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Field Density Test Report

Report No: ND:17-02137-W18
Issue No: 1

Client: LIND-EXCO, INC.	CC: Gale Schipke(CORC) Jason Sanders(CORC) Jessica(AET) Ray(AET) Scott Lee	This document shall not be reproduced, except in full, without written approval from American Engineering Testing, Inc.  Date of Issue: 5/8/2015 Reviewed By: Ray Atkins Lab Manager
Project: 17-02137 Dyess Avenue Utility Extension		

Testing Details	
Tested By:	Bruce Rath
Date Tested:	5/5/2015
Field Methods:	ASTM D 6938
Gauge Type:	Troxler 3440 (NUCLEAR DENSITY GAGE) Test Mode: Direct Transmission
Model Number:	3440 Standard Count: Density: N/A
Serial Number:	30453 Standard Count: Moisture: N/A

Proctor Information				
Sample ID	Material	Method	MDD (lb/ft ³)	OMC (%)
17-02137-W1-S1	Sandy lean clay, a little gravel, brown	ASTM D 1557 (A)	114.3	14.4

Test Results										
Test No.	Field Sample ID	Proctor Sample ID	Probe Depth (in.)	Wet Density (lb/ft ³)	Moisture Content (%)	OMC Var	Dry Density (lb/ft ³)	Comp (%)	Comp Spec	Results
1	35	17-02137-W1-S1	10	121.6	13.0	-1.4	107.6	94.1	≥92	OK
2	36	17-02137-W1-S1	10	123.9	13.4	-1.0	109.3	95.6	≥92	OK

Location				
General Location: Sewer Main				
Test No.	Field Sample ID	Location	Test Elev/Depth	Material/Layer
1	35	Sta. 36+30, 10' W of Rd. C/L	4	Ft Below Subgrade
2	36	Sta. 36+30, C/L of Rd.	4	Ft Below Subgrade

Comments	Legend
Wade (Lindexco): Tests taken on the back fill that had been placed were within spec., and reported to Wade. Will take more tests tomorrow. 1.5 hr./ 12 mi.	OMC = Optimum Moisture Content MDD = Maximum Dry Density OK = All Results Meet Specification

44th St. / West Main

KCS

-3% → +8%

Troxler Moisture Density Guage Compaction Results

Project No.		Project:				Taken By:		Utility:		
Moist-spec: (Cohesive) 3% below to 8% above (Cohesionless) Workable										
Date	Test #	Wet Density	Dry Density	Moisture	Percent Moisture	Opt. Dry Density	Opt. Moisture	Percent Proctor	Percent Required	Location
						131.8	9.1%			
2 nd June 09	1	144.8	139.4		3.9	141.8	5.6	98.3	92	3' above P _{1,0} (H ₂ O) 10+35 4' East
2 nd June 09	2	142.6	136.4		4.5	141.8	5.6%	96.2	92	@ Graph 10+15 (H ₂ O P _{1,0})
1 st June 09	3	147.0	142.3		3.3	141.8	5.6	100.3	92	3' above H ₂ O Pipe @ 7+25
1 st June 09	4	138.5	132.0		4.9	↓	↓	93.1	92	7+35 43 rd Court +3 above Pipe (Sanitary Sewer)
2 nd June 09	5	136.8	131.2		4.2	↓	↓	92.6	92	10+00, West Main +6 above pipe
5 th June 09	6	140.7	134.8		4.4	↓	↓	95	92	9+70 @ 50' South of storm pipe
1 st June 09	7	142.0	136.5		5.4	↓	↓	94.9	92	9+85 @ 25' East storm pipe
5 th June 09	8	140.9	135.5		4.0	↓	↓	95.5	92	9+70 @ 10' North of storm pipe
5 th June 09	9	141.7	135.1		4.9	↓	↓	95.3	92	10+50 storm sewer cross Pipe
9 th June 09	10	141.5	130.7		8.2	↓	↓	92.2	92	3' above Pipe @ 8+0
9 th June 09	11	142.7	131.3		9.7	↓	↓	92.6	92	10+50, West Storm Sewer pipe
9 th June 09	12	130.5	111.0		6.7	↓	↓	99.5	92	3+85 @ 10' East
1 st June 09	13	143.5	132.7		8.2	↓	↓	93.5	92	6' above pipe @ 10