

**WEEKLY PROGRESS UPDATE
FOR NOVEMBER 19 – NOVEMBER 23, 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 November 19 to November 23, 2001.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of November 23 is summarized in Table 1.

Table 1. Drilling progress as of November 23, 2001				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-187	J-1 Range Well (J1P-12)	320	214	104-114, 160-170, 306-316
MW-189	J-1 Range Well (J1P-4)	305	211	94-104
MW-190	J-1 Range Well (J1P-11)	301	201	
MW-191	J-1 Range Well (J1P-15)	318	209	
MW-192	J-1 Range Well (J1P-14)	110		
PW-1	Central Impact Area Pump Test Well	208	79	166-206
bgs = below ground surface bwt = below water table				

Completed well installation of MW-187 (J-1 Range), MW-189 (J-1 Range) and PW-1 (Pump Test Well). Completed drilling of MW-190 (J-1 Range) and MW-191 (J-1 Range). Commenced drilling of MW-192 (J-1 Range). Well development continued for newly installed Central Impact Area wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from well MW-191 (J1P-15). Groundwater samples were collected from newly installed observation wells. Soil samples were collected for resampling of herbicide analysis from grids at Demo Area 2 and Tank Alley.

The Guard, EPA, and MADEP did not convene a meeting of the IAGWSP Technical Team this week due to the Thanksgiving holiday.

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-181S (J-3 Range) had a detection of HMX that was not confirmed by PDA spectra but with interference. This is the first time this well has been sampled. HMX was detected in a profile sample from this borehole.
- Groundwater samples from MW-2M2 (Central Impact Area) and OW-6 (Observation Well) had detections of RDX and HMX that were confirmed by PDA spectra. The detections for well MW-2M2 were similar to previous sampling rounds. This is the first time this well has been sampled.
- Groundwater samples from OW-1 (Observation Well) had detections of 4A-DNT, RDX, and HMX that were confirmed by PDA spectra. This is the first time this well has been sampled.
- Groundwater samples from OW-2 (Observation Well) had a detection of RDX that was confirmed by PDA spectra. This is the first time this well has been sampled.
- Soil samples from A10220102A had detections of 2A-DNT and 4A-DNT that were confirmed by PDA spectra.

3. DELIVERABLES SUBMITTED

No deliverables were submitted for the week ending November 23,2001.

4. SCHEDULED ACTIONS

Commence Third Quarter 2001 Long Term Groundwater Monitoring. Complete Central Impact Area herbicide resampling. Complete Demo Area 1 polychlorinated naphthalene, dye, and perchlorate sampling. Complete well installation of MW-190 (J1P-11) and MW-191 (J1P-15). Continue drilling of MW-192 (J1P-14), MW-194 (J3P-13), and MW-196 (J3P-15) and commence drilling of MW-199 (CIAP-8).

5. SUMMARY OF ACTIVITIES FOR DEMO 1

The Demo 1 Soil Report is being revised and will be submitted in December. The next monitoring well (D1P-9) will be located approximately 600 feet west of Frank Perkins Road at the projected centerline of the plume. Additional monitoring well locations will be identified based on results of the first location. Responses to EPA comments on the Draft Feasibility Study for the Groundwater Operable Unit are being prepared.

TABLE 2
 SAMPLING PROGRESS
 11/17/2001-11/23/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
G191DCE	FIELDQC	11/19/2001	FIELDQC	0.00	0.00		
G191DCT	FIELDQC	11/19/2001	FIELDQC	0.00	0.00		
G191DRE	FIELDQC	11/20/2001	FIELDQC	0.00	0.00		
G191DRT	FIELDQC	11/20/2001	FIELDQC	0.00	0.00		
HC04H1AAE	FIELDQC	11/19/2001	FIELDQC	0.00	0.00		
W02DDA	MW-2	11/19/2001	GROUNDWATER	355.00	360.00	218.00	223.00
W02M1A	MW-2	11/19/2001	GROUNDWATER	212.00	217.00	75.00	80.00
W02M2A	MW-2	11/19/2001	GROUNDWATER	170.00	175.00	33.00	38.00
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20
G191DCA	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20
G191DCD	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20
G191DDA	MW-191	11/19/2001	PROFILE	140.00	140.00	31.20	31.20
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20
G191DFA	MW-191	11/19/2001	PROFILE	160.00	160.00	51.20	51.20
G191DGA	MW-191	11/19/2001	PROFILE	170.00	170.00	61.20	61.20
G191DHA	MW-191	11/19/2001	PROFILE	180.00	180.00	71.20	71.20
G191DIA	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20
G191DID	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20
G191DJA	MW-191	11/20/2001	PROFILE	200.00	200.00	91.20	91.20
G191DKA	MW-191	11/20/2001	PROFILE	210.00	210.00	101.20	101.20
G191DLA	MW-191	11/20/2001	PROFILE	220.00	220.00	111.20	111.20
G191DMA	MW-191	11/20/2001	PROFILE	230.00	230.00	121.20	121.20
G191DNA	MW-191	11/20/2001	PROFILE	240.00	240.00	131.20	131.20
G191DOA	MW-191	11/20/2001	PROFILE	250.00	250.00	141.20	141.20
G191DPA	MW-191	11/20/2001	PROFILE	260.00	260.00	151.20	151.20
G191DPD	MW-191	11/20/2001	PROFILE	260.00	260.00	151.20	151.20
G191DQA	MW-191	11/20/2001	PROFILE	270.00	270.00	161.20	161.20
G191DRA	MW-191	11/20/2001	PROFILE	280.00	280.00	171.20	171.20
G191DSA	MW-191	11/20/2001	PROFILE	290.00	290.00	181.20	181.20
G191DTA	MW-191	11/20/2001	PROFILE	300.00	300.00	191.20	191.20
G191DUA	MW-191	11/20/2001	PROFILE	310.00	310.00	201.20	201.20
G191DVA	MW-191	11/20/2001	PROFILE	318.00	318.00	209.20	209.20
B13IBA	13I	11/19/2001	SOIL GRID	1.50	2.00		
HC04H1AAD	04H	11/19/2001	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 11/3/01-11/23/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W02M2A	MW-2	11/19/2001	GROUNDWATER	170.00	175.00	33.00	38.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES
W02M2A	MW-2	11/19/2001	GROUNDWATER	170.00	175.00	33.00	38.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
WOW-1A	OW-1A	11/15/2001	GROUNDWATER	126.00	136.00	0.70	10.70	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
WOW-1A	OW-1A	11/15/2001	GROUNDWATER	126.00	136.00	0.70	10.70	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES
WOW-1A	OW-1A	11/15/2001	GROUNDWATER	126.00	136.00	0.70	10.70	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
WOW-2A	OW-2A	11/14/2001	GROUNDWATER	175.00	185.00	48.78	58.78	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES
WOW-6A	OW-6A	11/14/2001	GROUNDWATER	175.00	185.00	46.80	56.80	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES
WOW-6A	OW-6A	11/14/2001	GROUNDWATER	175.00	185.00	46.80	56.80	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	8330N	1,3-DINITROBENZENE	NO
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	8330N	4-NITROTOLUENE	NO
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES*
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	8330N	NITROGLYCERIN	NO
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	8330N	PICRIC ACID	NO
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	OC21V	ACETONE	
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	OC21V	BENZENE	
G191DBA	MW-191	11/19/2001	PROFILE	120.00	120.00	11.20	11.20	OC21V	METHYL ETHYL KETONE (2-BUT)	
G191DCA	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	3-NITROTOLUENE	NO
G191DCA	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	4-NITROTOLUENE	NO
G191DCA	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES*
G191DCA	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	NITROGLYCERIN	NO
G191DCA	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
G191DCD	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	1,3,5-TRINITROBENZENE	YES*
G191DCD	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES
G191DCD	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	NITROGLYCERIN	NO
G191DCD	MW-191	11/19/2001	PROFILE	130.00	130.00	21.20	21.20	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
G191DDA	MW-191	11/19/2001	PROFILE	140.00	140.00	31.20	31.20	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-	YES
G191DDA	MW-191	11/19/2001	PROFILE	140.00	140.00	31.20	31.20	8330N	NITROGLYCERIN	NO
G191DDA	MW-191	11/19/2001	PROFILE	140.00	140.00	31.20	31.20	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-	YES
G191DDA	MW-191	11/19/2001	PROFILE	140.00	140.00	31.20	31.20	OC21V	ACETONE	
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	8330N	1,3,5-TRINITROBENZENE	YES*
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	8330N	1,3-DINITROBENZENE	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

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SAMPLES COLLECTED 11/3/01-11/23/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	8330N	3-NITROTOLUENE	NO
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	8330N	4-NITROTOLUENE	NO
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	8330N	NITROGLYCERIN	NO
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	OC21V	ACETONE	
G191DEA	MW-191	11/19/2001	PROFILE	150.00	150.00	41.20	41.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DGA	MW-191	11/19/2001	PROFILE	170.00	170.00	61.20	61.20	8330N	NITROGLYCERIN	NO
G191DIA	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20	8330N	NITROGLYCERIN	NO
G191DIA	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20	OC21V	ACETONE	
G191DID	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20	8330N	1,3-DINITROBENZENE	NO
G191DID	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20	8330N	NITROGLYCERIN	NO
G191DID	MW-191	11/20/2001	PROFILE	190.00	190.00	81.20	81.20	OC21V	ACETONE	
G191DJA	MW-191	11/20/2001	PROFILE	200.00	200.00	91.20	91.20	OC21V	ACETONE	
G191DJA	MW-191	11/20/2001	PROFILE	200.00	200.00	91.20	91.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DKA	MW-191	11/20/2001	PROFILE	210.00	210.00	101.20	101.20	8330N	NITROGLYCERIN	NO
G191DKA	MW-191	11/20/2001	PROFILE	210.00	210.00	101.20	101.20	OC21V	ACETONE	
G191DKA	MW-191	11/20/2001	PROFILE	210.00	210.00	101.20	101.20	OC21V	CHLOROFORM	
G191DKA	MW-191	11/20/2001	PROFILE	210.00	210.00	101.20	101.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DLA	MW-191	11/20/2001	PROFILE	220.00	220.00	111.20	111.20	OC21V	CHLOROFORM	
G191DMA	MW-191	11/20/2001	PROFILE	230.00	230.00	121.20	121.20	OC21V	CHLOROFORM	
G191DNA	MW-191	11/20/2001	PROFILE	240.00	240.00	131.20	131.20	OC21V	CHLOROFORM	
G191DNA	MW-191	11/20/2001	PROFILE	240.00	240.00	131.20	131.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DOA	MW-191	11/20/2001	PROFILE	250.00	250.00	141.20	141.20	OC21V	ACETONE	
G191DOA	MW-191	11/20/2001	PROFILE	250.00	250.00	141.20	141.20	OC21V	CHLOROFORM	
G191DOA	MW-191	11/20/2001	PROFILE	250.00	250.00	141.20	141.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DPA	MW-191	11/20/2001	PROFILE	260.00	260.00	151.20	151.20	OC21V	CHLOROFORM	
G191DPA	MW-191	11/20/2001	PROFILE	260.00	260.00	151.20	151.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DPD	MW-191	11/20/2001	PROFILE	260.00	260.00	151.20	151.20	OC21V	CHLOROFORM	
G191DPD	MW-191	11/20/2001	PROFILE	260.00	260.00	151.20	151.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DRA	MW-191	11/20/2001	PROFILE	280.00	280.00	171.20	171.20	OC21V	METHYL ETHYL KETONE (2-BUT	
G191DSA	MW-191	11/20/2001	PROFILE	290.00	290.00	181.20	181.20	8330N	NITROGLYCERIN	NO
G191DSA	MW-191	11/20/2001	PROFILE	290.00	290.00	181.20	181.20	OC21V	ACETONE	
G191DSA	MW-191	11/20/2001	PROFILE	290.00	290.00	181.20	181.20	OC21V	METHYL ETHYL KETONE (2-BUT	

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TABLE 3
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SAMPLES COLLECTED 11/3/01-11/23/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G191DTA	MW-191	11/20/2001	PROFILE	300.00	300.00	191.20	191.20	OC21V	ACETONE	
G191DTA	MW-191	11/20/2001	PROFILE	300.00	300.00	191.20	191.20	OC21V	CHLOROFORM	
G191DUA	MW-191	11/20/2001	PROFILE	310.00	310.00	201.20	201.20	OC21V	ACETONE	
G191DVA	MW-191	11/20/2001	PROFILE	318.00	318.00	209.20	209.20	8330N	NITROGLYCERIN	NO
G191DVA	MW-191	11/20/2001	PROFILE	318.00	318.00	209.20	209.20	OC21V	ACETONE	
G191DVA	MW-191	11/20/2001	PROFILE	318.00	318.00	209.20	209.20	OC21V	METHYL ETHYL KETONE (2-BUT	
GAB31AAA	B-31	11/08/2001	PROFILE	112.00	112.00	2.80	2.80	8330N	2,6-DINITROTOLUENE	YES*
GAB31AAA	B-31	11/08/2001	PROFILE	112.00	112.00	2.80	2.80	8330N	NITROGLYCERIN	NO
GAB31AAA	B-31	11/08/2001	PROFILE	112.00	112.00	2.80	2.80	8330N	PICRIC ACID	NO
GAB31BAA	B-31	11/08/2001	PROFILE	121.00	121.00	11.80	11.80	8330N	NITROGLYCERIN	NO
GAB31BAA	B-31	11/08/2001	PROFILE	121.00	121.00	11.80	11.80	8330N	PICRIC ACID	NO
GAB32AAA	B-32	11/16/2001	PROFILE	114.00	114.00	5.00	5.00	8330N	NITROGLYCERIN	NO
GAB32AAA	B-32	11/16/2001	PROFILE	114.00	114.00	5.00	5.00	OC21V	ACETONE	
GAB32AAA	B-32	11/16/2001	PROFILE	114.00	114.00	5.00	5.00	OC21V	CARBON DISULFIDE	
GAB32BAA	B-32	11/16/2001	PROFILE	122.00	122.00	13.00	13.00	8330N	NITROGLYCERIN	NO
GAB32BAA	B-32	11/16/2001	PROFILE	122.00	122.00	13.00	13.00	OC21V	ACETONE	
HCA10220102AA	A10220102A	11/15/2001	SOIL GRID	0.00	0.25			8330N	2-AMINO-4,6-DINITROTOLUENE	YES
HCA10220102AA	A10220102A	11/15/2001	SOIL GRID	0.00	0.25			8330N	4-AMINO-2,6-DINITROTOLUENE	YES

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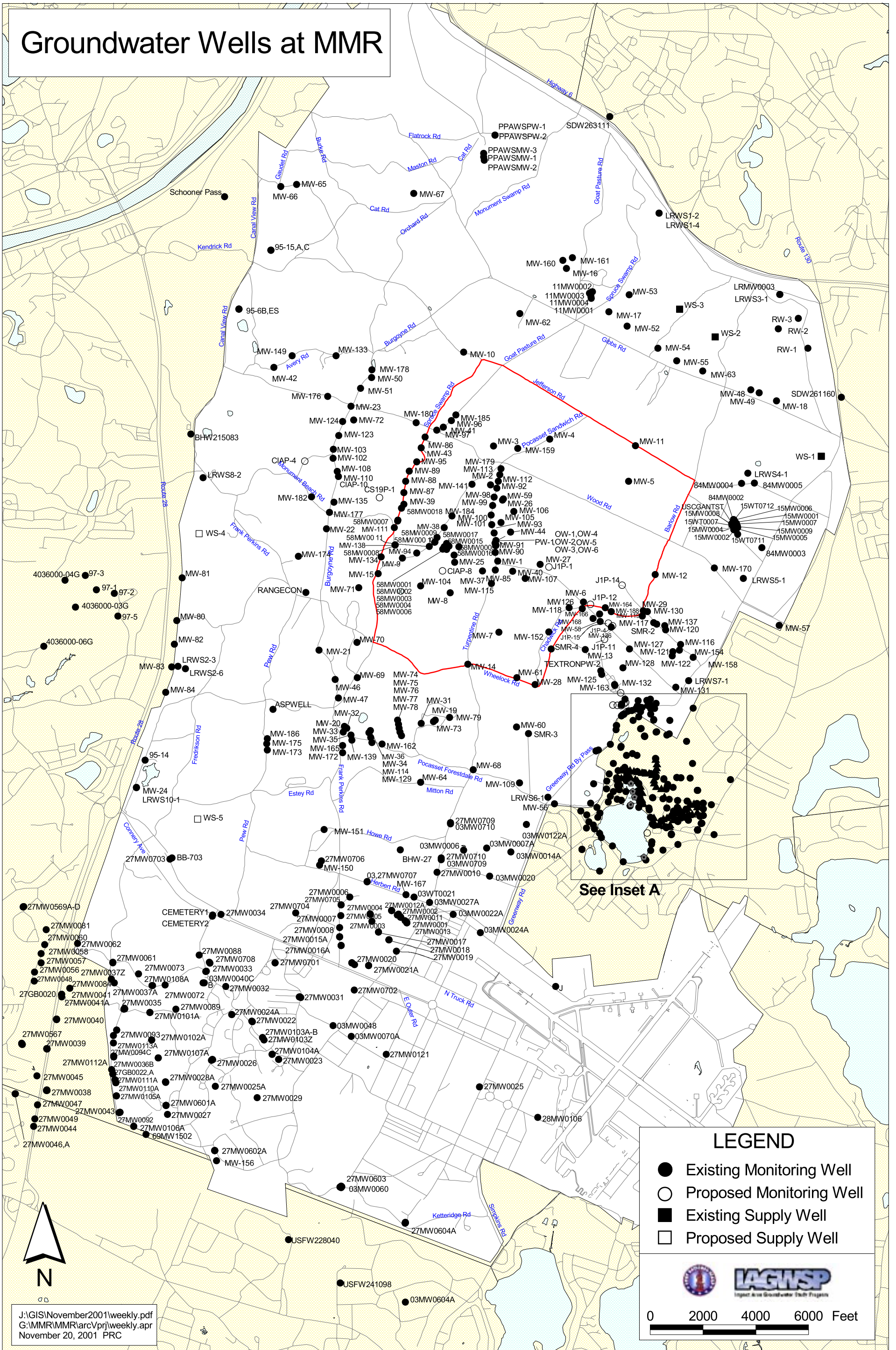
BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

PDA/YES = Photo Diode Array, Detect Confirmed

PDA/NO = Photo Diode Array, Detect Not Confirmed

* = Interference in sample


Groundwater Wells at MMR



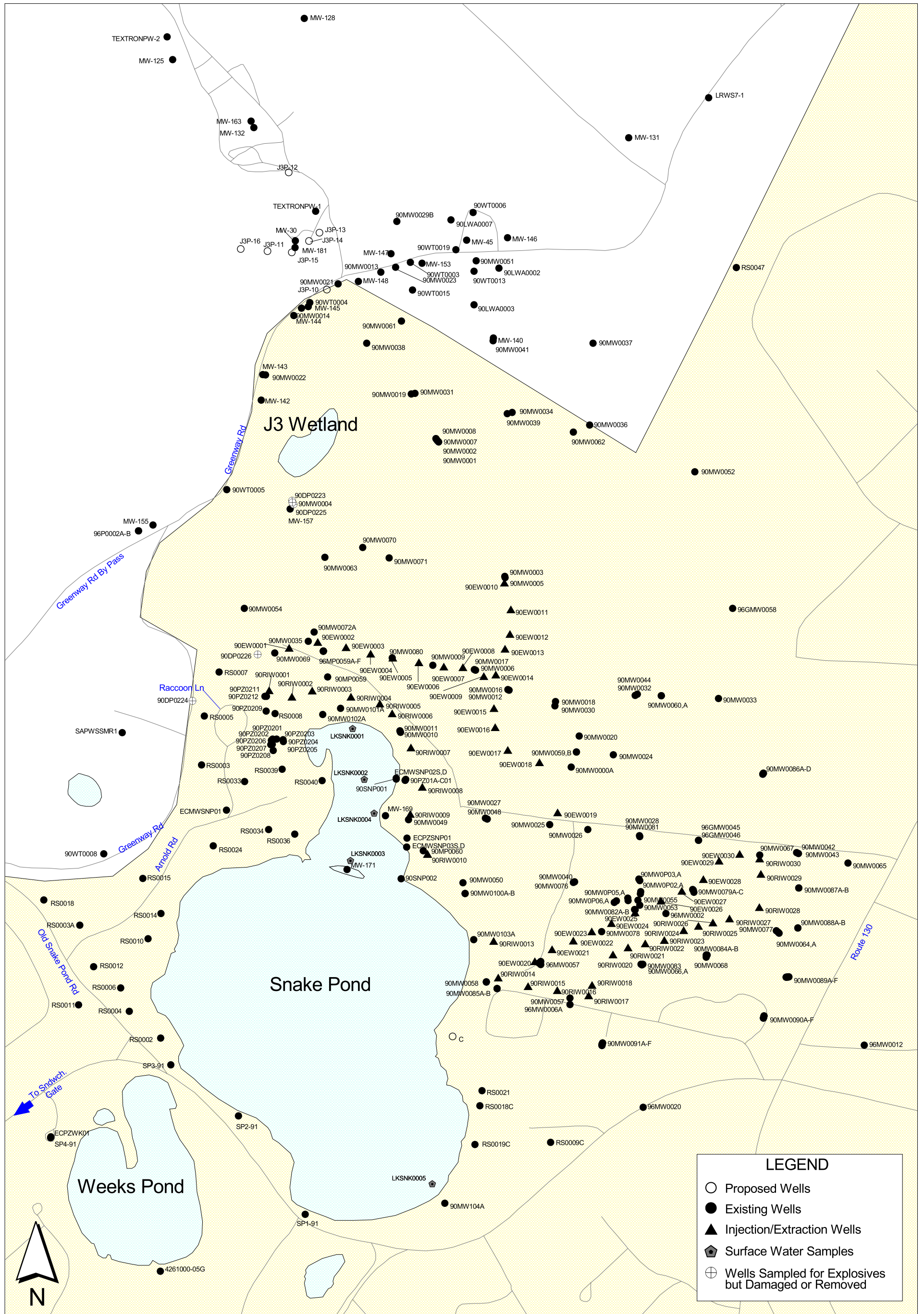
J:\GIS\November2001\weekly.pdf
 G:\MMR\MMR\arc\vrj\weekly.apr
 November 20, 2001 PRC

LEGEND

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



0 2000 4000 6000 Feet



LEGEND

- Proposed Wells
- Existing Wells
- ▲ Injection/Extraction Wells
- ⊠ Surface Water Samples
- ⊕ Wells Sampled for Explosives but Damaged or Removed

0 600 1200 Feet

Inset A

