



ERM - New England, Inc.  
 399 Boylston St. 6th Floor  
 Boston MA 02116  
 Telephone: 617 646 7800

# WELL NUMBER MW-554/(B-554)

CLIENT Raytheon PROJECT NAME Raytheon-Wayland  
 PROJECT NUMBER 0033366 PROJECT LOCATION Wayland, MA.  
 DATE STARTED 9/13/05 COMPLETED \_\_\_\_\_ GROUND ELEVATION \_\_\_\_\_ WELL/BORING DIAMETER 8"  
 DRILLING CONTRACTOR Boart Longyear MEASURING POINT ELEVATION (ft) \_\_\_\_\_  
 DRILLING METHOD Roto-Sonic GROUNDWATER ELEVATION (ft) \_\_\_\_\_  
 LOGGED BY Moore CHECKED BY \_\_\_\_\_ GROUNDWATER ELEVATION DATE \_\_\_\_\_  
 NOTES \_\_\_\_\_

DEPTH (ft)	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Field Lab (ppm)	PID (ppm)	WELL DIAGRAM	
0								
5	30	PT		Fine Silt with trace Fine Sand, dark brown, well sorted (poorly graded), loose, wet, Highly organic wetland mud.	NS			
10	58	SM		Medium Sand with some Fine Sand, dark brown, well sorted (poorly graded), loose, wet, Some organic material. Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), medium dense, moist, 0.5 or smaller varved Clay layer.	NS			
15		ML						
20	69	SM		Medium Sand with some Very Fine Sand, dark gray, well sorted (poorly graded), loose, very moist, Some organics and sporadic Gravel.	NS	0.972		
25		MH		Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), dense, moist, Small Gravel @ 18' and 19' (sub-rounded).	NS			
30	63	CH			NS	1.052		
35		MH			NS	1.095		
					NS	1.057		Bentonite
								Filter Pack
								5' 0.010 Slot Screen

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35							
		MH		Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), dense, wet, Some small Clay lenses, Silt is stratified. (continued)	NS	0.716	
40	81				NS		
		CL-ML		Clay and Fine Silt, olive gray, well sorted (poorly graded), very dense, moist, Varved Clay with alternating fine Silt.	NS	0.805	
45							
		MH		Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), dense, wet, Some Clay lenses.	NS	0.643	
		CH		Clay, dark olive gray, very dense, moist, 3" Clay layer, honeycomb structure.			
50	80			Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), dense, wet, Small convoluted Clay lenses.	NS		
		MH			NS	0.969	
55							
		SM		Fine Sand with some Silt, olive gray, well sorted (poorly graded), dense, wet, Small Clay lenses throughout.	NS	1.079	
60	88						
		MH		Fine Silt with some Fine Sand, olive gray, well sorted (poorly graded), dense, wet, Small Clay layer @ 60'.	NS		
65							
		MH		Fine Silt and Fine Sand, olive gray, 50/50 (two sizes), dense, wet, Laminated.	ND	0.993	
70	57						
		CH		Clay, dark olive gray, very dense, slightly moist, Fat Clay.	ND		
		SM		Fine Sand with some Silt, olive gray, well sorted (poorly graded), medium dense, wet, Deposit grades from Fine Sand and Silt to Fine Sand with some small Clay layers. Sand has convoluted beds of Fine and Very Fine Sand.	ND	0.811	
75							

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75							
80	87			Fine Sand with some Silt, olive gray, well sorted (poorly graded), medium dense, wet, Deposit grades from Fine Sand and Silt to Fine Sand with some small Clay layers. Sand has convoluted beds of Fine and Very Fine Sand. (continued)	ND	0.107	<p>Filter Pack</p> <p>10' 0.010 Screen</p> <p>Zero Sand</p>
85		SM			ND	0.144	
90	57				ND	0.079	
95					ND	0.108	
100	78	CH		Clay, dark olive gray, very dense, moist, 1 to 1.5" Clay layer, honeycomb structure.	ND	0.073	
105				Fine Sand with trace Silt, olive gray, well sorted (poorly graded), medium dense, wet, Highly convoluted/ deformed bedding. Some small Clay lenses, <0.5" @ 112'.	ND	0.055	
110	41	SM			ND	0.293	
115					ND	0.335	

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115							
120	47	SM		Fine Sand with trace Silt, olive gray, well sorted (poorly graded), medium dense, wet, Highly convoluted/ deformed bedding. Some small Clay lenses, <0.5" @ 112'. (continued)	ND	0.331	Bentonite
		CH		Clay, dark olive gray, very dense, moist, 3" Clay layer, honeycomb structure.	ND	0.330	
		SM		Fine Sand with trace Silt, olive gray, well sorted (poorly graded), medium dense, wet.			Filter Pack
125				Medium Sand with some Coarse Sand, orange brown, well sorted (poorly graded), loose, very moist, Grain size increases with depth in deposit.	ND	0.223	
		SW			ND	0.268	10' 0.010 Screen
130	78						
		GM		Coarse Sand mixed with Medium Gravel, brown/gray, poorly sorted (well graded), loose, very moist, Inter-mingled Gravel (sub-angular), Sand (medium-coarse), and Silt.	ND	0.318	Zero Sand
135							
		SM		Fine Sand with trace Silt, olive gray, well sorted (poorly graded), medium dense, wet, Highly convoluted/ deformed bedding. Some small Clay lense, 1" @ 140'.	ND	0.288	
140	84						
		SM					
145							
150							
155							

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155							
160							
165							
170	54	SM		Fine Sand with trace Silt, olive gray, well sorted (poorly graded), medium dense, wet, Highly convoluted/ deformed bedding. Some small Clay lense, 1" @ 140'. (continued)			
175							
180	79						
185		GW		Coarse Gravel with some Coarse Sand, olive gray, poorly sorted (well graded), very loose, wet, Very Coarse Gravel and sub-round Clasts (faceted).	ND	0.569	
				Medium Sand mixed with some Fine Sand, olive gray, poorly sorted (well graded), very loose, wet, Fine Sand grading to Medium to Coarse Sand and then Gravel.	ND		
190	85	MH		Fine Silt with some Very Fine Sand, olive gray, well sorted (poorly graded), medium dense, wet, Small Silt and Sand layer with trace Gravel.	ND	0.440	
				Medium Sand and Coarse Sand, olive gray, poorly sorted (well graded), very loose, wet, Large Clasts @ base of deposit overlying Bedrock.	ND	0.607	
195		SM			ND	0.849	
							Filter Pack
							10' 0.010 Screen

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195		SM		196.0 Bottom of hole at 196.0 feet.			