WELL NUMBER MW-556/(B-556) ERM - New England, Inc. 399 Boylston St. 6th Floor

Boston MA 02116 Telephone: 617 646 7800 **CLIENT** Raytheon PROJECT NAME Raytheon-Wayland PROJECT NUMBER 0033366 PROJECT LOCATION Wayland, MA. **WELL/BORING DIAMETER** 8" DATE STARTED 9/19/05 COMPLETED GROUND ELEVATION_____ DRILLING CONTRACTOR Boart Longyear **MEASURING POINT ELEVATION (ft)** DRILLING METHOD Roto-Sonic **GROUNDWATER ELEVATION (ft)** CHECKED BY_____ **LOGGED BY** Moore **GROUNDWATER ELEVATION DATE** NOTES Field Lab (ppm) GRAPHIC LOG (mdd) U.S.C.S. RECOVERY MATERIAL DESCRIPTION WELL DIAGRAM 딢 717 Fine Silt with some Very Fine Sand, dark brown, well sorted (poorly graded), loose, wet, Highly organic wetland mud. 1/ 1/ NS 32 1, 11, 11/ 5 Fine Sand with some Medium Sand, brown/gray, poorly sorted SM (well graded), loose, wet, Some Silt. Coarse Sand with some Medium Sand, gray, poorly sorted (well Grout graded), loose, wet. SW 10 58 NS 0.279 Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), dense, wet. ML 15 Medium Sand mixed with some Silt, olive gray, 50/50 (two sizes), medium dense, wet, Inter-mingled deposit. SM NS 0.437 Silt with some Fine Sand, olive gray, well sorted (poorly graded), medium dense, wet, Grain size increases with depth. 20 72 NS ML **Bentonite** 0.405 NS 25 Fine Silt with Fine Sand, olive gray, well sorted (poorly graded), dense, wet, 0.5" Clay layer @ 28'. NS 2.096 МН Filter Pack 30 88 NS CH Clay ,dark olive gray, very dense, moist, 4" Clay layer. Fine Silt with Fine Sand, olive gray, well sorted (poorly graded), NS 2.478 5' 0.010 Slot dense, wet, Small sub-horizontal Clay lenses @ 36', small Clay layer @ 46'. Screen MH

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WAYLAND WETLANDS WAYLAND WETLANDS.GPJ MILFORD BORINGS.GDT 9/28/05

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PROJ	ECT N	NUMB	BER 0033366	PROJECT LOCATION_Wayland,	MA.			
(ft) (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Field Lab (ppm)	PID (ppm)	WEL	L DIAGRAM
 40	97			Fine Silt with Fine Sand, olive gray, well sorted (poorly graded), dense, wet, Small sub-horizontal Clay lenses @ 36', small Clay layer @ 46'. (continued)	NS NS	1.122		Filter Pack
 45	3,	МН			NS	1.667		
 50	89				NS NS	1.827		
 55		СН			NS	1.154		
 60		МН		Clay ,dark olive gray, very dense, moist, 3" Clay layer. Fine Silt with some Very Fine Sand,olive gray, well sorted (poorly graded), dense, wet, Folded Clay layer @ 60', 2 small horizontal Clay layers @ 64' and 65'.	NS	2.884		
	100	1			NS NS	1.759		
65 				Fine Silt mixed with Clay,olive gray, 50/50 (two sizes), dense, very moist, Varved Clay and Silt throughout deposit, varves concentrated between 68'-69', and 72'-75'.	NS	1.382		
 	88	CL- ML			NS NS	0.772		
 75				(Continued Next Page)				

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PROJECT NAME Raytheon-Wayland

PROJECT NUMBER 0033366

PROJECT LOCATION Wayland, MA.

PROJ	PROJECT NUMBER 0033366 PROJECT LOCATION Wayland, MA.							
DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Field Lab (ppm)	PID (ppm)	WEL	L DIAGRAM
 		CL- ML CH		Fine Silt mixed with Clay,olive gray, 50/50 (two sizes), dense, very moist, Varved Clay and Silt throughout deposit, varves concentrated between 68'-69', and 72'-75'. (continued) Clay ,dark olive gray, very dense, moist, 7" compact Clay layer. Fine Silt with some Very Fine Sand,olive gray, well sorted (poorly graded), dense, wet, Vertical Clay @ 79', horizontal Clay (<0.5") @ 81', and 1" thick sub-horizontal Clay @ 88'.	NS	1.613		
<u>80</u> 	94			Clay (<0.5") @ 81', and 1" thick sub-horizontal Clay @ 88'. Deposit becomes more coarse @ base. Two 2" Clay layers @ base.	NS NS	2.907		
 85								Bentonite
 		МН			NS	2.213		
90	73				NS			
 - 95					NS	1.882		
				Fine Sand with some Silt, olive gray, well sorted (poorly graded), medium dense, wet, Some small Clay lenses throughout deposit.	NS	1.263		
100	100				NS	0.883		
105					NS	0.003		
		SM			NS	1.231		
110	63				NS			
100					NS	1.078		
115			<u>ie telec</u>	(Continued Next Page)				

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DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG		Field Lab (ppm)	PID (ppm)	WEL	L DIAGRAM
 120				Very Fine Sand mixed with Fine Silt,olive gray, well sorted (poorly graded), dense, wet, Deformed small (1" to <1") Clay layers and lenses throughout deposit. 115-124' grain size fine, 124-135' grain size increases.	NS	1.603		
	100				NS			
 125		МН			NS	1.241		
					NS	2.344		Filter Pack
130	73				NS			
 135	-				NS	2.172		10' 0.010 Slot Screen
		SM		Fine Sand mixed with Medium Sand,olive gray, well sorted (poorly graded), loose, wet, 1" Clay @ 141.5'.	NS	1.456		
76 140 140	85				NS			Filter Pack
		СН		Clay ,dark olive gray, very dense, moist, 5" Clay layer. Fine Sand ,olive gray, well sorted (poorly graded), loose, wet, Some Silt @ base of deposit.	NS	2.058		
145 145								Bentonite
MAYLAND METLAND METLAND METLAND METLAND METAND META	63	SM			NS NS	2.005		Filter Pack
MAYLAND WETLANDS WAYLAND WETLANDS GOT 9/28/05					NS	1.405		

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GG (ft) RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Field Lab (ppm)	PID (ppm)	WELL	DIAGRAM
160 94	SM GC SM		Fine Sand ,olive gray, well sorted (poorly graded), loose, wet, Some Silt @ base of deposit. (continued) Fine Silt mixed with Medium Gravel, gray, poorly sorted (well graded), very dense, slightly moist, Glacial Till. Silty matrix with faceted clasts. Gravels are aligned. Medium Sand with some Silt, olive gray, well sorted (poorly graded), loose, wet, Deposit becomes fine grained with depth.	NS NS	1.047		10' 0.010 Slot Screen Filter Pack Backfill
165			165.0 Bottom of hole at 165.0 feet.				