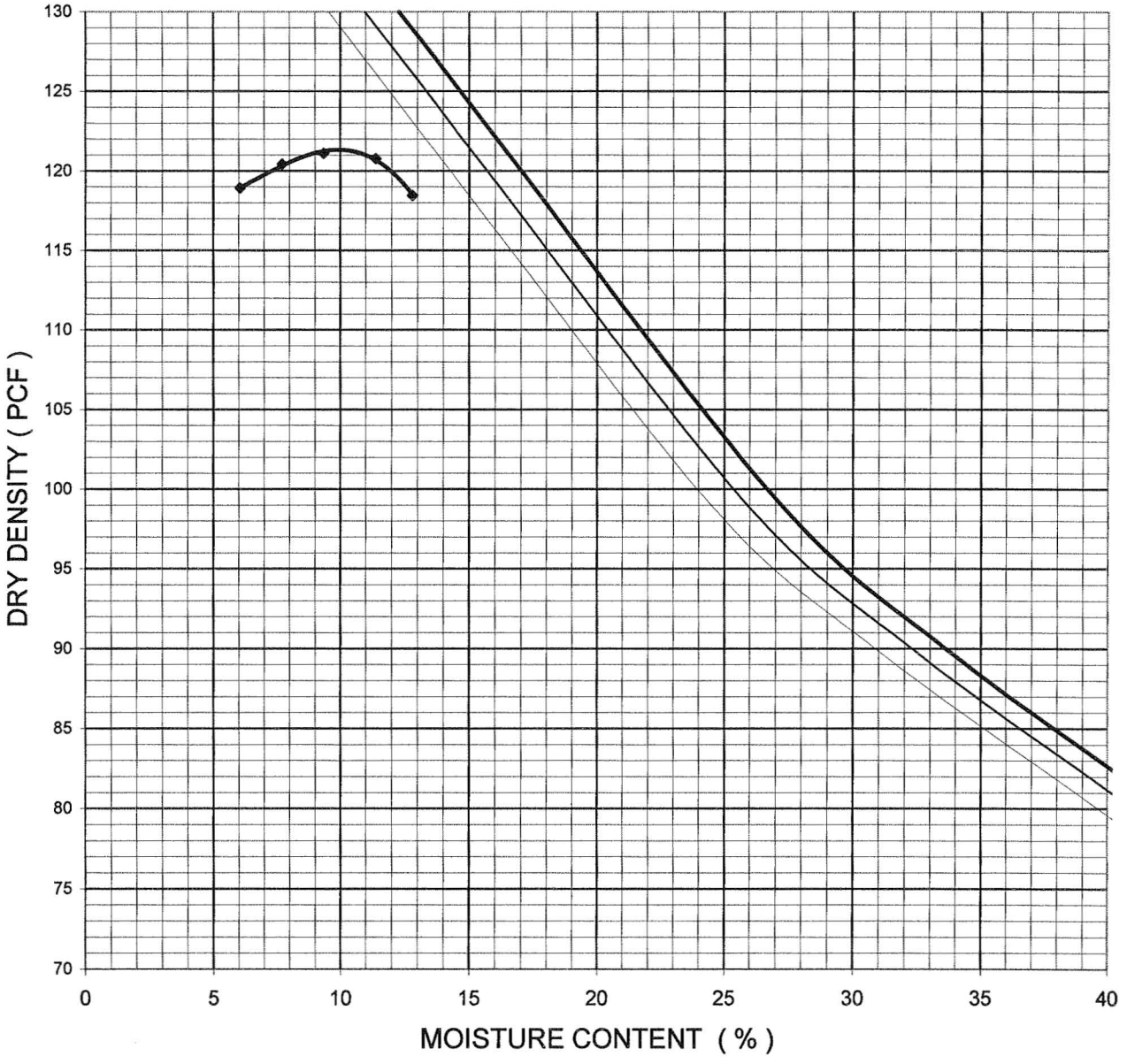
MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-1	TEST DATE :	12/04/07
SAMPLE LOCATION :	center of test pad lift 1 (adjacent to D-1-1)	SAMPLE NO. :	P-1	IN-SITU M .C . , % :	9
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

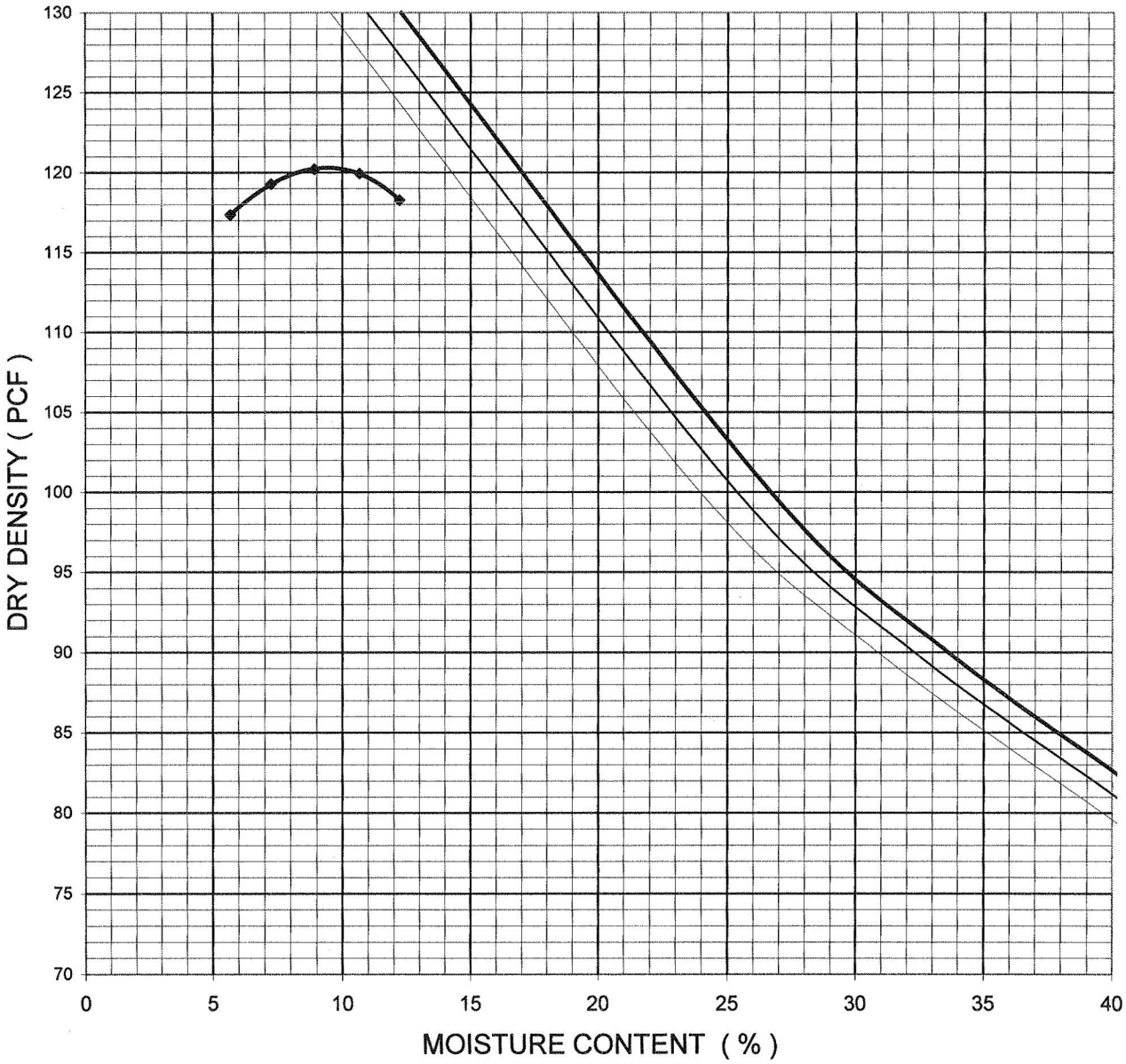
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*121.4*	MAXIMUM DRY DENSITY , PCF :	*121.4*
OPTIMUM MOISTURE CONTENT ,% :	*9.9*	OPTIMUM MOISTURE CONTENT ,% :	*9.9*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-2	TEST DATE :	12/05/07
SAMPLE LOCATION :	south center of test pad lift 2 (adjacent to D-2-1	SAMPLE NO. :	P-2	IN-SITU M .C . , % :	7
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

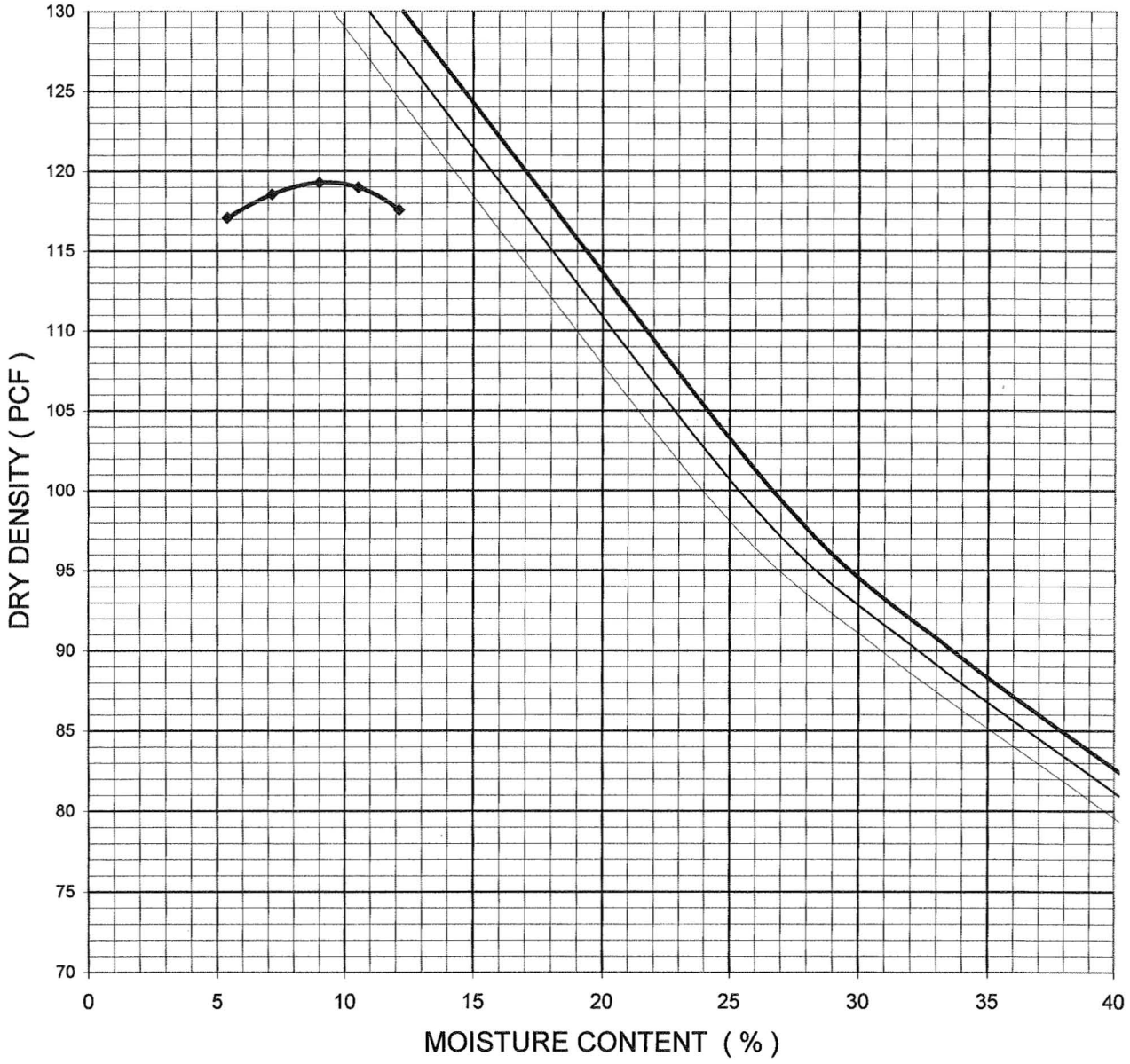
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*120.3*	MAXIMUM DRY DENSITY , PCF :	*120.3*
OPTIMUM MOISTURE CONTENT ,% :	*9.4*	OPTIMUM MOISTURE CONTENT ,% :	*9.4*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			**REVIEWED BY :**	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	**REPORT NO. :**	P-4	**TEST DATE :**	12/06/07
SAMPLE LOCATION :	SE Corner Test Pad Lift 4	**SAMPLE NO. :**	P-4	**IN-SITU M .C . , % :**	***6.3***
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	**PROCEDURE :**	ASTM D1557-00	**+ 3 / 4 " , % :**	0

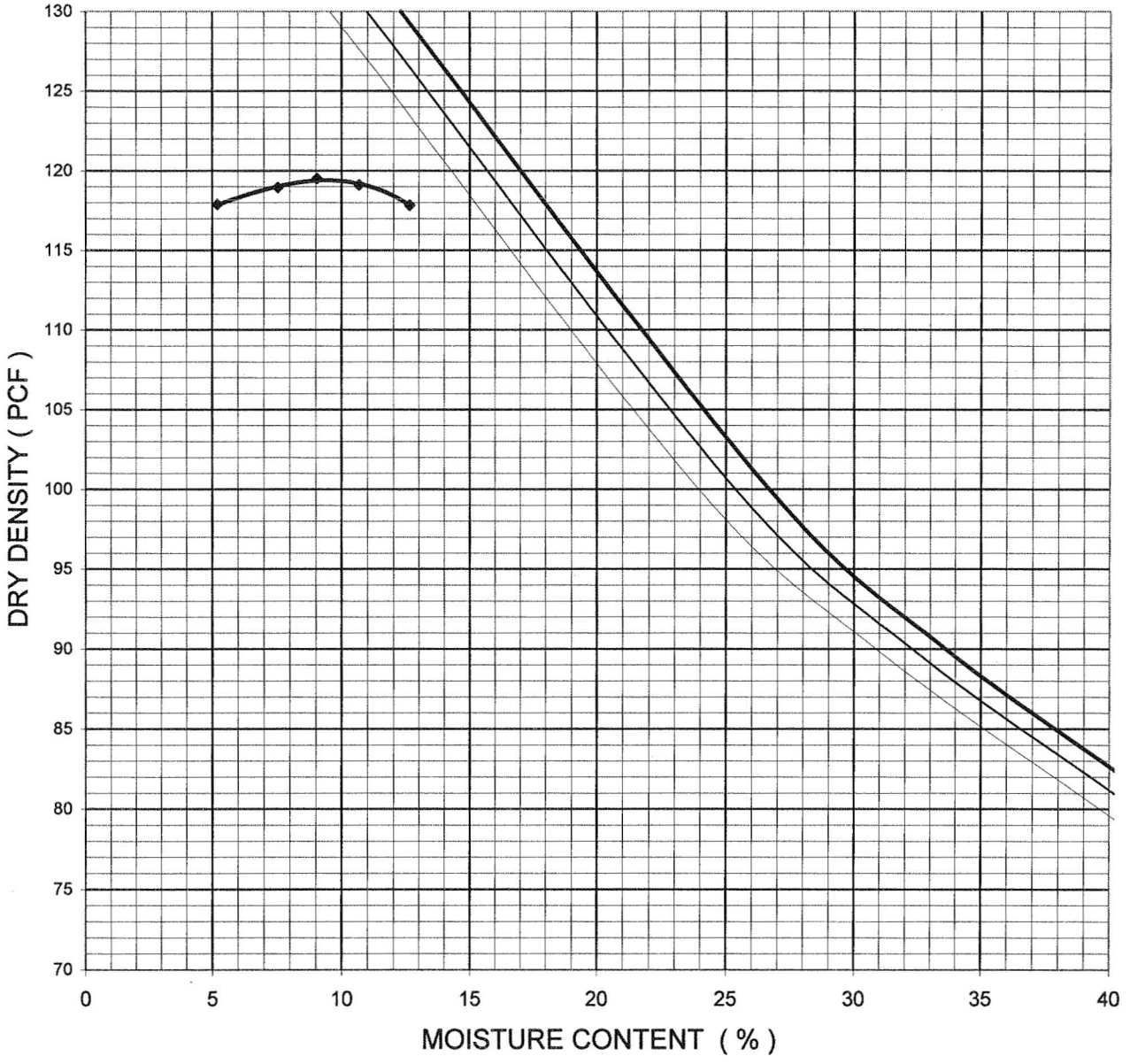
UNCORRECTED		***CORRECTED***	
MAXIMUM DRY DENSITY , PCF :	***119.3***	**MAXIMUM DRY DENSITY , PCF :**	***119.3***
OPTIMUM MOISTURE CONTENT ,% :	***9.3***	**OPTIMUM MOISTURE CONTENT ,% :**	***9.3***



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-6	TEST DATE :	12/07/07
SAMPLE LOCATION :	Center of Test Pad Lift 6	SAMPLE NO. :	P-6	IN-SITU M .C . , % :	*6.1*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*119.4*	MAXIMUM DRY DENSITY , PCF :	*119.4*
OPTIMUM MOISTURE CONTENT ,% :	*9.4*	OPTIMUM MOISTURE CONTENT ,% :	*9.4*



COMPACTION TEST REPORT

Project No.: 6141-06-0286.54 **Date:** N/A
Project: Vogtle Units 3 & 4 Test Pad Project

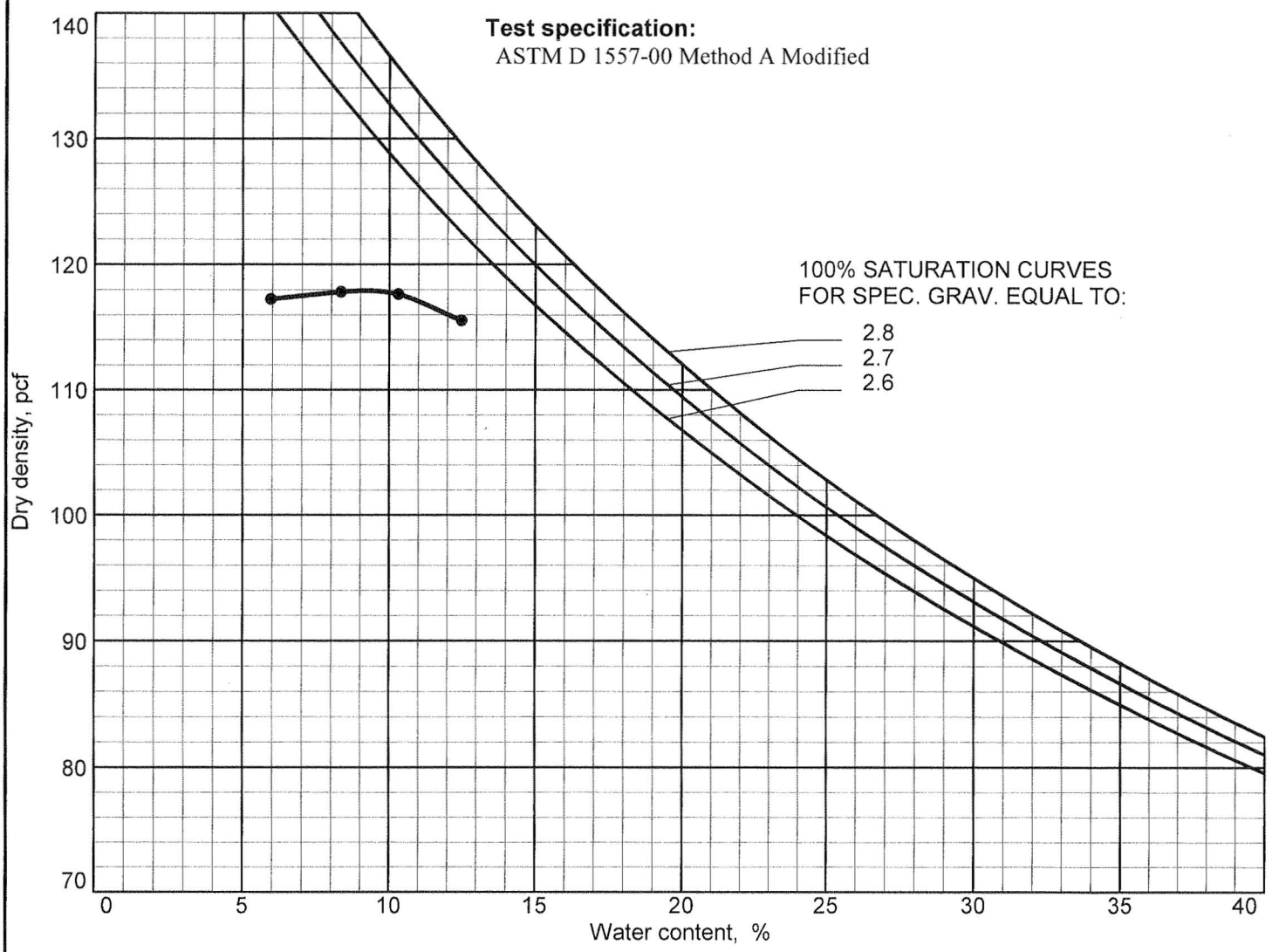
Location: P-8
Elev./Depth: 229.00' **Sample No.** P-8 Bag
Remarks: Tested by: CS Reviewed by; HJ

MATERIAL DESCRIPTION

Description: Red Silty sand

Classifications - **USCS:** SM **AASHTO:**
Nat. Moist. = 6.8 % **Sp.G. =** 2.7
Liquid Limit = NV **Plasticity Index =** NP
% > No.4 = 0.4 % **% < No.200 =** 13.0 %

TEST RESULTS
Maximum dry density = 117.9 pcf
Optimum moisture = 9.2 %



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MOISTURE DENSITY TEST DATA

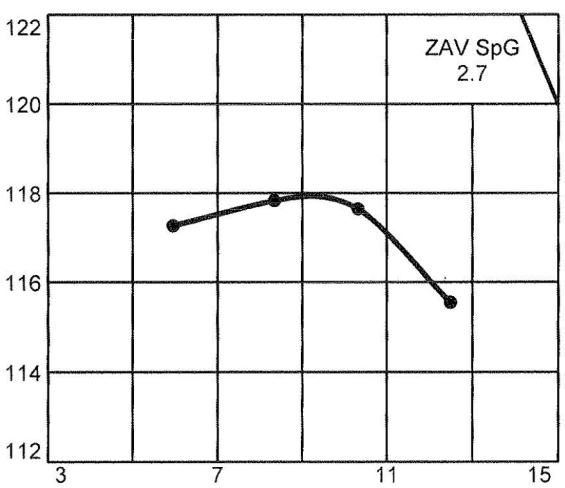
Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Specimen Data

Source: Test Pad Backfill P-8
Sample No.: P-8 Bag
Elev. or Depth: 229.00' **Sample Length(in./cm.):** 8123
Location: P-8
Description: Red Silty sand
Liquid Limit: NV **Plasticity Index:** NP **Natural Moisture:** 6.8
Date: N/A **USCS Classification:** SM **AASHTO Classification:**
Testing Remarks: Tested by: CS Reviewed by; HJ
Percent retained on No.4 sieve: 0.4
Percent passing No. 200 sieve: 13.0 **Specific gravity:** 2.7

Test Data And Results

Type of test: ASTM D 1557-00 Method A Modified
Mold Dia.: 4.00 in. **Hammer Wt.:** 10 lb. **Drop:** 18 in.
Layers: five **Blows per Layer:** 25



POINT NO.	1	2	3	4
WM + WS	3927.1	3978.5	4010.5	4013.5
WM	2053.3	2053.3	2053.3	2053.3
WW+T	639.00	719.10	657.70	704.10
WD+T	603.60	664.40	597.00	626.90
TARE	8.30	8.30	8.30	8.40
MOIST	5.9	8.3	10.3	12.5
MOISTURE	5.9	8.3	10.3	12.5
DRY DEN	117.3	117.8	117.6	115.5

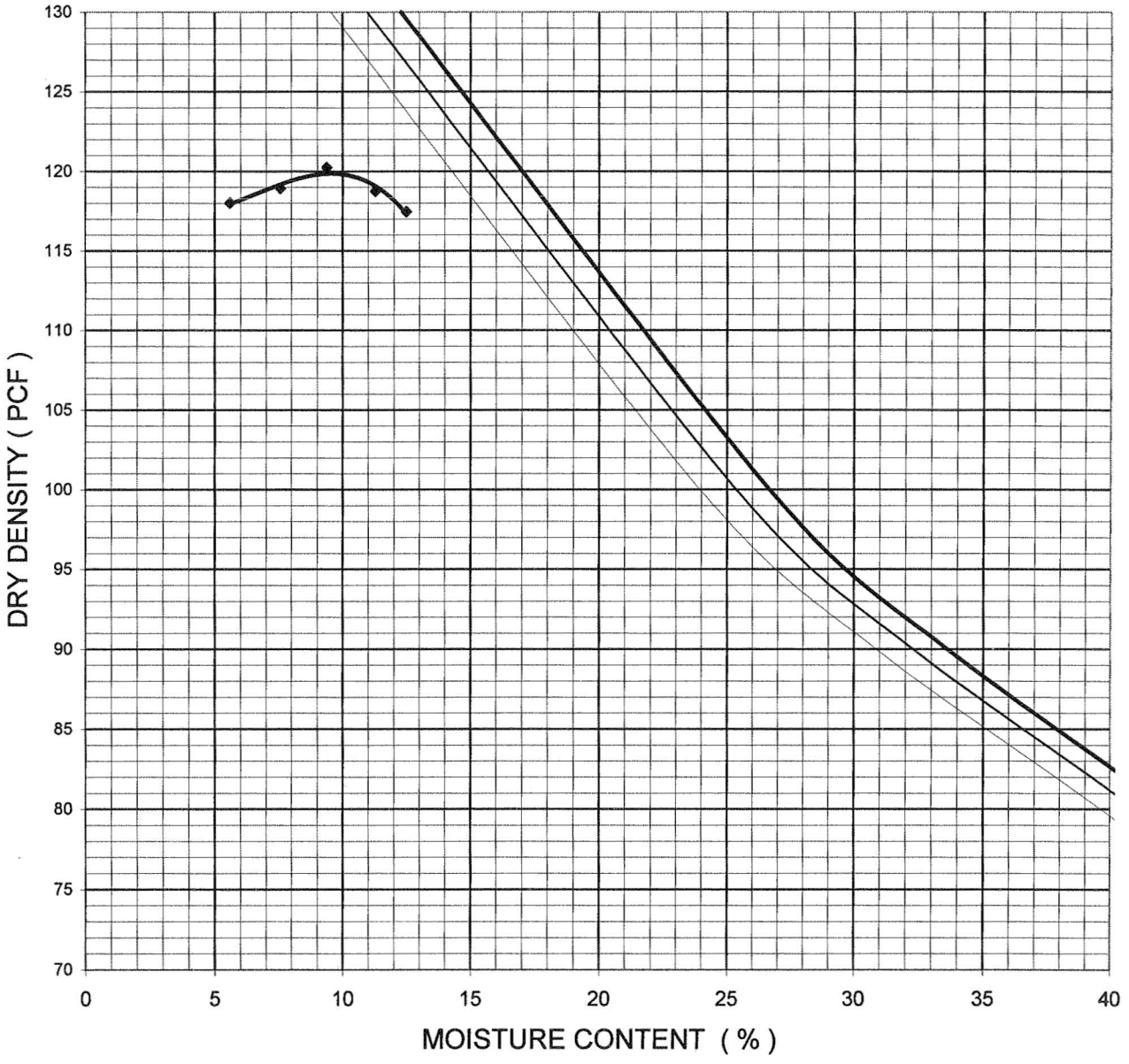
Max dry den= 117.9 pcf **Opt moisture=** 9.2 %

Oversize Correction Not Applied

MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-10	TEST DATE :	12/07/07
SAMPLE LOCATION :	Center of Test Pad Lift 10	SAMPLE NO. :	P-10	IN-SITU M .C . , % :	*6.4*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

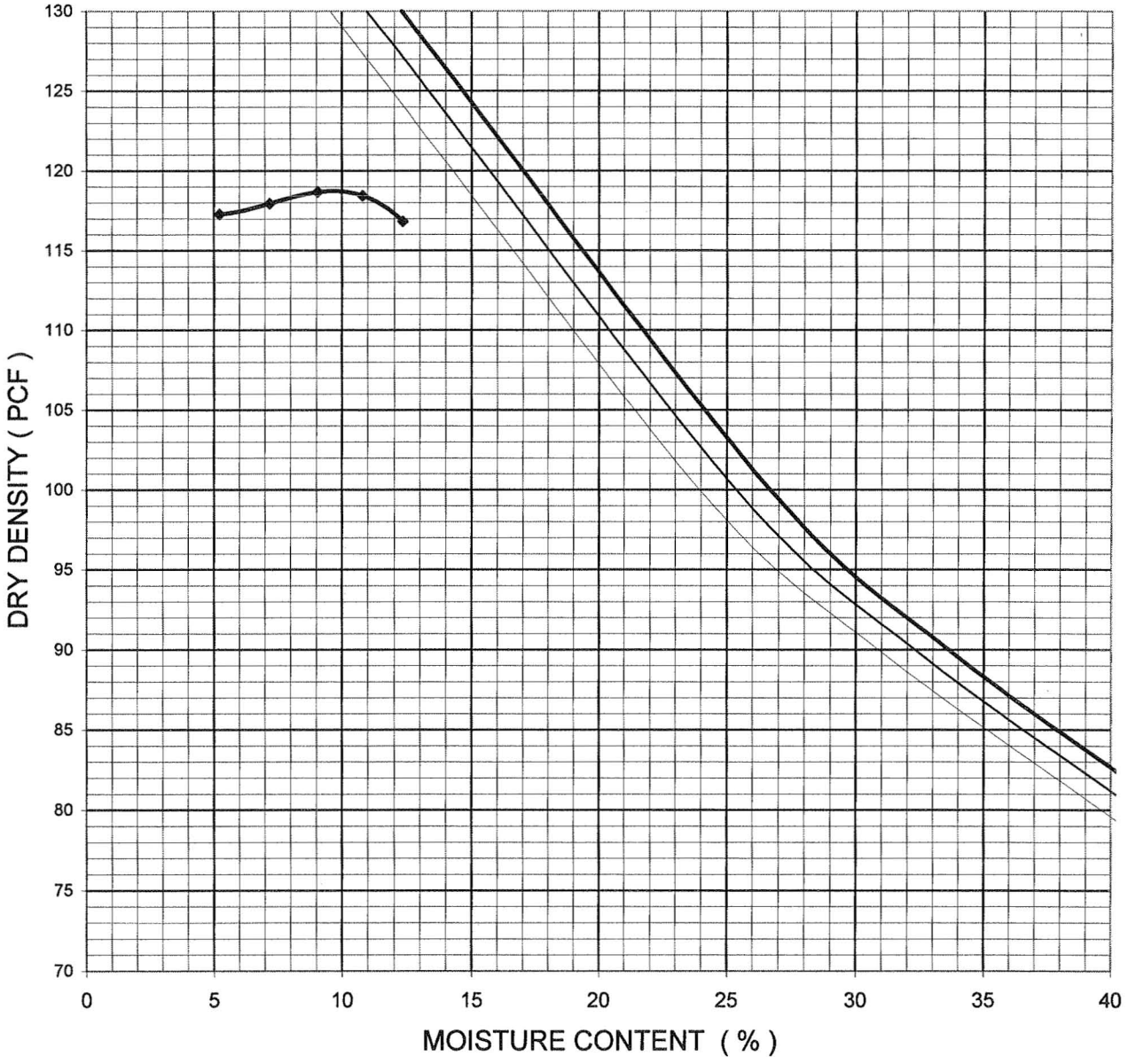
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*119.9*	MAXIMUM DRY DENSITY , PCF :	*119.9*
OPTIMUM MOISTURE CONTENT ,% :	*9.5*	OPTIMUM MOISTURE CONTENT ,% :	*9.5*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-12	TEST DATE :	12/12/07
SAMPLE LOCATION :	NE Corner of Test Pad Lift 12	SAMPLE NO. :	P-12	IN-SITU M .C . , % :	*9.7*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

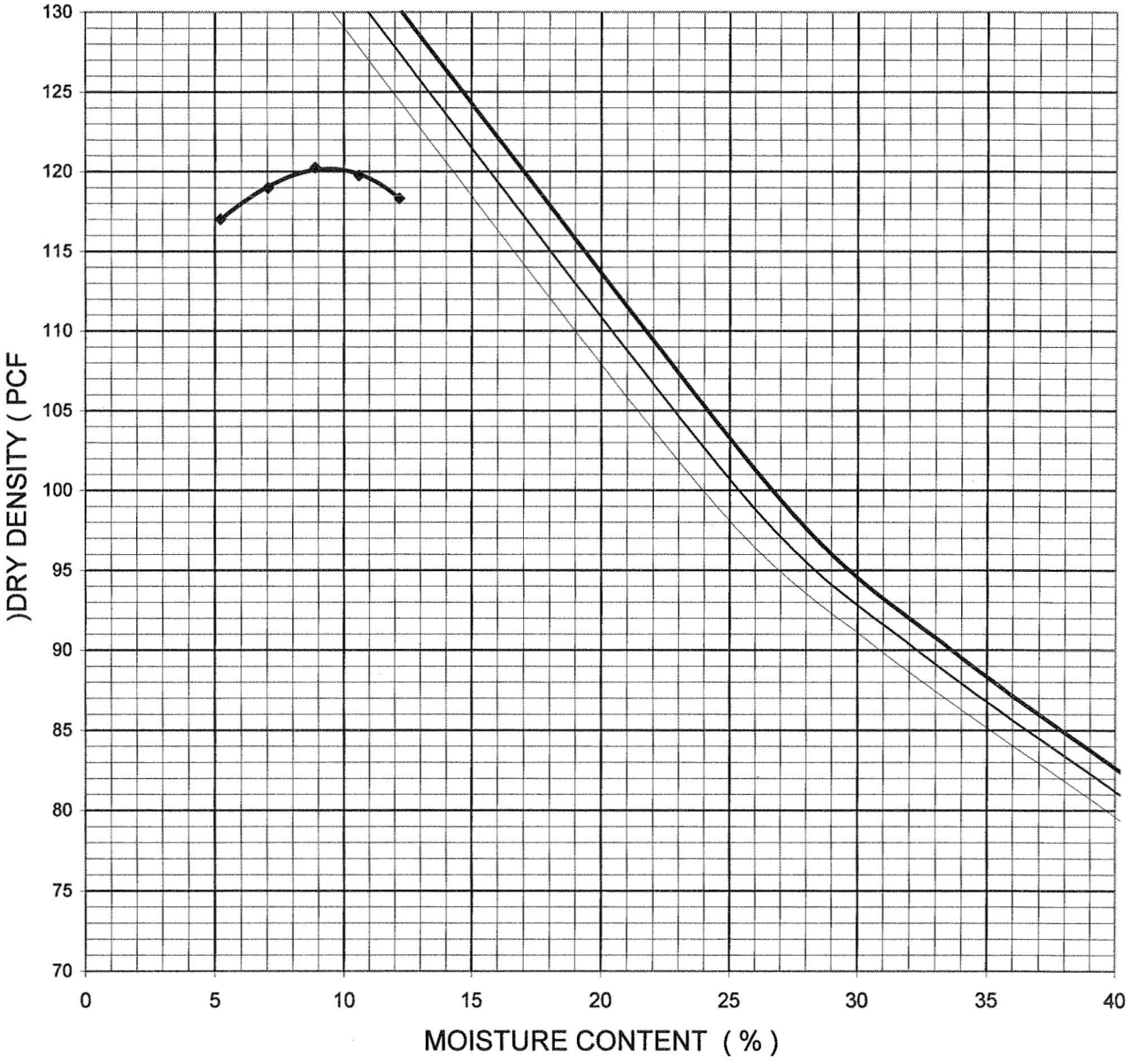
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*118.7*	MAXIMUM DRY DENSITY , PCF :	*118.7*
OPTIMUM MOISTURE CONTENT ,% :	*9.6*	OPTIMUM MOISTURE CONTENT ,% :	*9.6*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-15	TEST DATE :	12/14/07
SAMPLE LOCATION :	North End in the center of Test Pad	SAMPLE NO. :	P-15	IN-SITU M .C . , % :	*8.6*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

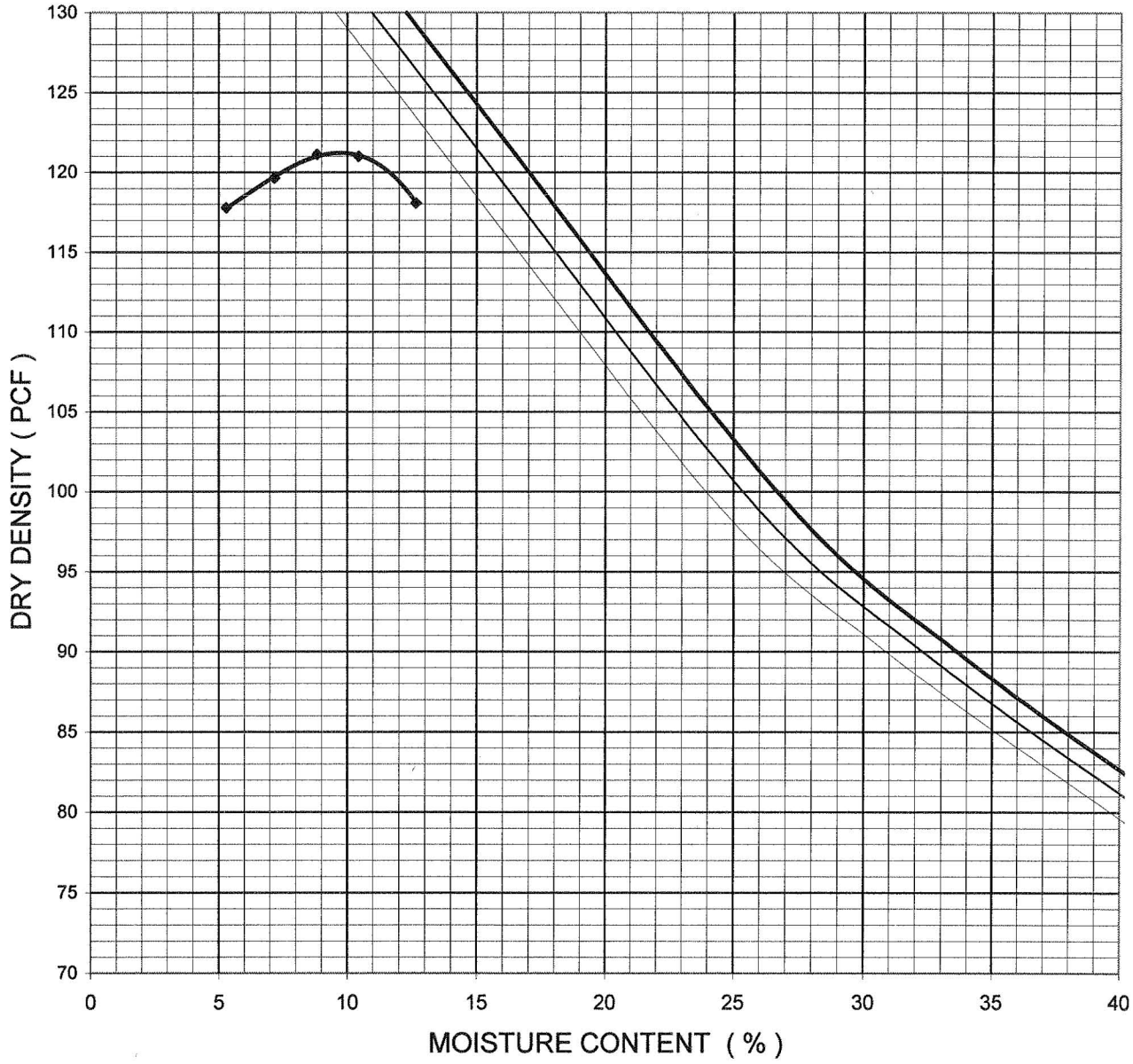
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*120.2*	MAXIMUM DRY DENSITY , PCF :	*120.2*
OPTIMUM MOISTURE CONTENT ,% :	*9.4*	OPTIMUM MOISTURE CONTENT ,% :	*9.4*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-16	TEST DATE :	12/14/07
SAMPLE LOCATION :	SW Corner of Test Pad	SAMPLE NO. :	P-16	IN-SITU M .C . , % :	*6.7*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*121.2*	MAXIMUM DRY DENSITY , PCF :	*121.2*
OPTIMUM MOISTURE CONTENT ,% :	*9.7*	OPTIMUM MOISTURE CONTENT ,% :	*9.7*



COMPACTION TEST REPORT

Project No.: 6141-06-0286.54 **Date:** N/A
Project: Vogtle Units 3 & 4 Test Pad Project

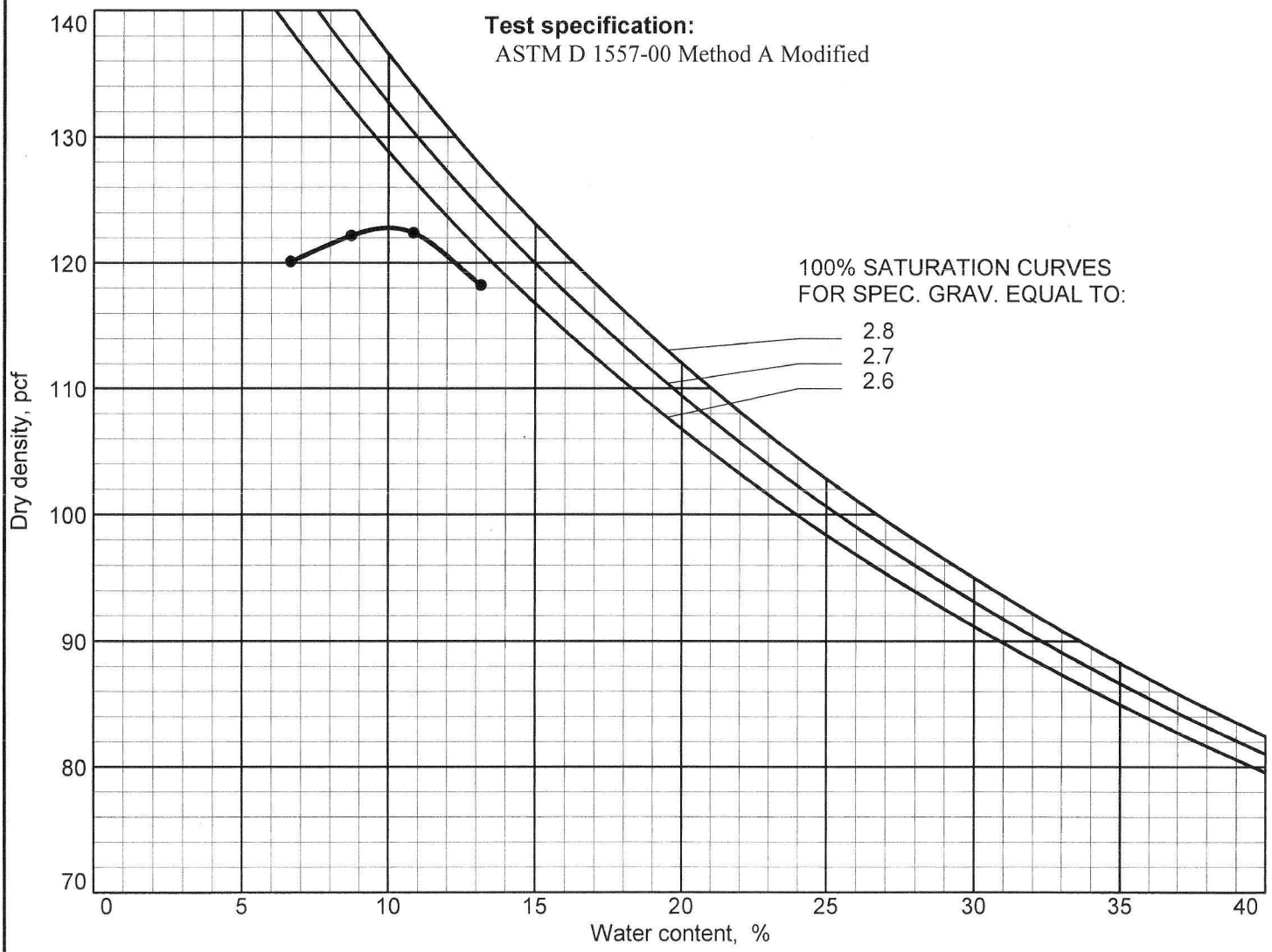
Location: P-16
Elev./Depth: 232.92' **Sample No.** P-16
Remarks: Tested by: CS Reviewed by: HJ

MATERIAL DESCRIPTION

Description: Red Brown Silty sand

Classifications - **USCS:** SM **AASHTO:**
Nat. Moist. = 7.5 % **Sp.G. =** 2.711
Liquid Limit = NV **Plasticity Index =** NP
% > No.4 = 0.0 % **% < No.200 =** 15.2 %

TEST RESULTS
Maximum dry density = 122.8 pcf
Optimum moisture = 10.0 %



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MACTEC Engineering and Consulting, Inc.

MOISTURE DENSITY TEST DATA

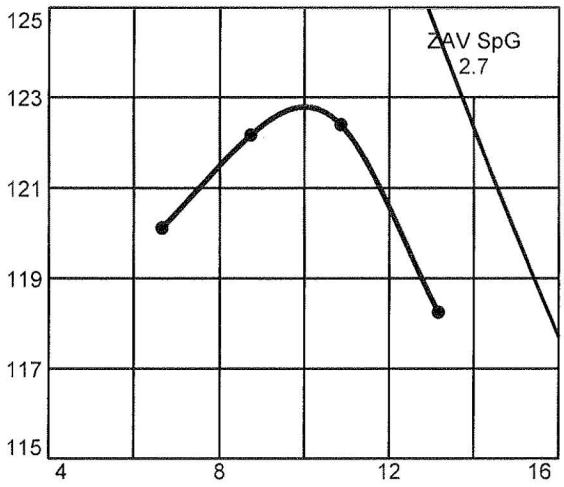
Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Specimen Data

Source: Test Pad Backfill P-16
Sample No.: P-16
Elev. or Depth: 232.92' **Sample Length(in./cm.):** 8156
Location: P-16
Description: Red Brown Silty sand
Liquid Limit: NV **Plasticity Index:** NP **Natural Moisture:** 7.5
Date: N/A **USCS Classification:** SM **AASHTO Classification:**
Testing Remarks: Tested by: CS Reviewed by: HJ
Percent retained on No.4 sieve: 0.0
Percent passing No. 200 sieve: 15.2 **Specific gravity:** 2.711

Test Data And Results

Type of test: ASTM D 1557-00 Method A Modified
Mold Dia.: 4.00 in. **Hammer Wt.:** 10 lb. **Drop:** 18 in.
Layers: five **Blows per Layer:** 25



POINT NO.	1	2	3	4
WM + WS	4055.8	4098.8	4070.8	3984.8
WM	2053.2	2053.2	2053.2	2053.2
WW+T	722.70	620.20	641.80	647.90
WD+T	665.40	560.30	568.10	608.00
TARE	8.30	8.30	8.20	8.30
MOIST	8.7	10.9	13.2	6.7
MOISTURE	8.7	10.9	13.2	6.7
DRY DEN	122.2	122.4	118.3	120.1

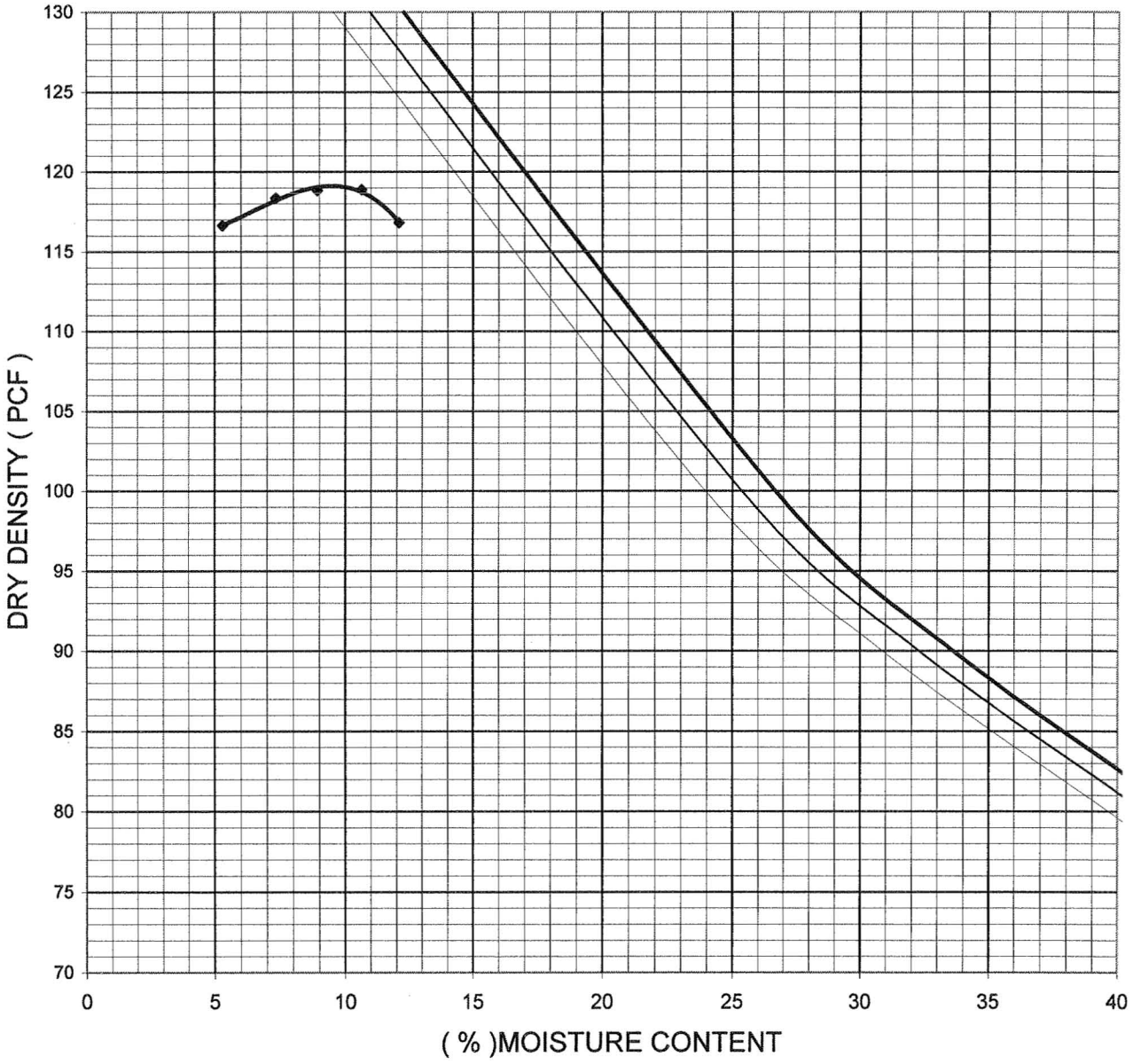
Max dry den= 122.8 pcf **Opt moisture=** 10.0 %

Oversize Correction Not Applied

MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-20	TEST DATE :	12/17/07
SAMPLE LOCATION :	Center of West Side of Test Pad	SAMPLE NO. :	P-20	IN-SITU M .C . , % :	*9.9*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

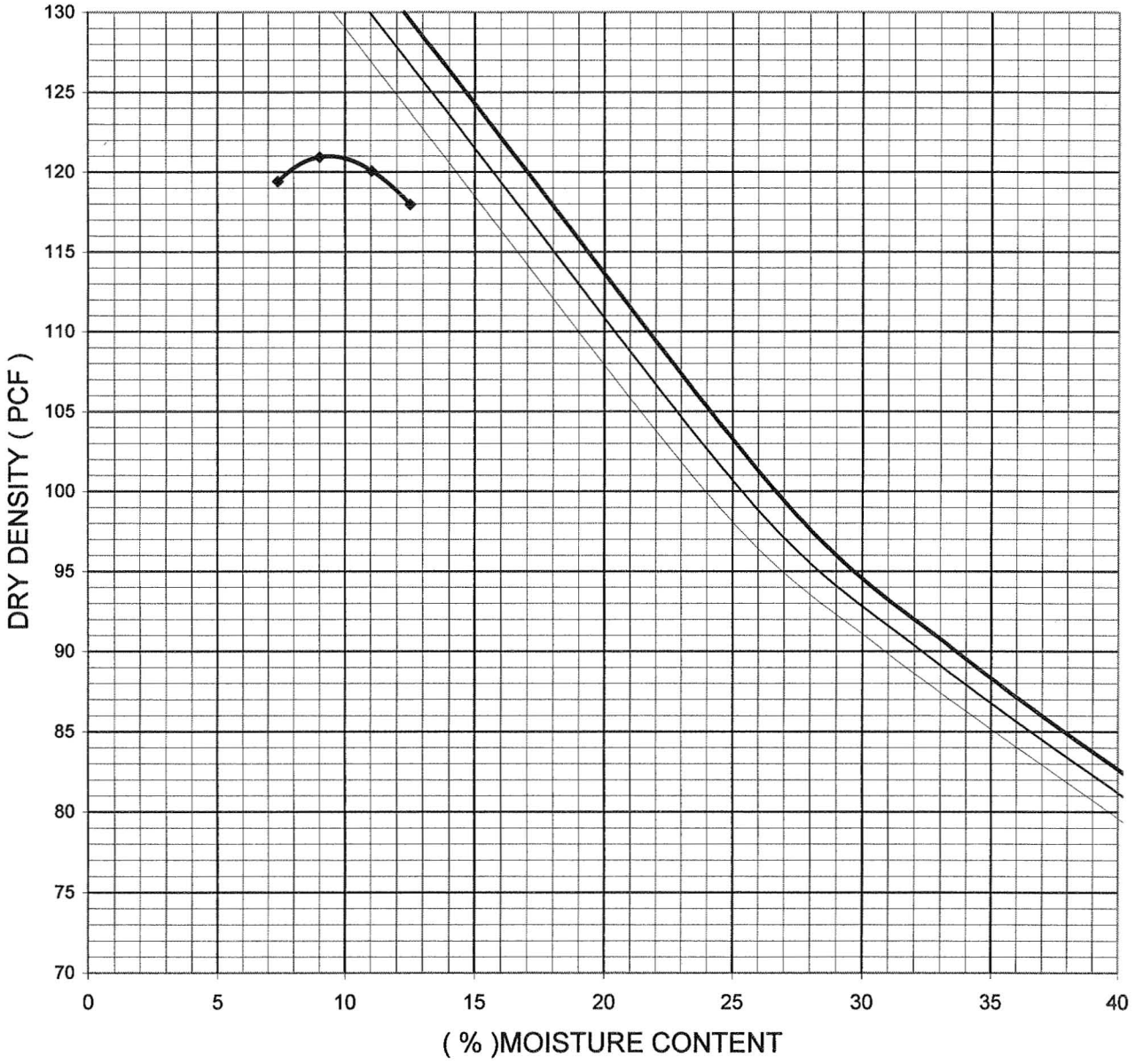
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*119.1*	MAXIMUM DRY DENSITY , PCF :	*119.1*
OPTIMUM MOISTURE CONTENT ,% :	*9.5*	OPTIMUM MOISTURE CONTENT ,% :	*9.5*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-22A	TEST DATE :	12/20/07
SAMPLE LOCATION :	Southeast Corner of Test Pad	SAMPLE NO. :	P-22A	IN-SITU M .C . , % :	*8.5*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

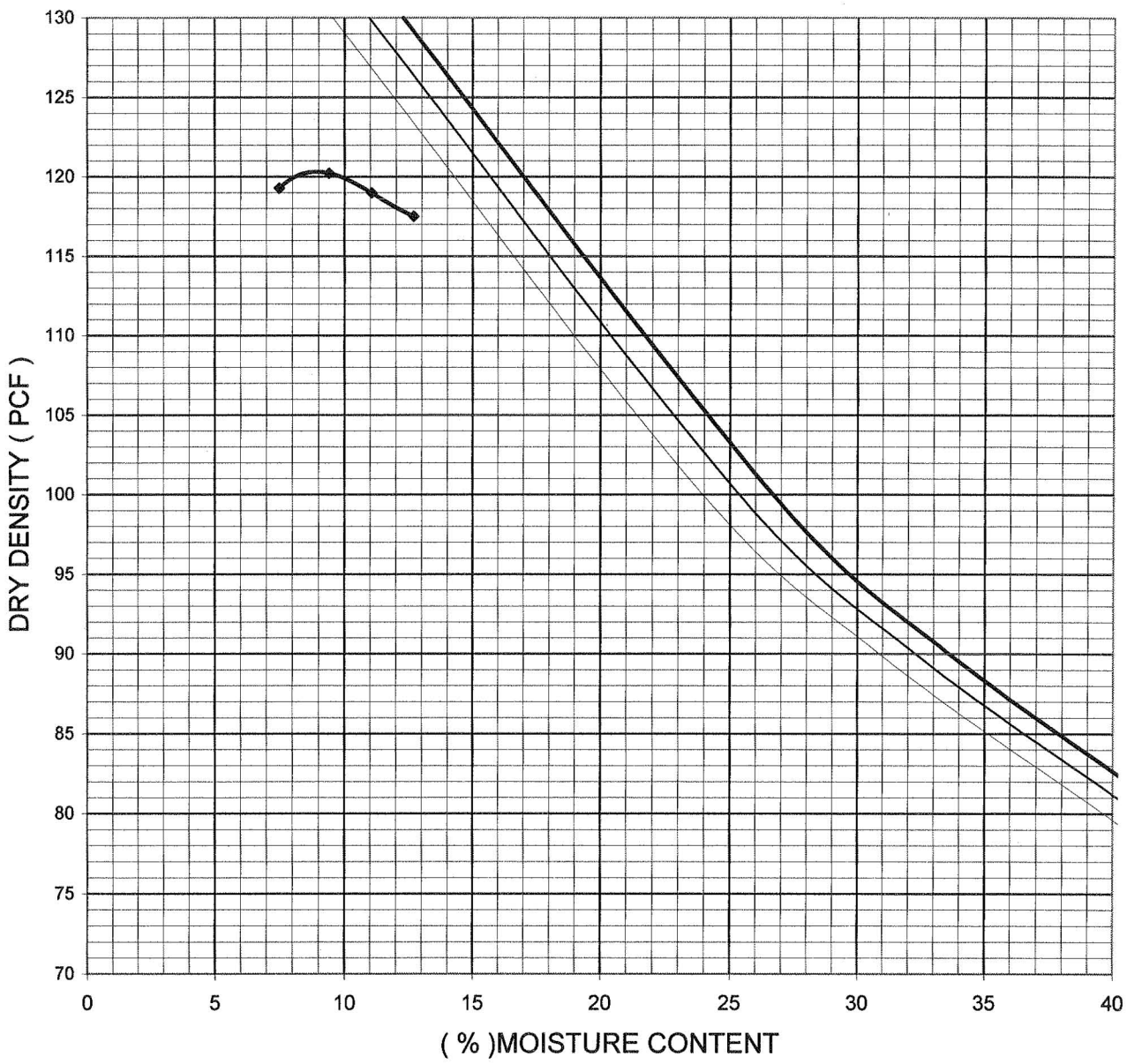
UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*121.0*	MAXIMUM DRY DENSITY , PCF :	*121.0*
OPTIMUM MOISTURE CONTENT ,% :	*9.4*	OPTIMUM MOISTURE CONTENT ,% :	*9.4*



MOISTURE / DENSITY RELATIONSHIPS OF SOIL

PROJECT :	6141-06-0286			REVIEWED BY :	
LOCATION :	Vogtle Test Pad				
JOB NO. :	6141-06-0286	REPORT NO. :	P-26	TEST DATE :	12/21/07
SAMPLE LOCATION :	Center West Side of Test Pad	SAMPLE NO. :	P-26	IN-SITU M .C . , % :	*9.1*
SOIL DESCRIPTION :	red silty sand				
PROCTOR TYPE :	*Modified*	PROCEDURE :	ASTM D1557-00	+ 3 / 4 " , % :	0

UNCORRECTED		*CORRECTED*	
MAXIMUM DRY DENSITY , PCF :	*120.3*	MAXIMUM DRY DENSITY , PCF :	*120.3*
OPTIMUM MOISTURE CONTENT ,% :	*8.9*	OPTIMUM MOISTURE CONTENT ,% :	*8.9*



COMPACTION TEST REPORT

Project No.: 6141-06-0286.54 **Date:** N/A
Project: Vogtle Units 3 & 4 Test Pad Project

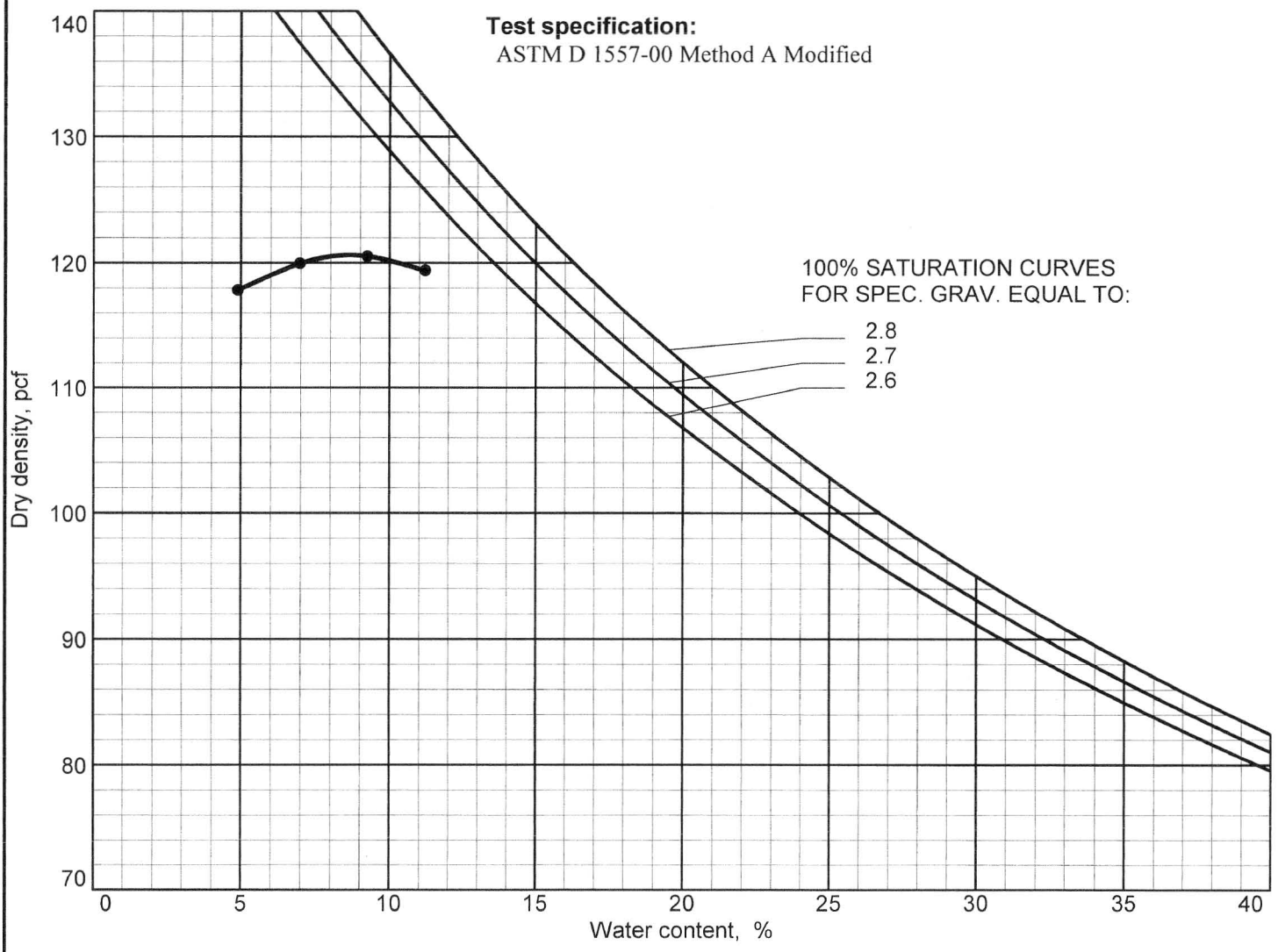
Location: P-26
Elev./Depth: 237.95' **Sample No.** P-26 Bucket
Remarks: Tested by: CS Reviewed by; HJ

MATERIAL DESCRIPTION

Description: Reddish Brown Silty sand

Classifications - **USCS:** SM **AASHTO:**
Nat. Moist. = **Sp.G. =** 2.672
Liquid Limit = NV **Plasticity Index =** NP
% > No.4 = 0.0 % **% < No.200 =** 14.4 %

TEST RESULTS
Maximum dry density = 120.6 pcf
Optimum moisture = 8.7 %



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