WEEKLY PROGRESS UPDATE
FOR DECEMBER 31, 2001 – JANUARY 4, 2002

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 December 31, 2001 to January 4, 2002.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of January 4 is summarized in Table 1.

Table 1. Drilling progress as of January 4, 2002

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-193	J-3 Range Well (J3P-12)	85	53	
MW-194	J-3 Range Well (J3P-13)	60	3	
MW-195	J-3 Range Well (J3P-14)	120	85	
MW-196	J-3 Range Well (J3P-15)	140	107	
MW-197	J-3 Range Well (J3P-11)	165	145	
MW-198	J-3 Range Well (J3P-16)	155	135	
MW-200	Central Impact Area Well (CIAP-8)	400	200	

bgs = below ground surface
bwt = below water table

Commence well installation of MW-193 (J3P-12) and MW-195 (J3P-14). Continued drilling MW-200 (CIAP-8). Waiting on water in MW-194 (J3P-13). Well installation of MW-196 (J3P-15), MW-197 (J3P-11), and MW-198 (J3P-16) is scheduled for the next two weeks.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-200. Groundwater samples were collected as part of the December Long Term Groundwater Monitoring round. Water samples were collected from the GAC treatment system.

As part of the Munitions Survey Project pre-detonation and post-detonation soil samples were collected from Transect 5 in the Central Impact Area HUTA2 zone.

The Guard, EPA, and MADEP had a meeting on January 3 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)
Tina Dolen (IAGWSPO)
COL Albert Bleakley (JPO)
Len Pinaud (MADEP)
Heather Sullivan (ACE)
CPT Bill Myer (IAGWSPO)
Karen Wilson (IAGWSPO)
Jane Dolan (EPA)
Mark Panni (MADEP)
Ellen Iorio (ACE)
Dave Hill (IAGWSPO)
Bill Gallagher (IAGWSPO)
Mike Jasinski (EPA)
Darrell Deleppo (ACE)
Gina Tyo (ACE)

Rob Foti (ACE) John McPherson (ACE) Marc Grant (AMEC-phone)
Herbert Colby (AMEC-phone) Kim Harriz (AMEC) Leo Montroy (Tetra Tech-phone)
Susan Stewart (Tetra Tech-phone) Larry Hudgins (Tetra Tech) Ken Gaynor (Jacobs)
Adam Balogh (TRC - phone)

Punchlist Items

#2 Access 90PZ208 (MADEP). Mark Panni (DEP) attempted to contact homeowner, however phone number is not listed. Mr. Panni seeking information on obtaining a notice of responsibility to obtain property access.
#3 Provide comments on PCN and MDL sampling approach (EPA). EPA to provide comment week of 1/10.
#5 Provide recommendation on how to handle remaining lifts for 1200 CY soil (Corps). Corps is evaluating options; this issue will not be resolved in the short term. In the interim, the three soil stockpiles are being/will be maintained.
#9 Provide soil results from ASP (Corps). Results emailed 12/17.
#13 Provide update on interview schedule for Witness #19 (IAGWSPO). Private investigator has attempted to contact Witness #19's attorney. Waiting on a response.
#15 Provide additional comments on MW-181 profile sample RAD analyses (EPA). Agenda item.
#16 Provide comments on AirMag Workplan (EPA/DEP). EPA to provide comments next week. DEP may not comment; Mark Panni to let Darrell Deleppo know,
#17 Provide comments on Dec 10 Letter outlining protocol for use of SIM Method (EPA/DEP). EPA indicated that the approach is OK, but clearer documentation of process to use method is needed. Comments to be provided in letter next week.
#18 Provide comments on Dec 17 LTM Plan (EPA/DEP). Comments received from EPA; agenda item to discuss.
#19 Provide comments on December 10 Letter regarding Perchlorate sampling (EPA/DEP). EPA has no comment on proposal. Written response will be provided next week.
#20 Provide proposal to discontinue surface water testing of Snake Pond (AMEC). Proposal emailed 01/02. Last sampling 12/17/01.
#21 Provide F&T Study Report by the University of Texas (Corps). Report is under review. UT is revising. Goal is to have report finalized to distribute at January IART meeting.
#22 Provide ASR witness summaries (Corps). Summaries to be provided by next week for review by EPA/DEP/Guard.

Munitions Survey Project Update

Rob Foti (Corps) provided an update on the MSP3 and HUTA tasks.

- **HUTA2**. Transect 1 - All initial work is completed. Intrusive investigation of EM61 picks is being finished up. QA survey, sampling of targets, and transect restoration is coming up. Site visit with Karen Wilson (IAGWSPO) is scheduled for 1/11 to review restoration issues. Transect 2 - Initial survey is completed, EM survey was completed on 12/22. Working on dig map. Transect 3 - Initial survey completed, access road has been cleared, 5 BIPS were completed, chipping completed. Surveyors are scheduled to complete the GPS survey of the transect next week. Waiting on EPA approval to continue work. Transect 4 - Initial survey completed. No work is currently being conducted in this area. Surveyors are scheduled for next week. Transect 5 - Final EM61 picks are being made. 3 BIPS are scheduled for Friday (two 81mm Mortar HE and one 37mm projectile TP fuzed). Sampling at target locations, QA survey, and site walk with Karen Wilson are upcoming. Awaiting final Workplan approval prior to continuing fieldwork.
- **AirMag**. No new work. Anticipating comments from EPA on AirMag Workplan, submitted 12/11, next week.

- **BA-1 Disposal Site.** Investigation completed. Waiting on analytical results to backfill. Still pursuing additional information to identify excavated materials.
- **J Range Polygons**. Investigation completed for polygons where no surface soil sampling is required and which are not in areas effected by Sandwich notification. One burial site has been uncovered to date: J-1 Polygon 9 (materials stored in J-2 Range magazine). There is evidence that there are three other burial sites: J-1 Polygons 10 and 14 and J-2 Polygon 4. Next week will be looking at an approach to addressing the burial areas. A site walk will be conducted with the agencies to review other sites. As requested by Jane Dolan (EPA) materials found in J-1 Range Polygons 11, 12, and 13 can be reviewed during the site walk.
- **Scar Site.** Completed site walk scheduled with EPA. Grids were shifted and an updated site map is being prepared that shows location changes. Sampling of Target 49 is being coordinated with AMEC. Scoping meeting set for 1/10.
- **Eastern MSP sites**. Completed site walk scheduled with EPA. Sampling grids were added to investigate trenches observed in old ERI photographs. Awaiting ROA approval. Scoping meeting set for 1/10.
- **U Range.** Completed site walk scheduled with EPA of 3.5-inch rocket area. Have map of investigation area to be discussed in 1/10 scoping meeting.
- **SUMMARY of Action Items:**
  1) EPA to provide final (written) approval if no MOR required to resolve comments on MSP letter reports.
  2) Final MSP reports (inclusive of data) will be submitted to entire IART Team.
  3) Corps to provide comment on MSP scope.
  4) EPA to provide approval of Workplan for HUTA2 next week.

MSP Scope and Workplan Revisions

Ellen Iorio (ACE) distributed a one-page summary of the proposed process for implementing scope changes for the Munitions Survey Project.

- The proposed process includes establishing a scooping meeting for scope changes, time line for contractual process, etc. The Corps would like to get “buy-in” from agencies on the proposed process.
- Comments on proposed process should be provided to Ms. Iorio. Ms. Iorio to revise in accordance with comments and distribute final procedure. Looking for feedback by next week.

Snake Pond Update

Dave Hill (IAGWSPO) provided an update on activities ongoing at Snake Pond.

- Explosives results (unvalidated) for drive point samples collected by the USGS beneath pond were all non-detect. Mr. Hill to forward explosive results to interested parties. Perchlorate results are not yet available.
- Mike Jasinski (EPA) requested that proposal to discontinue surface water sampling at Snake Pond be sent to Dave Williams (DPH).
- AFCEE and DPH have discontinued surface water sampling at Snake Pond for the winter. Last surface water samples collected by AMEC on 12/17/01.

MW-181 Profile Sample

Heather Sullivan (ACE) reviewed status of information on the MW-181 profile sample.

- Todd Borci (EPA) had requested that an alpha spectroscopy and total uranium analysis be performed on remaining fraction of profile sample sent to Ceimic that had the high gross alpha detection. These analyses are being completed and results are due on Wednesday 1/09. Approximately 1.5 liters of another portion of the profile sample is still being stored at the Severn Trent lab in Vermont.

- Update on MW-181 analytical results to be provided 1/10.
- Waiting on this additional data before acting on the Guard's proposal of additional analysis of residual sample volume stored in Vermont.

Additions to LTM Program

Heather Sullivan and Marc Grant (AMEC) reviewed EPA's request for additional monitoring parameters for wells in the LTM Program. Resolution on additions to the LTM program were as follows:

- 116S - Perchlorate to be added to annual sampling in 2002 LTM plan.
- 120S - Guard proposed sampling annually for herbicides. No other detections seen in 3 rounds of sampling. EPA requested that well also be sampled 3X per year for perchlorate, explosives, and dyes. Discussion on how often to sample a well beneath a disposal area ensued, without resolution. Jane Dolan (EPA) to review comments on J-2 Range Workplan and provide final request in follow-up email.
- 130S - 3rd round sampling for dyes will be completed (Feb, same as other dye wells); well then to be considered for future dyes sampling in 2002 LTM plan (May if possible).
- 130M1/130D - Wells never sampled for dyes. Wells to be considered for dyes (based on other dye well results) in 2002 LTM plan (May if possible).
- 136S; 136M1 - Perchlorate to be added for 3 rounds in 2002 LTM plan.
- 131S - Perchlorate to be added for 3 rounds in 2002 LTM plan.
- 90MW0022 - Perchlorate to collected as part of December 2001 LTM round. 4 rounds of data for perchlorate currently available; 2 rounds show detections. This well to be considered for perchlorate analysis in all 3 rounds in 2002 LTM plan.
- 58S - Perchlorate to be included for annual sampling in 2002 LTM plan.
- Jane Dolan to provide email regarding MW-120S and remaining wells as listed in Ms. Sullivan's January 02 email (Subject: EPA Revisions to the LTGM Plan).

IART Agenda/Action Items

Tina Dolen (IAGWSPO) reviewed Action Items for January IART.

1) Request that Other Issues continue to be a regular Agenda item - Item will be added, however Guard requests that team members provide email requests to Ben Gregson/ Tina Dolen by the Wednesday preceding the meeting so that Guard can prepare response or plan for the attendance of appropriate personnel to provide input.
2) Guard to provide update on radioactivity detected at MW-181 and sampling completed in surrounding wells for radioactivity - To be discussed during Investigations Update. Multiple downgradient wells have been analyzed for radioactivity.
3) Is 2,6-DNT detection in MW-84 in the ZOC of the Bourne wells - AMEC preparing a ZOC x-section map for Bourne wells. To be available for Tech Team review by 1/10. To be provided as a handout at January IART meeting.
4) Provide cost and engineering impacts pursuant to Alternative 5 in the Demo 1 FS. - Guard to provide estimate of cost impact. Engineering impacts will be summarized in revised FS.
5) Provide update on the status of wells to be installed between Frank Perkins and Pew Roads. Update to be provided at January IART meeting.
6) Provide review of list of comments that have been made on IART maps. Internal review for Guard on 1/07. Tech team review on 1/10. Agenda item for January IART meeting.
7) Provide UT Fate and Transport Study to MIT representatives. Report is being reviewed/revised for distribution at the January IART meeting.
8) Provide additional information on the Pueblo, Colorado in-situ study. AMEC to provide copy of report.

Miscellaneous

- Jane Dolan (EPA) requested that the Corps provide an update on the Former H Range as an agenda item at the 1/10 Tech meeting. Gina Tyo (ACE) responded that the Guard/Corps do not view the IAGWSP technical meeting as the appropriate forum for this update. The Former H Range is a FUDS project and is administered in accordance with established FUDS Program Protocol. The New England District Corps of Engineers Project Manager and FUDS Program Manager will coordinate with appropriate regulatory agencies for the purpose of providing updates and/or instituting regular meetings. Further, the NGB has requested that the Former H Range not be included on the agenda for regularly scheduled IAGWSP technical meetings.

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 samples from MW-16S (Demo Area 2), MW-43M2 (Central Impact Area), MW90S, M1 (Central Impact Area), and MW-95M1, M2 (Central Impact Area), and MW-135M2 and duplicate (West of Central Impact Area) had detections of RDX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds.

- Groundwater samples from MW-30S (J-3 Range) had a detection of HMX that was confirmed by PDA spectra. The detection was similar to previous sampling rounds.

- Groundwater samples from MW-39M2 (Central Impact Area) and MW85M1 (Central Impact Area) had detections of RDX and HMX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds.

- Groundwater profile samples from MW-200 (CIAP-8) had detections of RDX (1 interval), nitroglycerin (2 intervals), and picric acid (1 interval). The detection of RDX was confirmed by PDA spectra but with interference..

3. DELIVERABLES SUBMITTED

Draft Summary Report – July 2000 UXO Detonations	12/31/01
Weekly Progress Update for December 17 – December 21, 2001	01/04/02
Weekly Progress Update for December 24 – December 28, 2001	01/04/02

4. SCHEDULED ACTIONS

Continue Third Quarter 2001 Long Term Groundwater Monitoring. Complete well installation at MW-193 (J3P-12), MW-195 (J3P-14), and MW-200 (CIAP-8), complete drilling of MW-194 (J3P-13) and commence drilling of CIAP-10. Well installation of MW-196 (J3P-15), MW-197 (J3P-11), and MW-198 (J3P-16) is scheduled for the next two weeks.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

Discussions are ongoing regarding the approach to finalize the Groundwater Feasibility Study. Responses to EPA and MADEP comments on the Draft Feasibility Study for the Groundwater Operable Unit were submitted on December 10th. A comment resolution meeting is scheduled for January 10, 2002. The Draft Post-Screening Investigation Work Plan for the Demo 1 Soil Operable Unit was submitted on January 9, 2002 and includes additional surface soil sampling and investigation of geophysical anomalies.

TABLE 2
SAMPLING PROGRESS
12/29/2001-01/04/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
T5.A.BB.013.1.0	T5.BB.013.R	01/04/2002	CRATER GRID	1.75	2.00		
T5.A.BB.013.2.0	T5.BB.013.R	01/04/2002	CRATER GRID	1.75	2.00		
T5.A.BB.013.3.0	T5.BB.013.R	01/04/2002	CRATER GRID	1.75	2.00		
T5.A.EE.012.1.0	T5.EE.012.R	01/04/2002	CRATER GRID	1.50	1.75		
T5.A.EE.012.2.0	T5.EE.012.R	01/04/2002	CRATER GRID	1.50	1.75		
T5.A.EE.012.3.0	T5.EE.012.R	01/04/2002	CRATER GRID	1.50	1.75		
T5.A.KK.012.1.0	T5.KK.012.R	01/04/2002	CRATER GRID	0.25	0.50		
T5.A.KK.012.2.0	T5.KK.012.R	01/04/2002	CRATER GRID	0.25	0.50		
T5.A.KK.012.3.0	T5.KK.012.R	01/04/2002	CRATER GRID	0.25	0.25		
G200DUE	FIELDQC	01/04/2002	FIELDQC	0.00	0.00		
27MW0031B	27MW0031B	01/03/2002	GROUNDWATER				
W31DDA	MW-31	01/04/2002	GROUNDWATER	133.00	138.00	48.00	53.00
W31MMA	MW-31	01/04/2002	GROUNDWATER	113.00	123.00	28.00	38.00
W31SSA	MW-31	01/04/2002	GROUNDWATER	98.00	103.00	13.00	18.00
W70SSA	MW-70	01/02/2002	GROUNDWATER	132.00	142.00	4.00	14.00
W74M1A	MW-74	01/03/2002	GROUNDWATER	170.00	180.00	76.00	86.00
W74M2A	MW-74	01/03/2002	GROUNDWATER	124.50	134.50	31.00	41.00
W74M3A	MW-74	01/03/2002	GROUNDWATER	100.00	110.00	6.00	16.00
W75M1A	MW-75	01/04/2002	GROUNDWATER	140.00	150.00	59.00	69.00
W75SSA	MW-75	01/03/2002	GROUNDWATER	81.00	91.00	0.00	10.00
DW010202	GAC WATER	01/02/2002	IDW	0.00	0.00		
G200DOA	MW-200	01/03/2002	PROFILE	340.00	340.00	140.40	140.40
G200DPA	MW-200	01/03/2002	PROFILE	350.00	350.00	150.40	150.40
G200DQA	MW-200	01/03/2002	PROFILE	360.00	360.00	160.40	160.40
G200DRA	MW-200	01/03/2002	PROFILE	370.00	370.00	170.40	170.40
G200DSA	MW-200	01/03/2002	PROFILE	380.00	380.00	180.40	180.40
G200DTA	MW-200	01/03/2002	PROFILE	390.00	390.00	190.40	190.40
G200DUA	MW-200	01/03/2002	PROFILE	400.00	400.00	200.40	200.40

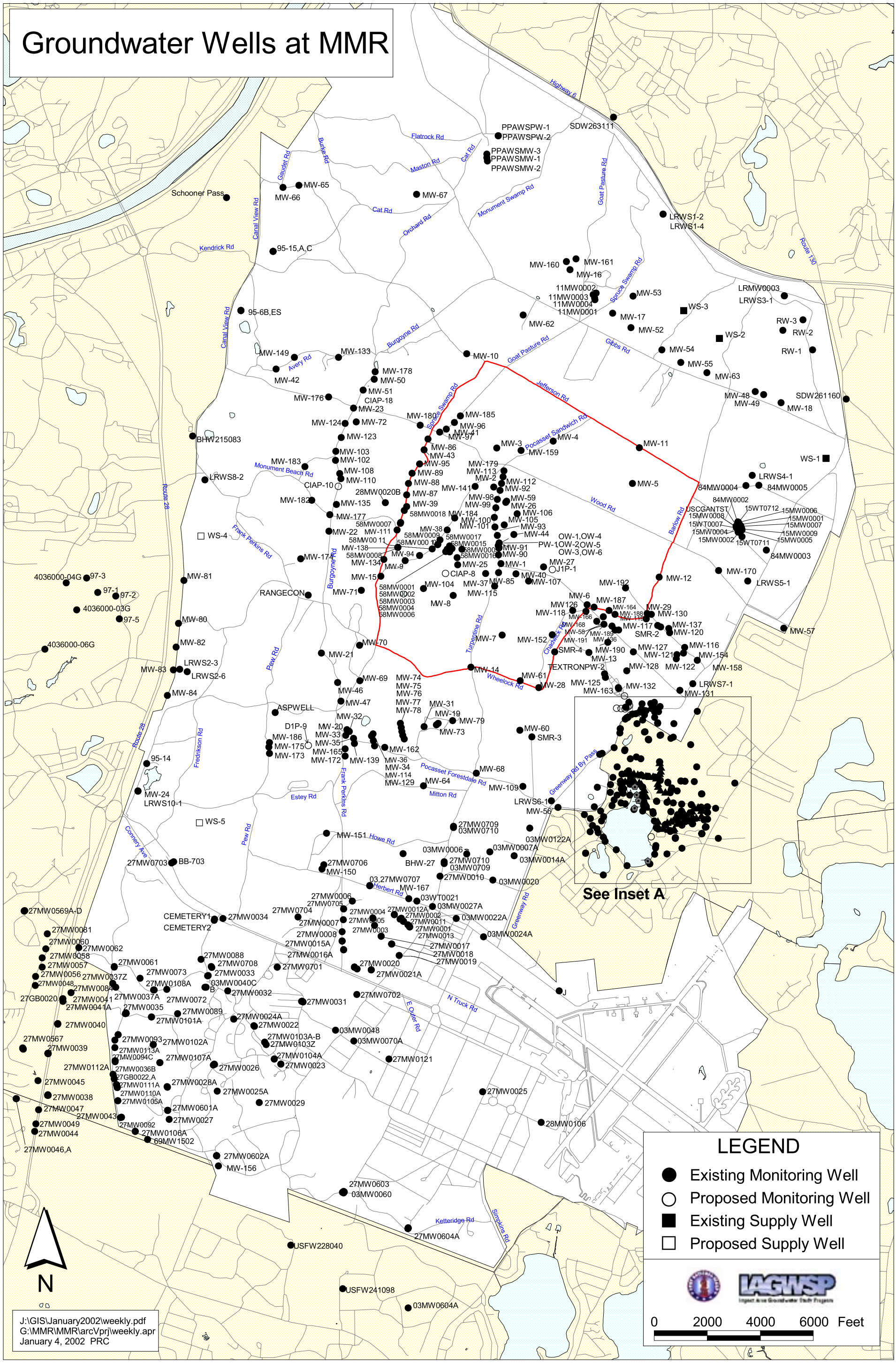
Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
SBD = Sample Begin Depth, measured in feet bgs
SED = Sample End Depth, measured in feet bgs
BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

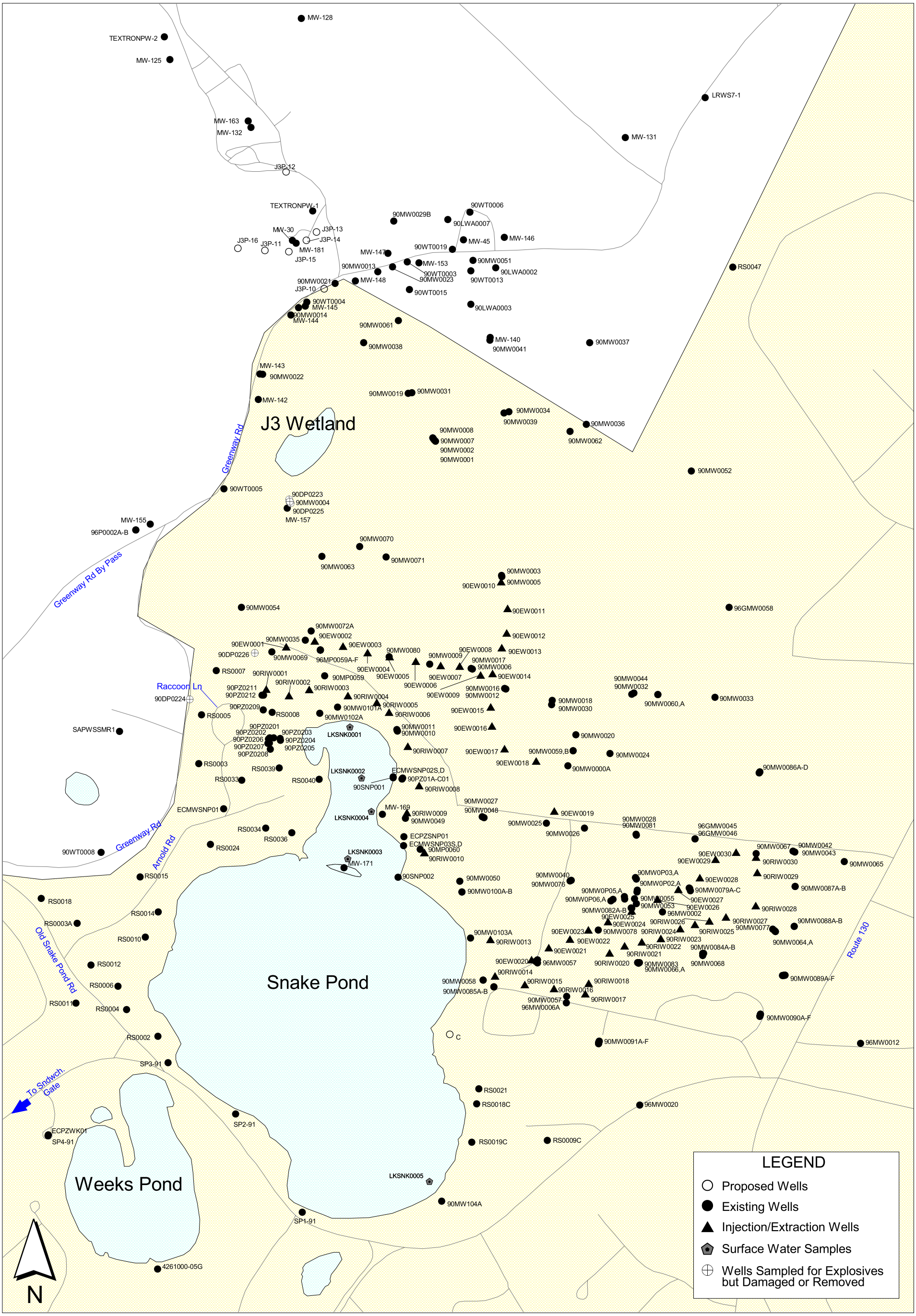
TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 12/29/01 - 01/04/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W135M2A	MW-135	12/18/2001	GROUNDWATER	280.00	290.00	94.00	104.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W135M2D	MW-135	12/18/2001	GROUNDWATER	280.00	290.00	94.00	104.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W16SSA	MW-16	12/18/2001	GROUNDWATER	125.00	135.00	0.00	10.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W30SSA	MW-30	12/19/2001	GROUNDWATER	26.00	36.00	0.00	10.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W39M2A	MW-39	12/15/2001	GROUNDWATER	175.00	185.00	39.00	49.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W39M2A	MW-39	12/15/2001	GROUNDWATER	175.00	185.00	39.00	49.00	8330NX	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W43M2A	MW-43	12/15/2001	GROUNDWATER	200.00	210.00	67.00	77.00	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W85M1A	MW-85	12/15/2001	GROUNDWATER	137.50	145.50	22.00	32.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W85M1A	MW-85	12/15/2001	GROUNDWATER	137.50	145.50	22.00	32.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W90M1A	MW-90	12/16/2001	GROUNDWATER	145.00	155.00	27.00	37.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W90SSA	MW-90	12/16/2001	GROUNDWATER	118.00	128.00	0.00	10.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W95M1A	MW-95	12/15/2001	GROUNDWATER	202.00	212.00	78.00	88.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W95M2A	MW-95	12/15/2001	GROUNDWATER	167.00	177.00	43.00	53.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G200DRA	MW-200	01/03/2002	PROFILE	370.00	370.00	170.40	170.40	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES*
G200DRA	MW-200	01/03/2002	PROFILE	370.00	370.00	170.40	170.40	8330N	NITROGLYCERIN	NO
G200DRA	MW-200	01/03/2002	PROFILE	370.00	370.00	170.40	170.40	8330N	PICRIC ACID	NO
G200DTA	MW-200	01/03/2002	PROFILE	390.00	390.00	190.40	190.40	8330N	NITROGLYCERIN	NO

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





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