

**WEEKLY PROGRESS UPDATE
FOR OCTOBER 22 – OCTOBER 26, 2001**

**EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 & 1-2000-0014
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from October 22 to October 26, 2001.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of October 26 is summarized in Table 1.

Table 1. Drilling progress as of October 26, 2001				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-185	Central Impact Area Well (CIAP-2)	340	208	156-166, 247-257
MW-186	Demo 1 Area Well (D1P-8)	290	168	
PW-1	Central Impact Area Pump Test Well	208	79	
OW-5	Pump Test Observation Well	190	62	175-185
OW-6	Pump Test Observation Well	190	62	175-185
bgs = below ground surface				
bwt = below water table				

Completed well installation of MW-185 (CIAP-2), OW-6 (Observation Well) and OW-5 (Observation Well). Completed drilling of PW-1 (Pump Test Well) and commenced drilling of MW-186 (D1P-8).

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-186 (D1P-8). Groundwater samples were collected as part of the August Long Term Groundwater Monitoring round and from the Bourne Municipal and Monitoring Wells. Groundwater samples were collected from supply wells at Ammunition Supply Point, PAVE PAWS, and USCG Antenna Station. Background soil samples were collected from grids in the Crane Management Area 1 and 2, Falmouth Water Tower and John's Pond. Soil samples were collected from grids on the Former H Range, J-2 Range and L Range targets and from post-detonation craters in the J-2 Range. Water samples were collected from the RRA GAC system and effluent. As part of the munitions survey project, soil samples were collected from a mortar disposal pit excavation on the N Range.

The Guard, EPA, and MADEP had a meeting on October 25 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)
Tina Dolen (IAGWSPO)
Todd Borci (EPA)

Bill Gallagher (IAGWSPO)
Dave Hill (IAGWSPO)
Jane Dolan (EPA)

Karen Wilson (IAGWSPO)
David Cray (MA-ARNG)
Jim Murphy (EPA)

Desiree Moyer (EPA)	Len Pinaud (MADEP)	Mark Panni (MADEP)
Darrell Deleppo (ACE)	Gina Tyo (ACE)	Heather Sullivan (ACE)
Drew Clemens (ACE)	John McPherson (ACE)	Ellen Iorio (ACE)
Rob Foti (ACE)	Don Wood (ACE)	Mathew Walsh (ACE)
Marc Grant (AMEC)	John Rice (AMEC)	Ben Rice (AMEC)
Kim Harriz (AMEC)	Herb Colby (AMEC)	Larry Hudgins (Tetra Tech)
Doug Lam (Tetra Tech)	Susan Stewart (Tetra Tech–phone)	Tom Rust (Tetra Tech)
Leo Montroy (Tetra Tech-phone)	Dave Williams (MDPH)	Adam Balogh (TRC)
Ken Gaynor (Jacobs)	Rich Newill (Foothill Engineering)	

ASR Presentation

Tom Rust (Tetra Tech) provided a demonstration of how the ASR database (that was still in the process of being developed) could be used to answer questions relative to the MMR Impact Area Groundwater Study. Currently the data is accessible using GIS software ARCVIEW. But as part of the ASR project, a web site is being developed to access this information without the use of this software. Eventually, all the data obtained through the Archive Search process and ultimately the Munitions Survey Project (produced by Tetra Tech) and Groundwater Study data (produced by AMEC) will be incorporated into the database for general access. Mr. Rust gave a demonstration (using a laptop PC projecting onto a screen) of how a specific question such as “can we select targets from specific years and determine firing positions for a specific year” could be answered by querying the database using ARCVIEW.

In response to specific questions, Mr. Rust explained that a Table of Contents of available information in the database will be provided on the web page. However, the database is still in the process of being developed and is not yet ready to be published. There are hundreds of complete data layers, but they are constantly being updated. The information has already been used internally in reports and to develop scopes of work. Maps that have been generated during the data evaluation stage, but not published will be available as an annex on the web site. Example questions (queries), that interested parties would like the web site to be able to address, would be welcomed input.

Punch List Items

2. Obtain access to 90PZ208 (Corps). Ray Cottengaim (ACE) personally delivered a letter to the homeowner, leaving the letter in the door, since the owner was not home. Jane Dolan (EPA) requested that a copy of the letter to be provided to the agencies.
5. Provide Comments on CDC Air Emissions review (EPA). Two more weeks requested for comment. Ms. Dolan requested the results of the pea gravel analysis from John McPherson (ACE).
8. Provide PLM Lab Data (AMEC). Interpreted results from Woods Hole Group were distributed. Herb Colby (AMEC) summarized the results. The MW-170 profile sample does not match samples from MW-45 (well within FS-12 plume), diesel or JP-8. The oily material in this sample is similar to a weathered, light to medium weight lubricating oil. The material appears to be the dissolved phase of the same material collected by wipe sample from the drill rods (after drilling of MW-170). However, the material is not similar to any of the drill rig fluids. Mr. Colby recommended that samples to be collected at the water table in the interberm area of J-1 Range (included in scope of J1/3/L Ranges Additional Delineation Workplan #1) be viewed closely during drilling to evaluate the need for additional fingerprinting. Ms. Dolan will review the Additional Workplan #1 and determine if any modifications to the scope are needed based on this information. Ms. Dolan requested additional information on Peter Redman’s (Tetra Tech) report that propellant had been found in the interberm area.
9. Provide Report TNA non-intrusive HE (AMEC). Report distributed.

12. Provide BEHP/Chloroform maps (AMEC). Will be available next week. Also still working on new C-sized inset map for Monthly/IART maps. Todd Borci (EPA) indicated draft map coverage was OK.
13. Provide list showing profile result reversals during validation (AMEC). 2001 year reversals will be available next week. Need to double-check list against validation reports.
14. Provide feedback on EPA's list of well screens for VOC sampling (AMEC). Feedback to be provided next week. EPA requested that VOC samples to be collected in sampling CIAP-2. Todd Borci (EPA) to review other wells downgradient of CS-19 to determine if additional Central Impact Area wells require sampling for VOCs.
16. Provide approval for HUTA2 Backfill (EPA). ACE to provide information on three additional soil stockpiles.
19. Provide dyes toxicity information (AMEC). Information on DDA and DAA provided. CHPMM and Corps are looking into information on additional compounds.
20. Provide schedule for J-2 Range and J1/3L Workplan (AMEC). Sent via email. Looking for feedback on J-2 Schedule. Asking for 4-week extension (Nov 6 to Dec 3) to provide combined J-2 Range Report and Workplan. Ms. Dolan indicated that a 2-week extension would be provided. Mr. Colby pointed out that PCN data has not been received and that the Workplan could not be drafted without this data. EPA requested that this be covered in the text to the cover letter to the revised combined schedule.
21. Provide list and schedule for J Ranges wells/borings to be installed (AMEC). Schedule distributed.
25. Provide J-Range plume map cross-sections (AMEC). Cross-sections distributed.
26. Provide Perchlorate data for Bourne sentry wells (AMEC). Groundwater samples from wells were collected on 10/23-10/24. Results expected by 11/08.

N Range Update

Rob Foti (ACE) provided an update on the 81mm Mortar Disposal Area recently discovered at N Range.

- 1830, 81mm Mortars, inert, fuzed and finless and 1 unfuzed mortar (total 1831) were uncovered at the N Range disposal area. Stenciling on the mortars indicated that the rounds are inert filled and dummy fuzed. The fact that the rounds are finless indicates that they were not buried with an explosive propellant charge.
- Lot numbers found on the rounds are being researched to determine origin. Ben Gregson (IAGWSPO) indicated that the rounds were from the 1970's and may provide useful information for the corrosion study.
- The excavation is 25 feet by 30 feet and 5 feet 4 inches deep (at the deepest point). The mortars and excavated soil have been stockpiled on polyethylene sheeting. Samples have been collected at the base of the excavation and from the surrounding soil. During excavation, updates were provided to select parties two times daily. The excavation has been backfilled and the area demarcated with a snow fence.
- Tetra Tech is preparing to excavate an additional anomaly 10 feet SE of the mortar disposal pit this afternoon, 10/25. A proposal will be submitted to the agencies to further investigate other areas in the adjacent woods at N Range that appear to be disturbed and are associated with lower intensity AirMag anomalies that were not included in the original pick list.

MW-7/MW-80 Perchlorate Detections

- Marc Grant (AMEC) distributed cross-sections of the backward particle tracks from MW-7 and MW-80, which had recent detections of perchlorate.

- The MW-80 backtrack intersects the MW-70 borehole, but does not intercept either of the two well screens. Perchlorate results from MW-70S are nondetect. Samples from this well screen were collected in August.
- The MW-7D backtrack intersects the MW-152 borehole but not any of the well screens and terminates near MW-136. All screens at these wells have been sampled for Perchlorate and there have been no detections.
- Jane Dolan (EPA) indicated that based on the termination of the backtrack from MW-7D at the interberm area on J-1 Range, proposed wells J1P-11, J1P-15 and J1P-4 should be profiled for perchlorate. Mr. Grant pointed out that the perchlorate data rush turn-around time is about 2 weeks, so these results could not be used to set well screens.
- Len Pinaud (MADEP) asked if an anomaly or other feature had been seen at the terminus of the MW-80 backtrack. Heather Sullivan (ACE) to check.
- Data for the Bourne wells should be available in 2 weeks. Tina Dolen (IAGWSPO) discussed sampling with the Bourne Selectman and members of the Senior Management Board. MW-80 and MW-7D were resampled and the results should be available today 10/25. Todd Borci (EPA) requested that this information be forwarded as soon as available.

BA-1 Disposal Area Scope of Work

Ellen Iorio (ACE) indicated that comments were received on the scope of work from MADEP, waiting on comments from EPA.

- No new information was received from Boeing regarding the BOMARC weapons system through an Internet Search or personal contact with a Boeing employee. Official efforts to contact Boeing had not been made. The Corps was planning to proceed with the existing information. Contingency plans have been developed for various situations/items that may be encountered in excavating the material.
- Len Pinaud (MADEP) asked if the Corps was confident that they had sufficient information to move forward. Ellen Iorio (ACE) indicated that the Corps was confident that the Tetra Tech had the appropriate experience to address various situations that might be encountered. The team member's resumes would be included in the Draft Workplan.
- Todd Borci (EPA) indicated that he had minimal comment on the background information/scope of work as long as these two documents were combined in the Draft Workplan. Would take one minute following the Tech meeting to review his comments with Ms. Iorio.

Phase IIb Supplemental Site Investigations

Heather Sullivan (ACE) distributed two schedules for the additional reconnaissance visits at Phase IIb sites.

- First schedule was for site visits to be conducted on consecutive Wednesdays, beginning 10/31. The second schedule was for site visits to be conducted on Wednesdays and Thursday afternoons, also beginning on 10/31 but ending before Thanksgiving. The second schedule had been requested and was preferred by EPA.
- The schedules listed sites to be visited for each day, probable attendees, and dates where Tetra Tech personnel should be included to provide input.
- First site visit to begin 8am, 10/31 meeting at Range Control. Site visits proposed to be conducted all day Wednesday, half day on Thursday.
- ACE to be notified of any requested changes to the schedule.
- Desiree Moyer (EPA) to be added to list of attendees.

J-Range Well Sampling

- Herb Colby (AMEC) presented a table to Jane Dolan (EPA) showing Southeast Ranges area wells, dates sampled, and sampled parameters. The table still had some glitches (extra information).
- Heather Sullivan (ACE) indicated that a revised table would be distributed by email when it was completed.

Draft Combined Schedule

Marc Grant (AMEC) distributed the summary of the Document Status, a table showing the 6 month Document List, and a 3-month Look-Ahead Gantt Chart for IAGWSP activities.

- HUTA1 FS – Mr. Grant inquired if the HUTA1 FS could be eliminated by rolling the UXO component of the HUTA1 FS into the Central Impact Area soil FS. Todd Borci (EPA) indicated that that would be appropriate.
- J-1/3/L Ranges Final Report, AD Workplan #1, AD Workplan #2 – Mr. Grant asked if the Final Workplan #1 Report (similar to the J-1/3/L Draft Report) could be left in draft form and all information could be combined in a Draft Final Report to be completed at the conclusion of the AD Workplan #2 Investigation. In this way there would be a single Final J-1/3/L Range Report that incorporated all the data collected. EPA indicated a single Draft Final Report was acceptable. Todd Borci (EPA) suggested that a scoping meeting be held to agree on the maps to be included prior to drafting the Final report.

Miscellaneous

- Jane Dolan (EPA) asked Ben Gregson (IAGWSPO) if the Guard's attorney had contacted Textron's attorney regarding scheduling an interview with Witness #19. Mr. Gregson responded yes, this contact had been made.
- Ms. Dolan asked that it be documented that the Joint Program Office had declined the EPA's request through the IAGWSPO to provide an update on the Water Supply Project at the Tech meeting. Ms. Dolan requested a copy of the monthly report that is provided to the state. Len Pinaud (MADEP) to investigate getting a copy of the latest report.
- Ms. Dolan asked Dave Hill (IAGWSPO) to provide a copy of USGS' proposal for groundwater age dating for further groundwater model calibration.
- Ms. Dolan asked the ACE if they had any comment regarding the memo she sent on the Demo 1 dyes. Ms. Sullivan indicated that the memo was still being reviewed.
- Gina Tyo (ACE) distributed copies of the last 5 ASR interviews and the revised draft advertisement copy to be submitted to the Military magazines. Len Pinaud (MADEP) indicated that Richard Hugus (Falmouth resident) had requested copies of the interview transcripts at the 10/23 IART meeting. Ms. Dolan will edit interview summaries for references that may lead to identification of the interviewee, to provide for public distribution.

2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turnaround time, typically 1-5 days. Explosive analyses for monitoring wells, and explosive and VOC analyses for groundwater profile samples, are conducted in this timeframe. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 3 summarizes only detects, and does not show samples with non-detects.

The status of the detections with respect to confirmation using Photo Diode Array (PDA) spectra is indicated in Table 3. PDA is a procedure that has been implemented for the explosive analysis, to reduce the likelihood of false positive identifications. Where the PDA status is "YES" in Table 3, the detected compound is verified as properly identified. Where the status is "NO", the identification of an explosive has been determined to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection, or PDA is not applicable because the analyte is a VOC. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

- Groundwater profile samples from boring B-30 (J1 Range) had detections of acetone and chloroform.

3. DELIVERABLES SUBMITTED

Revised Draft IAGWSP Gun and Mortar Firing Positions Report (TM 01-14)	10/26/01
Draft Gun and Mortar Positions Supplemental Work Plan	10/26/01
Weekly Progress Update, October 15 – October 19, 2001	10/26/01

4. SCHEDULED ACTIONS

Scheduled actions for the week of October 29 include installation of OW-1, OW-2 and OW-3 and continued UXO clearance of well pads at the J-1 Range. Background soil sampling will continue.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

An additional downgradient well location (D1P-8) on Pew Road will be drilled this week. The Demo 1 Soil Report is being revised and will be submitted in December. Additional monitoring wells are being scoped to define the downgradient edge of the groundwater plume. EPA comments on the Draft Feasibility Study Report for the Groundwater Operable Unit were received on October 31, 2001.

TABLE 2
 SAMPLING PROGRESS
 10/20/2001-10/26/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
N.F.2.00002.4.0	J2.2.32886.o	10/24/2001	CRATER GRID	5.00	5.25		
0.G.00123.0.T	FIELDQC	10/24/2001	FIELDQC	0.00	0.00		
90MW0054E	FIELDQC	10/24/2001	FIELDQC	0.00	0.00		
97-2E	FIELDQC	10/22/2001	FIELDQC	0.00	0.00		
97-5E	FIELDQC	10/23/2001	FIELDQC	0.00	0.00		
G186DAE	FIELDQC	10/24/2001	FIELDQC	0.00	0.00		
G186DBE	FIELDQC	10/25/2001	FIELDQC	0.00	0.00		
G186DKE	FIELDQC	10/26/2001	FIELDQC	0.00	0.00		
HC146C1AAE	FIELDQC	10/24/2001	FIELDQC	0.00	0.00		
HC149A1AAE	FIELDQC	10/25/2001	FIELDQC	0.00	0.00		
HC151B1AAF	FIELDQC	10/26/2001	FIELDQC	0.00	0.00		
HC46BB1AAE	FIELDQC	10/23/2001	FIELDQC	0.00	0.00		
HD103BG6DAE	FIELDQC	10/22/2001	FIELDQC	0.00	0.00		
HD103BG6DAT	FIELDQC	10/22/2001	FIELDQC	0.00	0.00		
HD149C3AAT	FIELDQC	10/25/2001	FIELDQC	0.00	0.00		
HD46B1DAT	FIELDQC	10/23/2001	FIELDQC	0.00	0.00		
W153M3T	FIELDQC	10/24/2001	FIELDQC	0.00	0.00		
W170M1T	FIELDQC	10/25/2001	FIELDQC	0.00	0.00		
4036000-01G	4036000-01G	10/23/2001	GROUNDWATER			6.00	12.00
4036000-03G	4036000-03G	10/23/2001	GROUNDWATER			6.00	12.00
4036000-04G	4036000-04G	10/23/2001	GROUNDWATER			6.00	12.00
4036000-06G	4036000-06G	10/23/2001	GROUNDWATER			6.00	12.00
97-1	97-1	10/23/2001	GROUNDWATER	62.00	72.00	39.33	49.33
97-2	97-2	10/23/2001	GROUNDWATER	53.00	63.00	29.40	39.40
97-3	97-3	10/23/2001	GROUNDWATER	36.00	46.00	0.00	10.00
97-5	97-5	10/23/2001	GROUNDWATER	76.00	86.00	66.40	76.40
PPAWSPW-1	PPAWSPW-1	10/25/2001	GROUNDWATER	0.00	0.00	158.00	178.00
PPAWSPW-2	PPAWSPW-2	10/25/2001	GROUNDWATER	0.00	0.00	85.00	105.00
USCGANTST	USCGANTST	10/25/2001	GROUNDWATER	0.00	0.00	0.00	0.00
W100M1A	MW-100	10/23/2001	GROUNDWATER	179.00	189.00	45.00	55.00
W100M1D	MW-100	10/23/2001	GROUNDWATER	179.00	189.00	45.00	55.00
W101M1A	MW-101	10/23/2001	GROUNDWATER	158.00	168.00	27.00	37.00
W101SSA	MW-101	10/23/2001	GROUNDWATER	131.00	141.00	0.00	10.00
W105M1A	MW-105	10/22/2001	GROUNDWATER	205.00	215.00	78.00	88.00
W105M2A	MW-105	10/22/2001	GROUNDWATER	165.00	175.00	38.00	48.00
W106M1A	MW-106	10/22/2001	GROUNDWATER	170.50	180.50	38.00	48.00
W107M2A	MW-107	10/22/2001	GROUNDWATER	125.00	135.00	5.00	15.00
W115M1A	MW-115	10/25/2001	GROUNDWATER	138.00	148.00	22.00	32.00
W115M1D	MW-115	10/25/2001	GROUNDWATER	138.00	148.00	22.00	32.00
W115SSA	MW-115	10/25/2001	GROUNDWATER	116.00	126.00	0.00	10.00
W147M1A	MW-147	10/24/2001	GROUNDWATER	167.00	177.00	94.00	104.00
W147M2A	MW-147	10/24/2001	GROUNDWATER	150.00	160.00	77.00	87.00
W147M2A	MW-147	10/25/2001	GROUNDWATER	150.00	160.00	77.00	87.00

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

BWTE = Depth below water table, end depth, measured in feet

TABLE 2
SAMPLING PROGRESS
10/20/2001-10/26/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
W147M3A	MW-147	10/25/2001	GROUNDWATER	82.00	92.00	9.00	19.00
W150SSA	MW-150	10/26/2001	GROUNDWATER	92.50	102.50	0.00	10.00
W151SSA	MW-151	10/26/2001	GROUNDWATER	55.50	65.00	0.00	10.00
W153M1A	MW-153	10/24/2001	GROUNDWATER	199.00	209.00	108.00	118.00
W153M3A	MW-153	10/24/2001	GROUNDWATER	124.00	134.00	33.00	43.00
W153M3D	MW-153	10/24/2001	GROUNDWATER	124.00	134.00	33.00	43.00
W154SSA	MW-154	10/22/2001	GROUNDWATER	98.00	108.00	0.00	10.00
W156SSA	MW-156	10/26/2001	GROUNDWATER	77.00	87.00	0.00	10.00
W167M3A	MW-167	10/26/2001	GROUNDWATER	100.00	110.00	21.00	31.00
W170M1A	MW-170	10/25/2001	GROUNDWATER	265.00	275.00	162.00	172.00
W170M2A	MW-170	10/25/2001	GROUNDWATER	198.00	208.00	95.00	105.00
W170M3A	MW-170	10/25/2001	GROUNDWATER	123.00	133.00	20.00	30.00
W174SSA	MW-174	10/25/2001	GROUNDWATER	190.00	200.00	0.00	10.00
W98M1A	MW-98	10/24/2001	GROUNDWATER	164.00	174.00	26.00	36.00
W98SSA	MW-98	10/24/2001	GROUNDWATER	137.00	147.00	0.00	10.00
W99M1A	MW-99	10/23/2001	GROUNDWATER	195.00	205.00	60.00	70.00
W99SSA	MW-99	10/23/2001	GROUNDWATER	133.00	143.00	0.00	10.00
DW102201	GAC WATER	10/22/2001	IDW	0.00	0.00		
DW102401	GAC WATER	10/24/2001	IDW	0.00	0.00		
HCPPWC10221A	RRA CONTAINMENT	10/22/2001	IDW	0.00	0.00		
HCPPWC10221B	RRA CONTAINMENT	10/22/2001	IDW	0.00	0.00		
G186DAA	MW-186	10/25/2001	PROFILE	130.00	130.00	8.00	8.00
G186DAD	MW-186	10/25/2001	PROFILE	130.00	130.00	8.00	8.00
G186DBA	MW-186	10/24/2001	PROFILE	140.00	140.00	18.00	18.00
G186DBD	MW-186	10/24/2001	PROFILE	140.00	140.00	18.00	18.00
G186DCA	MW-186	10/25/2001	PROFILE	150.00	150.00	28.00	28.00
G186DDA	MW-186	10/25/2001	PROFILE	160.00	160.00	38.00	38.00
G186DEA	MW-186	10/25/2001	PROFILE	170.00	170.00	48.00	48.00
G186DFA	MW-186	10/25/2001	PROFILE	180.00	180.00	58.00	58.00
G186DGA	MW-186	10/25/2001	PROFILE	190.00	190.00	68.00	68.00
G186DHA	MW-186	10/25/2001	PROFILE	200.00	200.00	78.00	78.00
G186DJA	MW-186	10/26/2001	PROFILE	220.00	220.00	98.00	98.00
G186DKA	MW-186	10/26/2001	PROFILE	230.00	230.00	108.00	108.00
G186DLA	MW-186	10/26/2001	PROFILE	240.00	240.00	118.00	118.00
G186DMA	MW-186	10/26/2001	PROFILE	250.00	250.00	128.00	128.00
G186DNA	MW-186	10/26/2001	PROFILE	260.00	260.00	138.00	138.00
G186DOA	MW-186	10/26/2001	PROFILE	270.00	270.00	148.00	148.00
G186DPA	MW-186	10/26/2001	PROFILE	280.00	280.00	158.00	158.00
HC103BG1DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HC103BGA1DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HC145A1AAA	145A	10/25/2001	SOIL GRID	0.00	0.50		
HC146A1AAA	146A	10/24/2001	SOIL GRID	0.00	0.50		
HC146B1AAA	146B	10/24/2001	SOIL GRID	0.00	0.50		
HC146C1AAA	146C	10/24/2001	SOIL GRID	0.00	0.50		

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry

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BWTE = Depth below water table, end depth, measured in feet

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 10/20/2001-10/26/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HC146D1AAA	146D	10/24/2001	SOIL GRID	0.00	0.50		
HC146D1AAD	146D	10/24/2001	SOIL GRID	0.00	0.50		
HC146D1DAD	146D	10/24/2001	SOIL GRID	0.00	0.50		
HC146E1AAA	146E	10/24/2001	SOIL GRID	0.00	0.50		
HC146F1AAA	146F	10/24/2001	SOIL GRID	0.00	0.50		
HC146G1AAA	146G	10/24/2001	SOIL GRID	0.00	0.50		
HC147A1AAA	147A	10/25/2001	SOIL GRID	0.00	0.50		
HC149A1AAA	149A	10/25/2001	SOIL GRID	0.00	0.50		
HC149B1AAA	149B	10/25/2001	SOIL GRID	0.00	0.50		
HC149C1AAA	149C	10/25/2001	SOIL GRID	0.00	0.50		
HC149D1AAA	149D	10/25/2001	SOIL GRID	0.00	0.50		
HC149E1AAA	149E	10/25/2001	SOIL GRID	0.00	0.50		
HC46B1DAA	46B	10/22/2001	SOIL GRID	1.50	2.00		
HC46BA1AAA	46BA	10/23/2001	SOIL GRID	0.00	0.25		
HC46BA1BAA	46BA	10/23/2001	SOIL GRID	0.25	0.50		
HC46BA1CAA	46BA	10/23/2001	SOIL GRID	0.50	1.00		
HC46BB1AAA	46BB	10/23/2001	SOIL GRID	0.00	0.25		
HC46BB1BAA	46BB	10/23/2001	SOIL GRID	0.25	0.50		
HC46BB1CAA	46BB	10/23/2001	SOIL GRID	0.50	1.00		
HC46C1DAA	46C	10/22/2001	SOIL GRID	1.50	2.00		
HC46CA1AAA	46CA	10/23/2001	SOIL GRID	0.00	0.25		
HC46CA1AAD	46CA	10/23/2001	SOIL GRID	0.00	0.25		
HC46CA1BAA	46CA	10/23/2001	SOIL GRID	0.25	0.50		
HC46CA1CAA	46CA	10/23/2001	SOIL GRID	0.50	1.00		
HC46CB1AAA	46CB	10/23/2001	SOIL GRID	0.00	0.25		
HC46CB1BAA	46CB	10/23/2001	SOIL GRID	0.25	0.50		
HC46CB1CAA	46CB	10/23/2001	SOIL GRID	0.50	1.00		
HC46DA1AAA	46DA	10/23/2001	SOIL GRID	0.00	0.25		
HC46DA1BAA	46DA	10/23/2001	SOIL GRID	0.25	0.50		
HC46DA1CAA	46DA	10/23/2001	SOIL GRID	0.50	1.00		
HC46DB1AAA	46DB	10/22/2001	SOIL GRID	0.00	0.25		
HC46DB1AAD	46DB	10/22/2001	SOIL GRID	0.00	0.25		
HC46DB1BAA	46DB	10/22/2001	SOIL GRID	0.25	0.50		
HC46DB1CAA	46DB	10/23/2001	SOIL GRID	0.50	1.00		
HD103BG1DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HD103BG3DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HD103BG5DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HD103BG6DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HD103BG7DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HD103BG8DAA	103BG	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA1DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA1DAD	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA3DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA4DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

BWTE = Depth below water table, end depth, measured in feet

TABLE 2
 SAMPLING PROGRESS
 10/20/2001-10/26/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HD103BGA5DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA5DAD	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA6DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD103BGA7DAA	103BGA	10/22/2001	SOIL GRID	1.50	2.00		
HD146D9AAA	146D	10/24/2001	SOIL GRID	0.00	0.50		
HD149C3AAA	149C	10/25/2001	SOIL GRID	0.00	0.50		
HD149E9AAA	149E	10/25/2001	SOIL GRID	0.00	0.50		
HD46B1DAA	46B	10/22/2001	SOIL GRID	1.50	2.00		
HD46CB2BAA	46CB	10/23/2001	SOIL GRID	0.50	1.00		
HD46DB1CAA	46DB	10/23/2001	SOIL GRID	0.50	1.00		
J2.F.2.32862.1.0	J2.2.32862.O	10/26/2001	SOIL GRID	0.00	0.25		
J2.F.2.32862.2.0	J2.2.32862.O	10/26/2001	SOIL GRID	8.00	8.25		
N.F.2.00001.4.0	J2.2.32886.o	10/24/2001	SOIL GRID	0.00	0.25		

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

BWTE = Depth below water table, end depth, measured in feet

TABLE 3
 DETECTED COMPOUNDS-UNVALIDATED
 SAMPLES COLLECTED 10/6/01-10/26/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
GAB30A	J2P-11	10/10/2001	PROFILE	95.00	95.00	4.30	4.30	OC21V	ACETONE	
GAB30A	J2P-11	10/10/2001	PROFILE	95.00	95.00	4.30	4.30	OC21V	CHLOROFORM	
GAB30D	J2P-11	10/10/2001	PROFILE	95.00	95.00	4.30	4.30	OC21V	ACETONE	
GAB30D	J2P-11	10/10/2001	PROFILE	95.00	95.00	4.30	4.30	OC21V	CHLOROFORM	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BGS

SED = SAMPLE COLLECTION END DEPTH IN FEET BGS

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

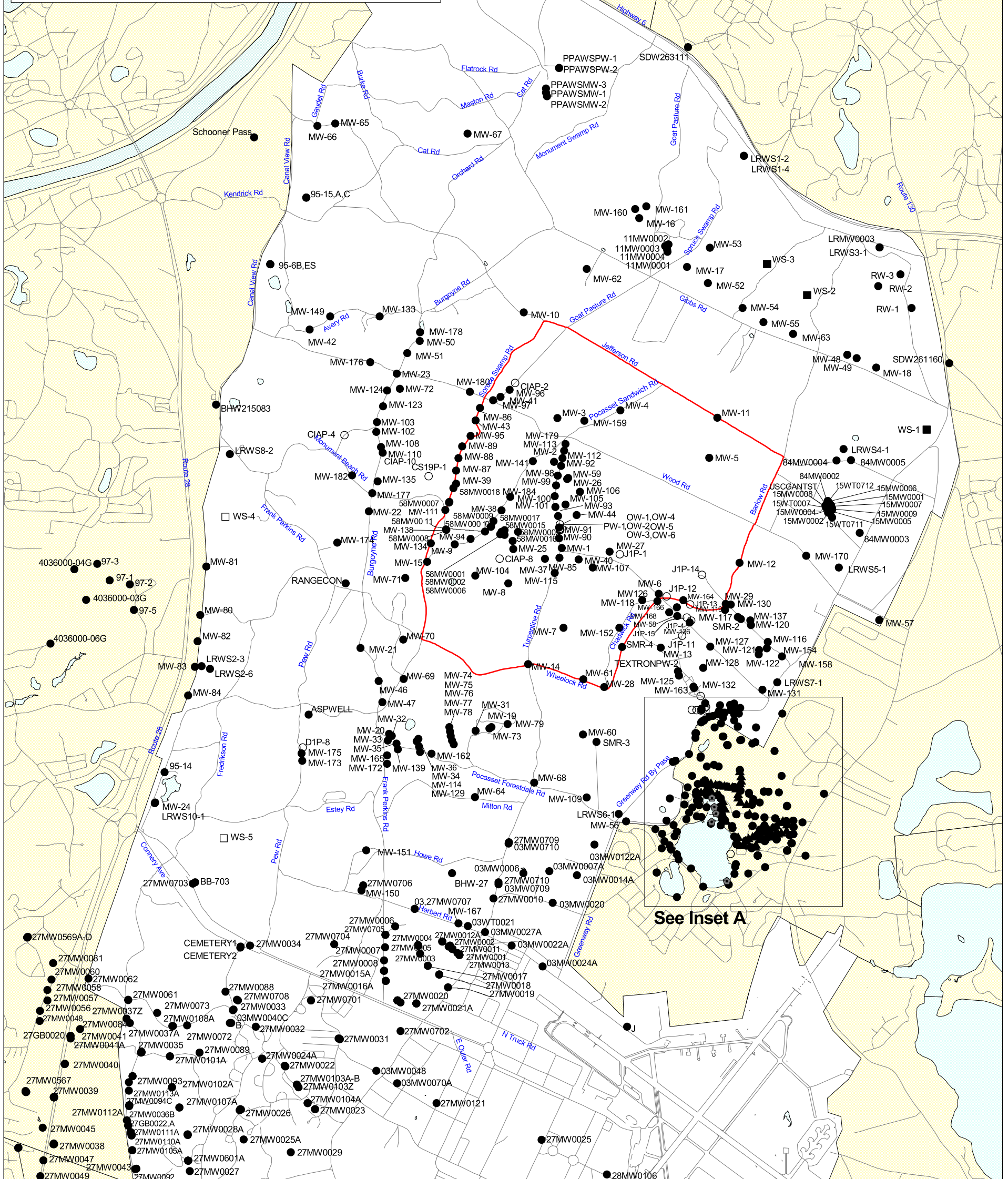
BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

PDA/YES = Photo Diode Array, Detect Confirmed

PDA/NO = Photo Diode Array, Detect Not Confirmed

* = Interference in sample

Groundwater Wells at MMR



See Inset A

LEGEND

- Existing Monitoring Well
- Proposed Monitoring Well
- Existing Supply Well
- Proposed Supply Well

0 2000 4000 6000 Feet

