142.5	143.8	143.0	144.7	142.4	143.5	
206	2.50	5 L	141.4	141.2	141.0	140.1	140.9	146.2	146.0	143.2	145.1	145.1	
207	1.50	5 L	142.6	145.5	145.5	145.8	144.9	142.2	145.3	141.8	142.5	143.0	
208	1.50	15 R	144.0	143.9	146.3	144.8	144.8	145.9	148.8	145.8	146.9	146.9	
209	2.50	15 R	140.2	143.6	141.6	144.3	142.4	145.3	143.5	144.5	144.0	144.3	
210	3.50	15 R	143.8	145.0	144.8	146.2	145.0	143.4	144.5	144.1	143.7	143.9	
211	4.50	15 R	140.9	141.2	140.4	138.9	140.4	146.5	145.3	144.9	143.3	145.0	
213	3.00	15 L	143.1	145.2	144.6	143.0	144.0	148.5	148.2	146.9	145.8	147.4	
214	2.00	15 L	146.7	144.8	147.7	147.6	146.7	144.8	145.2	146.3	146.4	145.7	
215	1.00	15 L	144.2	143.4	146.4	145.5	144.9	145.8	143.2	142.2	141.8	143.3	

Table B-3 (Cont'd.)

OCEAN CITY MUNICIPAL AIRPORT

TERMINAL APRON AND CONNECTOR TAXIWAY OVERLAY

NDT NO.	STA ft	OFFSET ft	TRUEING/LEVELING COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG	FINAL SURFACE COURSE NUCLEAR UNIT WTS 1	2	3	4	3411 AVG UNCORR	THIN LIFT UNIT WT
NEW PARALLEL TAXIWAY													
100	49.00	5 L	145.1	144.4	145.1	143.9	144.6	144.7	144.0		143.9	144.2	
101	48.50	5 L	143.2	145.7	146.3	143.3	144.6	142.6	143.6		143.3	143.2	
102	48.00	5 L	141.1	141.5	142.5	140.0	141.3	143.4	140.3	141.2	142.2	141.8	
103	47.50	5 L	141.8	142.1	141.2	142.2	141.8	144.0	142.6	143.0	141.0	142.7	
104	47.00	5 L	148.2	144.4	144.3	146.5	145.9	144.7	143.6	144.2	145.2	144.4	
105	46.50	5 L	144.9	146.3	145.4	145.8	145.6	146.4	148.0		144.1	146.2	
106	46.00	5 L	144.6	146.5	146.1	145.2	145.6	143.1	142.3		141.9	142.4	
107	45.50	5 L	147.1	147.2	148.0	145.3	146.9	141.2	141.4	140.7	143.2	141.6	
108	49.25	5 R	142.4	140.7	140.8	140.3	141.1	142.1	145.5	144.1	146.1	144.5	
109	48.75	5 R	148.5	150.4	149.6	149.3	149.5	143.6	143.7	145.3	145.1	144.4	
110	48.25	5 R	150.0	149.7	150.3	148.1	149.5	148.7	145.8	145.3	148.2	147.0	
111	47.78	5 R	145.7	144.1	143.4	144.7	144.5	143.1	146.2	147.8	144.6	145.4	
112	47.25	5 R	141.9	145.0	143.2	142.5	143.2	143.2	144.4	143.9	145.6	144.3	
113	46.75	5 R	142.4	142.2	142.3	143.0	142.5	143.7	143.0	145.1	146.1	144.5	
114	46.25	5 R	144.5	145.1	145.0	143.6	144.6	146.0	143.5	142.9	144.5	144.2	
115	45.75	5 R	146.5	145.7	146.4	145.6	146.1	144.9	144.9		145.6	145.1	
116	45.25	5 R	144.7	145.9	145.2	147.3	145.8	143.3	143.1	142.7	142.8	143.0	
117	49.00	15 R	147.8	148.4	147.8	146.7	147.7	144.5	144.5	144.3	144.7	144.5	
118	48.00	15 R	149.5	148.9	148.9	149.6	149.2	142.5	143.2	144.7	143.3	143.4	
119	47.00	15 R	146.6	145.2	145.5	145.0	145.6	143.3	143.1	142.8	143.1	143.1	
120	46.00	15 R	144.7	146.5	145.7	146.3	145.8	140.4	139.9	140.7	140.4	140.4	
121	44.00	15 R	143.7	142.4	143.7	141.8	142.9	144.6	145.9	144.4	144.8	144.9	
122	43.00	15 R	145.6	145.4	146.6	145.5	145.8	143.2	143.9	141.9	142.7	142.9	
123	42.00	15 R	143.3	142.0	142.5	143.8	142.9	138.4	137.5	139.6	139.7	138.8	
124	41.00	15 R	143.0	144.3	143.8	144.2	143.8	143.5	145.1	144.3	144.1	144.3	
125	41.50	15 L	145.7	141.0	141.9	142.8	142.9	143.4	144.4	144.4	144.3	144.1	
126	42.50	15 L	144.7	144.8	145.4	143.5	144.6	142.2	142.8	141.5	144.0	142.6	
127	43.50	15 L	144.1	146.3	143.1	146.4	145.0	148.1	147.0	149.0	147.2	147.8	
128	44.50	15 L	148.2	148.3	147.6	148.0	148.0	144.7	144.9	146.3	145.5	145.4	
129	45.50	15 L	141.1	140.3	139.4	140.3	140.3	147.2	146.2	145.5	146.6	146.4	
130	46.50	15 L	141.9	141.4	144.4	143.1	142.7	144.8	145.5	142.2	143.6	144.0	
131	47.50	15 L	141.6	140.0	141.7	139.4	140.7	144.0	144.3	145.3	144.8	144.6	
132	48.50	15 L	143.9	144.0	141.5	141.4	142.7	148.1	147.0	149.3	149.1	148.4	
133	44.00	5 L	149.8	150.0	149.7	150.0	149.9	141.9	142.5	142.6	140.6	141.9	
134	43.00	5 L	147.1	146.6	144.4	145.5	145.9	144.0	140.1		142.3	142.1	
135	42.00	5 L	145.9	145.0	144.7	145.0	145.2	143.8	143.0		143.7	143.5	
136	41.00	5 L	144.9	145.8	145.2	145.4	145.3	146.1	144.1		144.8	145.0	
137	41.50	5 L	142.8	143.0	143.3	145.3	143.6	147.2	145.3	145.3	146.1	146.0	
138	42.50	5 L	143.0	143.9	143.4	141.8	143.0	144.3	144.7	143.6	142.3	143.7	
139	43.50	5 L	147.3	148.8	147.0	148.8	148.0	143.9	141.9	142.0	142.6	142.6	

APPENDIX C

MARSHALL ACCEPTANCE TEST RESULTS

TABLE C-1

TETERBORO RUNWAY 1-19 OVERLAY

LABORATORY MARSHALL MIX PROPERTIES

DATE	LOT	SUBLOT	Gmb	Gmm	% AC	STABILITY	FLOW	% VOIDS	UNIT WT
7-13-87	7	1	2.547	2.617	5.1	2394	10.3	2.7	158.9
		2	2.531	2.617	5.1	2211	9.7	3.3	157.9
		3	2.540	2.617	5.1	2503	11.0	2.9	158.5
		4	2.537	2.617	5.1	2503	11.0	3.0	158.3
		AVG	2.539	2.617	5.1	2403	10.5	3.0	158.4
7-14-87	8	1	2.498	2.614	5.1	2281	10.3	4.4	155.9
		2	2.523	2.614	5.1	2465	11.3	3.5	157.4
		3	2.524	2.614	5.1	2315	11.3	3.5	157.5
		AVG	2.515	2.614	5.1	2354	11.0	3.8	156.9
7-15-87	9	1	2.535	2.613	5.2	2142	10.0	3.0	158.2
		2	2.529	2.613	5.2	2177	10.3	3.2	157.8
		3	2.527	2.613	5.2	2177	10.3	3.3	157.7
		4	2.522	2.613	5.2	2142	10.0	3.5	157.4
		AVG	2.528	2.613	5.2	2160	10.2	3.3	157.8
7-16-87	10	1	2.528	2.623	5.2	2357	10.7	3.6	157.7
		2	2.527	2.623	5.2	2541	11.7	3.7	157.7
		3	2.529	2.623	5.2	2318	10.7	3.5	157.8
		4	2.532	2.623	5.2	2003	10.3	3.5	158.0
		AVG	2.529	2.623	5.2	2305	10.9	3.6	157.8
7-20-87	12	1	2.551	2.615	5.2	2699	11.7	2.5	159.2
		2	2.548	2.615	5.2	2318	11.0	2.6	159.0
		3	2.538	2.615	5.2	2247	11.0	2.9	158.4
		4	2.525	2.615	5.2	2427	12.0	3.4	157.6
		AVG	2.541	2.615	5.2	2423	11.4	2.9	158.5
7-21-87	13	1	2.528	2.606	5.2	2229	12.7	3.0	157.7
		2	2.533	2.606	5.2	2354	11.7	2.8	158.1
		3	2.517	2.606	5.2	2303	11.3	3.4	157.0
		4	2.527	2.606	5.2	2211	9.7	3.1	157.7
		AVG	2.526	2.606	5.2	2274	11.4	3.1	157.6
7-22-87	14	1	2.505	2.593	5.1	2177	9.7	3.4	156.3
		2	2.535	2.593	5.1	2320	10.7	2.2	158.2
		3	2.517	2.593	5.1	2177	11.3	2.9	157.1
		4	2.503	2.593	5.1	2125	10.7	3.5	156.2
		AVG	2.515	2.593	5.1	2200	10.6	3.0	157.0

9-26-87

TABLE C-2

LEESBURG PARALLEL TAXIWAY OVERLAY

LABORATORY MARSHALL MIX PROPERTIES

DATE	LOT	SUBLOT	Gsb	Gmm	% AC	STABILITY	FLOW	% VOIDS	UNIT WT
8-4-87	1	1	2.608	2.677	5.17	2695	13.7	2.6	162.7
		2	2.605	2.677	5.17	2895	11.7	2.7	162.5
		3	2.608	2.678	5.38	2929	13.0	2.6	162.8
		4	2.597	2.675	5.38	2783	12.7	2.9	162.1
		AVG	2.605	2.677	5.3	2826	12.8	2.7	162.5

9/26/87

TABLE C-3

OCEAN CITY MUNICIPAL AIRPORT
TERMINAL APRON AND CONNECTOR TAXIWAY OVERLAY

MARSHALL MIX PROPERTIES

DATE	LOT	SUBLOT	Gmb	Gmm	% AC	STABILITY	FLOW	% VOIDS	UNIT WT
5-13-87	5	1	2.450	2.502	5.3	2289	10.8	2.1	152.9
		2	2.419	2.502	5.3	2013	9.8	3.3	150.9
		3	2.426	2.502	5.4	2303	11.0	3.1	151.4
		AVG	2.432	2.502	5.3	2202	10.5	2.6	151.7
5-14-87	6	1	2.440	2.500	5.6	2567	10.7	2.4	152.3
		2	2.447	2.500	5.6	2244	12.0	2.1	152.7
		3	2.447	2.500	5.6	2116	12.3	2.1	152.7
		4	2.457	2.500	5.6	2328	10.8	1.9	153.3
		AVG	2.450	2.500	5.6	2229	11.7	2.0	152.9

							CORE			3411		
DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	DSM k/in	UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS	*UNIT WT ** pcf	DENSITY %	AIR VOIDS %
5-13-87	5	47.00	4 L	104	3-1	521	147.4	97.1%	5.6%	147.2	97.0%	5.7%
		42.50	5 R	138	3-2	311	147.4	97.1%	5.6%	146.7	96.7%	6.0%
		2.50	4 L	206	4-1	339	146.4	96.5%	6.2%	146.3	97.7%	5.0%
		46.75	95 R	15	4-2	392	148.5	97.9%	4.9%	148.2	97.7%	5.1%
		46.98	28 R	47	4-4	566	146.6	96.6%	6.1%	146.7	96.7%	6.0%
		48.35	103 L		5-4		150.4	98.4%	3.6%	149.6	98.0%	4.1%
						AVG	147.8	97.3%	5.3%	147.8	97.3%	5.3%

TABLE D-1

TETERBORO DATA BASE
NUCLEAR DENSITIES

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	THIN LIFT UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
7-13-87	7	31.00	56 R	1	836	986	152.5	96.3%	6.6%
		31.00	6.5 R	37	868	1085	154.3	97.4%	5.5%
		31.00	43 L	73	430	473	152.0	96.0%	6.9%
7-14-87	8	32.00	32 R	19	517	647	148.8	94.8%	8.8%
		32.00	18 L	55	684	794	151.4	96.5%	7.2%
		32.00	68 L	91	921	1023	150.3	95.8%	7.9%
		33.00	56 R	2	429	507	148.6	94.7%	8.9%
		33.00	6.5 R	38	761	951	152.3	97.0%	6.6%
		33.00	43 L	74	488	537	148.9	94.9%	8.7%
		34.00	32 R	20	587	734	145.1	92.5%	11.0%
		34.00	18 L	56	466	541	151.2	96.3%	7.3%
		34.00	68 L	92	1273	1413	148.9	94.9%	8.7%
		35.00	56 R	3	846	999	148.3	94.5%	9.1%
		35.00	6.5 R	39	732	914	150.8	96.1%	7.5%
		35.00	43 L	75	689	758	150.3	95.8%	7.9%
		36.00	32 R	21	722	902	148.9	94.9%	8.7%
		36.00	18 L	57	651	755	153.4	97.7%	6.0%
		36.00	68 L	93	1064	1181	150.6	96.0%	7.7%
7-15-87	9	37.15	56 R	4	966	1139	150.9	95.6%	7.5%
		37.15	6.5 R	40	952	1190	155.6	98.6%	4.6%
		37.15	43 L	76	530	583	149.2	94.6%	8.5%
		38.00	32 R	22	701	876	151.6	96.1%	7.0%
		38.00	18 L	58	781	906	150.2	95.2%	7.9%
		38.00	68 L	94	1129	1253	151.4	96.0%	7.1%
		39.00	56 R	5	891	1051	151.4	96.0%	7.1%
		39.00	6.5 R	41	826	1032	153.5	97.3%	5.9%
		39.00	43 L	77	643	708	153.3	97.2%	6.0%
		40.00	32 R	23	562	702	151.4	96.0%	7.1%
		40.00	18 L	59	755	876	154.2	97.7%	5.4%
		40.00	68 L	95	974	1081	149.5	94.8%	8.3%
		41.00	56 R	6	1395	1646	152.8	96.8%	6.3%
		41.00	6.5 R	42	886	1107	154.7	98.1%	5.1%
		41.00	43 L	78	781	859	149.8	94.9%	8.1%
		42.00	32 R	24	865	1082	152.8	96.8%	6.3%
		42.00	18 L	60	929	1013	156.3	99.1%	4.1%
		42.00	68 L	96	883	980	150.1	95.1%	7.9%
7-16-87	10	43.00	56 R	7	1224	1444	150.0	95.1%	8.4%
		43.00	6.5 R	43	974	1217	153.0	97.0%	6.5%
		43.00	43 L	79	716	787	152.7	96.8%	6.7%
		44.00	32 R	25	629	786	151.6	96.1%	7.4%
		44.00	18 L	61	898	979	150.3	95.2%	8.2%
		44.00	68 L	97	723	803	151.4	95.9%	7.5%

Table D-1 (Cont'd.)

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	THIN LIFT UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
		45.00	56 R	8	521	615	150.3	95.2%	8.2%
		45.00	6.5 R	44	897	1121	148.7	94.2%	9.1%
		45.00	43 L	80	627	690	149.9	95.0%	8.4%
		46.00	32 R	26	401	501	150.2	95.2%	8.2%
		46.00	18 L	62	640	698	152.6	96.7%	6.8%
		46.00	68 L	98	927	1029	149.7	94.9%	8.5%
		47.00	56 R	9	1058	1248	150.6	95.4%	8.0%
		47.00	6.5 R	45	594	743	151.7	96.1%	7.3%
		47.00	43 L	81	444	489	151.6	96.1%	7.4%
		48.00	32 R	27	816	1127	150.0	95.1%	8.4%
		48.00	18 L	63	926	1028	152.1	96.4%	7.1%
		48.00	68 L	99	877	973	151.7	96.1%	7.3%
		49.00	56 R	10	858	1072	152.4	96.6%	6.9%
		49.00	6.5 R	46	936	1283	153.1	97.0%	6.5%
		49.00	43 L	82	577	647	153.6	97.3%	6.2%
		50.00	32 R	28	858	1218	154.3	97.8%	5.7%
		50.00	18 L	64	848	941	153.7	97.4%	6.1%
		50.00	68 L	100	714	814	153.5	97.3%	6.2%
7-20-87	12	51.00	56 R	11	621	789	153.5	96.8%	5.9%
		51.00	6.5 R	47	1238	1745	153.3	96.7%	6.1%
		51.00	43 L	83	976	1103	152.3	96.1%	6.7%
		52.00	32 R	29	865	1229	154.7	97.6%	5.2%
		52.00	18 L	65	956	1071	153.3	96.7%	6.1%
		52.00	68 L	101	860	980	152.6	96.3%	6.5%
		53.00	56 R	12	978	1242	153.3	96.7%	6.1%
		53.00	6.5 R	48	1193	1682	151.9	95.8%	6.9%
		53.00	43 L	84	883	998	153.3	96.7%	6.1%
		54.00	32 R	30	907	1287	154.4	97.4%	5.4%
		54.00	18 L	66	1057	1184	151.3	95.4%	7.3%
		54.00	68 L	102	1026	1170	151.0	95.3%	7.5%
		55.00	56 R	13	1408	1788	153.4	96.8%	6.0%
		55.00	6.5 R	49	1941	2737	154.9	97.7%	5.1%
		55.00	43 L	85	1663	1879	155.4	98.0%	4.8%
7-21-87	13	56.00	32 R	31	1137	1615	153.6	97.4%	5.5%
		56.00	18 L	67	1309	1467	153.5	97.4%	5.6%
		56.00	68 L	103	1291	1472	154.9	98.3%	4.7%
		57.00	56 R	14	1110	1409	153.0	97.1%	5.9%
		57.00	6.5 R	50	1083	1527	154.6	98.1%	4.9%
		57.00	43 L	86	1130	1277	152.7	96.9%	6.1%
		58.00	32 R	32	998	1417	153.9	97.6%	5.4%
		58.00	18 L	68	1183	1325	154.2	97.8%	5.2%
		58.00	68 L	104	1327	1512	154.7	98.1%	4.9%

Table D-1 (Cont'd.)

DATE	LOT	STA ft	OFFSET ft	NDT NO.		DSM k/in	TEMP CORR DSM k/in	THIN LIFT UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
		59.00	56 R	15		802	1018	150.6	95.5%	7.4%
		59.00	6.5 R	51		969	1366	151.1	95.9%	7.1%
		59.00	43 L	87		961	1086	151.6	96.2%	6.8%
		60.00	32 R	33		675	958	152.9	97.0%	6.0%
		60.00	18 L	69		637	713	152.2	96.6%	6.4%
		60.00	68 L	105		830	946	151.8	96.3%	6.7%
		61.00	56 R	16		612	777	150.8	95.7%	7.3%
		61.00	6.5 R	52		868	1259	151.3	96.0%	7.0%
		61.00	43 L	88		622	709	153.4	97.3%	5.7%
		62.00	32 R	34		658	934	152.1	96.5%	6.5%
		62.00	18 L	70		705	790	155.4	98.6%	4.4%
		62.00	68 L	106		599	683	154.0	97.7%	5.3%
7-22-87	14	63.00	56 R	17		663	842	152.8	97.4%	5.6%
		63.00	6.5 R	53		757	1097	155.1	98.8%	4.1%
		63.00	43 L	89		772	880	153.4	97.7%	5.2%
		64.00	32 R	35		706	1003	152.4	97.1%	5.8%
		64.00	18 L	71		787	881	152.3	97.0%	5.9%
		65.00	56 R	18		788	1000	153.1	97.5%	5.4%
		65.00	6.5 R	54		727	1055	153.2	97.6%	5.3%
		65.00	43 L	90		772	880	152.6	97.2%	5.7%
					AVG	857	1042	152.1	96.5%	6.7%
					STD	259	344	1.9	1.2%	1.3%
					COV	30.2%	33.0%	1.3%	1.2%	19.1%

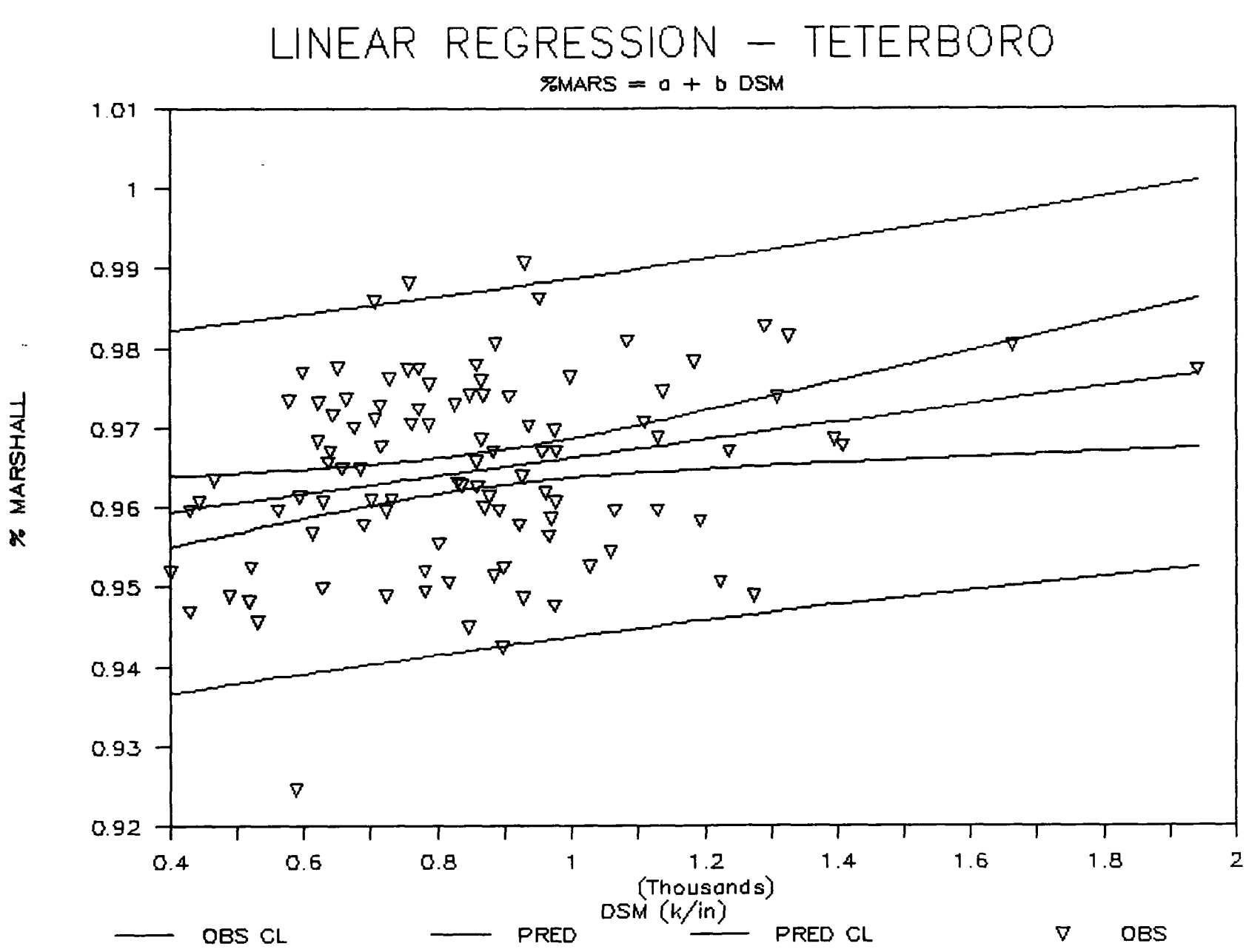


FIGURE 1

MARSHALL DENSITY/DSM (UNADJUSTED)
TETERBORO

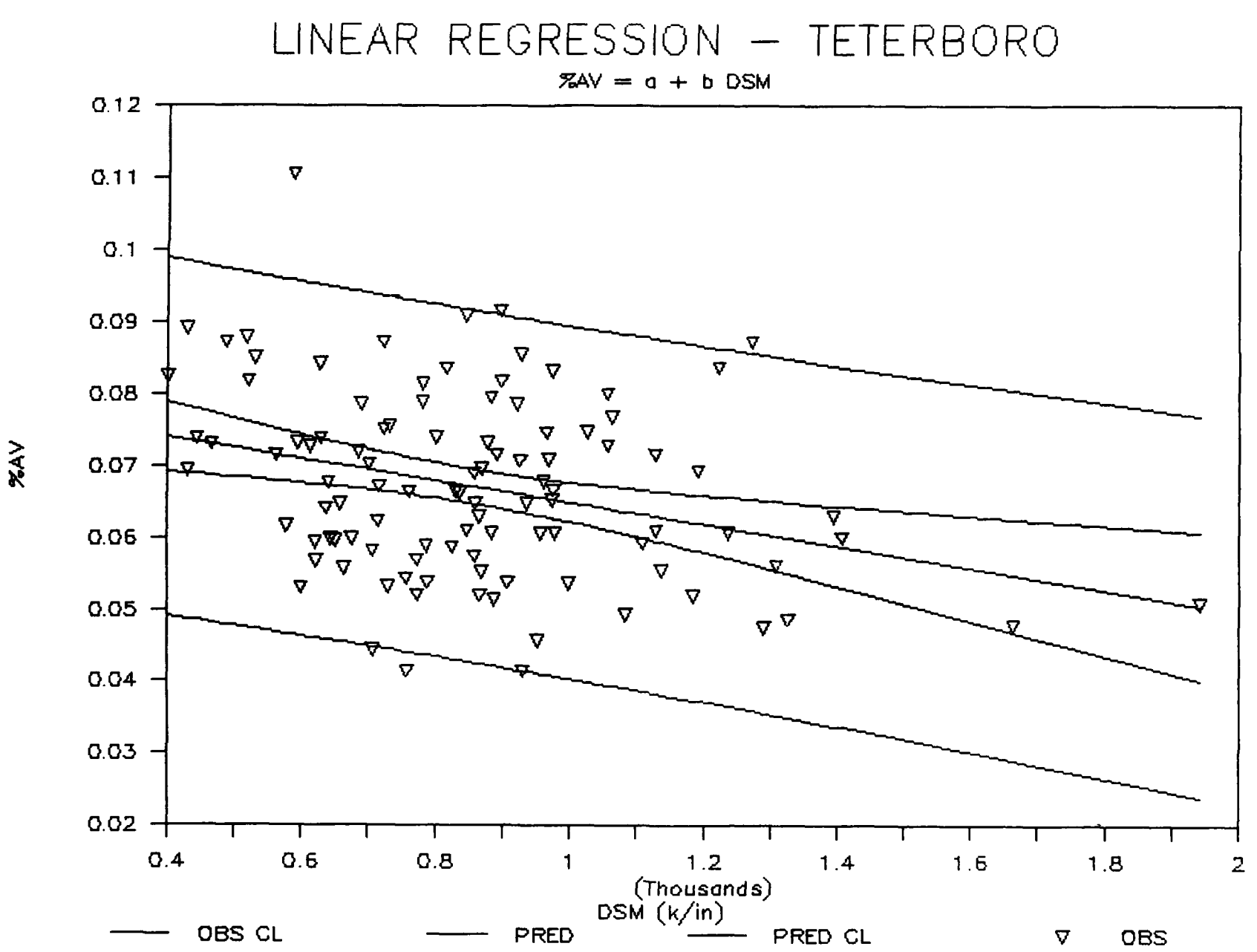


FIGURE 2

IN-PLACE AIR VOIDS/DSM (UNADJUSTED)
TETERBORO

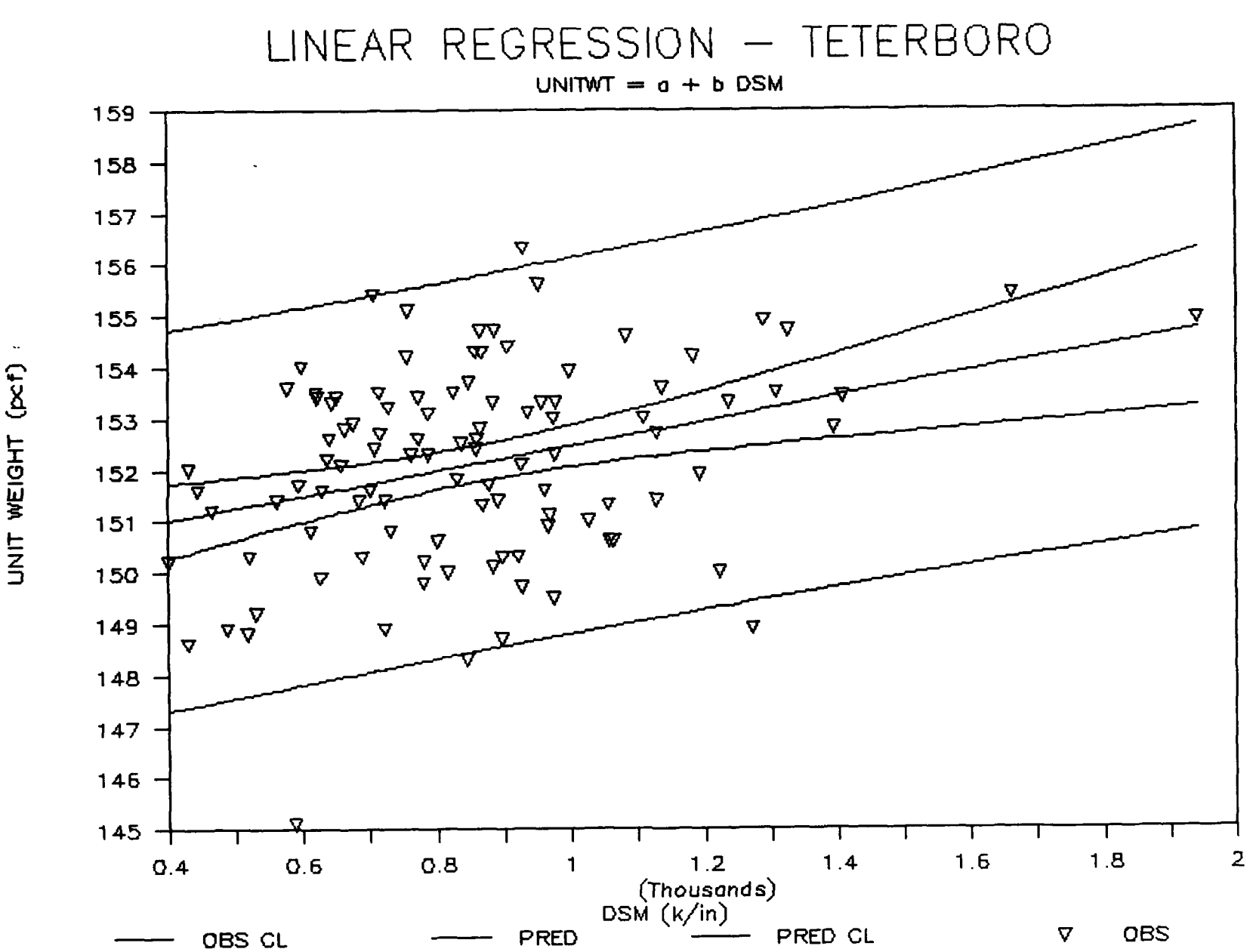


FIGURE 3

UNIT WEIGHT/DSM (UNADJUSTED)
TETERBORO

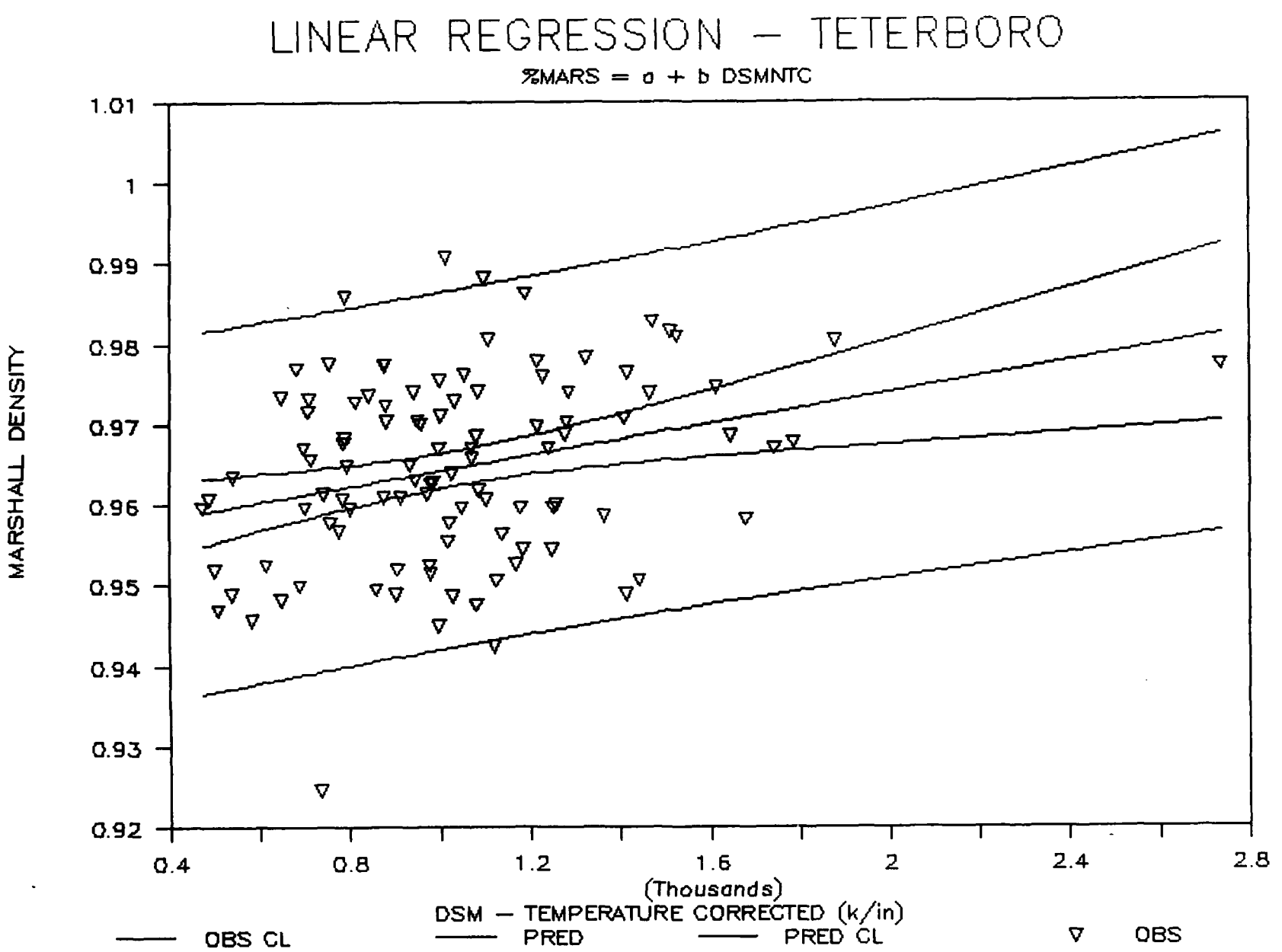


FIGURE 4

MARSHALL DENSITY/DSM (TEMP ADJUSTED)
TETERBORO

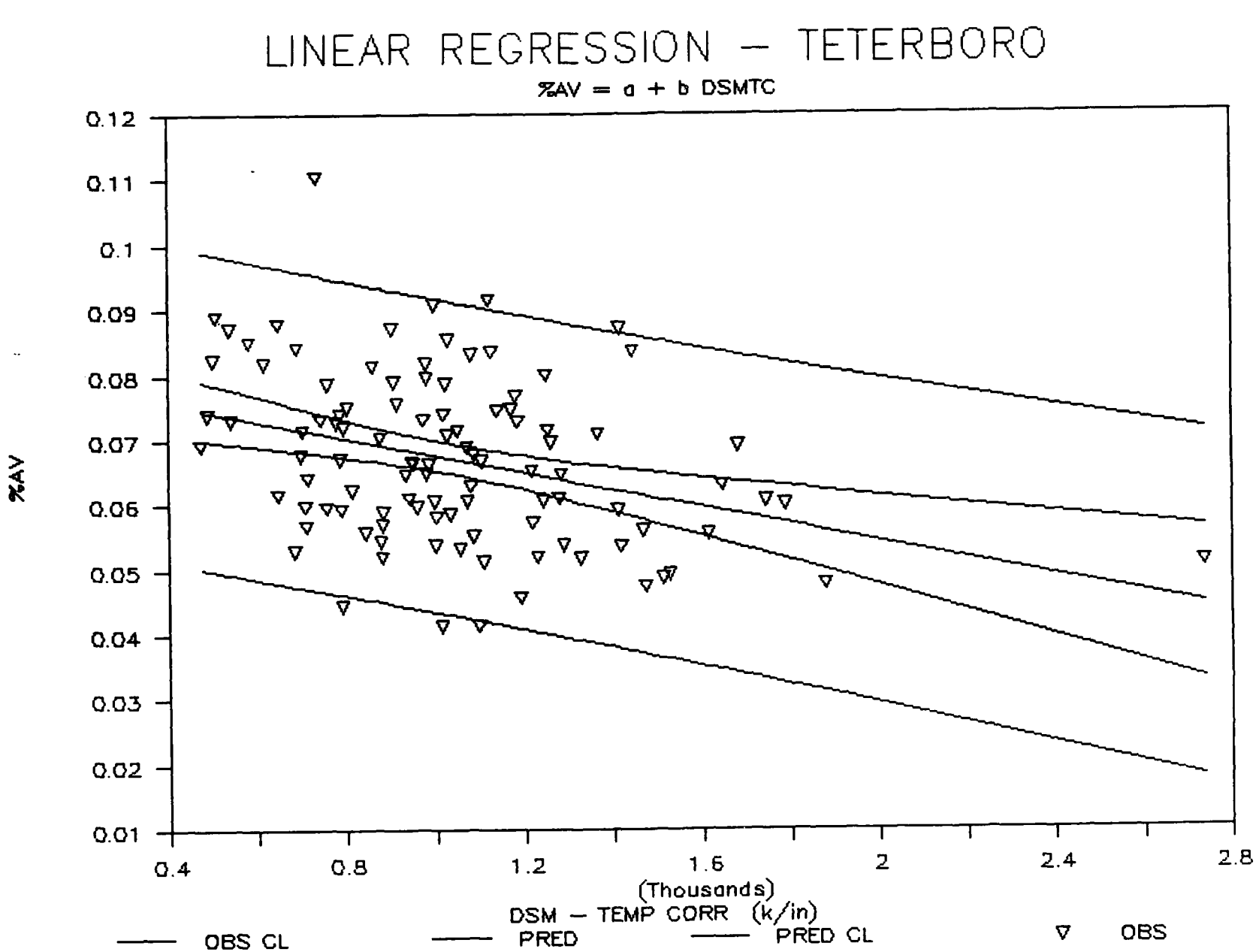


FIGURE 5

IN-PLACE AIR VOIDS/DSM (TEMP ADJUSTED)
TETERBORO

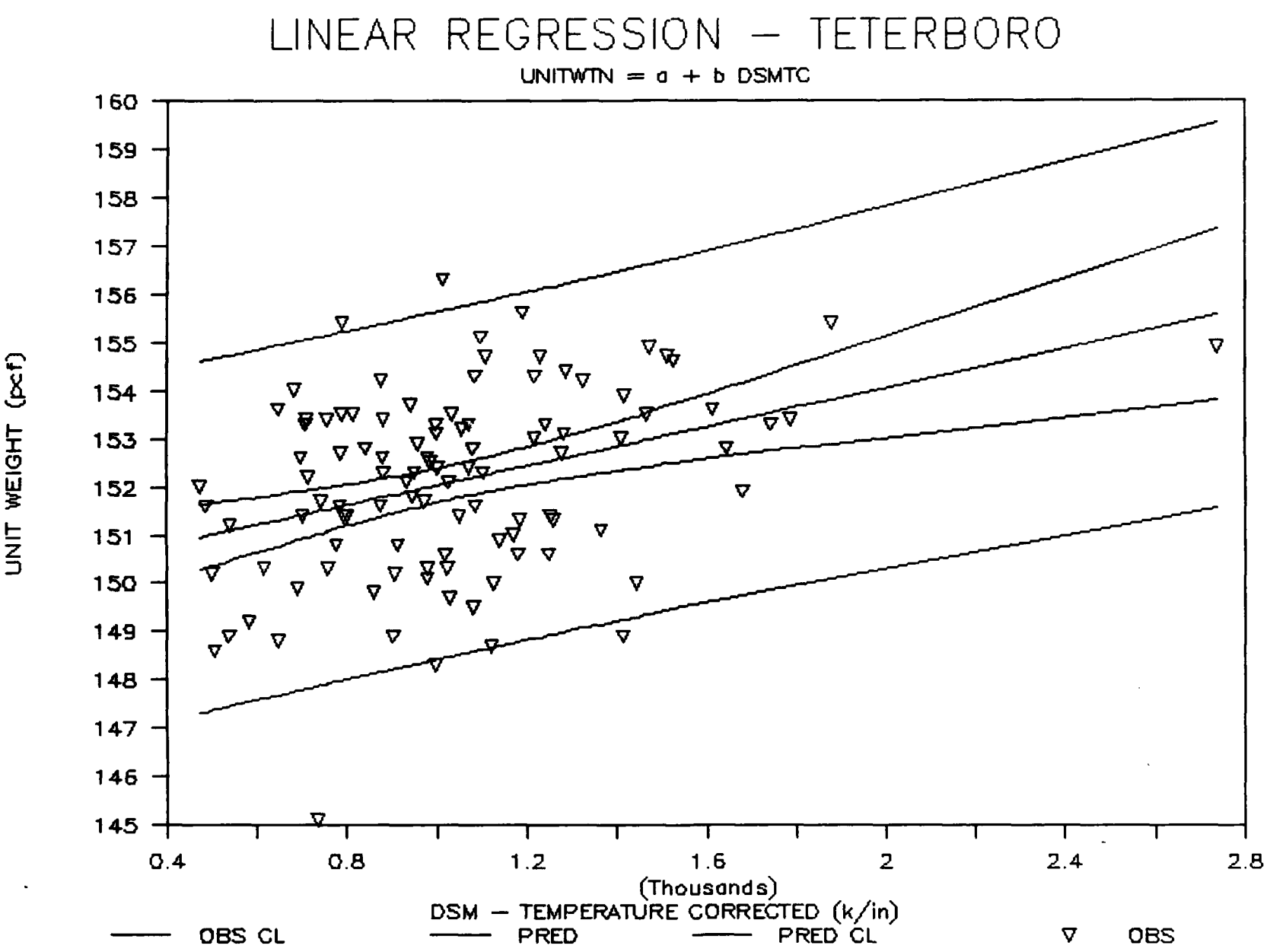


FIGURE 6

UNIT WEIGHT/DSM (TEMP ADJUSTED)
TETERBORO

TABLE D-2

LEESBURG DATA BASE
NUCLEAR DENSITIES

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	3411 UNIT WT ** pcf TH UNCORR CORE CORR	MARSHALL DENSITY	IN PLACE AIR VOIDS
8-4-87	1	0.50	15L	1	350	445	158.5	97.5%	5.1%
		2.50	15L	2	374	475	158.8	97.7%	4.9%
		4.50	15L	3	648	823	156.8	96.5%	6.1%
		6.50	15L	4	273	347	156.1	96.1%	6.5%
		8.50	15L	5	410	521	157.7	97.0%	5.6%
		10.50	15L	6	356	452	154.2	94.9%	7.7%
		12.50	15L	7	399	506	158.2	97.4%	5.3%
		14.50	15L	8	443	562	157.3	96.8%	5.8%
		16.50	15L	9	553	702	156.6	96.3%	6.3%
		18.50	15L	10	290	368	159.7	98.3%	4.4%
		20.50	15L	11	302	384	158.2	97.3%	5.3%
		22.50	15L	12	470	554	155.5	95.6%	6.9%
		24.50	15L	13	302	356	156.4	96.3%	6.3%
		26.50	15L	14	263	310	155.6	95.7%	6.8%
		28.50	15L	15	579	683	153.7	94.6%	8.0%
		30.50	15L	16	329	389	153.0	94.1%	8.4%
		1.00	5L	19	365	464	158.0	97.2%	5.4%
		2.05	5L	20	429	544	153.3	94.4%	8.2%
		3.00	5L	21	414	526	155.7	95.8%	6.8%
		4.10	5L	22	344	436	156.3	96.2%	6.4%
		5.00	5L	23	383	486	156.8	96.5%	6.1%
		6.00	5L	24	394	500	156.7	96.4%	6.2%
		7.00	5L	25	356	452	158.6	97.6%	5.0%
		8.00	5L	26	273	347	156.5	96.3%	6.3%
		9.00	5L	27	374	475	155.1	95.4%	7.1%
		10.00	5L	28	311	39.	156.3	96.2%	6.4%
		11.00	5L	29	430	546	156.0	96.0%	6.6%
		12.00	5L	30	385	489	157.9	97.2%	5.5%
		13.00	5L	31	339	430	159.5	98.1%	4.5%
		14.00	5L	32	283	359	156.5	96.3%	6.3%
		15.00	5L	33	326	414	157.4	96.9%	5.7%
		16.00	5L	34	496	629	156.5	96.3%	6.3%
		17.00	5L	35	437	554	155.5	95.7%	6.9%
		19.00	5L	37	364	462	158.3	97.4%	5.2%
		20.00	5L	38	375	476	156.5	96.3%	6.3%
		21.00	5L	39	393	500	155.7	95.8%	6.8%
		22.25	5L	40	508	604	156.3	96.2%	6.4%
		23.00	5L	41	474	564	156.8	96.5%	6.1%
		24.00	5L	42	338	402	157.4	96.9%	5.7%
		25.00	5L	43	385	458	156.1	96.0%	6.6%

Table D-2 (Cont'd.)

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	3411 UNIT WT ** pcf TH UNCORR CORE CORR	MARSHALL DENSITY	IN PLACE AIR VOIDS
		26.00	5L	44	313	373	157.0	96.6%	6.0%
		27.00	5L	45	308	367	156.6	96.4%	6.2%
		28.00	5L	46	430	512	155.9	95.9%	6.6%
		29.00	5L	47	409	487	156.0	96.0%	6.6%
		30.00	5L	48	326	388	155.3	95.6%	7.0%
		31.00	5L	49	349	416	155.1	95.5%	7.1%
		32.00	5L	50	418	497	155.5	95.7%	6.9%
		0.50	15R	53	380	475	155.0	95.3%	7.2%
		1.50	5R	54	351	438	157.8	97.1%	5.5%
		2.50	5R	55	414	518	160.5	98.8%	3.9%
		3.50	5R	56	416	520	158.3	97.4%	5.2%
		4.50	5R	57	315	394	156.6	96.4%	6.2%
		5.50	5R	58	393	491	160.7	98.9%	3.8%
		6.50	5R	59	306	382	160.4	98.7%	3.9%
		7.50	5R	60	316	395	157.4	96.8%	5.8%
		8.50	5R	61	245	306	156.0	96.0%	6.6%
		9.50	5R	62	295	369	157.8	97.1%	5.5%
		10.50	5R	63	314	392	158.7	97.6%	5.0%
		11.50	5R	64	415	519	156.8	96.5%	6.1%
		12.50	5R	65	425	531	157.1	96.7%	5.9%
		13.50	5R	66	313	392	157.9	97.1%	5.5%
		14.50	5R	67	299	374	159.3	98.0%	4.6%
		15.50	5R	68	363	454	158.4	97.5%	5.2%
		16.50	5R	69	367	458	157.3	96.8%	5.8%
		17.50	5R	70	499	624	158.2	97.4%	5.3%
		18.50	5R	71	351	439	159.7	98.3%	4.4%
		19.50	5R	72	244	305	155.8	95.9%	6.7%
		20.50	5R	73	279	349	157.7	97.0%	5.6%
		21.50	5R	74	344	430	159.0	97.8%	4.8%
		22.50	5R	75	480	562	158.9	97.8%	4.9%
		23.50	5R	76	389	455	157.0	96.6%	6.0%
		24.50	5R	77	376	440	159.2	97.9%	4.7%
		25.50	5R	78	328	383	159.2	97.9%	4.7%
		26.50	5R	79	332	388	154.7	95.2%	7.4%
		27.50	5R	80	389	455	155.1	95.4%	7.2%
		28.50	5R	81	566	662	155.0	95.4%	7.2%
		29.50	5R	82	440	515	154.9	95.3%	7.3%
		30.50	5R	83	429	502	157.6	97.0%	5.6%
		31.50	5R	84	534	624	156.5	96.3%	6.3%
		1.50	15R	88	441	542	156.6	96.4%	6.2%

Table D-2 (Cont'd.)

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	3411 UNIT WT ** pcf TH UNCORR CORE CORR	MARSHALL DENSITY	IN PLACE AIR VOIDS
		3.50	15R	89	308	378	155.2	95.5%	7.1%
		5.50	15R	90	337	415	158.9	97.8%	4.9%
		7.50	15R	91	247	304	158.0	97.2%	5.4%
		9.50	15R	92	338	416	155.7	95.8%	6.8%
		11.50	15R	93	442	544	156.3	96.2%	6.4%
		13.50	15R	94	309	380	155.5	95.6%	6.9%
		15.50	15R	95	448	552	154.9	95.3%	7.3%
		17.50	15R	96	438	538	160.1	98.5%	4.1%
		19.50	15R	97	277	340	156.7	96.4%	6.2%
		21.50	15R	98	319	393	154.2	94.9%	7.7%
		23.50	15L	99	367	429	156.4	96.3%	6.3%
		25.50	15L	100	308	360	155.3	95.5%	7.0%
		27.50	15L	101	277	324	155.3	95.5%	7.0%
		29.50	15L	102	415	485	154.8	95.2%	7.3%
		31.50	15L	103	295	345	155.4	95.6%	7.0%
				AVG	374	460	156.9	96.5%	6.1%
				STD	78	95	1.6	1.0%	1.0%
				COV	20.8%	20.7%	1.0%	1.0%	16.2%

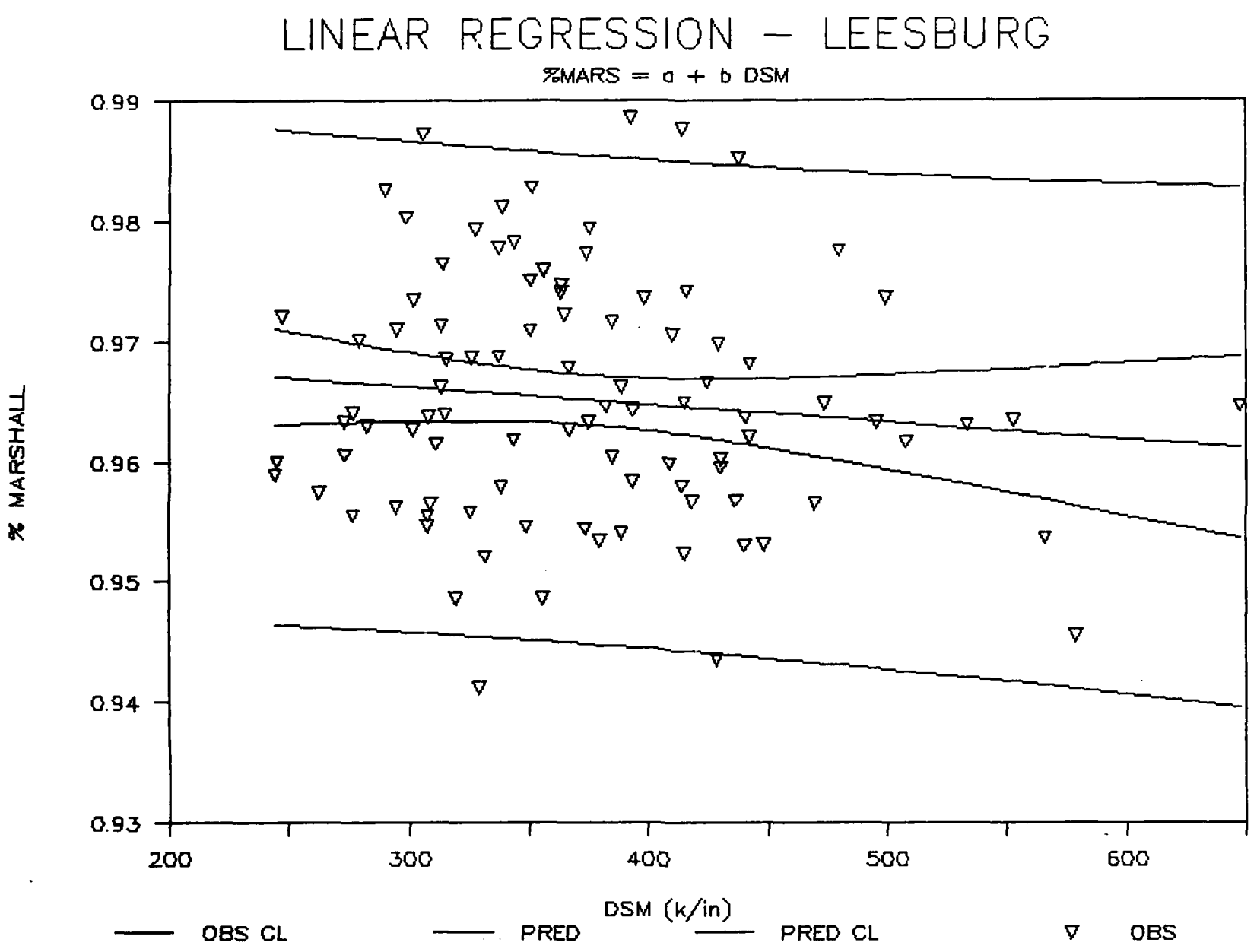


FIGURE 7

MARSHALL DENSITY/DSM (UNADJUSTED)
LEESBURG

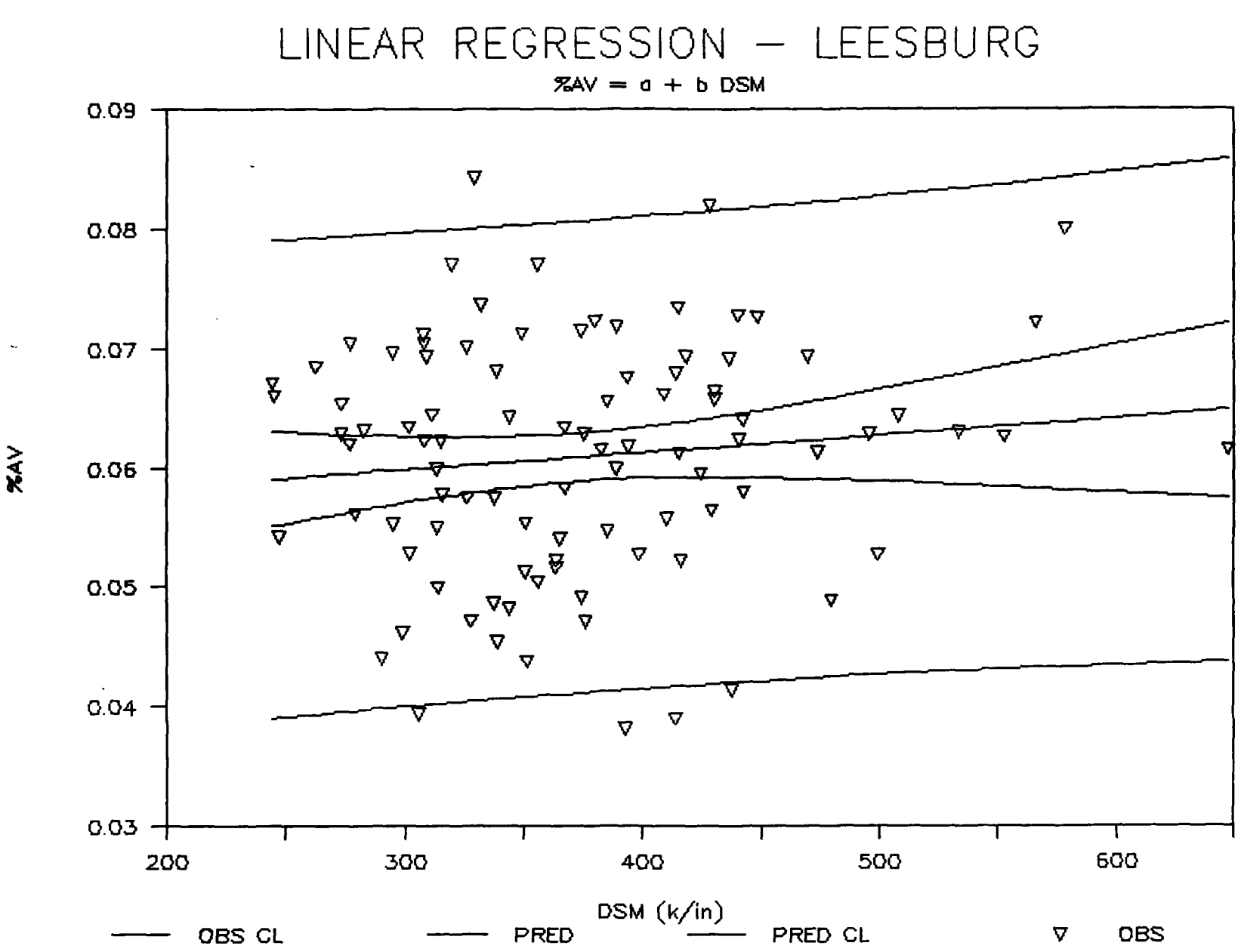


FIGURE 8

IN-PLACE AIR VOIDS/DSM (UNADJUSTED)
LEESBURG

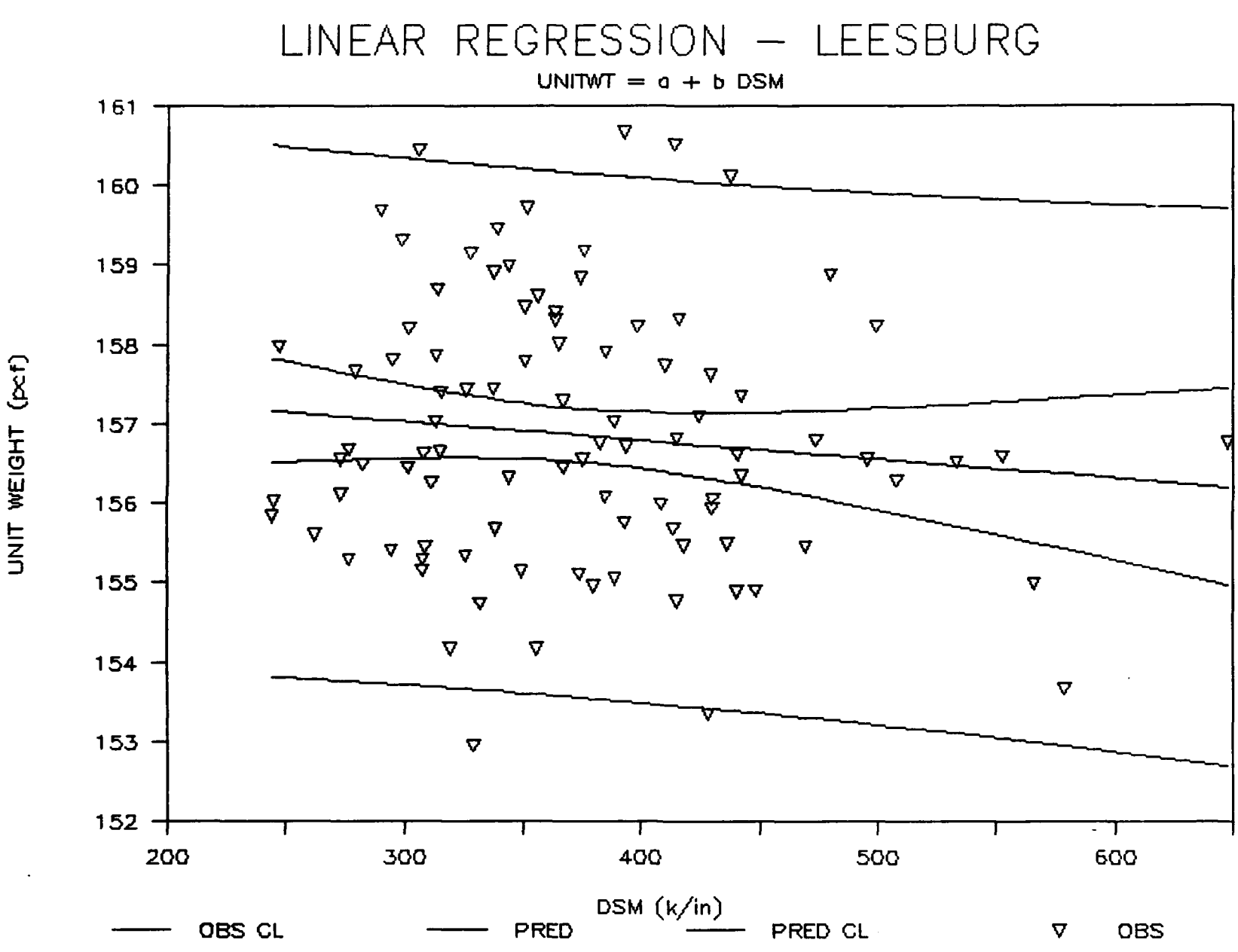


FIGURE 9

UNIT WEIGHT/DSM (UNADJUSTED)
LEESBURG

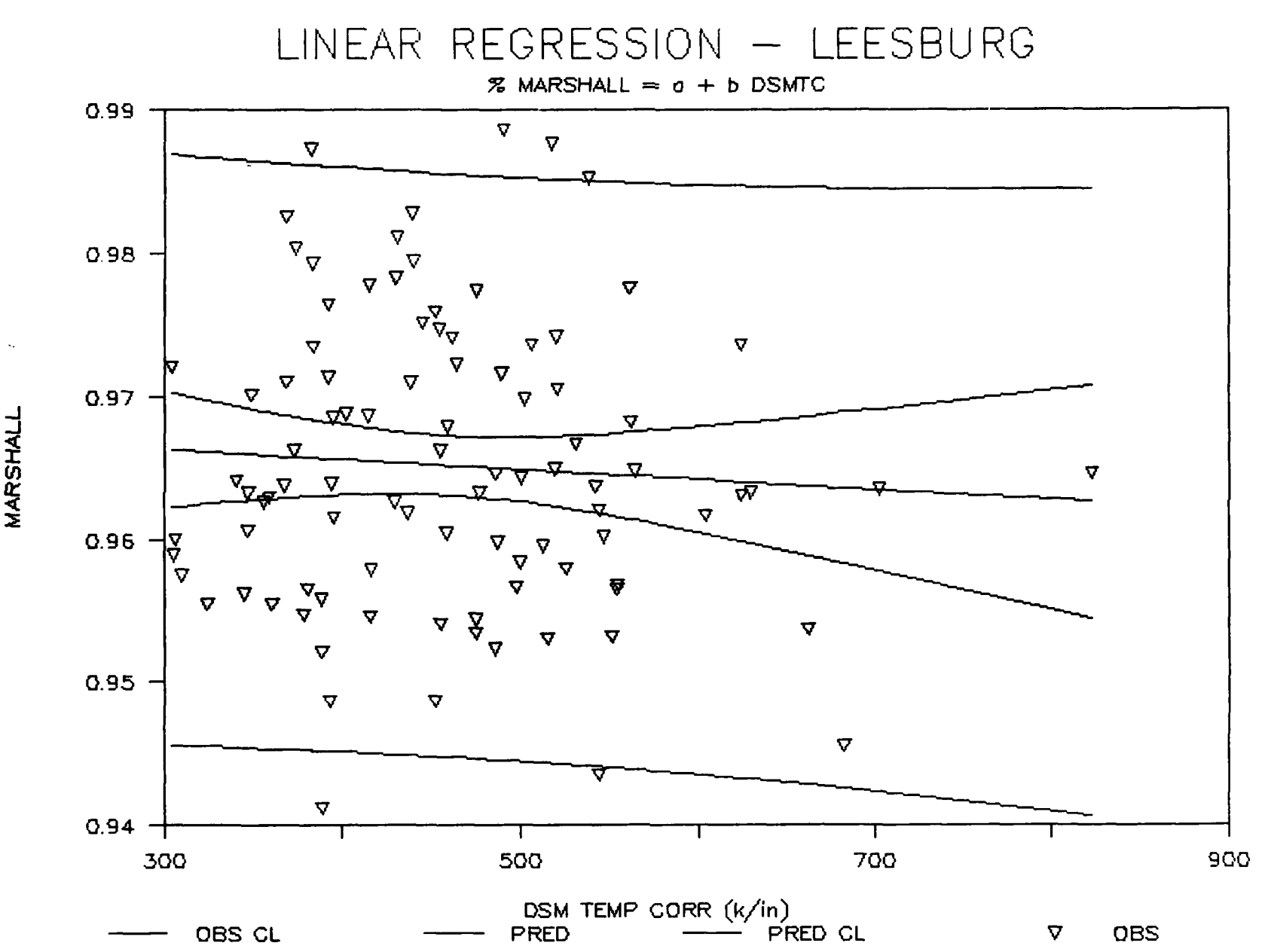


FIGURE 10

MARSHALL DENSITY/DSM (TEMP ADJUSTED)
LEESBURG

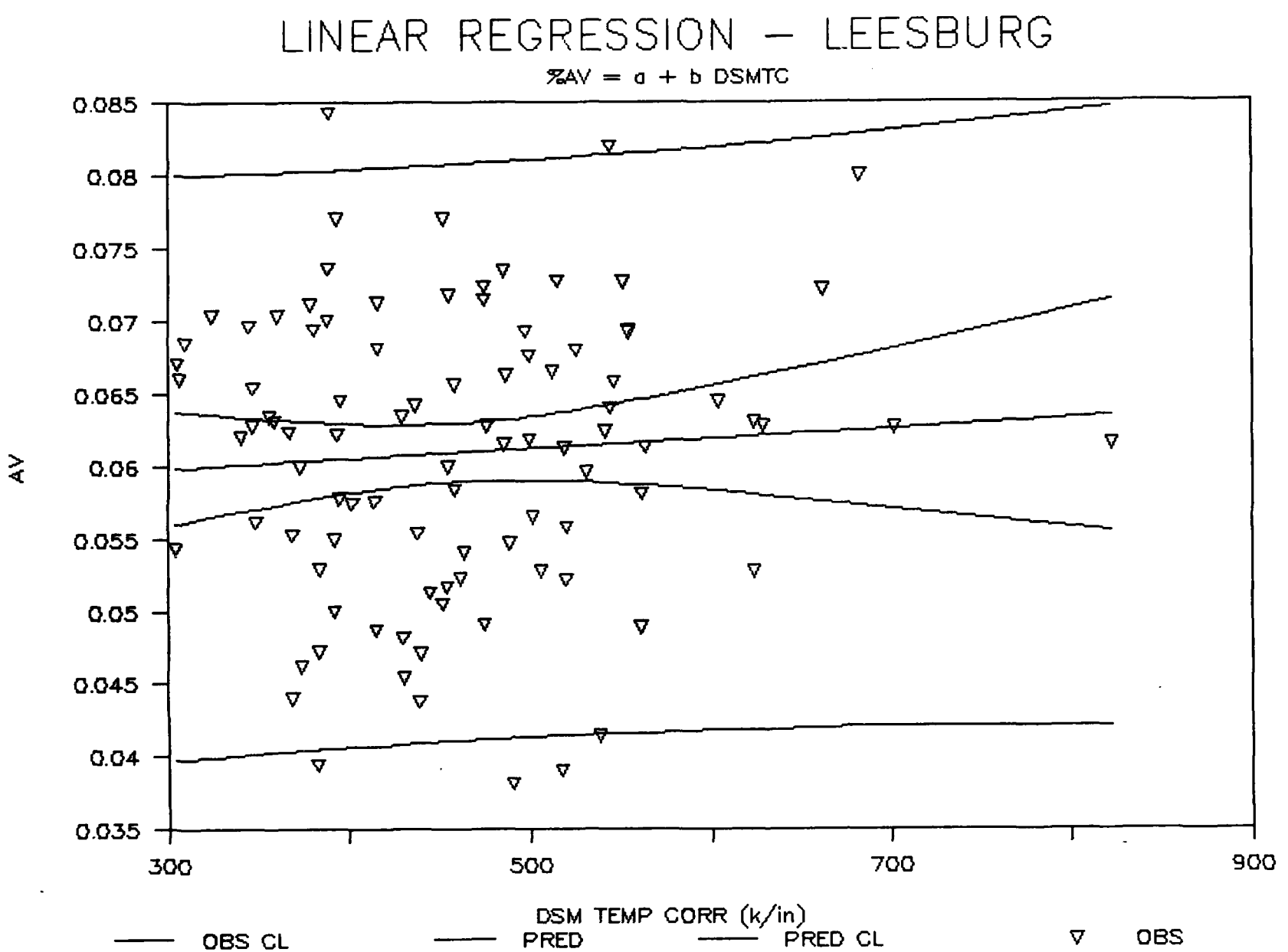


FIGURE 11

IN-PLACE AIR VOIDS/DSM (TEMP ADJUSTED)
LEESBURG

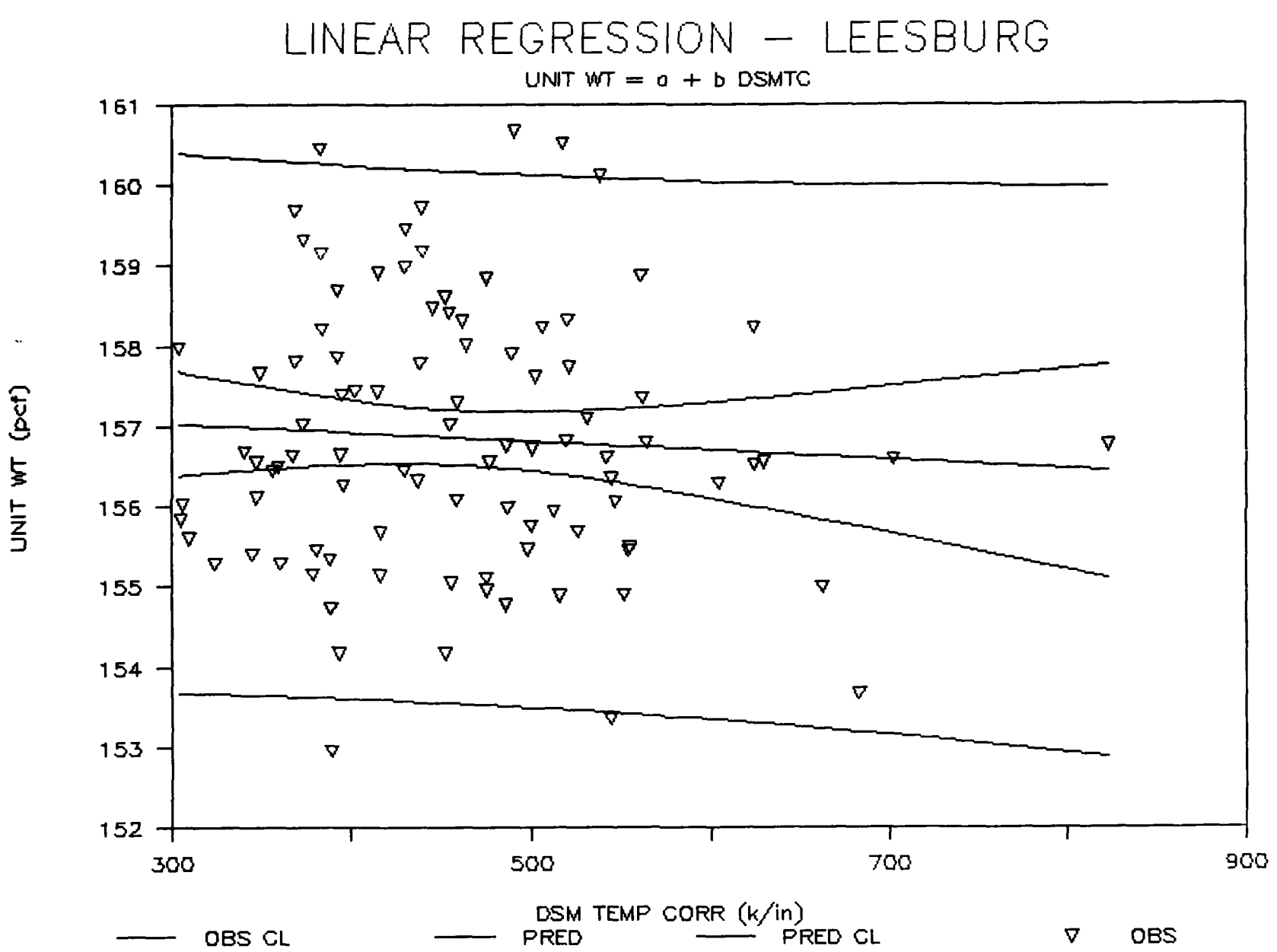


FIGURE 12

UNIT WEIGHT/DSM (TEMP ADJUSTED)
LEESBURG

TABLE D-3

OCEAN CITY DATA BASE
NUCLEAR DENSITIES

OCEAN CITY TERMINAL APRON & CONN TW

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	3411 UNIT WT MARSHALL IN PLACE ** pcf TH UNCORR CORE CORR	DENSITY	AIR VOIDS
5-13-87	5	49.50	105 R	1	484	148.5	97.8%	4.9%
		49.00	105 R	2	581	148.3	97.7%	5.0%
		48.50	105 R	3	505	147.1	96.9%	5.8%
		48.00	105 R	4	322	146.7	96.7%	6.0%
		47.50	105 R	5	428	147.1	97.0%	5.8%
		47.00	105 R	6	424	146.8	96.8%	6.0%
		46.50	105 R	7	551	145.8	96.1%	6.6%
		46.00	105 R	8	642	146.8	96.8%	6.0%
		45.50	105 R	9	516	145.7	96.0%	6.7%
		49.25	93 R	10	417	147.2	97.0%	5.7%
		48.75	93 R	11	538	148.2	97.7%	5.1%
		48.25	93 R	12	368	143.4	94.5%	8.2%
		47.75	93 R	13	370	147.6	97.2%	5.5%
		47.25	93 R	14	346	145.3	95.8%	6.9%
		46.75	93 R	15	392	148.2	97.7%	5.1%
		46.25	93 R	16	773	146.6	96.6%	6.1%
		45.75	93 R	17	787	144.4	95.1%	7.5%
		45.25	93 R	18	443	145.4	95.8%	6.9%
		49.50	80 R	19	564	148.6	98.0%	4.8%
		49.00	80 R	20	270	147.5	97.2%	5.5%
		48.50	80 R	21	450	143.7	94.7%	8.0%
		48.00	80 R	22	414	145.2	95.7%	7.0%
		47.50	80 R	23	495	145.7	96.0%	6.7%
		47.00	80 R	24	617	146.4	96.5%	6.2%
		46.50	80 R	25	583	147.1	96.9%	5.8%
		46.00	80 R	26	1030	142.8	94.1%	8.5%
		45.50	80 R	27	550	145.4	95.8%	6.9%
		49.50	65 R	28	443	147.4	97.1%	5.6%
		48.50	65 R	29	313	146.1	96.3%	6.4%
		47.50	65 R	30	382	147.3	97.1%	5.6%
		46.50	65 R	31	615	149.2	98.3%	4.5%
		45.50	65 R	32	579	146.6	96.6%	6.1%
		44.50	65 R	33	488	146.3	96.4%	6.3%
		49.00	52 R	34	1034	147.4	97.1%	5.6%
		48.00	52 R	35	259	147.3	97.1%	5.6%
		47.00	52 R	36	297	147.3	97.1%	5.6%
		46.00	52 R	37	451	146.8	96.7%	6.0%
		45.00	52 R	38	359	146.3	96.4%	6.3%
		49.50	39 R	39	789	148.1	97.6%	5.1%
		48.50	39 R	40	313	144.2	95.1%	7.6%
		47.50	39 R	41	340	148.5	97.8%	4.9%
		46.50	39 R	42	555	145.5	95.9%	6.8%
		45.50	39 R	43	350	146.6	96.6%	6.1%

Table D-3 (Cont'd.)

OCEAN CITY TERMINAL APRON & CONN TW

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	3411 UNIT WT MARSHALL IN PLACE ** pcf	DENSITY	AIR VOIDS
						TH UNCORR CORE CORR		
		44.50	39 R	44	454	147.8	97.4%	5.3%
		49.00	26 R	45	813	150.0	98.9%	3.9%
		48.00	26 R	46	301	145.7	96.0%	6.7%
		47.00	26 R	47	566	146.7	96.7%	6.0%
		46.00	26 R	48	725	147.1	96.9%	5.8%
		45.00	26 R	49	427	148.1	97.6%	5.1%
		49.50	13 R	50	317	147.8	97.4%	5.3%
		48.50	13 R	51	308	148.5	97.8%	4.9%
		47.50	13 R	52	387	148.9	98.1%	4.6%
		46.50	13 R	53	688	146.8	96.8%	6.0%
		45.50	13 R	54	607	146.8	96.7%	6.0%
		44.50	13 R	55	528	145.2	95.7%	7.0%
		49.00	BL	56	487	147.0	96.9%	5.8%
		48.00	BL	57	371	147.0	96.9%	5.9%
		46.00	BL	59	535	147.5	97.2%	5.5%
		45.00	BL	60	476	148.8	98.1%	4.7%
		49.50	13 L	61	269	146.4	96.5%	6.2%
		48.50	13 L	62	374	145.0	95.6%	7.1%
		47.50	13 L	63	619	146.9	96.8%	5.9%
5-14-87	6	49.50	103 L	64	402	148.0	97.0%	5.1%
5-14-87	6	48.50	103 L	65	474	149.8	98.1%	4.0%
		1.00	5 R	200	415	145.5	95.9%	6.8%
		2.00	5 R	201	346	147.5	97.2%	5.5%
		3.00	5 R	202	559	145.4	95.8%	6.9%
		4.00	5 R	203	376	144.9	95.5%	7.2%
		4.50	5 L	204	472	147.3	97.1%	5.6%
		3.50	5 L	205	363	146.5	96.6%	6.1%
		2.50	5 L	206	339	147.8	97.4%	5.4%
		1.50	5 L	207	307	146.2	96.3%	6.4%
		1.50	15 R	208	322	149.0	98.2%	4.5%
		2.50	15 R	209	648	147.2	97.0%	5.7%
		3.50	15 R	210	346	146.9	96.8%	5.9%
		4.50	15 R	211	666	147.7	97.3%	5.4%
		3.00	15 L	213	483	149.4	98.5%	4.3%
		2.00	15 L	214	338	148.2	97.6%	5.1%
		1.00	15 L	215	370	146.4	96.5%	6.2%
				AVG	480	146.9	96.8%	5.9%
				STD	160	1.4	0.9%	0.9%
				COV	33.3%	1.0%	0.9%	15.3%

Table D-3 (Cont'd.)

OCEAN CITY NEW PARALLEL

3411

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	UNIT WT MARSHALL IN PLACE ** pcf	DENSITY	AIR VOIDS
							TH UNCORR CORE CORR		
5-13-87	5	49.00	5 L	100	484	692	147.1	96.9%	5.8%
		48.50	5 L	101	486	695	146.3	96.4%	6.3%
		48.00	5 L	102	463	663	145.3	95.8%	6.9%
		47.50	5 L	103	415	593	145.9	96.2%	6.5%
		47.00	5 L	104	521	745	147.2	97.0%	5.7%
		46.50	5 L	105	496	709	148.5	97.9%	4.9%
		46.00	5 L	106	446	638	145.8	96.1%	6.6%
		45.50	5 L	107	480	686	145.2	95.7%	7.0%
		49.25	5 R	108	619	885	147.3	97.1%	5.7%
		48.75	5 R	109	658	941	147.2	97.0%	5.7%
		48.25	5 R	110	559	800	149.1	98.3%	4.5%
		47.78	5 R	111	553	791	148.0	97.5%	5.2%
		47.25	5 R	112	540	773	147.1	97.0%	5.8%
		46.75	5 R	113	545	779	147.3	97.1%	5.7%
		46.25	5 R	114	471	673	147.1	96.9%	5.8%
		45.75	5 R	115	554	792	147.8	97.4%	5.4%
		45.25	5 R	116	327	467	146.2	96.3%	6.4%
		49.00	15 R	117	491	703	147.3	97.1%	5.6%
		48.00	15 R	118	502	719	146.5	96.6%	6.2%
		47.00	15 R	119	472	674	146.3	96.4%	6.3%
		46.00	15 R	120	413	590	144.2	95.1%	7.6%
		44.00	15 R	121	250	357	147.6	97.3%	5.4%
		43.00	15 R	122	310	443	146.1	96.3%	6.4%
		42.00	15 R	123	272	389	143.1	94.3%	8.3%
		41.00	15 R	124	294	421	147.1	97.0%	5.8%
		41.50	15 L	125	234	335	147.0	96.9%	5.8%
		42.50	15 L	126	268	383	145.9	96.2%	6.5%
		43.50	15 L	127	345	494	149.8	98.7%	4.1%
		44.50	15 L	128	295	422	147.9	97.5%	5.2%
		45.50	15 L	129	416	595	148.7	98.0%	4.8%
		46.50	15 L	130	375	536	147.0	96.8%	5.9%
		47.50	15 L	131	432	618	147.4	97.1%	5.6%
		48.50	15 L	132	492	703	150.2	99.0%	3.8%
		44.00	5 L	133	348	498	145.4	95.8%	6.9%
		43.00	5 L	134	324	463	145.6	95.9%	6.8%
		42.00	5 L	135	352	503	146.6	96.6%	6.1%
		41.00	5 L	136	339	484	147.7	97.3%	5.4%
		41.50	5 L	137	326	465	148.4	97.8%	5.0%
		42.50	5 L	138	311	445	146.7	96.7%	6.0%

Table D-3 (Cont'd.)

OCEAN CITY NEW PARALLEL

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	3411 UNIT WT ** pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
		43.50	5 L	139	386	552	145.9	96.2%	6.5%
		44.50	5 L	140	331	473	146.9	96.8%	5.9%
				AVG	419	600	146.9	96.8%	5.9%
				STD	106	151	1.3	0.9%	0.9%
				COV	25.2%	25.2%	0.9%	0.9%	14.6%

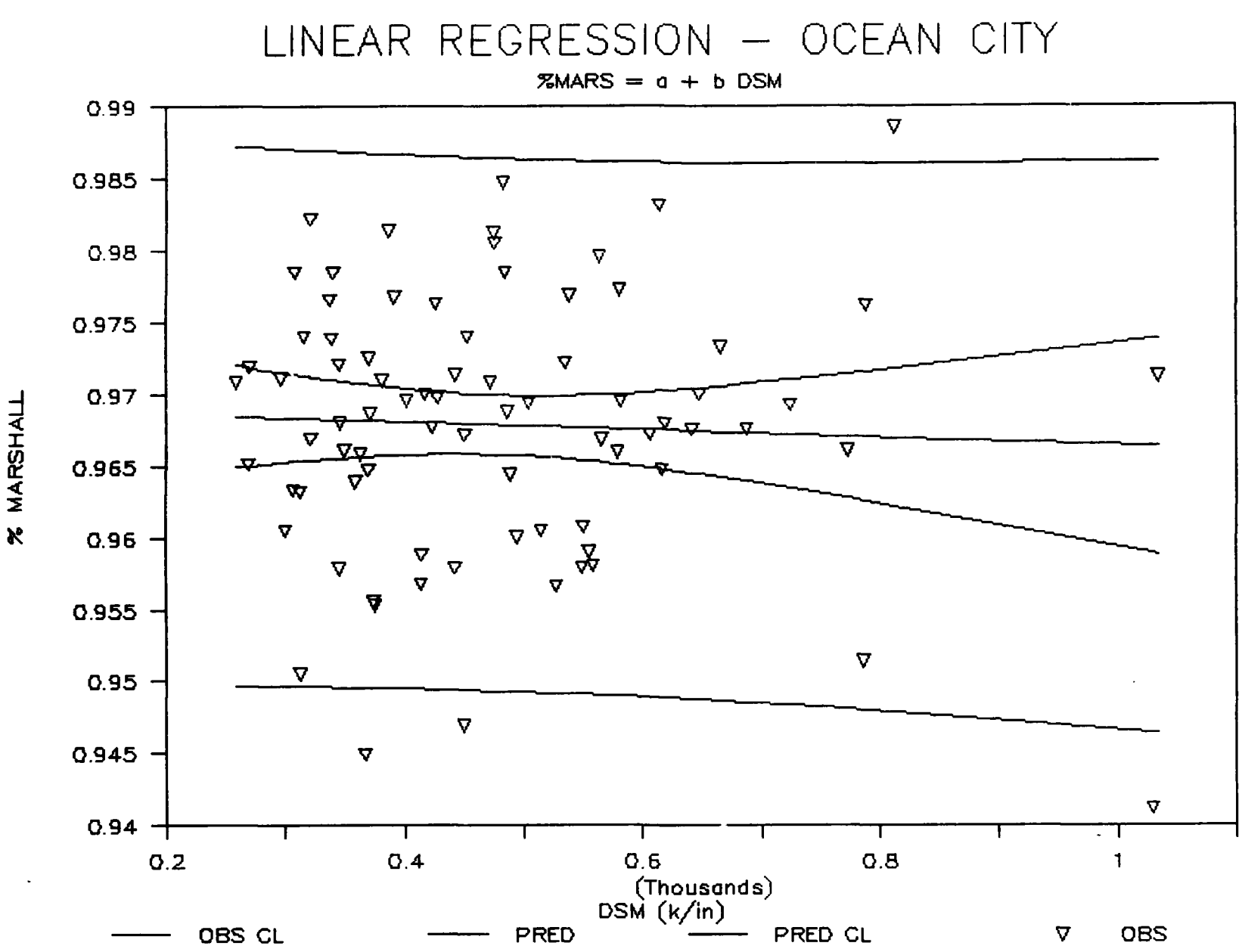


FIGURE 13

MARSHALL DENSITY/DSM (UNADJUSTED)
OCEAN CITY OVERLAY

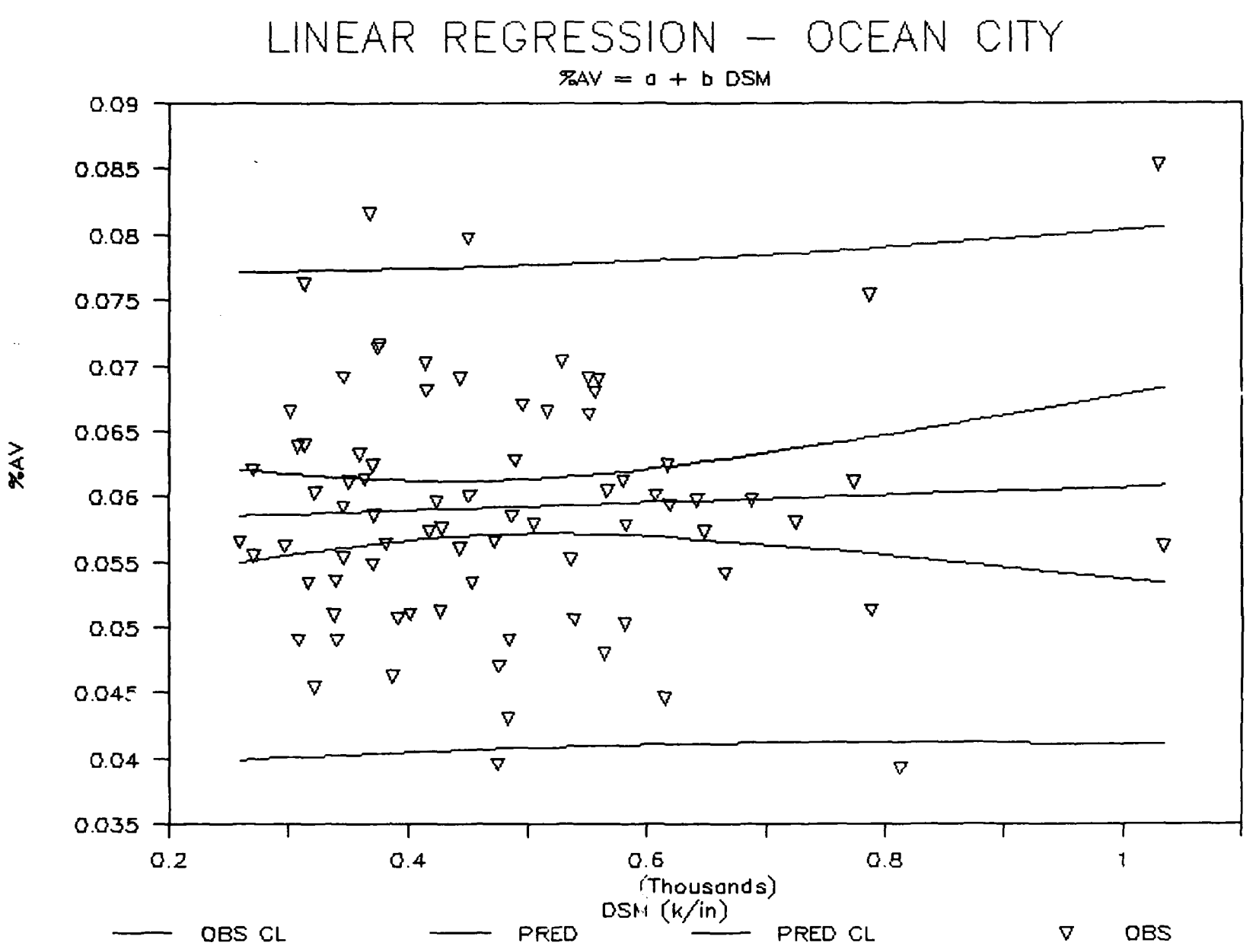


FIGURE 14

IN-PLACE AIR VOIDS/DSM (UNADJUSTED)
OCEAN CITY OVERLAY

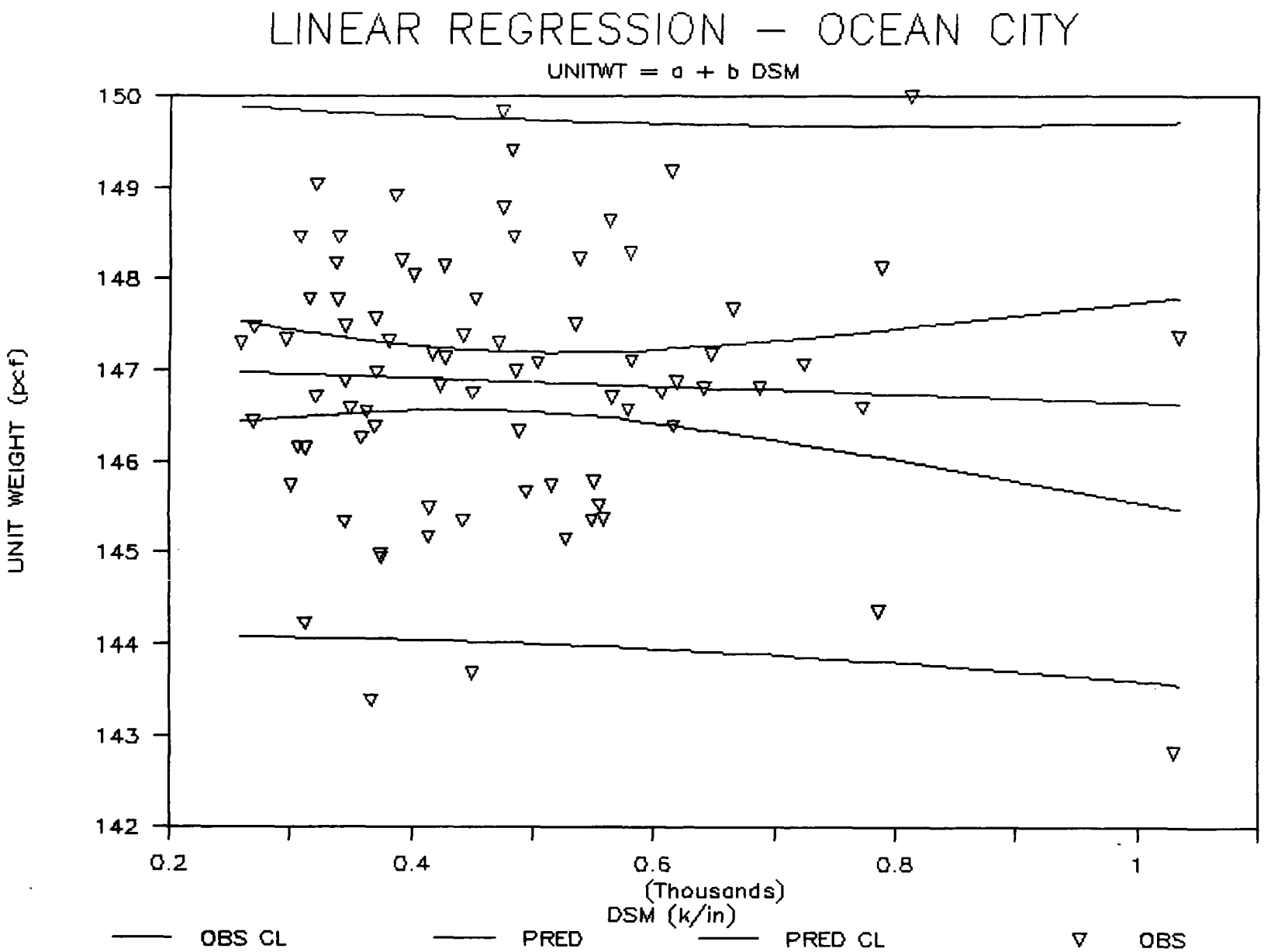


FIGURE 15

UNIT WEIGHT/DSM (UNADJUSTED)

OCEAN CITY OVERLAY

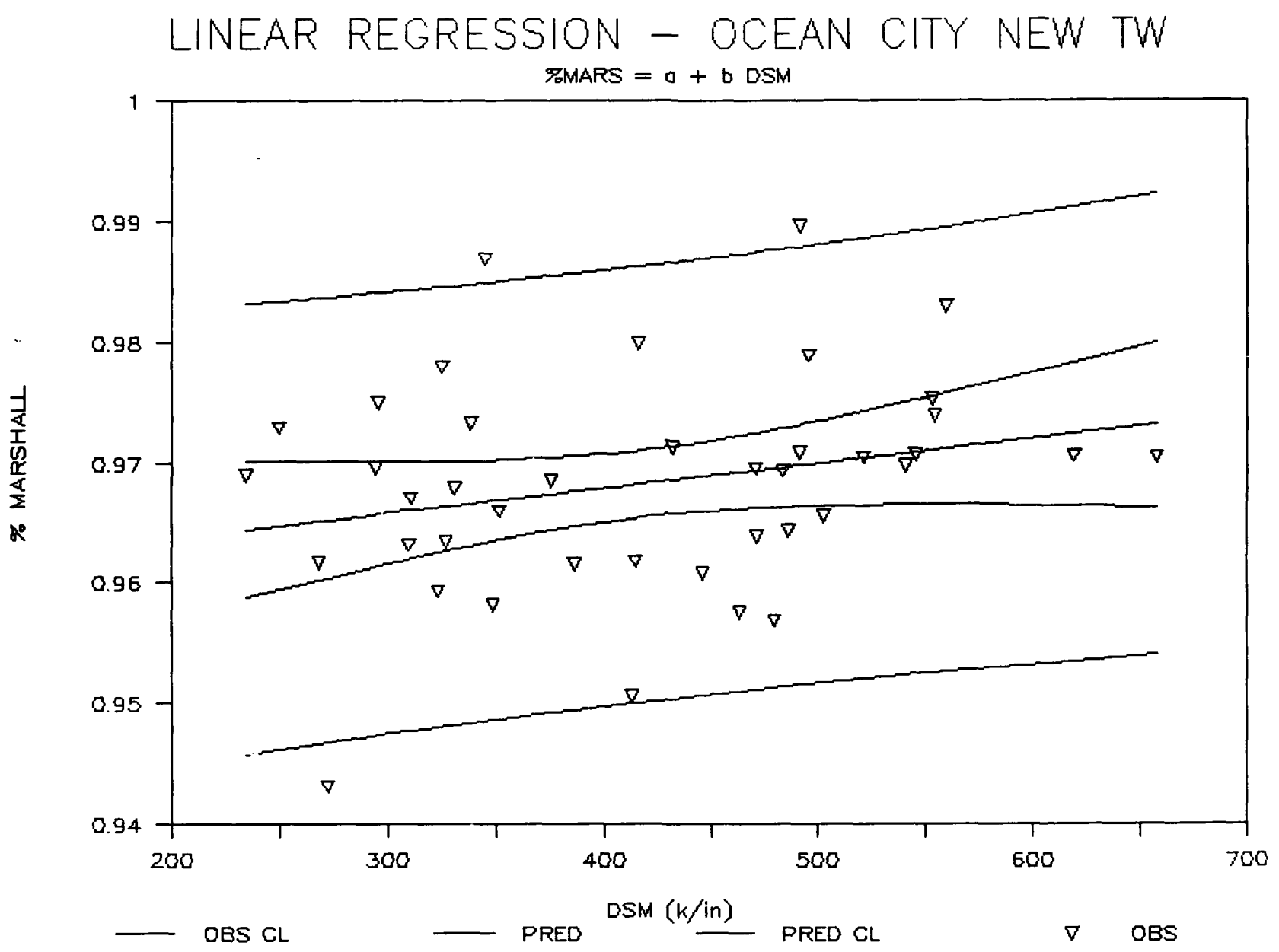


FIGURE 16

MARSHALL DENSITY/DSM (UNADJUSTED)
OCEAN CITY NEW CONSTRUCTION

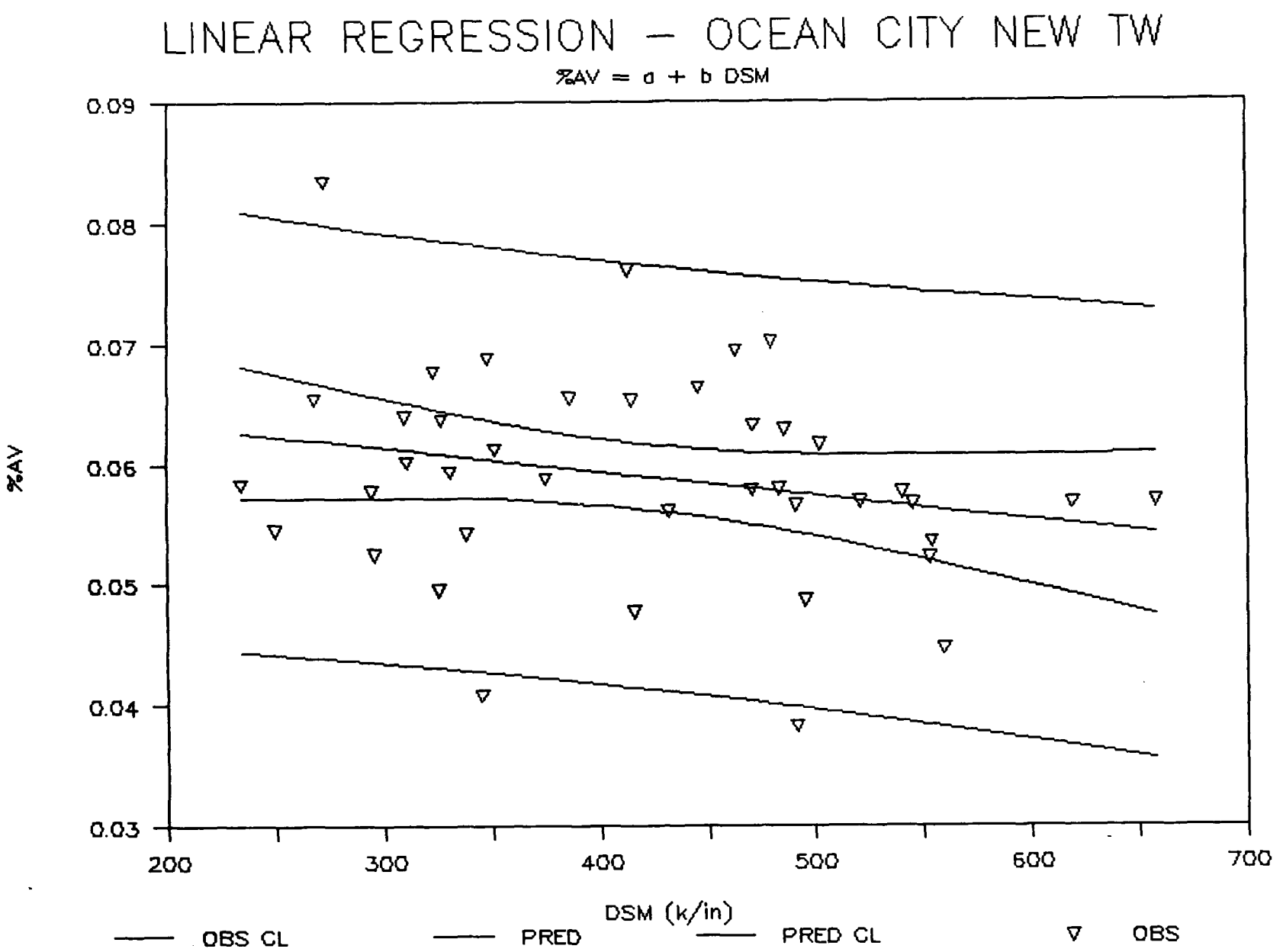


FIGURE 17

IN-PLACE AIR VOIDS/DSM (UNADJUSTED)
OCEAN CITY NEW CONSTRUCTION

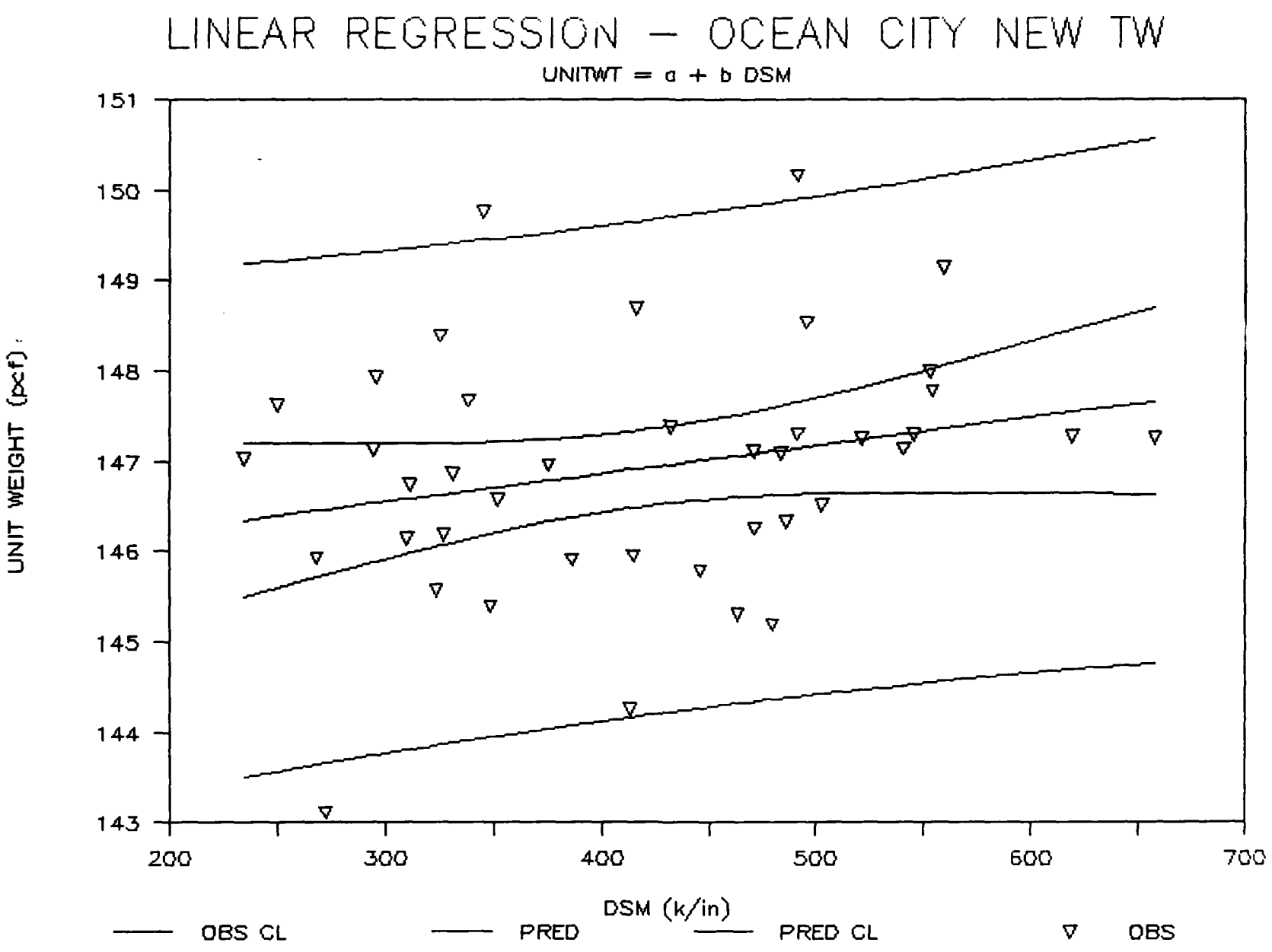


FIGURE 18

UNIT WEIGHT/DSM (UNADJUSTED)
OCEAN CITY NEW CONSTRUCTION

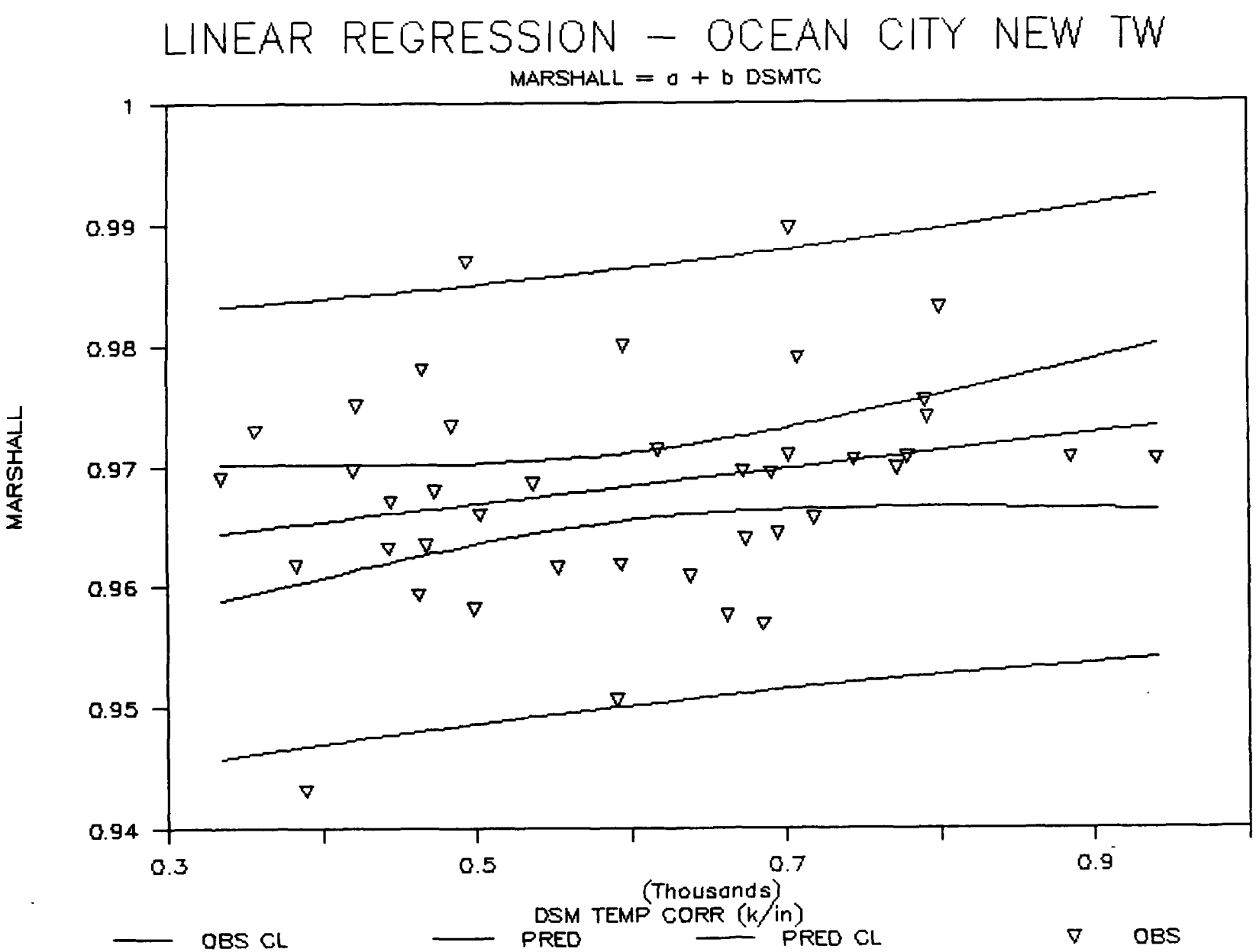


FIGURE 19

MARSHALL DENSITY/DSM (TEMP ADJUSTED)
OCEAN CITY NEW CONSTRUCTION

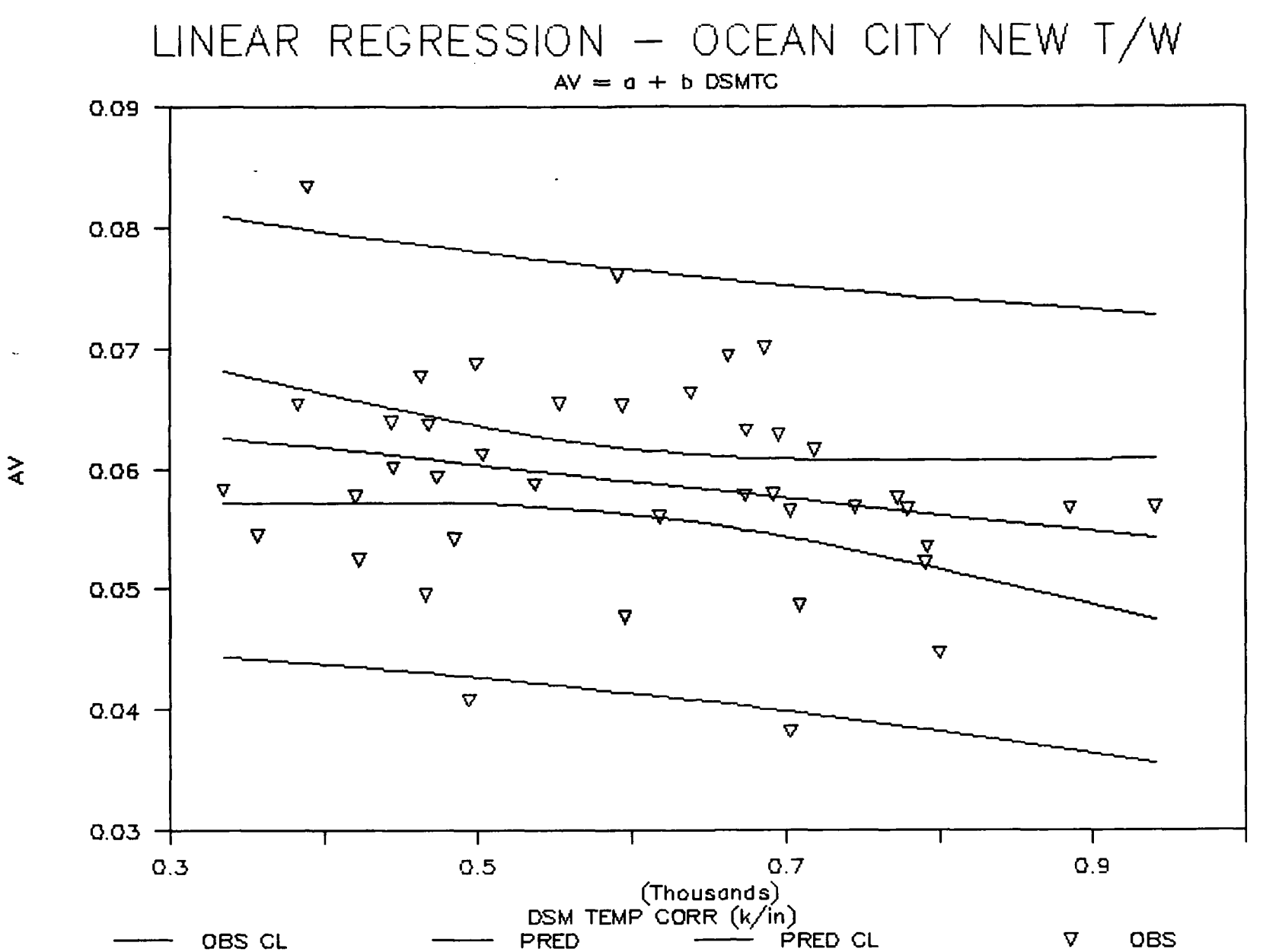


FIGURE 20

IN-PLACE AIR VOIDS/DSM (TEMP ADJUSTED)
OCEAN CITY NEW CONSTRUCTION

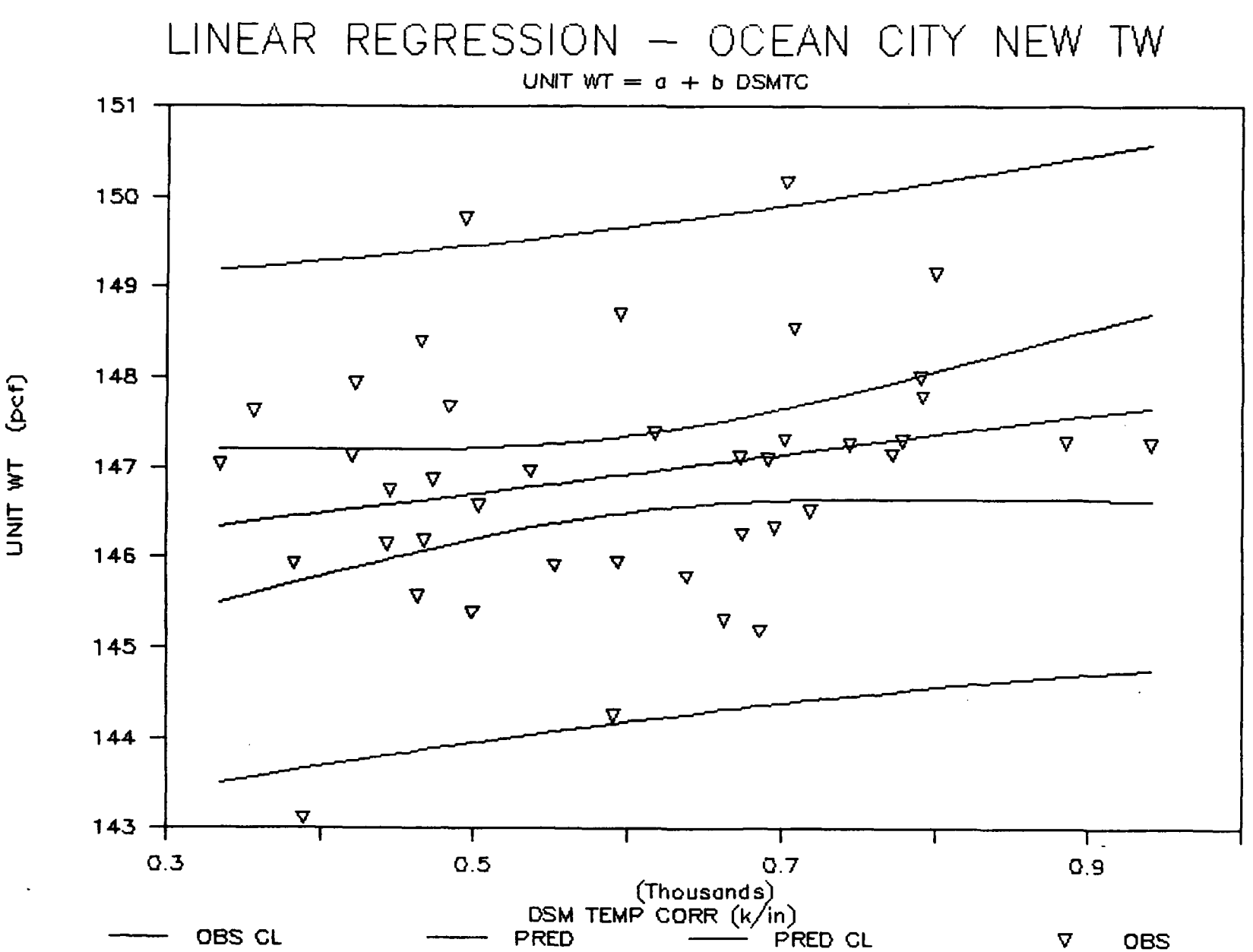


FIGURE 21

UNIT WEIGHT/DSM (TEMP ADJUSTED)
OCEAN CITY NEW CONSTRUCTION

TABLE D-4

COMBINED DATA BASE
NUCLEAR DENSITIES

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	TEMP CORR DSM k/in	TEMP CORR DSM k/in	NUCLEAR UNIT WT pcf	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
7-13-87	TET 7	31.00	56 R	1	836	986	152.5	96.3%	6.6%
		31.00	6.5 R	37	868	1085	154.3	97.4%	5.5%
		31.00	43 L	73	430	473	152.0	96.0%	6.9%
7-14-87	TET 8	32.00	32 R	19	517	647	148.8	94.8%	8.8%
		32.00	18 L	55	684	794	151.4	96.5%	7.2%
		32.00	68 L	91	921	1023	150.3	95.8%	7.9%
		33.00	56 R	2	429	507	148.6	94.7%	8.9%
		33.00	6.5 R	38	761	951	152.3	97.0%	6.6%
		33.00	43 L	74	488	537	148.9	94.9%	8.7%
		34.00	32 R	20	587	734	145.1	92.5%	11.0%
		34.00	18 L	56	466	541	151.2	96.3%	7.3%
		34.00	68 L	92	1273	1413	148.9	94.9%	8.7%
		35.00	56 R	3	846	999	148.3	94.5%	9.1%
		35.00	6.5 R	39	732	914	150.8	96.1%	7.5%
		35.00	43 L	75	689	758	150.3	95.8%	7.9%
		36.00	32 R	21	722	902	148.9	94.9%	8.7%
		36.00	18 L	57	651	755	153.4	97.7%	6.0%
		36.00	68 L	93	1064	1181	150.6	96.0%	7.7%
7-15-87	TET 9	37.15	56 R	4	966	1139	150.9	95.6%	7.5%
		37.15	6.5 R	40	952	1190	155.6	98.6%	4.6%
		37.15	43 L	76	530	583	149.2	94.6%	8.5%
		38.00	32 R	22	701	876	151.6	96.1%	7.0%
		38.00	18 L	58	781	906	150.2	95.2%	7.9%
		38.00	68 L	94	1129	1253	151.4	96.0%	7.1%
		39.00	56 R	5	891	1051	151.4	96.0%	7.1%
		39.00	6.5 R	41	826	1032	153.5	97.3%	5.9%
		39.00	43 L	77	643	708	153.3	97.2%	6.0%
		40.00	32 R	23	562	702	151.4	96.0%	7.1%
		40.00	18 L	59	755	876	154.2	97.7%	5.4%
		40.00	68 L	95	974	1081	149.5	94.8%	8.3%
		41.00	56 R	6	1395	1646	152.8	96.8%	6.3%
		41.00	6.5 R	42	886	1107	154.7	98.1%	5.1%
		41.00	43 L	78	781	859	149.8	94.9%	8.1%
		42.00	32 R	24	865	1082	152.8	96.8%	6.3%
		42.00	18 L	60	929	1013	156.3	99.1%	4.1%
		42.00	68 L	96	883	980	150.1	95.1%	7.9%
7-16-87	TET 10	43.00	56 R	7	1224	1444	150.0	95.1%	8.4%
		43.00	6.5 R	43	974	1217	153.0	97.0%	6.5%
		43.00	43 L	79	716	787	152.7	96.8%	6.7%
		44.00	32 R	25	629	786	151.6	96.1%	7.4%
		44.00	18 L	61	898	979	150.3	95.2%	8.2%
		44.00	68 L	97	723	803	151.4	95.9%	7.5%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	TEMP CORR DSM k/in	DSM k/in	NUCLEAR UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
		45.00	56 R	8	521	615	150.3	95.2%	8.2%
		45.00	6.5 R	44	897	1121	148.7	94.2%	9.1%
		45.00	43 L	80	627	690	149.9	95.0%	8.4%
		46.00	32 R	26	401	501	150.2	95.2%	8.2%
		46.00	18 L	62	640	698	152.6	96.7%	6.8%
		46.00	68 L	98	927	1029	149.7	94.9%	8.5%
		47.00	56 R	9	1058	1248	150.6	95.4%	8.0%
		47.00	6.5 R	45	594	743	151.7	96.1%	7.3%
		47.00	43 L	81	444	489	151.6	96.1%	7.4%
		48.00	32 R	27	816	1127	150.0	95.1%	8.4%
		48.00	18 L	63	926	1028	152.1	96.4%	7.1%
		48.00	68 L	99	877	973	151.7	96.1%	7.3%
		49.00	56 R	10	858	1072	152.4	96.6%	6.9%
		49.00	6.5 R	46	936	1283	153.1	97.0%	6.5%
		49.00	43 L	82	577	647	153.6	97.3%	6.2%
		50.00	32 R	28	858	1218	154.3	97.8%	5.7%
		50.00	18 L	64	848	941	153.7	97.4%	6.1%
		50.00	68 L	100	714	814	153.5	97.3%	6.2%
7-20-87	TET 12	51.00	56 R	11	621	789	153.5	96.8%	5.9%
		51.00	6.5 R	47	1238	1745	153.3	96.7%	6.1%
		51.00	43 L	83	976	1103	152.3	96.1%	6.7%
		52.00	32 R	29	865	1229	154.7	97.6%	5.2%
		52.00	18 L	65	956	1071	153.3	96.7%	6.1%
		52.00	68 L	101	860	980	152.6	96.3%	6.5%
		53.00	56 R	12	978	1242	153.3	96.7%	6.1%
		53.00	6.5 R	48	1193	1682	151.9	95.8%	6.9%
		53.00	43 L	84	883	998	153.3	96.7%	6.1%
		54.00	32 R	30	907	1287	154.4	97.4%	5.4%
		54.00	18 L	66	1057	1184	151.3	95.4%	7.3%
		54.00	68 L	102	1026	1170	151.0	95.3%	7.5%
		55.00	56 R	13	1408	1788	153.4	96.8%	6.0%
		55.00	6.5 R	49	1941	2737	154.9	97.7%	5.1%
		55.00	43 L	85	1663	1879	155.4	98.0%	4.8%
7-21-87	TET 13	56.00	32 R	31	1137	1615	153.6	97.4%	5.5%
		56.00	18 L	67	1309	1467	153.5	97.4%	5.6%
		56.00	68 L	103	1291	1472	154.9	98.3%	4.7%
		57.00	56 R	14	1110	1409	153.0	97.1%	5.9%
		57.00	6.5 R	50	1083	1527	154.6	98.1%	4.9%
		57.00	43 L	86	1130	1277	152.7	96.9%	6.1%
		58.00	32 R	32	998	1417	153.9	97.6%	5.4%
		58.00	18 L	68	1183	1325	154.2	97.8%	5.2%
		58.00	68 L	104	1327	1512	154.7	98.1%	4.9%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	TEMP CORR DSM k/in	DSM k/in	NUCLEAR UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
		59.00	56 R	15	802	1018	150.6	95.5%	7.4%
		59.00	6.5 R	51	969	1366	151.1	95.9%	7.1%
		59.00	43 L	87	961	1086	151.6	96.2%	6.8%
		60.00	32 R	33	675	958	152.9	97.0%	6.0%
		60.00	18 L	69	637	713	152.2	96.6%	6.4%
		60.00	68 L	105	830	946	151.8	96.3%	6.7%
		61.00	56 R	16	612	777	150.8	95.7%	7.3%
		61.00	6.5 R	52	868	1259	151.3	96.0%	7.0%
		61.00	43 L	88	622	709	153.4	97.3%	5.7%
		62.00	32 R	34	658	934	152.1	96.5%	6.5%
		62.00	18 L	70	705	790	155.4	98.6%	4.4%
		62.00	68 L	106	599	683	154.0	97.7%	5.3%
7-22-87	TET 14	63.00	56 R	17	663	842	152.8	97.4%	5.6%
		63.00	6.5 R	53	757	1097	155.1	98.8%	4.1%
		63.00	43 L	89	772	880	153.4	97.7%	5.2%
		64.00	32 R	35	706	1003	152.4	97.1%	5.8%
		64.00	18 L	71	787	881	152.3	97.0%	5.9%
		65.00	56 R	18	788	1000	153.1	97.5%	5.4%
		65.00	6.5 R	54	727	1055	153.2	97.6%	5.3%
		65.00	43 L	90	772	880	152.6	97.2%	5.7%
8-4-87	LSB 1	0.50	15L	1	350	445	158.5	97.5%	5.1%
		2.50	15L	2	374	475	158.8	97.7%	4.9%
		4.50	15L	3	648	823	156.8	96.5%	6.1%
		6.50	15L	4	273	347	156.1	96.1%	6.5%
		8.50	15L	5	410	521	157.7	97.0%	5.6%
		10.50	15L	6	356	452	154.2	94.9%	7.7%
		12.50	15L	7	399	506	158.2	97.4%	5.3%
		14.50	15L	8	443	562	157.3	96.8%	5.8%
		16.50	15L	9	553	702	156.6	96.3%	6.3%
		18.50	15L	10	290	368	159.7	98.3%	4.4%
		20.50	15L	11	302	384	158.2	97.3%	5.3%
		22.50	15L	12	470	554	155.5	95.6%	6.9%
		24.50	15L	13	302	356	156.4	96.3%	6.3%
		26.50	15L	14	263	310	155.6	95.7%	6.8%
		28.50	15L	15	579	683	153.7	94.6%	8.0%
		30.50	15L	16	329	389	153.0	94.1%	8.4%
		1.00	5L	19	365	464	158.0	97.2%	5.4%
		2.05	5L	20	429	544	153.3	94.4%	8.2%
		3.00	5L	21	414	526	155.7	95.8%	6.8%
		4.10	5L	22	344	436	156.3	96.2%	6.4%
		5.00	5L	23	383	486	156.8	96.5%	6.1%
		6.00	5L	24	394	500	156.7	96.4%	6.2%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	NUCLEAR UNIT WT pcf	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
		7.00	5L	25	356	452	158.6	97.6%	5.0%
		8.00	5L	26	273	347	156.5	96.3%	6.3%
		9.00	5L	27	374	475	155.1	95.4%	7.1%
		10.00	5L	28	311	395	156.3	96.2%	6.4%
		11.00	5L	29	430	546	156.0	96.0%	6.6%
		12.00	5L	30	385	489	157.9	97.2%	5.5%
		13.00	5L	31	339	430	159.5	98.1%	4.5%
		14.00	5L	32	283	359	156.5	96.3%	6.3%
		15.00	5L	33	326	414	157.4	96.9%	5.7%
		16.00	5L	34	496	629	156.5	96.3%	6.3%
		17.00	5L	35	437	554	155.5	95.7%	6.9%
		19.00	5L	37	364	462	158.3	97.4%	5.2%
		20.00	5L	38	375	476	156.5	96.3%	6.3%
		21.00	5L	39	393	500	155.7	95.8%	6.8%
		22.25	5L	40	508	604	156.3	96.2%	6.4%
		23.00	5L	41	474	564	156.8	96.5%	6.1%
		24.00	5L	42	338	402	157.4	96.9%	5.7%
		25.00	5L	43	385	458	156.1	96.0%	6.6%
		26.00	5L	44	313	373	157.0	96.6%	6.0%
		27.00	5L	45	308	367	156.6	96.4%	6.2%
		28.00	5L	46	430	512	155.9	95.9%	6.6%
		29.00	5L	47	409	487	156.0	96.0%	6.6%
		30.00	5L	48	326	388	155.3	95.6%	7.0%
		31.00	5L	49	349	416	155.1	95.5%	7.1%
		32.00	5L	50	418	497	155.5	95.7%	6.9%
		0.50	15R	53	380	475	155.0	95.3%	7.2%
		1.50	5R	54	351	438	157.8	97.1%	5.5%
		2.50	5R	55	414	518	160.5	98.8%	3.9%
		3.50	5R	56	416	520	158.3	97.4%	5.2%
		4.50	5R	57	315	394	156.6	96.4%	6.2%
		5.50	5R	58	393	491	160.7	98.9%	3.8%
		6.50	5R	59	306	382	160.4	98.7%	3.9%
		7.50	5R	60	316	395	157.4	96.8%	5.8%
		8.50	5R	61	245	306	156.0	96.0%	6.6%
		9.50	5R	62	295	369	157.8	97.1%	5.5%
		10.50	5R	63	314	392	158.7	97.6%	5.0%
		11.50	5R	64	415	519	156.8	96.5%	6.1%
		12.50	5R	65	425	531	157.1	96.7%	5.9%
		13.50	5R	66	313	392	157.9	97.1%	5.5%
		14.50	5R	67	299	374	159.3	98.0%	4.6%
		15.50	5R	68	363	454	158.4	97.5%	5.2%
		16.50	5R	69	367	458	157.3	96.8%	5.8%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	NUCLEAR UNIT WT pcf	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
		17.50	5R	70	499	624	158.2	97.4%	5.3%
		18.50	5R	71	351	439	159.7	98.3%	4.4%
		19.50	5R	72	244	305	155.8	95.9%	6.7%
		20.50	5R	73	279	349	157.7	97.0%	5.6%
		21.50	5R	74	344	430	159.0	97.8%	4.8%
		22.50	5R	75	480	562	158.9	97.8%	4.9%
		23.50	5R	76	389	455	157.0	96.6%	6.0%
		24.50	5R	77	376	440	159.2	97.9%	4.7%
		25.50	5R	78	328	383	159.2	97.9%	4.7%
		26.50	5R	79	332	388	154.7	95.2%	7.4%
		27.50	5R	80	389	455	155.1	95.4%	7.2%
		28.50	5R	81	566	662	155.0	95.4%	7.2%
		29.50	5R	82	440	515	154.9	95.3%	7.3%
		30.50	5R	83	429	502	157.6	97.0%	5.6%
		31.50	5R	84	534	624	156.5	96.3%	6.3%
		1.50	15R	88	441	542	156.6	96.4%	6.2%
		3.50	15R	89	308	378	155.2	95.5%	7.1%
		5.50	15R	90	337	415	158.9	97.8%	4.9%
		7.50	15R	91	247	304	158.0	97.2%	5.4%
		9.50	15R	92	338	416	155.7	95.8%	6.8%
		11.50	15R	93	442	544	156.3	96.2%	6.4%
		13.50	15R	94	309	380	155.5	95.6%	6.9%
		15.50	15R	95	448	552	154.9	95.3%	7.3%
		17.50	15R	96	438	538	160.1	98.5%	4.1%
		19.50	15R	97	277	340	156.7	96.4%	6.2%
		21.50	15R	98	319	393	154.2	94.9%	7.7%
		23.50	15L	99	367	429	156.4	96.3%	6.3%
		25.50	15L	100	308	360	155.3	95.5%	7.0%
		27.50	15L	101	277	324	155.3	95.5%	7.0%
		29.50	15L	102	415	485	154.8	95.2%	7.3%
		31.50	15L	103	295	345	155.4	95.6%	7.0%
5-13-87	OCN 5	49.50	105 R	1	484		148.5	97.8%	4.9%
		49.00	105 R	2	581		148.3	97.7%	5.0%
		48.50	105 R	3	505		147.1	96.9%	5.8%
		48.00	105 R	4	322		146.7	96.7%	6.0%
		47.50	105 R	5	428		147.1	97.0%	5.8%
		47.00	105 R	6	424		146.8	96.8%	6.0%
		46.50	105 R	7	551		145.8	96.1%	6.6%
		46.00	105 R	8	642		146.8	96.8%	6.0%
		45.50	105 R	9	516		145.7	96.0%	6.7%
		49.25	93 R	10	417		147.2	97.0%	5.7%
		48.75	93 R	11	538		148.2	97.7%	5.1%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	NUCLEAR UNIT WT pcf	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
		48.25	93 R	12	368		143.4	94.5%	8.2%
		47.75	93 R	13	370		147.6	97.2%	5.5%
		47.25	93 R	14	346		145.3	95.8%	6.9%
		46.75	93 R	15	392		148.2	97.7%	5.1%
		46.25	93 R	16	773		146.6	96.6%	6.1%
		45.75	93 R	17	787		144.4	95.1%	7.5%
		45.25	93 R	18	443		145.4	95.8%	6.9%
		49.50	80 R	19	564		148.6	98.0%	4.8%
		49.00	80 R	20	270		147.5	97.2%	5.5%
		48.50	80 R	21	450		143.7	94.7%	8.0%
		48.00	80 R	22	414		145.2	95.7%	7.0%
		47.50	80 R	23	495		145.7	96.0%	6.7%
		47.00	80 R	24	617		146.4	96.5%	6.2%
		46.50	80 R	25	583		147.1	96.9%	5.8%
		46.00	80 R	26	1030		142.8	94.1%	8.5%
		45.50	80 R	27	550		145.4	95.8%	6.9%
		49.50	65 R	28	443		147.4	97.1%	5.6%
		48.50	65 R	29	313		146.1	96.3%	6.4%
		47.50	65 R	30	382		147.3	97.1%	5.6%
		46.50	65 R	31	615		149.2	98.3%	4.5%
		45.50	65 R	32	579		146.6	96.6%	6.1%
		44.50	65 R	33	488		146.3	96.4%	6.3%
		49.00	52 R	34	1034		147.4	97.1%	5.6%
		48.00	52 R	35	259		147.3	97.1%	5.6%
		47.00	52 R	36	297		147.3	97.1%	5.6%
		46.00	52 R	37	451		146.8	96.7%	6.0%
		45.00	52 R	38	359		146.3	96.4%	6.3%
		49.50	39 R	39	789		148.1	97.6%	5.1%
		48.50	39 R	40	313		144.2	95.1%	7.6%
		47.50	39 R	41	340		148.5	97.8%	4.9%
		46.50	39 R	42	555		145.5	95.9%	6.8%
		45.50	39 R	43	350		146.6	96.6%	6.1%
		44.50	39 R	44	454		147.8	97.4%	5.3%
		49.00	26 R	45	813		150.0	98.9%	3.9%
		48.00	26 R	46	301		145.7	96.0%	6.7%
		47.00	26 R	47	566		146.7	96.7%	6.0%
		46.00	26 R	48	725		147.1	96.9%	5.8%
		45.00	26 R	49	427		148.1	97.6%	5.1%
		49.50	13 R	50	317		147.8	97.4%	5.3%
		48.50	13 R	51	308		148.5	97.8%	4.9%
		47.50	13 R	52	387		148.9	98.1%	4.6%
		46.50	13 R	53	688		146.8	96.8%	6.0%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	DSM k/in	TEMP CORR DSM k/in	NUCLEAR UNIT WT pcf	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
		45.50	13 R	54	607		146.8	96.7%	6.0%
		44.50	13 R	55	528		145.2	95.7%	7.0%
		49.00	BL	56	487		147.0	96.9%	5.8%
		48.00	BL	57	371		147.0	96.9%	5.9%
		46.00	BL	59	535		147.5	97.2%	5.5%
		45.00	BL	60	476		148.8	98.1%	4.7%
		49.50	13 L	61	269		146.4	96.5%	6.2%
		48.50	13 L	62	374		145.0	95.6%	7.1%
		47.50	13 L	63	619		146.9	96.8%	5.9%
5-14-87	OCN 6	49.50	103 L	64	402		148.0	97.0%	5.1%
		48.50	103 L	65	474		149.8	98.1%	4.0%
		1.00	5 R	200	415		145.5	95.9%	6.8%
		2.00	5 R	201	346		147.5	97.2%	5.5%
		3.00	5 R	202	559		145.4	95.8%	6.9%
		4.00	5 R	203	376		144.9	95.5%	7.2%
		4.50	5 L	204	472		147.3	97.1%	5.6%
		3.50	5 L	205	363		146.5	96.6%	6.1%
		2.50	5 L	206	339		147.8	97.4%	5.4%
		1.50	5 L	207	307		146.2	96.3%	6.4%
		1.50	15 R	208	322		149.0	98.2%	4.5%
		2.50	15 R	209	648		147.2	97.0%	5.7%
		3.50	15 R	210	346		146.9	96.8%	5.9%
		4.50	15 R	211	666		147.7	97.3%	5.4%
		3.00	15 L	213	483		149.4	98.5%	4.3%
		2.00	15 L	214	338		148.2	97.6%	5.1%
		1.00	15 L	215	370		146.4	96.5%	6.2%
		49.00	5 L	100	484	692	147.1	96.9%	5.8%
		48.50	5 L	101	486	695	146.3	96.4%	6.3%
		48.00	5 L	102	463	663	145.3	95.8%	6.9%
		47.50	5 L	103	415	593	145.9	96.2%	6.5%
		47.00	5 L	104	521	745	147.2	97.0%	5.7%
		46.50	5 L	105	496	709	148.5	97.9%	4.9%
		46.00	5 L	106	446	638	145.8	96.1%	6.6%
		45.50	5 L	107	480	686	145.2	95.7%	7.0%
		49.25	5 R	108	619	885	147.3	97.1%	5.7%
		48.75	5 R	109	658	941	147.2	97.0%	5.7%
		48.25	5 R	110	559	800	149.1	98.3%	4.5%
		47.78	5 R	111	553	791	148.0	97.5%	5.2%
		47.25	5 R	112	540	773	147.1	97.0%	5.8%
		46.75	5 R	113	545	779	147.3	97.1%	5.7%
		46.25	5 R	114	471	673	147.1	96.9%	5.8%
		45.75	5 R	115	554	792	147.8	97.4%	5.4%

Table D-4 (Cont'd.)

COMBINED NUCLEAR DATABASE

DATE	LOT	STA ft	OFFSET ft	NDT NO.		DSM k/in	TEMP CORR DSM k/in	NUCLEAR UNIT WT pcf	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
		45.25	5 R	116		327	467	146.2	96.3%	6.4%
		49.00	15 R	117		491	703	147.3	97.1%	5.6%
		48.00	15 R	118		502	719	146.5	96.6%	6.2%
		47.00	15 R	119		472	674	146.3	96.4%	6.3%
		46.00	15 R	120		413	590	144.2	95.1%	7.6%
		44.00	15 R	121		250	357	147.6	97.3%	5.4%
		43.00	15 R	122		310	443	146.1	96.3%	6.4%
		42.00	15 R	123		272	389	143.1	94.3%	8.3%
		41.00	15 R	124		294	421	147.1	97.0%	5.8%
		41.50	15 L	125		234	335	147.0	96.9%	5.8%
		42.50	15 L	126		268	383	145.9	96.2%	6.5%
		43.50	15 L	127		345	494	149.8	98.7%	4.1%
		44.50	15 L	128		295	422	147.9	97.5%	5.2%
		45.50	15 L	129		416	595	148.7	98.0%	4.8%
		46.50	15 L	130		375	536	147.0	96.8%	5.9%
		47.50	15 L	131		432	618	147.4	97.1%	5.6%
		48.50	15 L	132		492	703	150.2	99.0%	3.8%
		44.00	5 L	133		348	498	145.4	95.8%	6.9%
		43.00	5 L	134		324	463	145.6	95.9%	6.8%
		42.00	5 L	135		352	503	146.6	96.6%	6.1%
		41.00	5 L	136		339	484	147.7	97.3%	5.4%
		41.50	5 L	137		326	465	148.4	97.8%	5.0%
		42.50	5 L	138		311	445	146.7	96.7%	6.0%
		43.50	5 L	139		386	552	145.9	96.2%	6.5%
		44.50	5 L	140		331	473	146.9	96.8%	5.9%
					AVG	564	736	151.6	96.6%	6.2%
					STD	273	364	4.4	1.0%	1.1%
					COV	48.5%	49.5%	2.9%	1.1%	17.9%

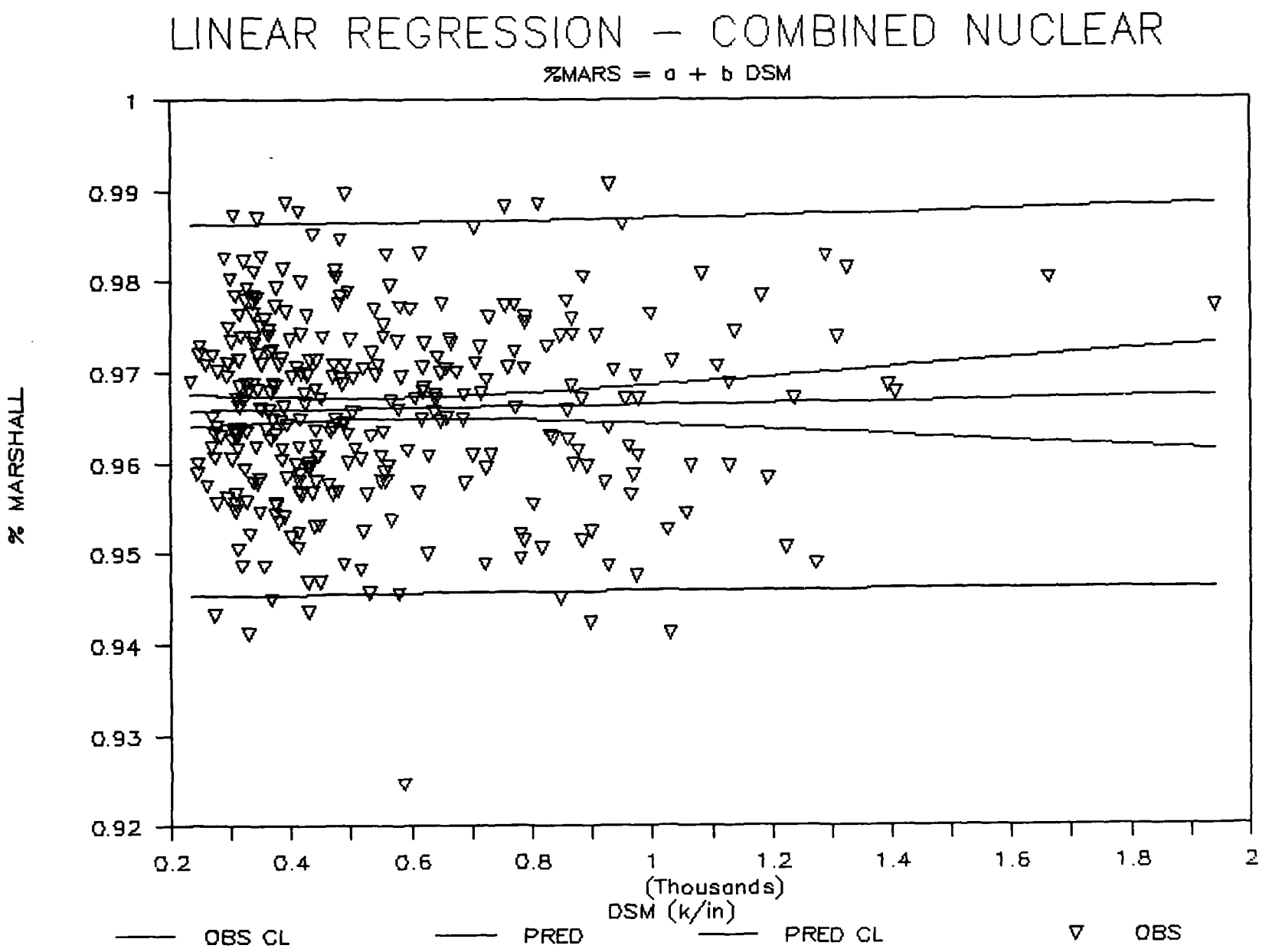


FIGURE 22

PERCENT MARSHALL/DSM (UNADJUSTED) COMBINED NUCLEAR DATA BASE

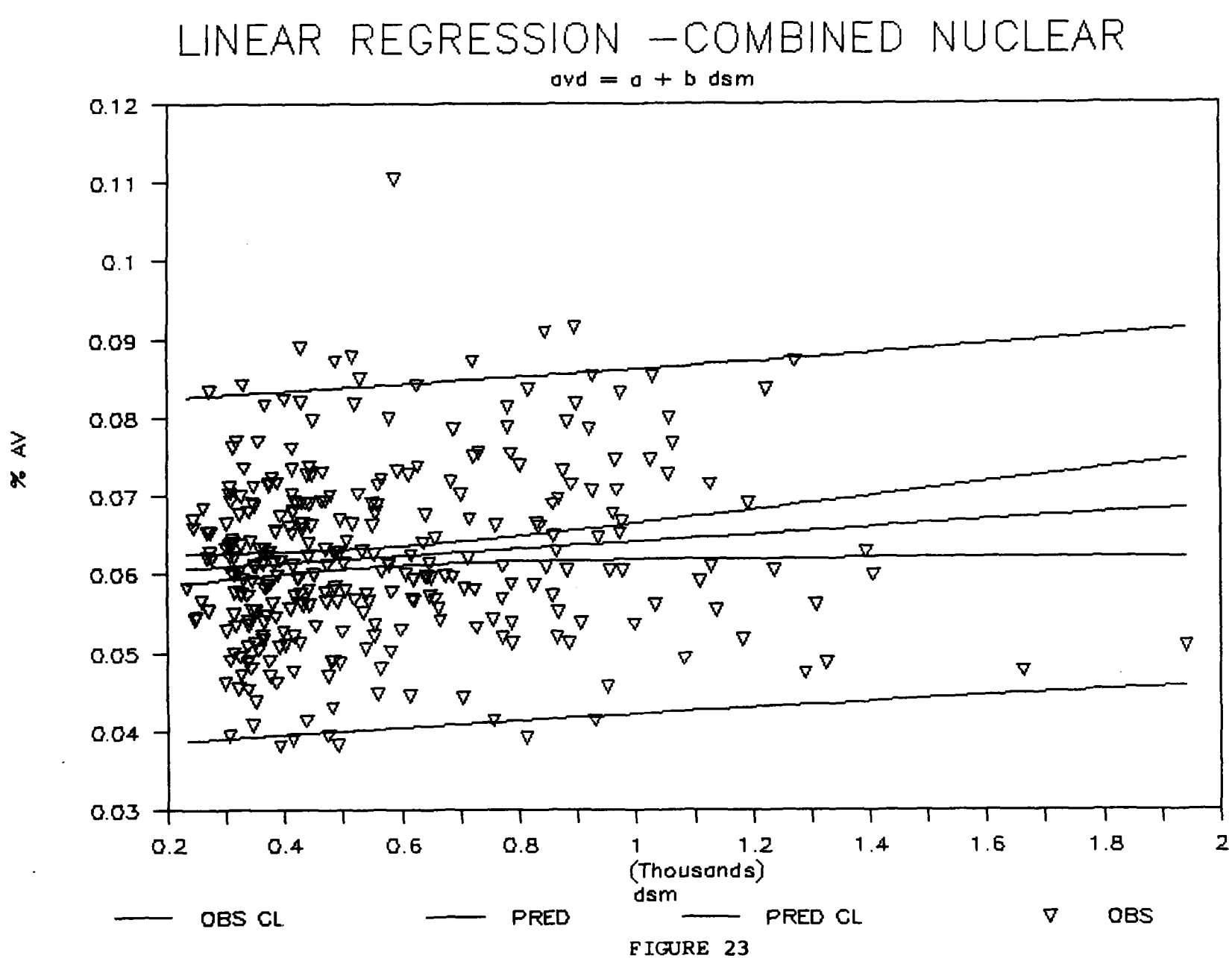


FIGURE 23

IN-PLACE AIR VOIDS/DSM (UNADJUSTED) COMBINED NUCLEAR DATA BASE

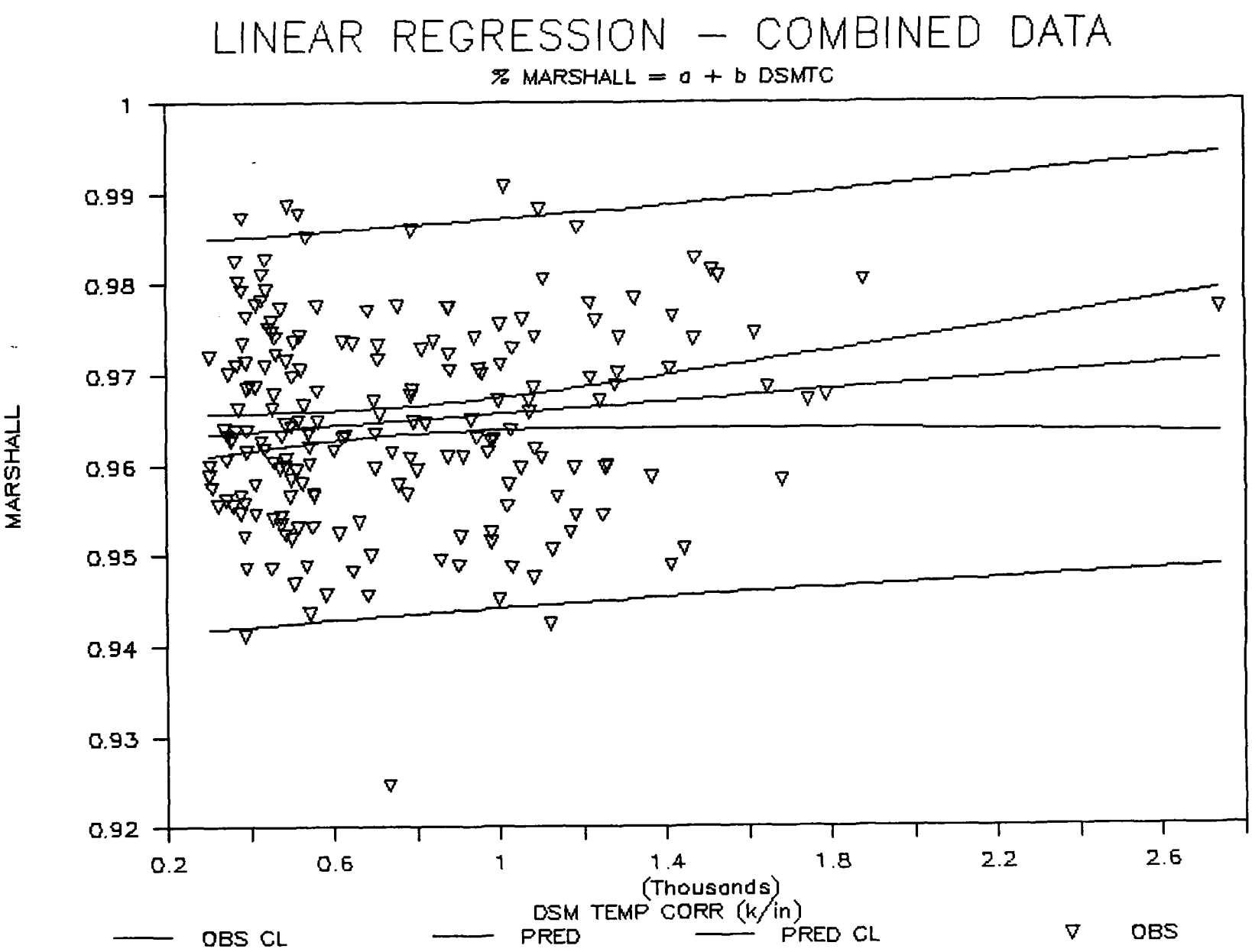


FIGURE 24

PERCENT MARSHALL/DSM (TEMP ADJUSTED) COMBINED NUCLEAR DATA BASE

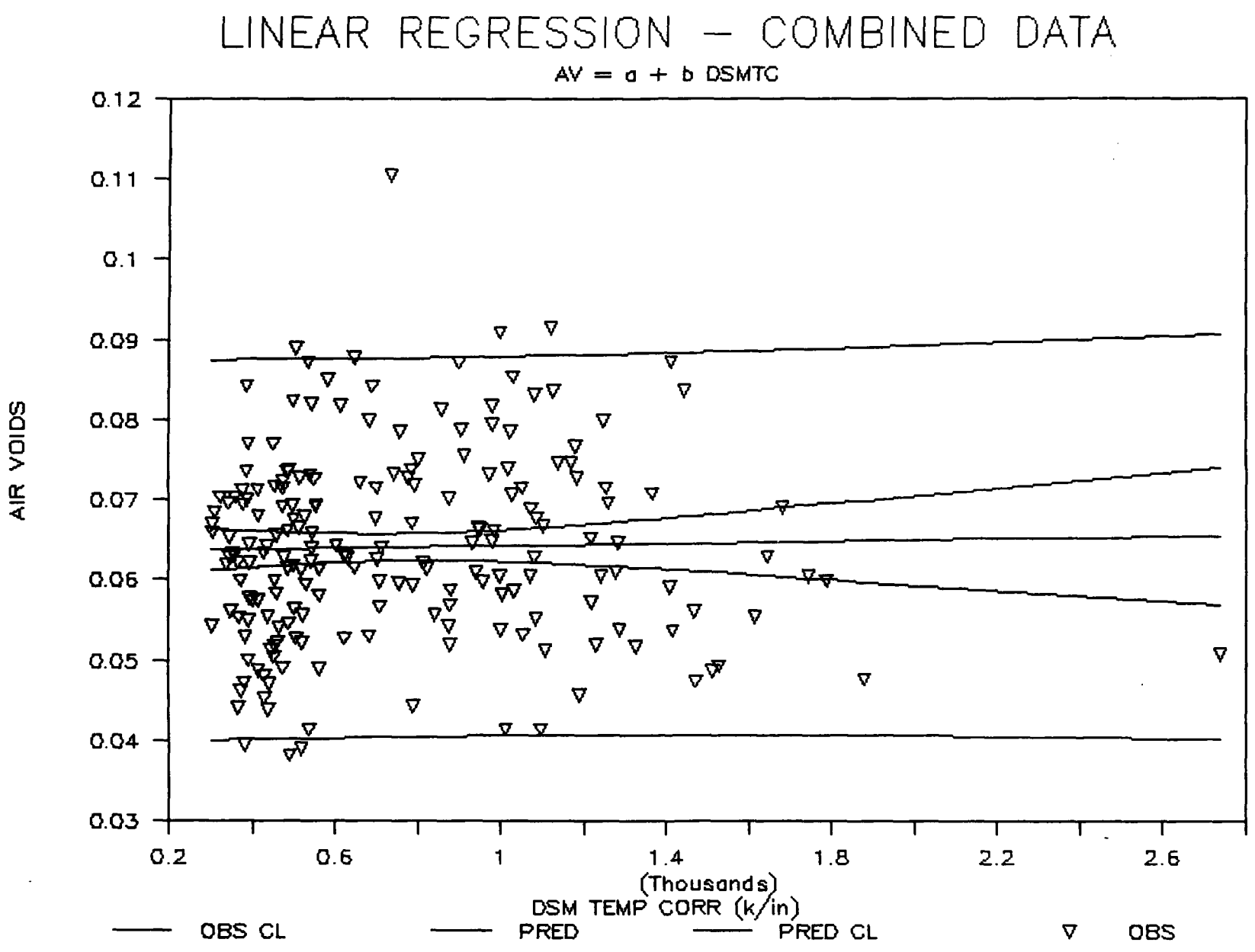


FIGURE 25

IN-PLACE AIR VOIDS/DSM (TEMP ADJUSTED) COMBINED NUCLEAR DATA BASE

TABLE D-5

TETERBORO CORE CORRELATIONS

DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	DSM k/in	TEMP CORR DSM k/in	CORE UNIT WT pcf	CORE MARSHALL DENSITY	CORE IN PLACE AIR VOIDS
7-13-87	7	31.00	43 L	73	RD-1	430	473	152.3	96.2%	6.7%
7-14-87	8	33.00	43 L	74	RD-3	488	537	148.8	94.8%	8.9%
		33.00	56 R	2	RD-2	429	507	148.9	94.9%	8.8%
		34.00	18 L	56	RD-5	466	541	151.0	96.2%	7.5%
		34.00	68 L	92	RD-4	1273	1413	148.4	94.6%	9.1%
7-15-87	9	38.00	18 L	58	RD-6	781	906	151.5	96.0%	7.2%
		39.00	6.5 R	41	RD-7	826	1032	154.3	97.8%	5.5%
		41.00	56 R	6	RD-8	1395	1646	153.5	97.3%	6.0%
7-16-87	10	45.00	56 R	8	RD-9	521	615	149.8	94.9%	8.3%
		46.00	32 R	26	RD-10	401	501	149.6	94.8%	8.4%
		47.00	43 L	81	RD-11	444	489	152.3	96.5%	6.7%
7-20-87	12	55.00	43 L	85	RD-14	1663	1879	155.1	97.9%	5.0%
		55.00	56 R	13	RD-12	1408	1788	152.4	96.1%	6.7%
		55.00	6.5 R	49	RD-13	1941	2737	154.5	97.5%	5.4%
7-21-87	13	56.00	18 L	67	RD-15	1309	1467	151.8	96.3%	7.0%
		58.00	68 L	104	RD-16	1327	1512	153.4	97.3%	6.0%
		59.00	56 R	15	RD-17	802	1018	152.1	96.5%	6.8%
7-22-87	14	64.00	32 R	35	RD-19	706	1003	151.8	96.7%	7.0%
					AVG	923	1115	151.8	96.2%	7.1%
					STD	478	617	2.0	1.0%	1.2%
					COV	51.8%	55.4%	1.3%	1.1%	17.0%

TABLE D-6

LEESBURG CORE CORRELATIONS

DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	TEMP CORR DSM k/in	TEMP CORR DSM k/in	CORE UNIT WT pcf	CORE MARSHALL DENSITY	CORE IN PLACE AIR VOIDS
8-4-87	1	2.53	15L	2	C-1	374	475	159.3	98.0%	4.6%
		6.07	5L	24	C-2	394	500	156.9	96.5%	6.1%
		8.59	5R	61	C-3	245	306	157.0	96.6%	6.0%
		13.50	15R	94	C-4	309	380	156.7	96.4%	6.2%
		15.50	5R	68	C-5	363	454	157.7	97.0%	5.6%
		22.50	15L	12	C-7	470	554	156.9	96.5%	6.1%
		26.09	5L	44	C-8	313	373	155.1	95.4%	7.1%
		28.62	15L	15	C-9	579	683	152.0	93.5%	9.0%
		29.62	5R	82	C-10	440	515	155.7	95.8%	6.8%
		1.50	15R	88	C-11	441	542	156.4	96.2%	6.4%
		7.62	15R	91	C-12	247	304	157.9	97.2%	5.5%
					AVG	380	462	156.5	96.3%	6.3%
					STD	96	110	1.8	1.1%	1.1%
					COV	25.2%	23.7%	1.1%	1.1%	16.9%

TABLE D-7

OCEAN CITY CORE CORRELATIONS

OCEAN CITY CORE CORRELATIONS
UNCORRECTED DSM

DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	DSM k/in	CORE UNIT WT pcf	CORE MARSHALL DENSITY	CORE IN PLACE AIR VOIDS
5-13-87	5	47.00	4 L	104	3-1	521	147.4	97.1%	5.6%
		42.50	5 R	138	3-2	311	147.4	97.1%	5.6%
		2.50	4 L	206	4-1	339	146.4	96.5%	6.2%
		46.75	95 R	15	4-2	392	148.5	97.9%	4.9%
		46.98	28 R	47	4-4	566	146.6	96.6%	6.1%
		48.35	103 L		5-4		150.4	98.4%	3.6%
					AVG	426	147.3	97.1%	5.7%
					STD	101	0.7	0.5%	0.5%
					COV	23.6%	0.5%	0.5%	8.4%

TABLE D-8

COMBINED DATA BASE CORE CORRELATIONS

COMBINED CORE

DATE	LOT	STA ft	OFFSET ft	NDT NO.	CORE NO.	DSM k/in	TEMP CORR DSM k/in	CORE UNIT WT pcf	CORE MARSHALL DENSITY	CORE IN PLACE AIR VOIDS
7-13-87	TET 7	31.00	43 L	73	RD-1	430	473	152.3	96.2%	6.7%
7-14-87	TET 8	33.00	43 L	74	RD-3	488	537	148.8	94.8%	8.9%
		33.00	56 R	2	RD-2	429	507	148.9	94.9%	8.8%
		34.00	18 L	56	RD-5	466	541	151.0	96.2%	7.5%
		34.00	68 L	92	RD-4	1273	1413	148.4	94.6%	9.1%
7-15-87	TET 9	38.00	18 L	58	RD-6	781	906	151.5	96.0%	7.2%
		39.00	6.5 R	41	RD-7	826	1032	154.3	97.8%	5.5%
		41.00	56 R	6	RD-8	1395	1646	153.5	97.3%	6.0%
7-16-87	TET 10	45.00	56 R	8	RD-9	521	615	149.8	94.9%	8.3%
		46.00	32 R	26	RD-10	401	501	149.6	94.8%	8.4%
		47.00	43 L	81	RD-11	444	489	152.3	96.5%	6.7%
7-20-87	TET 12	55.00	43 L	85	RD-14	1663	1879	155.1	97.9%	5.0%
		55.00	56 R	13	RD-12	1408	1788	152.4	96.1%	6.7%
		55.00	6.5 R	49	RD-13	1941	2737	154.5	97.5%	5.4%
7-21-87	TET 13	56.00	18 L	67	RD-15	1309	1467	151.8	96.3%	7.0%
		58.00	68 L	104	RD-16	1327	1512	153.4	97.3%	6.0%
		59.00	56 R	15	RD-17	802	1018	152.1	96.5%	6.8%
7-22-87	TET 14	64.00	32 R	35	RD-19	706	1003	151.8	96.7%	7.0%
8-4-87	LSB 1	2.53	15L	2	C-1	374	475	159.3	98.0%	4.6%
		6.07	5L	24	C-2	394	500	156.9	96.5%	6.1%
		8.59	5R	61	C-3	245	306	157.0	96.6%	6.0%
		13.50	15R	94	C-4	309	380	156.7	96.4%	6.2%
		15.50	5R	68	C-5	363	454	157.7	97.0%	5.6%
		22.50	15L	12	C-7	470	554	156.9	96.5%	6.1%
		26.09	5L	44	C-8	313	373	155.1	95.4%	7.1%
		28.62	15L	15	C-9	579	683	152.0	93.5%	9.0%
		29.62	5R	82	C-10	440	515	155.7	95.8%	6.8%
		1.50	15R	88	C-11	441	542	156.4	96.2%	6.4%
		7.62	15R	91	C-12	247	304	157.9	97.2%	5.5%
5-13-87	OCN 5	47.00	4 L	104	3-1	521		147.4	97.1%	5.6%
		42.50	5 R	138	3-2	311		147.4	97.1%	5.6%
		2.50	4 L	206	4-1	339		146.4	96.5%	6.2%
		46.75	95 R	15	4-2	392		148.5	97.9%	4.9%
		46.98	28 R	47	4-4	566		146.6	96.6%	6.1%
					AVG	674	867	152.6	96.4%	6.6%
					STD	442	584	3.6	1.0%	1.2%
					COV	65.6%	67.3%	2.3%	1.1%	18.1%

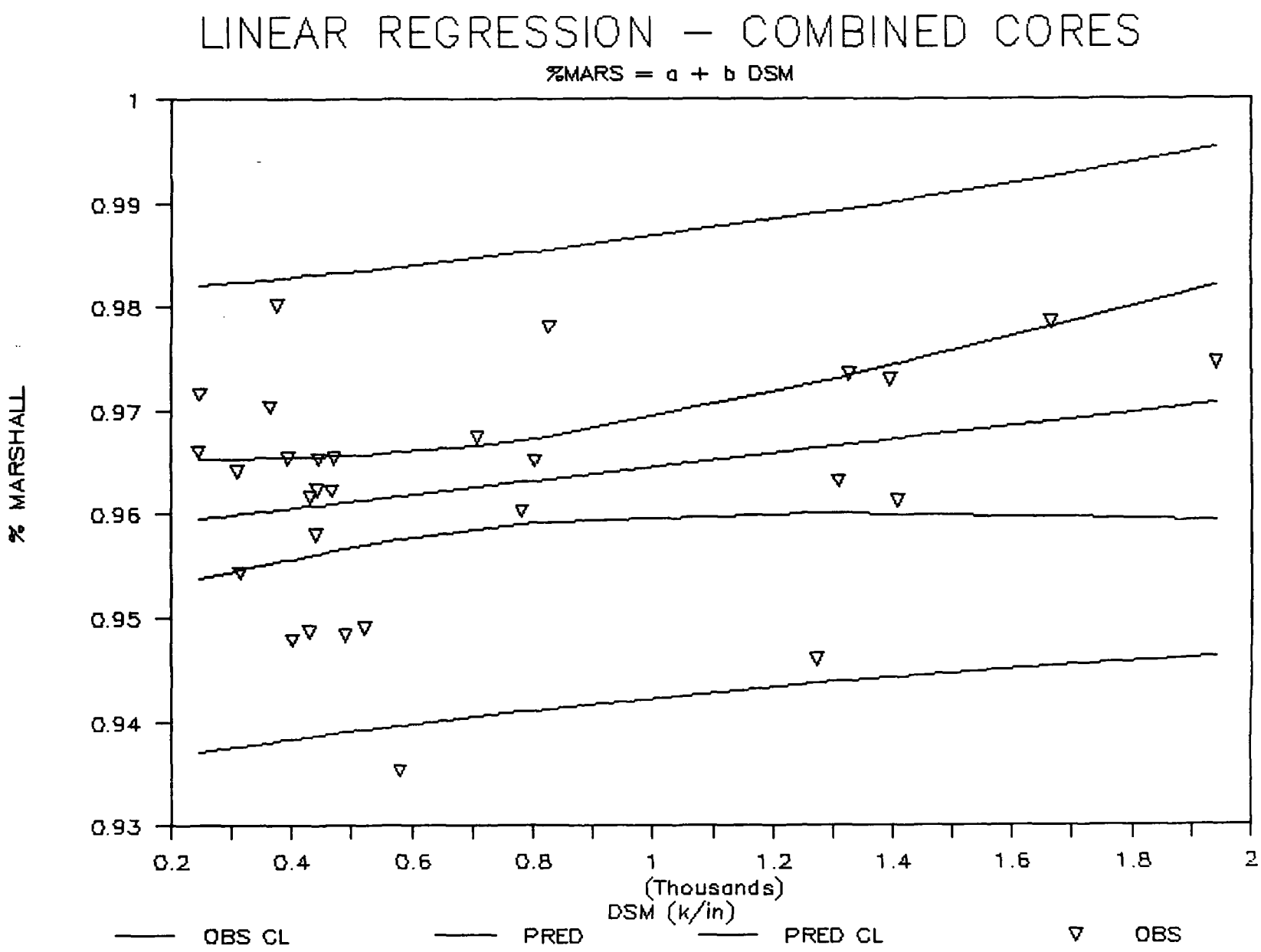


FIGURE 26

MARSHALL DENSITY/DSM (UNADJUSTED) COMBINED CORE DATA BASE

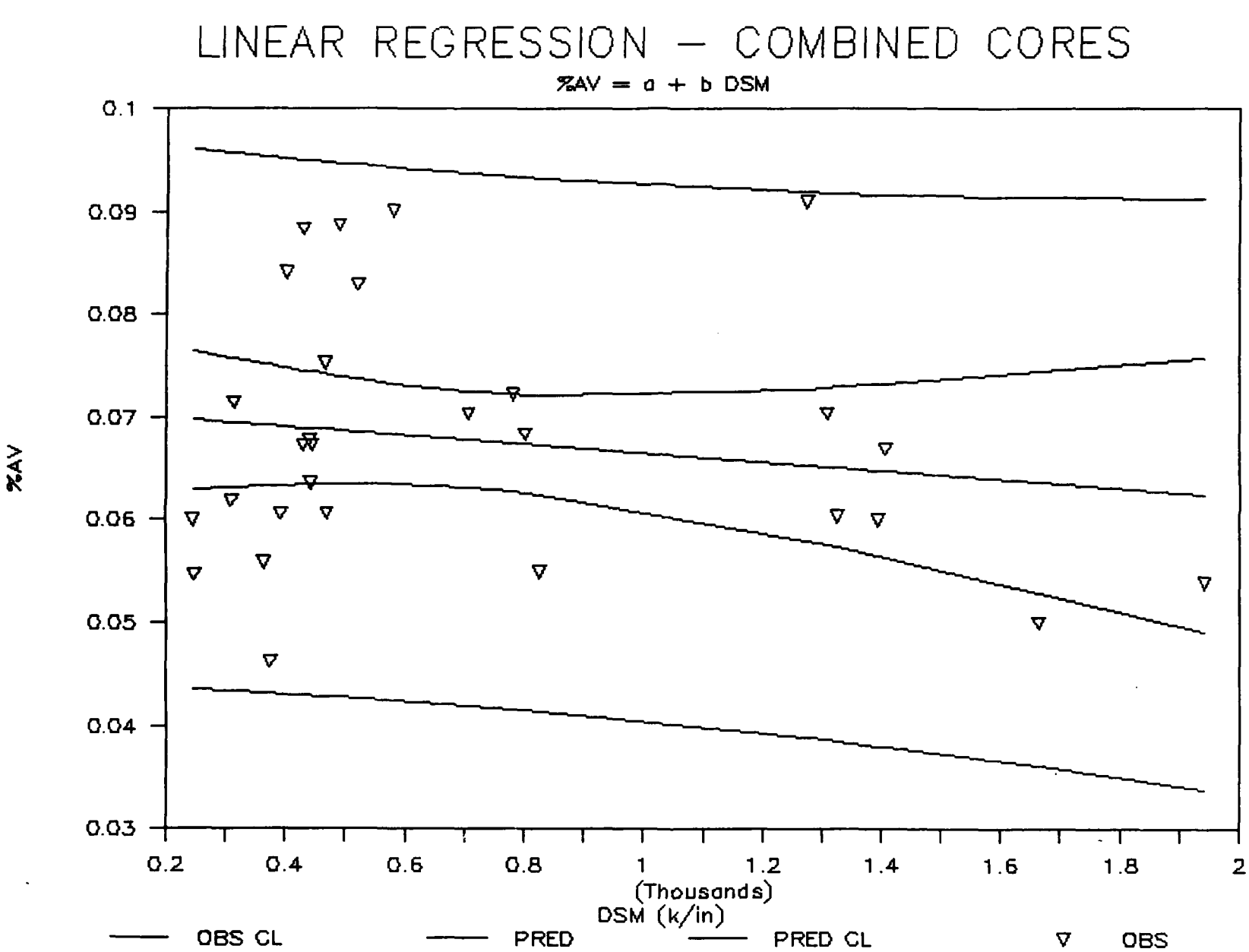


FIGURE 27

IN-PLACE AIR VOIDS/DSM (UNADJUSTED) COMBINED CORE DATA BASE

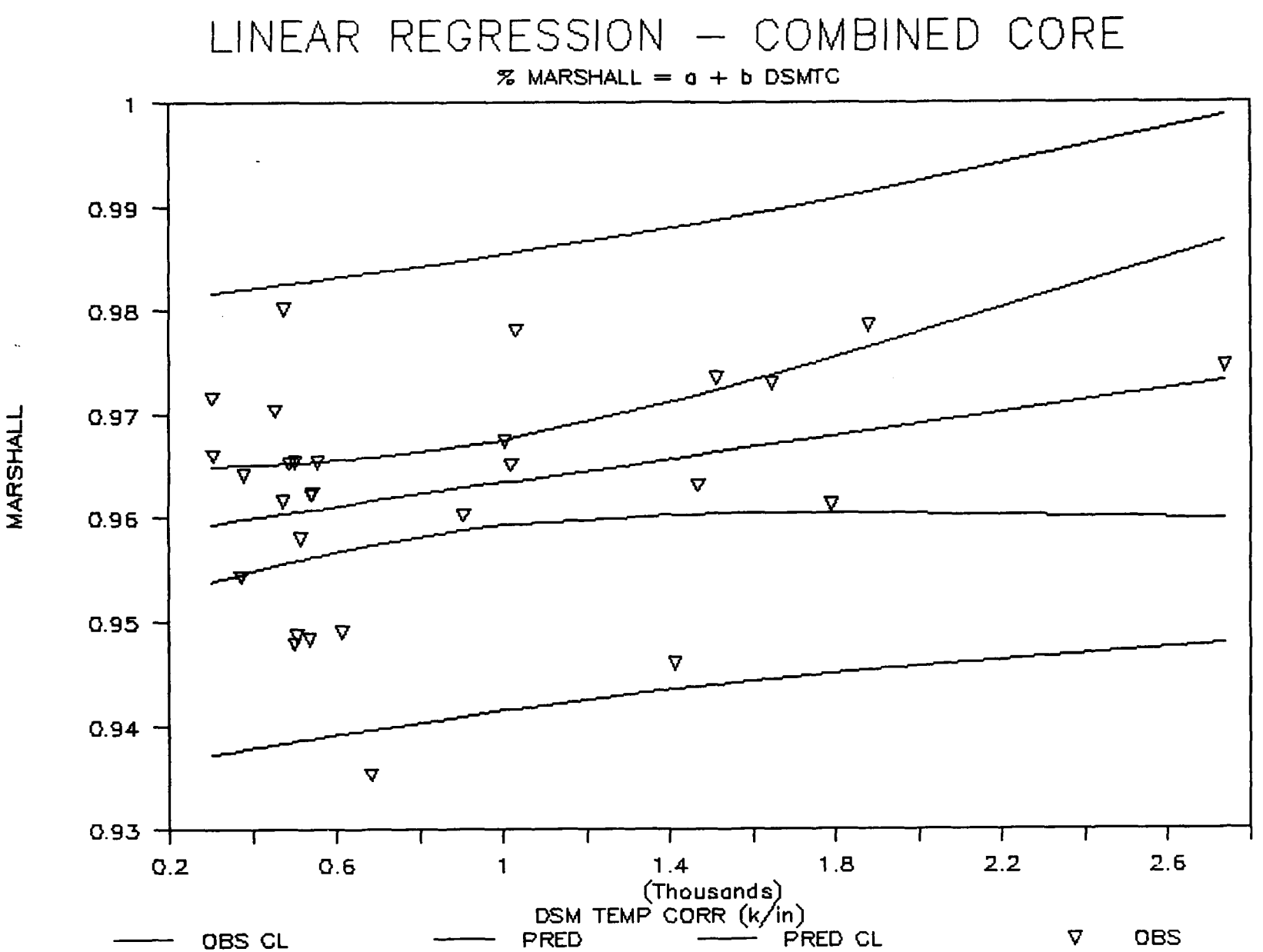


FIGURE 28

MARSHALL DENSITY/DSM (TEMP ADJUSTED) COMBINED CORE DATA BASE

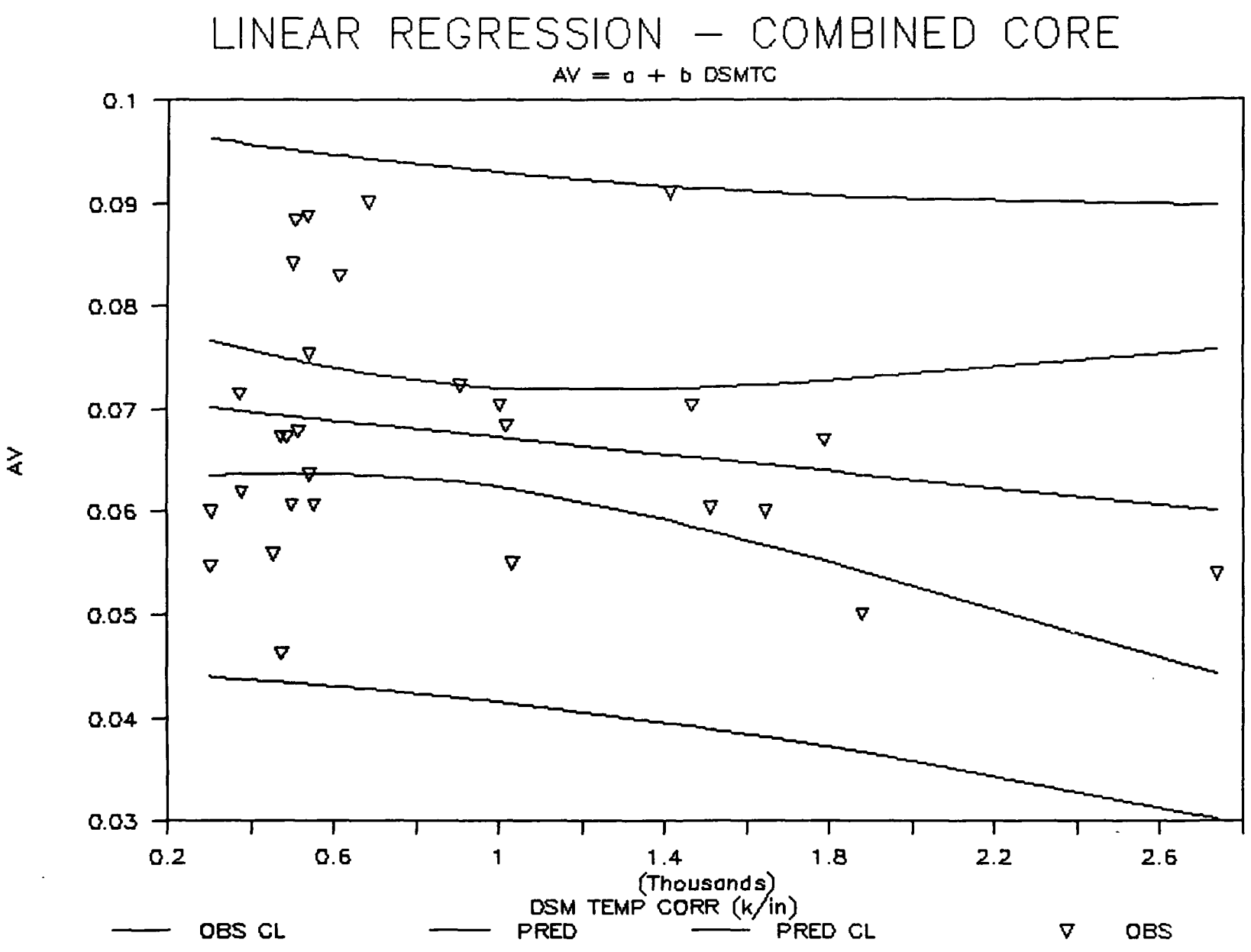


FIGURE 29

IN-PLACE AIR VOIDS/DSM (TEMP ADJUSTED) COMBINED CORE DATA BASE

APPENDIX E

CLASS GROUPINGS

TETCOR2

TABLE E-1

TETERBORO RUNWAY 1-19 OVERLAY
DATA GROUPED BY DSM

STA ft	OFFSET ft	NDT NO.		DSM k/in	THIN LIFT UNIT WT pcf	THIN LIFT MARSHALL DENSITY	THIN LIFT IN PLACE AIR VOIDS
46.00	32 R	26		401	150.2	95.2%	8.2%
33.00	56 R	2		429	148.6	94.7%	8.9%
31.00	43 L	73		430	152.0	96.0%	6.9%
47.00	43 L	81		444	151.6	96.1%	7.4%
34.00	18 L	56		466	151.2	96.3%	7.3%
33.00	43 L	74		488	148.9	94.9%	8.7%
			AVG	443	150.4	95.5%	7.9%
			STD	28	1.3	0.6%	0.7%
			COV	6.3%	0.9%	0.7%	9.5%
32.00	32 R	19		517	148.8	94.8%	8.8%
45.00	56 R	8		521	150.3	95.2%	8.2%
37.15	43 L	76		530	149.2	94.6%	8.5%
40.00	32 R	23		562	151.4	96.0%	7.1%
49.00	43 L	82		577	153.6	97.3%	6.2%
34.00	32 R	20		587	145.1	92.5%	11.0%
47.00	6.5 R	45		594	151.7	96.1%	7.3%
62.00	68 L	106		599	154.0	97.7%	5.3%
			AVG	561	150.5	95.5%	7.8%
			STD	31	2.7	1.6%	1.6%
			COV	5.6%	1.8%	1.6%	21.1%

Table E-1 (Cont'd.)

TETCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	THIN LIFT UNIT WT pcf	THIN LIFT MARSHALL DENSITY	THIN LIFT IN PLACE AIR VOIDS
61.00	56 R	16		612	150.8	95.7%	7.3%
51.00	56 R	11		621	153.5	96.8%	5.9%
61.00	43 L	88		622	153.4	97.3%	5.7%
45.00	43 L	80		627	149.9	95.0%	8.4%
44.00	32 R	25		629	151.6	96.1%	7.4%
60.00	18 L	69		637	152.2	96.6%	6.4%
46.00	18 L	62		640	152.6	96.7%	6.8%
39.00	43 L	77		643	153.3	97.2%	6.0%
36.00	18 L	57		651	153.4	97.7%	6.0%
62.00	32 R	34		658	152.1	96.5%	6.5%
63.00	56 R	17		663	152.8	97.4%	5.6%
60.00	32 R	33		675	152.9	97.0%	6.0%
32.00	18 L	55		684	151.4	96.5%	7.2%
35.00	43 L	75		689	150.3	95.8%	7.9%
			AVG	647	152.2	96.6%	6.6%
			STD	23	1.2	0.7%	0.8%
			COV	3.6%	0.8%	0.8%	12.7%
38.00	32 R	22		701	151.6	96.1%	7.0%
62.00	18 L	70		705	155.4	98.6%	4.4%
64.00	32 R	35		706	152.4	97.1%	5.8%
50.00	68 L	100		714	153.5	97.3%	6.2%
43.00	43 L	79		716	152.7	96.8%	6.7%
36.00	32 R	21		722	148.9	94.9%	8.7%
44.00	68 L	97		723	151.4	95.9%	7.5%
65.00	6.5 R	54		727	153.2	97.6%	5.3%
35.00	6.5 R	39		732	150.8	96.1%	7.5%
40.00	18 L	59		755	154.2	97.7%	5.4%
63.00	6.5 R	53		757	155.1	98.8%	4.1%

Table E-1 (Cont'd.)

TETCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	THIN LIFT UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
33.00	6.5 R	38		761	152.3	97.0%	6.6%
63.00	43 L	89		772	153.4	97.7%	5.2%
65.00	43 L	90		772	152.6	97.2%	5.7%
41.00	43 L	78		781	149.8	94.9%	8.1%
38.00	18 L	58		781	150.2	95.2%	7.9%
64.00	18 L	71		787	152.3	97.0%	5.9%
65.00	56 R	18		788	153.1	97.5%	5.4%
			AVG	744	152.4	96.9%	6.3%
			STD	30	1.7	1.1%	1.3%
			COV	4.1%	1.1%	1.1%	19.8%
59.00	56 R	15		802	150.6	95.5%	7.4%
48.00	32 R	27		816	150.0	95.1%	8.4%
39.00	6.5 R	41		826	153.5	97.3%	5.9%
60.00	68 L	105		830	151.8	96.3%	6.7%
31.00	56 R	1		836	152.5	96.3%	6.6%
35.00	56 R	3		846	148.3	94.5%	9.1%
50.00	18 L	64		848	153.7	97.4%	6.1%
49.00	56 R	10		858	152.4	96.6%	6.9%
50.00	32 R	28		858	154.3	97.8%	5.7%
52.00	68 L	101		860	152.6	96.3%	6.5%
52.00	32 R	29		865	154.7	97.6%	5.2%
42.00	32 R	24		865	152.8	96.8%	6.3%
31.00	6.5 R	37		868	154.3	97.4%	5.5%
61.00	6.5 R	52		868	151.3	96.0%	7.0%
48.00	68 L	99		877	151.7	96.1%	7.3%
42.00	68 L	96		883	150.1	95.1%	7.9%
53.00	43 L	84		883	153.3	96.7%	6.1%
41.00	6.5 R	42		886	154.7	98.1%	5.1%
39.00	56 R	5		891	151.4	96.0%	7.1%

Table E-1 (Cont'd.)

TETCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	THIN LIFT UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
45.00	6.5 R	44		897	148.7	94.2%	9.1%
44.00	18 L	61		898	150.3	95.2%	8.2%
			AVG	860	152.0	96.3%	6.9%
			STD	26	1.8	1.1%	1.1%
			COV	3.0%	1.2%	1.1%	16.7%
54.00	32 R	30		907	154.4	97.4%	5.4%
32.00	68 L	91		921	150.3	95.8%	7.9%
48.00	18 L	63		926	152.1	96.4%	7.1%
46.00	68 L	98		927	149.7	94.9%	8.5%
42.00	18 L	60		929	156.3	99.1%	4.1%
49.00	6.5 R	46		936	153.1	97.0%	6.5%
37.15	6.5 R	40		952	155.6	98.6%	4.6%
52.00	18 L	65		956	153.3	96.7%	6.1%
59.00	43 L	87		961	151.6	96.2%	6.8%
37.15	56 R	4		966	150.9	95.6%	7.5%
59.00	6.5 R	51		969	151.1	95.9%	7.1%
40.00	68 L	95		974	149.5	94.8%	8.3%
43.00	6.5 R	43		974	153.0	97.0%	6.5%
51.00	43 L	83		976	152.3	96.1%	6.7%
53.00	56 R	12		978	153.3	96.7%	6.1%
58.00	32 R	32		998	153.9	97.6%	5.4%
			AVG	953	152.5	96.6%	6.5%
			STD	25	1.9	1.2%	1.2%
			COV	2.6%	1.3%	1.2%	18.5%
54.00	68 L	102		1026	151.0	95.3%	7.5%
54.00	18 L	66		1057	151.3	95.4%	7.3%
47.00	56 R	9		1058	150.6	95.4%	8.0%

Table E-1 (Cont'd.)

TETCOR2

STA ft	OFFSET ft	NDT NO.	DSM k/in	THIN LIFT UNIT WT pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
36.00	68 L	93	1064	150.6	96.0%	7.7%
57.00	6.5 R	50	1083	154.6	98.1%	4.9%
57.00	56 R	14	1110	153.0	97.1%	5.9%
38.00	68 L	94	1129	151.4	96.0%	7.1%
57.00	43 L	86	1130	152.7	96.9%	6.1%
56.00	32 R	31	1137	153.6	97.4%	5.5%
58.00	18 L	68	1183	154.2	97.8%	5.2%
53.00	6.5 R	48	1193	151.9	95.8%	6.9%
43.00	56 R	7	1224	150.0	95.1%	8.4%
51.00	6.5 R	47	1238	153.3	96.7%	6.1%
34.00	68 L	92	1273	148.9	94.9%	8.7%
56.00	68 L	103	1291	154.9	98.3%	4.7%
56.00	18 L	67	1309	153.5	97.4%	5.6%
58.00	68 L	104	1327	154.7	98.1%	4.9%
41.00	56 R	6	1395	152.8	96.8%	6.3%
55.00	56 R	13	1408	153.4	96.8%	6.0%
55.00	43 L	85	1663	155.4	98.0%	4.8%
55.00	6.5 R	49	1941	154.9	97.7%	5.1%
		AVG	1249	152.7	96.7%	6.3%
		STD	214	1.8	1.1%	1.2%
		COV	17.1%	1.2%	1.1%	19.3%

LSBCOR2

TABLE E-2

LEESBURG MUNICIPAL AIRPORT
DATA GROUPED BY DSM

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
19.50	5R	72		244	155.8	95.9%	6.7%
8.50	5R	61		245	156.0	96.0%	6.6%
7.50	15R	91		247	158.0	97.2%	5.4%
26.50	15L	14		263	155.6	95.7%	6.8%
8.00	5L	26		273	156.5	96.3%	6.3%
6.50	15L	4		273	156.1	96.1%	6.5%
19.50	15R	97		277	156.7	96.4%	6.2%
27.50	15L	101		277	155.3	95.5%	7.0%
20.50	5R	73		279	157.7	97.0%	5.6%
14.00	5L	32		283	156.5	96.3%	6.3%
18.50	15L	10		290	159.7	98.3%	4.4%
31.50	15L	103		295	155.4	95.6%	7.0%
9.50	5R	62		295	157.8	97.1%	5.5%
14.50	5R	67		299	159.3	98.0%	4.6%
			AVG	274	156.9	96.5%	6.1%
			STD	18	1.4	0.8%	0.8%
			COV	6.5%	0.9%	0.9%	13.3%
24.50	15L	13		302	156.4	96.3%	6.3%
20.50	15L	11		302	158.2	97.3%	5.3%
6.50	5R	59		306	160.4	98.7%	3.9%
3.50	15R	89		308	155.2	95.5%	7.1%
25.50	15L	100		308	155.3	95.5%	7.0%
27.00	5L	45		308	156.6	96.4%	6.2%
13.50	15R	94		309	155.5	95.6%	6.9%
10.00	5L	28		311	156.3	96.2%	6.4%
26.00	5L	44		313	157.0	96.6%	6.0%
13.50	5R	66		313	157.9	97.1%	5.5%
10.50	5R	63		314	158.7	97.6%	5.0%
4.50	5R	57		315	156.6	96.4%	6.2%

Table E-2 (Cont'd.)

LSBCOR2

STA ft	OFFSET ft	NDT NO.	DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
7.50	5R	60	316	157.4	96.8%	5.8%
21.50	15R	98	319	154.2	94.9%	7.7%
30.00	5L	48	326	155.3	95.6%	7.0%
15.00	5L	33	326	157.4	96.9%	5.7%
25.50	5R	78	328	159.2	97.9%	4.7%
30.50	15L	16	329	153.0	94.1%	8.4%
26.50	5R	79	332	154.7	95.2%	7.4%
5.50	15R	90	337	158.9	97.8%	4.9%
24.00	5L	42	338	157.4	96.9%	5.7%
9.50	15R	92	338	155.7	95.8%	6.8%
13.00	5L	31	339	159.5	98.1%	4.5%
4.10	5L	22	344	156.3	96.2%	6.4%
21.50	5R	74	344	159.0	97.8%	4.8%
31.00	5L	49	349	155.1	95.5%	7.1%
0.50	15L	1	350	158.5	97.5%	5.1%
1.50	5R	54	351	157.8	97.1%	5.5%
18.50	5R	71	351	159.7	98.3%	4.4%
10.50	15L	6	356	154.2	94.9%	7.7%
7.00	5L	25	356	158.6	97.6%	5.0%
15.50	5R	68	363	158.4	97.5%	5.2%
19.00	5L	37	364	158.3	97.4%	5.2%
1.00	5L	19	365	158.0	97.2%	5.4%
16.50	5R	69	367	157.3	96.8%	5.8%
23.50	15L	99	367	156.4	96.3%	6.3%
9.00	5L	27	374	155.1	95.4%	7.1%
2.50	15L	2	374	158.8	97.7%	4.9%
20.00	5L	38	375	156.5	96.3%	6.3%
24.50	5R	77	376	159.2	97.9%	4.7%
0.50	15R	53	380	155.0	95.3%	7.2%
5.00	5L	23	383	156.8	96.5%	6.1%
12.00	5L	30	385	157.9	97.2%	5.5%

Table E-2 (Cont'd.)

LSBCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
25.00	5L	43		385	156.1	96.0%	6.6%
23.50	5R	76		389	157.0	96.6%	6.0%
27.50	5R	80		389	155.1	95.4%	7.2%
5.50	5R	58		393	160.7	98.9%	3.8%
21.00	5L	39		393	155.7	95.8%	6.8%
6.00	5L	24		394	156.7	96.4%	6.2%
12.50	15L	7		399	158.2	97.4%	5.3%
			AVG	347	157.1	96.6%	6.0%
			STD	30	1.7	1.1%	1.0%
			COV	8.6%	1.1%	1.1%	17.2%
29.00	5L	47		409	156.0	96.0%	6.6%
8.50	15L	5		410	157.7	97.0%	5.6%
3.00	5L	21		414	155.7	95.8%	6.8%
2.50	5R	55		414	160.5	98.8%	3.9%
29.50	15L	102		415	154.8	95.2%	7.3%
11.50	5R	64		415	156.8	96.5%	6.1%
3.50	5R	56		416	158.3	97.4%	5.2%
32.00	5L	50		418	155.5	95.7%	6.9%
12.50	5R	65		425	157.1	96.7%	5.9%
2.05	5L	20		429	153.3	94.4%	8.2%
30.50	5R	83		429	157.6	97.0%	5.6%
11.00	5L	29		430	156.0	96.0%	6.6%
28.00	5L	46		430	155.9	95.9%	6.6%
17.00	5L	35		437	155.5	95.7%	6.9%
17.50	15R	96		438	160.1	98.5%	4.1%
29.50	5R	82		440	154.9	95.3%	7.3%
1.50	15R	88		441	156.6	96.4%	6.2%
11.50	15R	93		442	156.3	96.2%	6.4%
14.50	15L	8		443	157.3	96.8%	5.8%

OCNCOR2

TABLE E-3

OCEAN CITY AIRPORT
DATA GROUPED BY DSM

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
APRON OVERLAY							
48.00	52 R	35		259	147.3	97.1%	5.6%
49.50	13 L	61		269	146.4	96.5%	6.2%
49.00	80 R	20		270	147.5	97.2%	5.5%
47.00	52 R	36		297	147.3	97.1%	5.6%
			AVG	274	147.1	97.0%	5.8%
			STD	14	0.4	0.3%	0.3%
			COV	5.1%	0.3%	0.3%	4.5%
48.00	26 R	46		301	145.7	96.0%	6.7%
1.50	5 L	207		307	146.2	96.3%	6.4%
48.50	13 R	51		308	148.5	97.8%	4.9%
48.50	65 R	29		313	146.1	96.3%	6.4%
48.50	39 R	40		313	144.2	95.1%	7.6%
49.50	13 R	50		317	147.8	97.4%	5.3%
1.50	15 R	208		322	149.0	98.2%	4.5%
48.00	105 R	4		322	146.7	96.7%	6.0%
2.00	15 L	214		338	148.2	97.6%	5.1%
2.50	5 L	206		339	147.8	97.4%	5.4%
47.50	39 R	41		340	148.5	97.8%	4.9%
2.00	5 R	201		346	147.5	97.2%	5.5%
47.25	93 R	14		346	145.3	95.8%	6.9%
3.50	15 R	210		346	146.9	96.8%	5.9%
45.50	39 R	43		350	146.6	96.6%	6.1%

Table E-2 (Cont'd.)

LSBCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
15.50	15R	95		448	154.9	95.3%	7.3%
22.50	15L	12		470	155.5	95.6%	6.9%
23.00	5L	41		474	156.8	96.5%	6.1%
22.50	5R	75		480	158.9	97.8%	4.9%
16.00	5L	34		496	156.5	96.3%	6.3%
17.50	5R	70		499	158.2	97.4%	5.3%
			AVG	438	156.7	96.4%	6.2%
			STD	26	1.6	1.0%	1.0%
			COV	5.9%	1.0%	1.0%	15.8%
22.25	5L	40		508	156.3	96.2%	6.4%
31.50	5R	84		534	156.5	96.3%	6.3%
16.50	15L	9		553	156.6	96.3%	6.3%
28.50	5R	81		566	155.0	95.4%	7.2%
28.50	15L	15		579	153.7	94.6%	8.0%
4.50	15L	3		648	156.8	96.5%	6.1%
			AVG	564	155.8	95.9%	6.7%
			STD	44	1.1	0.7%	0.7%
			COV	7.7%	0.7%	0.7%	9.9%

Table E-3 (Cont'd.)

OCNCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
45.00	52 R	38		359	146.3	96.4%	6.3%
3.50	5 L	205		363	146.5	96.6%	6.1%
48.25	93 R	12		368	143.4	94.5%	8.2%
1.00	15 L	215		370	146.4	96.5%	6.2%
47.75	93 R	13		370	147.6	97.2%	5.5%
48.00	BL	57		371	147.0	96.9%	5.9%
48.50	13 L	62		374	145.0	95.6%	7.1%
4.00	5 R	203		376	144.9	95.5%	7.2%
47.50	65 R	30		382	147.3	97.1%	5.6%
47.50	13 R	52		387	148.9	98.1%	4.6%
46.75	93 R	15		392	148.2	97.7%	5.1%
			AVG	347	146.8	96.7%	6.0%
			STD	27	1.4	0.9%	0.9%
			COV	7.8%	1.0%	1.0%	15.1%
49.50	103 L	64		402	148.0	97.0%	5.1%
48.00	80 R	22		414	145.2	95.7%	7.0%
1.00	5 R	200		415	145.5	95.9%	6.8%
49.25	93 R	10		417	147.2	97.0%	5.7%
47.00	105 R	6		424	146.8	96.8%	6.0%
45.00	26 R	49		427	148.1	97.6%	5.1%
47.50	105 R	5		428	147.1	97.0%	5.8%
45.25	93 R	18		443	145.4	95.8%	6.9%
49.50	65 R	28		443	147.4	97.1%	5.6%
48.50	80 R	21		450	143.7	94.7%	8.0%
46.00	52 R	37		451	146.8	96.7%	6.0%
44.50	39 R	44		454	147.8	97.4%	5.3%
4.50	5 L	204		472	147.3	97.1%	5.6%
48.50	103 L	65		474	149.8	98.1%	4.0%
45.00	BL	60		476	148.8	98.1%	4.7%

Table E-3 (Cont'd.)

OCNCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	3411 MARSHALL DENSITY	3411 IN PLACE AIR VOIDS
3.00	15 L	213		483	149.4	98.5%	4.3%
49.50	105 R	1		484	148.5	97.8%	4.9%
49.00	BL	56		487	147.0	96.9%	5.8%
44.50	65 R	33		488	146.3	96.4%	6.3%
47.50	80 R	23		495	145.7	96.0%	6.7%
			AVG	451	147.1	96.9%	5.8%
			STD	29	1.5	0.9%	1.0%
			COV	6.4%	1.0%	0.9%	16.6%
48.50	105 R	3		505	147.1	96.9%	5.8%
45.50	105 R	9		516	145.7	96.0%	6.7%
44.50	13 R	55		528	145.2	95.7%	7.0%
46.00	BL	59		535	147.5	97.2%	5.5%
48.75	93 R	11		538	148.2	97.7%	5.1%
45.50	80 R	27		550	145.4	95.8%	6.9%
46.50	105 R	7		551	145.8	96.1%	6.6%
46.50	39 R	42		555	145.5	95.9%	6.8%
3.00	5 R	202		559	145.4	95.8%	6.9%
49.50	80 R	19		564	148.6	98.0%	4.8%
47.00	26 R	47		566	146.7	96.7%	6.0%
45.50	65 R	32		579	146.6	96.6%	6.1%
49.00	105 R	2		581	148.3	97.7%	5.0%
46.50	80 R	25		583	147.1	96.9%	5.8%
			AVG	551	146.6	96.6%	6.1%
			STD	23	1.2	0.8%	0.7%
			COV	4.2%	0.8%	0.8%	12.2%
45.50	13 R	54		607	146.8	96.7%	6.0%
46.50	65 R	31		615	149.2	98.3%	4.5%

Table E-3 (Cont'd.)

OCNCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
47.00	80 R	24		617	146.4	96.5%	6.2%
47.50	13 L	63		619	146.9	96.8%	5.9%
46.00	105 R	8		642	146.8	96.8%	6.0%
2.50	15 R	209		648	147.2	97.0%	5.7%
4.50	15 R	211		666	147.7	97.3%	5.4%
46.50	13 R	53		688	146.8	96.8%	6.0%
			AVG	638	147.2	97.0%	5.7%
			STD	27	0.8	0.5%	0.5%
			COV	4.2%	0.6%	0.6%	9.2%
46.00	26 R	48		725	147.1	96.9%	5.8%
46.25	93 R	16		773	146.6	96.6%	6.1%
45.75	93 R	17		787	144.4	95.1%	7.5%
49.50	39 R	39		789	148.1	97.6%	5.1%
49.00	26 R	45		813	150.0	98.9%	3.9%
46.00	80 R	26		1030	142.8	94.1%	8.5%
49.00	52 R	34		1034	147.4	97.1%	5.6%
			AVG	850	146.6	96.6%	6.1%
			STD	118	2.2	1.5%	1.4%
			COV	13.9%	1.5%	1.5%	23.2%

NEW PARALLEL TAXIWAY

41.50	15 L	125		234	147.0	96.9%	5.8%
44.00	15 R	121		250	147.6	97.3%	5.4%
42.50	15 L	126		268	145.9	96.2%	6.5%
42.00	15 R	123		272	143.1	94.3%	8.3%

Table E-3 (Cont'd.)

OCNCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
41.00	15 R	124		294	147.1	97.0%	5.8%
44.50	15 L	128		295	147.9	97.5%	5.2%
			AVG	269	146.5	96.5%	6.2%
			STD	22	1.6	1.1%	1.0%
			COV	8.2%	1.1%	1.1%	16.8%
43.00	15 R	122		310	146.1	96.3%	6.4%
42.50	5 L	138		311	146.7	96.7%	6.0%
43.00	5 L	134		324	145.6	95.9%	6.8%
41.50	5 L	137		326	148.4	97.8%	5.0%
45.25	5 R	116		327	146.2	96.3%	6.4%
44.50	5 L	140		331	146.9	96.8%	5.9%
41.00	5 L	136		339	147.7	97.3%	5.4%
43.50	15 L	127		345	149.8	98.7%	4.1%
44.00	5 L	133		348	145.4	95.8%	6.9%
42.00	5 L	135		352	146.6	96.6%	6.1%
46.50	15 L	130		375	147.0	96.8%	5.9%
43.50	5 L	139		386	145.9	96.2%	6.5%
			AVG	339	146.8	96.8%	5.9%
			STD	23	1.2	0.8%	0.8%
			COV	6.6%	0.8%	0.8%	12.9%
46.00	15 R	120		413	144.2	95.1%	7.6%
47.50	5 L	103		415	145.9	96.2%	6.5%
45.50	15 L	129		416	148.7	98.0%	4.8%
47.50	15 L	131		432	147.4	97.1%	5.6%
46.00	5 L	106		446	145.8	96.1%	6.6%
48.00	5 L	102		463	145.3	95.8%	6.9%
46.25	5 R	114		471	147.1	96.9%	5.8%

Table E-3 (Cont'd.)

OCNCOR2

STA ft	OFFSET ft	NDT NO.		DSM k/in	3411 UNIT WT ** pcf	MARSHALL DENSITY	IN PLACE AIR VOIDS
47.00	15 R	119		472	146.3	96.4%	6.3%
45.50	5 L	107		480	145.2	95.7%	7.0%
49.00	5 L	100		484	147.1	96.9%	5.8%
48.50	5 L	101		486	146.3	96.4%	6.3%
49.00	15 R	117		491	147.3	97.1%	5.6%
48.50	15 L	132		492	150.2	99.0%	3.8%
46.50	5 L	105		496	148.5	97.9%	4.9%
			AVG	461	146.8	96.8%	6.0%
			STD	30	1.5	1.0%	1.0%
			COV	6.4%	1.0%	1.0%	16.3%
48.00	15 R	118		502	146.5	96.6%	6.2%
47.00	5 L	104		521	147.2	97.0%	5.7%
47.25	5 R	112		540	147.1	97.0%	5.8%
46.75	5 R	113		545	147.3	97.1%	5.7%
47.78	5 R	111		553	148.0	97.5%	5.2%
45.75	5 R	115		554	147.8	97.4%	5.4%
48.25	5 R	110		559	149.1	98.3%	4.5%
49.25	5 R	108		619	147.3	97.1%	5.7%
48.75	5 R	109		658	147.2	97.0%	5.7%
			AVG	561	147.5	97.2%	5.5%
			STD	45	0.7	0.5%	0.4%
			COV	8.1%	0.5%	0.5%	8.1%

COMBCOR2

TABLE E-4

COMBINED DATA BASE - NUCLEAR
GROUPED ACCORDING TO DSM

	DSM k/in *********	NUCLEAR MARSHALL IN PLACE DENSITY **********	AIR VOIDS **********
	234	96.9%	5.8%
	244	95.9%	6.7%
	245	96.0%	6.6%
	247	97.2%	5.4%
	250	97.3%	5.4%
	259	97.1%	5.6%
	263	95.7%	6.8%
	268	96.2%	6.5%
	269	96.5%	6.2%
	270	97.2%	5.5%
	272	94.3%	8.3%
	273	96.3%	6.3%
	273	96.1%	6.5%
	277	96.4%	6.2%
	277	95.5%	7.0%
	279	97.0%	5.6%
	283	96.3%	6.3%
	290	98.3%	4.4%
	294	97.0%	5.8%
	295	95.6%	7.0%
	295	97.1%	5.5%
	295	97.5%	5.2%
	297	97.1%	5.6%
	299	98.0%	4.6%
AVG	273	96.6%	6.0%
STD	19	0.9%	0.8%
COV	6.8%	0.9%	13.7%

Table E-4 (Cont'd.)

COMBCOR2

DSM k/in *********	NUCLEAR MARSHALL IN PLACE DENSITY **********	AIR VOIDS **********
301	96.0%	6.7%
302	96.3%	6.3%
302	97.3%	5.3%
306	98.7%	3.9%
307	96.3%	6.4%
308	95.5%	7.1%
308	95.5%	7.0%
308	97.8%	4.9%
308	96.4%	6.2%
309	95.6%	6.9%
310	96.3%	6.4%
311	96.7%	6.0%
311	96.2%	6.4%
313	96.3%	6.4%
313	95.1%	7.6%
313	96.6%	6.0%
313	97.1%	5.5%
314	97.6%	5.0%
315	96.4%	6.2%
316	96.8%	5.8%
317	97.4%	5.3%
319	94.9%	7.7%
322	98.2%	4.5%
322	96.7%	6.0%
324	95.9%	6.8%
326	97.8%	5.0%
326	95.6%	7.0%
326	96.9%	5.7%
327	96.3%	6.4%
328	97.9%	4.7%
329	94.1%	8.4%
331	96.8%	5.9%
332	95.2%	7.4%
337	97.8%	4.9%
338	96.9%	5.7%
338	97.6%	5.1%
338	95.8%	6.8%
339	97.3%	5.4%
339	98.1%	4.5%
339	97.4%	5.4%
340	97.8%	4.9%
344	96.2%	6.4%
344	97.8%	4.8%
345	98.7%	4.1%
346	97.2%	5.5%
346	95.8%	6.9%
346	96.8%	5.9%

Table E-4 (Cont'd.)

COMBCOR2

	DSM k/in *********	NUCLEAR MARSHALL IN PLACE DENSITY **********	AIR VOIDS **********
	348	95.8%	6.9%
	349	95.5%	7.1%
	350	96.6%	6.1%
	350	97.5%	5.1%
	351	97.1%	5.5%
	351	98.3%	4.4%
	352	96.6%	6.1%
	356	94.9%	7.7%
	356	97.6%	5.0%
	359	96.4%	6.3%
	363	96.6%	6.1%
	363	97.5%	5.2%
	364	97.4%	5.2%
	365	97.2%	5.4%
	367	96.8%	5.8%
	367	96.3%	6.3%
	368	94.5%	8.2%
	370	96.5%	6.2%
	370	97.2%	5.5%
	371	96.9%	5.9%
	374	95.4%	7.1%
	374	97.7%	4.9%
	374	95.6%	7.1%
	375	96.3%	6.3%
	375	96.8%	5.9%
	376	95.5%	7.2%
	376	97.9%	4.7%
	380	95.3%	7.2%
	382	97.1%	5.6%
	383	96.5%	6.1%
	385	97.2%	5.5%
	385	96.0%	6.6%
	386	96.2%	6.5%
	387	98.1%	4.6%
	389	96.6%	6.0%
	389	95.4%	7.2%
	392	97.7%	5.1%
	393	98.9%	3.8%
	393	95.8%	6.8%
	394	96.4%	6.2%
	399	97.4%	5.3%
AVG	346	96.7%	6.0%
STD	28	1.0%	1.0%
COV	8.1%	1.0%	16.1%
	401	95.2%	8.2%
	402	97.0%	5.1%

Table E-4 (Cont'd.)

COMBCOR2

DSM k/in	NUCLEAR MARSHALL DENSITY	NUCLEAR IN PLACE AIR VOIDS
409	96.0%	6.6%
410	97.0%	5.6%
413	95.1%	7.6%
414	95.8%	6.8%
414	98.8%	3.9%
414	95.7%	7.0%
415	96.2%	6.5%
415	95.2%	7.3%
415	95.9%	6.8%
415	96.5%	6.1%
416	97.4%	5.2%
416	98.0%	4.8%
417	97.0%	5.7%
418	95.7%	6.9%
424	96.8%	6.0%
425	96.7%	5.9%
427	97.6%	5.1%
428	97.0%	5.8%
429	94.4%	8.2%
429	97.0%	5.6%
429	94.7%	8.9%
430	96.0%	6.9%
430	96.0%	6.6%
430	95.9%	6.6%
432	97.1%	5.6%
437	95.7%	6.9%
438	98.5%	4.1%
440	95.3%	7.3%
441	96.4%	6.2%
442	96.2%	6.4%
443	96.8%	5.8%
443	95.8%	6.9%
443	97.1%	5.6%
444	96.1%	7.4%
446	96.1%	6.6%
448	95.3%	7.3%
450	94.7%	8.0%
451	96.7%	6.0%
454	97.4%	5.3%
463	95.8%	6.9%
466	96.3%	7.3%
470	95.6%	6.9%
471	96.9%	5.8%
472	96.4%	6.3%
472	97.1%	5.6%
474	96.5%	6.1%
474	98.1%	4.0%
476	98.1%	4.7%

Table E-4 (Cont'd.)

COMBCOR2

	DSM k/in *********	NUCLEAR MARSHALL DENSITY **********	IN PLACE AIR VOIDS **********
	480	95.7%	7.0%
	480	97.8%	4.9%
	483	98.5%	4.3%
	484	96.9%	5.8%
	484	97.8%	4.9%
	486	96.4%	6.3%
	487	96.9%	5.8%
	488	96.4%	6.3%
	488	94.9%	8.7%
	491	97.1%	5.6%
	492	99.0%	3.8%
	495	96.0%	6.7%
	496	97.9%	4.9%
	496	96.3%	6.3%
	499	97.4%	5.3%
AVG	448	96.5%	6.2%
STD	29	1.0%	1.1%
COV	6.5%	1.1%	18.0%
	502	96.6%	6.2%
	505	96.9%	5.8%
	508	96.2%	6.4%
	516	96.0%	6.7%
	517	94.8%	8.8%
	521	97.0%	5.7%
	521	95.2%	8.2%
	528	95.7%	7.0%
	530	94.6%	8.5%
	534	96.3%	6.3%
	535	97.2%	5.5%
	538	97.7%	5.1%
	540	97.0%	5.8%
	545	97.1%	5.7%
	550	95.8%	6.9%
	551	96.1%	6.6%
	553	96.3%	6.3%
	553	97.5%	5.2%
	554	97.4%	5.4%
	555	95.9%	6.8%
	559	95.8%	6.9%
	559	98.3%	4.5%
	562	96.0%	7.1%
	564	98.0%	4.8%
	566	96.7%	6.0%
	566	95.4%	7.2%
	577	97.3%	6.2%
	579	94.6%	8.0%

Table E-4 (Cont'd.)

COMBCOR2

	DSM k/in *********	NUCLEAR MARSHALL IN PLACE DENSITY **********	AIR VOIDS **********
	579	96.6%	6.1%
	581	97.7%	5.0%
	583	96.9%	5.8%
	587	92.5%	11.0%
	594	96.1%	7.3%
	599	97.7%	5.3%
AVG	550	96.4%	6.5%
STD	26	1.2%	1.3%
COV	4.7%	1.2%	20.1%
	607	96.7%	6.0%
	612	95.7%	7.3%
	615	98.3%	4.5%
	617	96.5%	6.2%
	619	97.1%	5.7%
	619	96.8%	5.9%
	621	96.8%	5.9%
	622	97.3%	5.7%
	627	95.0%	8.4%
	629	96.1%	7.4%
	637	96.6%	6.4%
	640	96.7%	6.8%
	642	96.8%	6.0%
	643	97.2%	6.0%
	648	96.5%	6.1%
	648	97.0%	5.7%
	651	97.7%	6.0%
	658	97.0%	5.7%
	658	96.5%	6.5%
	663	97.4%	5.6%
	666	97.3%	5.4%
	675	97.0%	6.0%
	684	96.5%	7.2%
	688	96.8%	6.0%
	689	95.8%	7.9%
AVG	643	96.8%	6.2%
STD	24	0.7%	0.8%
COV	3.8%	0.7%	13.2%
	701	96.1%	7.0%
	705	98.6%	4.4%
	706	97.1%	5.8%
	714	97.3%	6.2%
	716	96.8%	6.7%
	722	94.9%	8.7%
	723	95.9%	7.5%

Table E-4 (Cont'd.)

COMBCOR2

	DSM k/in *********	NUCLEAR MARSHALL DENSITY **********	IN PLACE AIR VOIDS **********
	725	96.9%	5.8%
	727	97.6%	5.3%
	732	96.1%	7.5%
	755	97.7%	5.4%
	757	98.8%	4.1%
	761	97.0%	6.6%
	772	97.7%	5.2%
	772	97.2%	5.7%
	773	96.6%	6.1%
	781	94.9%	8.1%
	781	95.2%	7.9%
	787	95.1%	7.5%
	787	97.0%	5.9%
	788	97.5%	5.4%
	789	97.6%	5.1%
AVG	749	96.8%	6.3%
STD	31	1.1%	1.2%
COV	4.1%	1.1%	19.0%
	802	95.5%	7.4%
	813	98.9%	3.9%
	816	95.1%	8.4%
	826	97.3%	5.9%
	830	96.3%	6.7%
	836	96.3%	6.6%
	846	94.5%	9.1%
	848	97.4%	6.1%
	858	96.6%	6.9%
	858	97.8%	5.7%
	860	96.3%	6.5%
	865	97.6%	5.2%
	865	96.8%	6.3%
	868	97.4%	5.5%
	868	96.0%	7.0%
	877	96.1%	7.3%
	883	95.1%	7.9%
	883	96.7%	6.1%
	886	98.1%	5.1%
	891	96.0%	7.1%
	897	94.2%	9.1%
	898	95.2%	8.2%
AVG	858	96.4%	6.7%
STD	27	1.2%	1.3%
COV	3.2%	1.2%	19.0%

Table E-4 (Cont'd.)

COMBCOR2

	DSM k/in *********	NUCLEAR MARSHALL DENSITY	IN PLACE AIR VOIDS **********
	907	97.4%	5.4%
	921	95.8%	7.9%
	926	96.4%	7.1%
	927	94.9%	8.5%
	929	99.1%	4.1%
	936	97.0%	6.5%
	952	98.6%	4.6%
	956	96.7%	6.1%
	961	96.2%	6.8%
	966	95.6%	7.5%
	969	95.9%	7.1%
	974	94.8%	8.3%
	974	97.0%	6.5%
	976	96.1%	6.7%
	978	96.7%	6.1%
	998	97.6%	5.4%
AVG	953	96.6%	6.5%
STD	25	1.2%	1.2%
COV	2.6%	1.2%	18.5%
	1026	95.3%	7.5%
	1030	94.1%	8.5%
	1034	97.1%	5.6%
	1057	95.4%	7.3%
	1058	95.4%	8.0%
	1064	96.0%	7.7%
	1083	98.1%	4.9%
	1110	97.1%	5.9%
	1129	96.0%	7.1%
	1130	96.9%	6.1%
	1137	97.4%	5.5%
	1183	97.8%	5.2%
	1193	95.8%	6.9%
	1224	95.1%	8.4%
	1238	96.7%	6.1%
	1273	94.9%	8.7%
	1291	98.3%	4.7%
	1309	97.4%	5.6%
	1327	98.1%	4.9%
	1395	96.8%	6.3%
	1408	96.8%	6.0%
	1668	98.0%	4.8%
	1941	97.7%	5.1%
AVG	1231	96.6%	6.4%
STD	214	1.2%	1.3%
COV	17.4%	1.2%	19.7%

END

DATE

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8-88

DTIC