WEEKLY PROGRESS UPDATE
FOR MAY 29 – JUNE 2, 2000

EPA REGION I ADMINISTRATIVE ORDER SDWA I-97-1019
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from May 29 to June 2, 2000.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of June 2 is summarized in Table 1.

Table 1. Drilling progress as of June 2, 2000

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-103	Impact Area Response Well (P-17)	310	166	143-143 182-192 298-308
MW-105	Impact Area Response Well (P-19)	210	80	
MW-106	Impact Area Response Well (P-18)	220	85	
MW-107	Impact Area Response Well (P-20)	52		

bgs = below ground surface
bwt = below water table

Drilling was completed on MW-105 (P-19) and MW-106 (P-18). Wells were constructed on MW-103 (P-17). Drilling commenced on MW-107 (P-20). The development of newly installed wells continued.

Samples collected during the reporting period are summarized in Table 2. Groundwater sampling continued for Long Term Monitoring wells and Impact Area Response wells. Profile samples were collected during drilling at the borings for MW-105 and MW-106. Deep soil samples were collected during drilling at the borings for MW-106 and MW-107. Soil samples were collected from grids in Demo 2 around the artillery simulator detonation craters.

The Guard, EPA, and MADEP had a meeting on June 1 to discuss technical issues, including the following:

- There was no CS-19 investigation update. Jacobs indicated by e-mail that they continue to work on the CS-19 report.

- There was no Water Supply Investigation update. The Guard indicated that rifle grenades may have been located at the Site 4 location.

- Tetra Tech presented an update of the munitions survey investigation. Continue with the geophysical survey on the ponds. Donnely Pond is the only pond left but they are still having noise problems. They will remobilize to this pond on 6/12. The slit trench geophysical survey should start June 16th. The land surveyors are laying out the standardization area for the aerial geophysical survey at the intersection of Jefferson Road and Barlow Road. After the land survey is done then the geophysical survey will be done before they demobilize. The aerial survey should occur the week of the 12th and

19th and will cover the entire impact area. Tetra Tech indicated that vehicle traffic in the impact area will have to be minimized during the survey to avoid moving anomalies. EPA asked about the status of the contract award. Tetra Tech indicated that they have made a recommendation to the Guard and are awaiting an answer. DEP asked what type of instrument the aerial survey will use. Tetra Tech indicated that they will use a HM3 cesium vapor magnetometer. EPA asked the status of the clearing of the J-Ranges. Tetra Tech indicated that areas for clearing in the J-2 range have been selected but still need to determine the J-1 and J-3 areas. A map of J-2 will be provided next week. EPA asked if the radiological survey was going to be performed. Tetra Tech indicated that it had been put on the back burner. EPA requested that the radiological survey be set as a high priority. The DEP asked the time frame for the radiological survey. Tetra Tech said that they would get a plan for the radiological survey to the Guard next week.

- Ogden presented an update of the Rapid Response Action. The redline revision of the work plan will be delivered to the Agencies on June 13th. The final FSP was sent out yesterday. Soil sampling is complete and waiting for data. Should be able to determine the grids that will require removal by June 9th. Collection of the samples for the treatability study should be done on the 14th. Ogden will prepare the J-3 Wetland NOI for the Sandwich Conservation Commission for delivery by June 13th. EPA asked the status of the responsiveness summary. Ogden indicated that they would get it to EPA.

- Ogden presented an update of the Groundwater Investigation. The drilling of MW-105 (P-19) and MW-106 (P-18) should be completed today and will need to select screens on Monday. Continue to drill on MW-107 (P-20). Continue to collect groundwater samples from the LTM wells and Impact Area Response wells. EPA asked if the May LTM round included perchlorate sampling. Ogden indicated that the perchlorate sampling is proposed as a one time event scheduled for the August round. EPA asked Ogden to provide documentation of the perchlorate sampling schedule. EPA requested that Ogden check to see if any perchlorate samples have been collected and when the results well be received and if the perchlorate sampling can be moved up to the May sampling round. Ogden indicated that the EPA issue with metals and SVOCs for the 2000 sampling needs to be resolved. EPA suggested that MW-19S needs SVOC and metals and the other wells could be addressed in the annual sampling. DEP asked when the Impact Area response wells sampling will be completed. Ogden indicated that they should be finished by the end of June.

- A handout of the Atlantic Research response to the 104e request was distributed. EPA asked the status of a Susquehanna 104e request. Ogden indicated that a web search was performed for Susquehanna and National Fireworks with no results. EPA asked for an update of DEP's search of National Fireworks. DEP indicated that they believe that they ran into a legal dead end but will check with the personnel performing the search.

- An update of the 8321/CHPPM sampling was given. Three profile samples and four monitoring wells samples were collected. The last sample was collected this week and the results are due in approximately one month.

- DEP asked for the status of the CDC. The Guard indicated that the chamber is scheduled to arrive on June 12th and the demonstration of the chamber will be held in Demo 2 on June 14th. The EPA asked for a itinerary and facts sheet for the demonstration. EPA stated that they were concerned that Demo 2 is a site under investigation and that the Demo 2 BIP report suggests that the explosives detected in the crater samples were already in the soil before the detonation. EPA does not want the area disturbed until the investigation is complete. EPA asked if it was possible to collect some soil samples in the area by tomorrow and get results by next week. Ogden indicated that it would be possible to collect the samples and get results by next week. EPA suggested a meeting after the Technical Meeting to select sampling locations.

- The resolution of the Phase IIb comments were discussed:

  EPA General Comment #3 - EPA suggested that the Berm Maintenance activity and the current SAR investigations should not be used to represent historic ranges because of the difference in the use and duration of service. EPA does not want the investigations broken up into propellant investigations and berm investigations. EPA suggested these investigations might warrant a higher priority.

  EPA General Comment #5 - EPA indicated that the priorities need to be adjusted and that the schedule is too long. It was suggested that the reconnaissance be completed by mid July and that the FSP(s) be completed by the end of August. EPA also asked about the status of the IBC Range which is under the Training Ranges investigation. Ogden indicated that FSP will be ready in 2 weeks.

  EPA Specific Comment #47 - EPA indicated that one of the cleared areas is in the vicinity of the HUTA and they do not want the area disturbed before the samples are collected. Ogden will coordinate with Tetra Tech.

  EPA General Comment #10 - EPA suggested getting more years of aerial photo coverage. Ogden indicated that they don't have the list of aerial photo coverage. EPA will provide the list and Ogden will coordinate with Tetra Tech who has the additional photos.

  EPA Specific Comment #31 - The former H Range fan overlaps the J-3 Range. EPA originally suggested that this be investigated under the Phase IIb but now would like it as part of the J Range investigation. EPA does not agree that the targets were in the Impact Area, and noted the short range of the 2.36" rockets. Additional information was provided on this in the Textron submittal.

  EPA Specific Comment #36 - Can not compare to the SAR Phase IIa or Berm Maintaince investigations because of the different uses.

  EPA Specific Comment #40 - The wells proposed at the Anti-Tank Gravity Range should be drilled deeper to help with the Impact Area Investigation.

  EPA Specific Comment #42 - EPA asked if this work was going to be done before the geophysics. Ogden stated that they thought that the geophysics would be further along but that they could collect the surface soil samples before the geophysics. EPA indicated the last 2 sentences of the paragraph should be deleted.

  EPA Specific Comment #52 - EPA suggested that there are numerous IRP wells around the former ASP and they should be sampled this summer to get some preliminary data. EPA also suggested that this location be moved up in the priority list.

  EPA Specific Comment #53 - Same as #52

  DEP Specific Comment #6, 8, and 10 - DEP suggested reevaluating the depth of drilling (see EPA Specific Comment #40)

- The resolution of the Supplemental Phase IIb comments were discussed:

  EPA General Comment #1 - Same as Phase IIb.

EPA Specific Comment #5 - EPA indicated that the ASR shows that HE was fired from that location.

EPA Specific Comment # 20 - EPA requested that more information on the extent of use be added.

DEP Comment # 1 - DEP would like clarification on why no work is proposed in Area B-7.

- Ogden requested that the J-1/J-3 Range downgradient response be included as part of the J-1/J-3 investigations. EPA and DEP agreed.

- EPA asked the status of a revised schedule because the schedule distributed last week had the EPA comment column empty for SAR and RRA FSP's. Ogden will provide an updated schedule. EPA indicated that their comments on the J1/J3/L Range Workplan and on the Interim Results Report would be provided next week, and comments on the background report (TM 99-5) would be provided the week after that.

- EPA commented regarding the supplemental Central Impact Area well plan that they expected it to include a well 200 feet south of the original P-21 (now the P-22) location. The Guard requested a letter documenting the comment. The schedule for additional well installation (after the supplemental wells) remains to be discussed with the Guard.

- Ogden distributed the draft FSP for Tank Alley and Turpentine Road Targets.

- EPA asked if the Guard had received a response from Raytheon on the 104e request. Ogden indicated that Raytheon requested and received a 30-day extension. A second request was sent on May 15th. EPA asked what the deadline was in the second request. Ogden did not have the letter but would look into it. EPA and DEP asked Ogden to prepare a matrix of all the contractors from the 104e requests by Monday. EPA also asked the status of the search for data from Picatinny.

- EPA asked the status of the revised BIP notification proposal. The Guard has not received any guidance from the DDESB but would like to get proposal by the end of the week.

- The DEP distributed a handout of an email from someone who has been riding their horse in the training range.

- The schedule for the following weeks was discussed:
  June 8th - Tech meeting, possible J-3 site walk, additional Phase IIb reconnaissance.
  June 14th - JPAT, CDC demonstration, possible additional Phase IIb reconnaissance.
  June 15th - Tech Meeting, possible additional Phase IIb reconnaissance.
  June 19th - SMB meeting
  June 22nd - helicopter recon, Tech Meeting, possible additional Phase IIb reconnaissance.

- EPA requested the status of the Central Impact Area groundwater results. Ogden indicated that results for MW-90, MW-91, and MW-92 have been received and will provide an updated table of results.

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:

- The groundwater samples from MW-19S had detections of RDX, HMX, TNT, 2-amino-4,6-dinitrotoluene (2A-DNT), and 4-amino-2,6-dinitrotoluene (4A-DNT) that were verified by PDA spectra. Previous sampling of this well had similar explosive detections.

- The groundwater samples from MW-50M1 had detections of RDX and 4A-DNT that were verified by PDA spectra. Previous sampling of this well had similar explosive detections.

- The groundwater samples from MW-85M1, MW-88M2, and MW-91M1 had detections of RDX and HMX that were verified by PDA spectra. This is the first round of sampling for these Impact Area response wells.

- The groundwater sample from MW-98S had a detection of 4A-DNT that was verified by PDA spectra. This is the first round of sampling for this Impact Area response well.

- The groundwater profile samples from MW-105 had detections of 2,6-DNT (2 intervals), picric acid (2 intervals), RDX (5 intervals), HMX (1 interval), and nitroglycerin (1 interval). The RDX and HMX were verified by PDA spectra.

- The groundwater profile samples from MW-106 had detections of 2,6-DNT (5 intervals), picric acid (5 intervals), PETN (9 intervals), 3-nitrotoluene (2 intervals), and 4-nitrotoluene (2 intervals). None of the explosives detected were verified by PDA spectra.

- The KD Range Rapid Response Action soil samples had detections of dieldrin (6 grids) and endrin ketone (2 grids).

3. DELIVERABLES SUBMITTED

The following deliverables were submitted during the reporting period.

Draft FSP for Turpentine Road and Tank Alley Targets	05/31/00
Final Rapid Response Action FSP	05/31/00

4. SCHEDULED ACTIONS

Scheduled actions for the week of June 5 include the construction of monitoring wells at MW-105 and MW-106; continued drilling and well construction of MW-107 (P-20); and the continued groundwater sampling of the Impact Area response wells and Long Term Monitoring wells.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

The geophysical data for Demo 1 are being processed for evaluation of anomalies. Preparation of the draft technical memorandum for the Demo 1 response actions is underway. The draft FS Workplan for AO3 (including Demo 1) is under review by the regulatory agencies and other stakeholders.

TABLE 2
SAMPLING PROGRESS
5/29/00-6/3/00

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
90MW0041E	FIELDQC	05/29/2000	FIELDQC	0.00	0.00		
90WT0013-E	FIELDQC	06/02/2000	FIELDQC	0.00	0.00		
G105DAE	FIELDQC	05/30/2000	FIELDQC	0.00	0.00		
G105DGE	FIELDQC	05/31/2000	FIELDQC	0.00	0.00		
G106DEE	FIELDQC	06/01/2000	FIELDQC	0.00	0.00		
HC13K1AAE	FIELDQC	06/02/2000	FIELDQC	0.00	0.00		
S106DDE	FIELDQC	05/30/2000	FIELDQC	0.00	0.00		
S106DLE	FIELDQC	05/31/2000	FIELDQC	0.00	0.00		
S107DAE	FIELDQC	06/01/2000	FIELDQC	0.00	0.00		
S107DAT	FIELDQC	06/01/2000	FIELDQC	0.00	0.00		
S107DDE	FIELDQC	06/02/2000	FIELDQC	0.00	0.00		
W43M2T	FIELDQC	05/31/2000	FIELDQC	0.00	0.00		
W45SST	FIELDQC	05/29/2000	FIELDQC	0.00	0.00		
W53DDT	FIELDQC	06/01/2000	FIELDQC	0.00	0.00		
W55M1T	FIELDQC	06/03/2000	FIELDQC	0.00	0.00		
W94M2T	FIELDQC	05/30/2000	FIELDQC	0.00	0.00		
90MW0022	90MW0022	05/29/2000	GROUNDWATER	115.50	120.50	76.29	81.29
90MW0041	90MW0041	05/29/2000	GROUNDWATER	127.00	133.00	34.21	40.21
90MW0041D	90MW0041	05/29/2000	GROUNDWATER	127.00	133.00	34.21	40.21
90MW0054	90MW0054	05/30/2000	GROUNDWATER				
90MW0070	90MW0070	06/02/2000	GROUNDWATER			-55.67	-55.67
90PZ0204	90PZ0204	05/30/2000	GROUNDWATER				
90WT0013	90WT0013	06/02/2000	GROUNDWATER	115.00	125.00	19.14	29.14
90WT0019	90WT0019	06/02/2000	GROUNDWATER	96.00	106.00	-0.48	9.52
W01SSA	MW-01	05/31/2000	GROUNDWATER	114.00	124.00	-5.95	4.05
W02DDA	MW-02	06/01/2000	GROUNDWATER	355.00	360.00	212.93	217.93
W02SSA	MW-02	06/02/2000	GROUNDWATER	137.00	147.00	-5.05	4.95
W16SSA	MW-16	05/31/2000	GROUNDWATER	125.00	135.00	-10.01	-0.01
W21SSA	MW-21	05/30/2000	GROUNDWATER	164.00	174.00	-10.78	-0.78
W25SSA	MW-25	05/31/2000	GROUNDWATER	108.00	118.00	-5.75	4.25
W25SSD	MW-25	05/31/2000	GROUNDWATER	108.00	118.00	-5.75	4.25
W26SSA	MW-26	05/30/2000	GROUNDWATER	129.00	139.00	-6.35	3.65
W27SSA	MW-27	05/30/2000	GROUNDWATER	117.00	127.00	-5.87	4.13
W28SSA	MW-28	06/01/2000	GROUNDWATER	95.00	105.00	-5.88	4.12
W29SSA	MW-29	06/01/2000	GROUNDWATER	98.50	108.50	-6.85	3.15
W41M1A	MW-41	05/31/2000	GROUNDWATER	235.00	245.00	105.05	115.05
W43M1A	MW-43	05/31/2000	GROUNDWATER	223.00	233.00	86.20	96.20
W43M2A	MW-43	05/31/2000	GROUNDWATER	200.00	210.00	63.39	73.39
W45SSA	MW-45	05/29/2000	GROUNDWATER	89.00	99.00	-5.21	4.79
W47M1A	MW-47	05/30/2000	GROUNDWATER	169.00	179.00	68.81	78.81
W47M1D	MW-47	05/30/2000	GROUNDWATER	169.00	179.00	68.81	78.81
W47M2A	MW-47	05/30/2000	GROUNDWATER	131.50	141.50	31.09	41.09
W47M2D	MW-47	05/30/2000	GROUNDWATER	131.50	141.50	31.09	41.09
W47M3A	MW-47	05/31/2000	GROUNDWATER	115.00	120.00	14.75	19.75

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
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TABLE 2
SAMPLING PROGRESS
5/29/00-6/3/00

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
W51DDA	MW-51	06/01/2000	GROUNDWATER	264.00	274.00	115.38	125.38
W51M1A	MW-51	06/01/2000	GROUNDWATER	234.00	244.00	85.46	95.46
W51M3A	MW-51	06/01/2000	GROUNDWATER	173.00	183.00	24.53	34.53
W53DDA	MW-53	06/01/2000	GROUNDWATER	283.00	293.00	153.08	163.08
W53M1A	MW-53	06/01/2000	GROUNDWATER	224.00	234.00	96.25	106.25
W54DDA	MW-54	06/03/2000	GROUNDWATER	278.00	288.00	124.32	134.32
W54M1A	MW-54	06/03/2000	GROUNDWATER	230.00	240.00	76.35	86.35
W54M2A	MW-54	06/03/2000	GROUNDWATER	210.00	220.00	56.27	66.27
W54M2D	MW-54	06/03/2000	GROUNDWATER	210.00	220.00	56.27	66.27
W55DDA	MW-55	06/01/2000	GROUNDWATER	255.00	265.00	116.32	126.32
W55M1A	MW-55	06/03/2000	GROUNDWATER	225.00	235.00	86.33	96.33
W55M2A	MW-55	06/01/2000	GROUNDWATER				
W59M1A	MW-59	06/01/2000	GROUNDWATER	165.00	170.00	28.73	33.73
W59M2A	MW-59	06/01/2000	GROUNDWATER	150.00	160.00	13.72	23.72
W73SSA	MW-73	06/02/2000	GROUNDWATER	39.00	49.00	-4.00	6.00
W85SSA	MW-85	05/30/2000	GROUNDWATER	116.00	126.00	-3.15	6.85
W94M2A	MW-94	05/30/2000	GROUNDWATER	140.00	150.00	14.04	24.04
DW0602	GAC WATER	06/02/2000	IDW				
G105DAA	MW-105	05/30/2000	PROFILE	130.00	130.00	0.00	0.00
G105DAD	MW-105	05/30/2000	PROFILE	130.00	130.00	0.00	0.00
G105DBA	MW-105	05/30/2000	PROFILE	140.00	140.00	10.00	10.00
G105DCA	MW-105	05/30/2000	PROFILE	150.00	150.00	20.00	20.00
G105DDA	MW-105	05/30/2000	PROFILE	160.00	160.00	30.00	30.00
G105DDD	MW-105	05/30/2000	PROFILE	160.00	160.00	30.00	30.00
G105DEA	MW-105	05/30/2000	PROFILE	170.00	170.00	40.00	40.00
G105DFA	MW-105	05/30/2000	PROFILE	180.00	180.00	50.00	50.00
G105DGA	MW-105	05/31/2000	PROFILE	190.00	190.00	60.00	60.00
G105DHA	MW-105	06/01/2000	PROFILE	200.00	200.00	70.00	70.00
G105DIA	MW-105	06/01/2000	PROFILE	210.00	210.00	80.00	80.00
G106DAA	MW-106	05/31/2000	PROFILE	140.00	140.00	4.60	4.60
G106DBA	MW-106	05/31/2000	PROFILE	150.00	150.00	14.60	14.60
G106DBD	MW-106	05/31/2000	PROFILE	150.00	150.00	14.60	14.60
G106DCA	MW-106	05/31/2000	PROFILE	160.00	160.00	24.60	24.60
G106DDA	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60
G106DDD	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60
G106DEA	MW-106	06/01/2000	PROFILE	180.00	180.00	44.60	44.60
G106DFA	MW-106	06/01/2000	PROFILE	190.00	190.00	54.60	54.60
G106DGA	MW-106	06/01/2000	PROFILE	200.00	200.00	64.60	64.60
G106DHA	MW-106	06/01/2000	PROFILE	210.00	210.00	74.60	74.60
G106DIA	MW-106	06/01/2000	PROFILE	220.00	220.00	84.60	84.60
S106DDA	MW-106	05/30/2000	SOIL BORING	20.00	22.00		
S106DEA	MW-106	05/30/2000	SOIL BORING	30.00	32.00		
S106DFA	MW-106	05/30/2000	SOIL BORING	40.00	42.00		
S106DGA	MW-106	05/30/2000	SOIL BORING	50.00	52.00		

Profiling methods include: Volatiles and Explosives
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SAMPLING PROGRESS
5/29/00-6/3/00

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S106DGD	MW-106	05/30/2000	SOIL BORING	50.00	52.00		
S106DHA	MW-106	05/30/2000	SOIL BORING	60.00	62.00		
S106DIA	MW-106	05/30/2000	SOIL BORING	70.00	72.00		
S106DJA	MW-106	05/30/2000	SOIL BORING	80.00	82.00		
S106DKA	MW-106	05/30/2000	SOIL BORING	90.00	92.00		
S106DLA	MW-106	05/31/2000	SOIL BORING	100.00	102.00		
S106DMA	MW-106	05/31/2000	SOIL BORING	110.00	112.00		
S106DMD	MW-106	05/31/2000	SOIL BORING	110.00	112.00		
S106DNA	MW-106	05/31/2000	SOIL BORING	120.00	122.00		
S106DOA	MW-106	05/31/2000	SOIL BORING	130.00	132.00		
S106DPA	MW-106	05/31/2000	SOIL BORING	140.00	142.00		
S107DCA	MW-107	06/01/2000	SOIL BORING	10.00	12.00		
S107DDA	MW-107	06/02/2000	SOIL BORING	20.00	22.00		
S107DEA	MW-107	06/02/2000	SOIL BORING	30.00	33.00		
S107DFA	MW-107	06/02/2000	SOIL BORING	40.00	42.00		
S107DGA	MW-107	06/02/2000	SOIL BORING	50.00	52.00		
S107DGD	MW-107	06/02/2000	SOIL BORING	50.00	52.00		
HC13K1AAA	13K	06/02/2000	SOIL GRID	0.00	0.50		
HC13K1AAD	13K	06/02/2000	SOIL GRID	0.00	0.50		
HC13K1BAA	13K	06/02/2000	SOIL GRID	0.50	1.00		
HC13K1BAD	13K	06/02/2000	SOIL GRID	0.50	1.00		
HC13L1AAA	13L	06/02/2000	SOIL GRID	0.00	0.50		
HC13L1BAA	13L	06/02/2000	SOIL GRID	0.50	1.00		
HC13M1AAA	13M	06/02/2000	SOIL GRID	0.00	0.50		
HC13M1BAA	13M	06/02/2000	SOIL GRID	0.50	1.00		
HC13N1AAA	13N	06/02/2000	SOIL GRID	0.00	0.50		
HC13N1BAA	13N	06/02/2000	SOIL GRID	0.50	1.00		
HC13O1AAA	13O	06/02/2000	SOIL GRID	0.00	0.50		
HC13O1BAA	13O	06/02/2000	SOIL GRID	0.50	1.00		
HC13P1AAA	13P	06/02/2000	SOIL GRID	0.00	0.50		
HC13P1BAA	13P	06/02/2000	SOIL GRID	0.50	1.00		
HC13Q1AAA	13Q	06/02/2000	SOIL GRID	0.00	0.50		
HC13Q1BAA	13Q	06/02/2000	SOIL GRID	0.50	1.00		
HC13R1AAA	13R	06/02/2000	SOIL GRID	0.00	0.50		
HC13R1BAA	13R	06/02/2000	SOIL GRID	0.50	1.00		

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 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 5/29/00-6/2/00

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W19SSA	MW-19	05/23/2000	GROUNDWATER	38.00	48.00	-6.91	3.09	8330N	2,4,6-TRINITROTOLUENE	YES
W19SSA	MW-19	05/23/2000	GROUNDWATER	38.00	48.00	-6.91	3.09	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
W19SSA	MW-19	05/23/2000	GROUNDWATER	38.00	48.00	-6.91	3.09	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
W19SSA	MW-19	05/23/2000	GROUNDWATER	38.00	48.00	-6.91	3.09	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W19SSA	MW-19	05/23/2000	GROUNDWATER	38.00	48.00	-6.91	3.09	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W50M1A	MW-50	05/15/2000	GROUNDWATER	207.00	217.00	86.07	96.07	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
W50M1A	MW-50	05/15/2000	GROUNDWATER	207.00	217.00	86.07	96.07	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W85M1A	MW-85	05/22/2000	GROUNDWATER	137.50	147.50	18.39	28.39	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W85M1A	MW-85	05/22/2000	GROUNDWATER	137.50	147.50	18.39	28.39	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W88M2A	MW-88	05/24/2000	GROUNDWATER	213.00	223.00	69.60	79.60	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W88M2A	MW-88	05/24/2000	GROUNDWATER	213.00	223.00	69.60	79.60	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W91M1A	MW-91	05/22/2000	GROUNDWATER	170.00	180.00	43.37	53.37	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W91M1A	MW-91	05/22/2000	GROUNDWATER	170.00	180.00	43.37	53.37	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W98SSA	MW-98	05/24/2000	GROUNDWATER	137.00	147.00	-2.05	7.95	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
G105DAA	MW-105	05/30/2000	PROFILE	130.00	130.00	0.00	0.00	8330N	2,6-DINITROTOLUENE	NO
G105DAA	MW-105	05/30/2000	PROFILE	130.00	130.00	0.00	0.00	8330N	PICRIC ACID	NO
G105DAD	MW-105	05/30/2000	PROFILE	130.00	130.00	0.00	0.00	8330N	2,6-DINITROTOLUENE	NO
G105DAD	MW-105	05/30/2000	PROFILE	130.00	130.00	0.00	0.00	8330N	PICRIC ACID	NO
G105DDA	MW-105	05/30/2000	PROFILE	160.00	160.00	30.00	30.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G105DDD	MW-105	05/30/2000	PROFILE	160.00	160.00	30.00	30.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G105DEA	MW-105	05/30/2000	PROFILE	170.00	170.00	40.00	40.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G105DEA	MW-105	05/30/2000	PROFILE	170.00	170.00	40.00	40.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
G105DFA	MW-105	05/30/2000	PROFILE	180.00	180.00	50.00	50.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G105DHA	MW-105	06/01/2000	PROFILE	200.00	200.00	70.00	70.00	8330N	2,6-DINITROTOLUENE	NO
G105DHA	MW-105	06/01/2000	PROFILE	200.00	200.00	70.00	70.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G105DHA	MW-105	06/01/2000	PROFILE	200.00	200.00	70.00	70.00	8330N	NITROGLYCERIN	NO
G105DHA	MW-105	06/01/2000	PROFILE	200.00	200.00	70.00	70.00	8330N	PICRIC ACID	NO
G105DIA	MW-105	06/01/2000	PROFILE	210.00	210.00	80.00	80.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G106DAA	MW-106	05/31/2000	PROFILE	140.00	140.00	4.60	4.60	8330N	PENTAERYTHRITOL TETRANITR	NO
G106DBA	MW-106	05/31/2000	PROFILE	150.00	150.00	14.60	14.60	8330N	2,6-DINITROTOLUENE	NO
G106DBA	MW-106	05/31/2000	PROFILE	150.00	150.00	14.60	14.60	8330N	PENTAERYTHRITOL TETRANITR	NO
G106DBD	MW-106	05/31/2000	PROFILE	150.00	150.00	14.60	14.60	8330N	PENTAERYTHRITOL TETRANITR	NO
G106DCA	MW-106	05/31/2000	PROFILE	160.00	160.00	24.60	24.60	8330N	2,6-DINITROTOLUENE	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

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 5/29/00-6/2/00

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G106DCA	MW-106	05/31/2000	PROFILE	160.00	160.00	24.60	24.60	8330N	PENTAERYTHRITOL TETRANITF	NO
G106DDA	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60	8330N	3-NITROTOLUENE	NO
G106DDA	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60	8330N	4-NITROTOLUENE	NO
G106DDA	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60	8330N	PENTAERYTHRITOL TETRANITF	NO
G106DDD	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60	8330N	2,6-DINITROTOLUENE	NO
G106DDD	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60	8330N	PENTAERYTHRITOL TETRANITF	NO
G106DDD	MW-106	05/31/2000	PROFILE	170.00	170.00	34.60	34.60	8330N	PICRIC ACID	NO
G106DEA	MW-106	06/01/2000	PROFILE	180.00	180.00	44.60	44.60	8330N	2,6-DINITROTOLUENE	NO
G106DEA	MW-106	06/01/2000	PROFILE	180.00	180.00	44.60	44.60	8330N	3-NITROTOLUENE	NO
G106DEA	MW-106	06/01/2000	PROFILE	180.00	180.00	44.60	44.60	8330N	4-NITROTOLUENE	NO
G106DEA	MW-106	06/01/2000	PROFILE	180.00	180.00	44.60	44.60	8330N	PENTAERYTHRITOL TETRANITF	NO
G106DEA	MW-106	06/01/2000	PROFILE	180.00	180.00	44.60	44.60	8330N	PICRIC ACID	NO
G106DFA	MW-106	06/01/2000	PROFILE	190.00	190.00	54.60	54.60	8330N	PICRIC ACID	NO
G106DGA	MW-106	06/01/2000	PROFILE	200.00	200.00	64.60	64.60	8330N	2,6-DINITROTOLUENE	NO
G106DGA	MW-106	06/01/2000	PROFILE	200.00	200.00	64.60	64.60	8330N	PENTAERYTHRITOL TETRANITF	NO
G106DGA	MW-106	06/01/2000	PROFILE	200.00	200.00	64.60	64.60	8330N	PICRIC ACID	NO
G106DHA	MW-106	06/01/2000	PROFILE	210.00	210.00	74.60	74.60	8330N	PENTAERYTHRITOL TETRANITF	NO
G106DHA	MW-106	06/01/2000	PROFILE	210.00	210.00	74.60	74.60	8330N	PICRIC ACID	NO
G106DIA	MW-106	06/01/2000	PROFILE	220.00	220.00	84.60	84.60	8330N	PENTAERYTHRITOL TETRANITF	NO
HC44IA1AAA	44IA	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	
HC44IB1AAA	44IB	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	
HC44IC1AAA	44IC	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	
HC44IC1AAA	44IC	05/16/2000	SOIL GRID	0.00	0.50			OM31P	ENDRIN KETONE	
HC44TA1AAA	44TA	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	
HC44TA1AAD	44TA	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	
HC44TB1AAA	44TB	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	
HC44TB1AAA	44TB	05/16/2000	SOIL GRID	0.00	0.50			OM31P	ENDRIN KETONE	
HC44TC1AAA	44TC	05/16/2000	SOIL GRID	0.00	0.50			OM31P	DIELDRIN	

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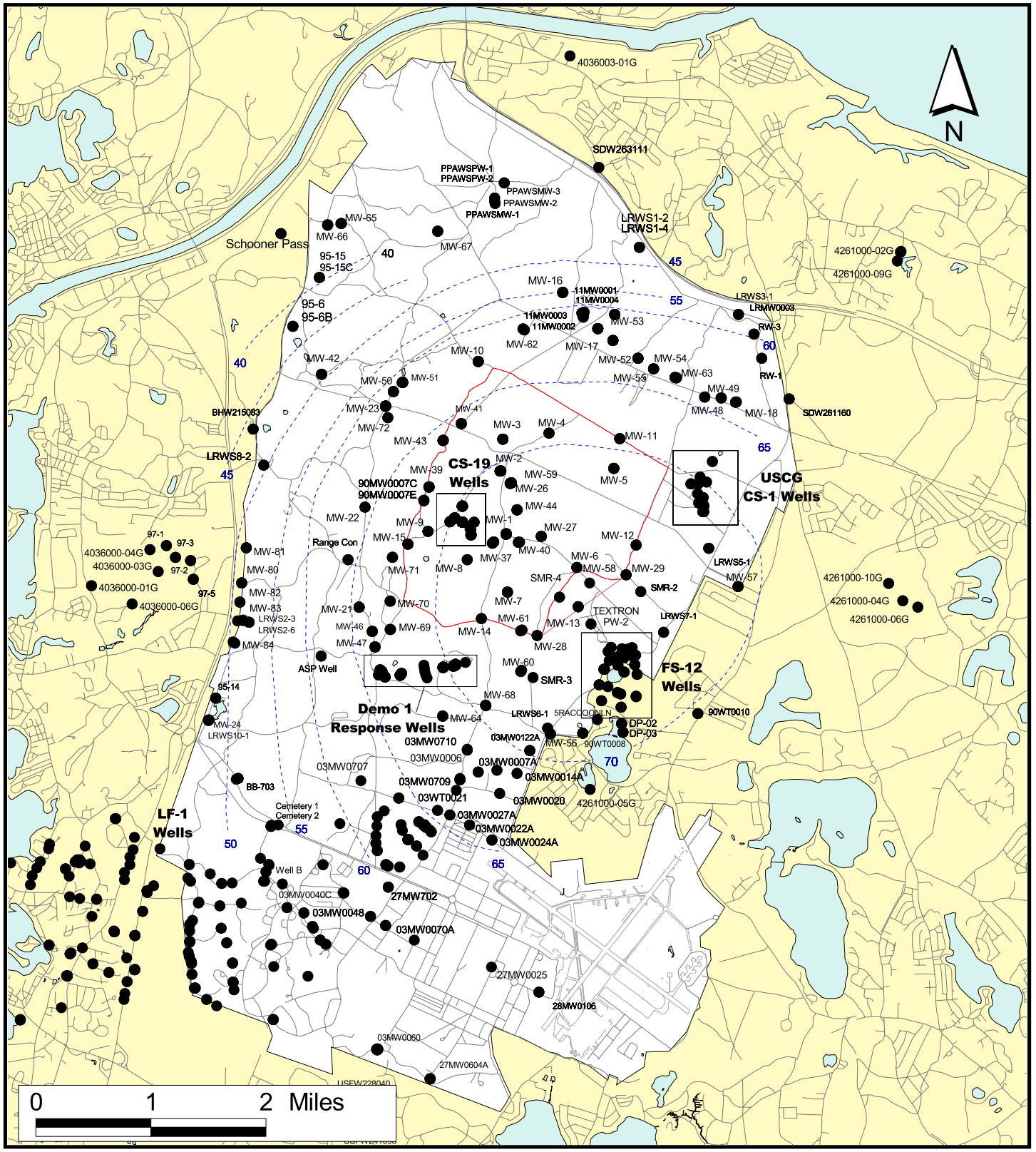
BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET
PDA/YES = Photo Diode Array, Detect Confirmed
PDA/NO = Photo Diode Array, Detect Not Confirmed



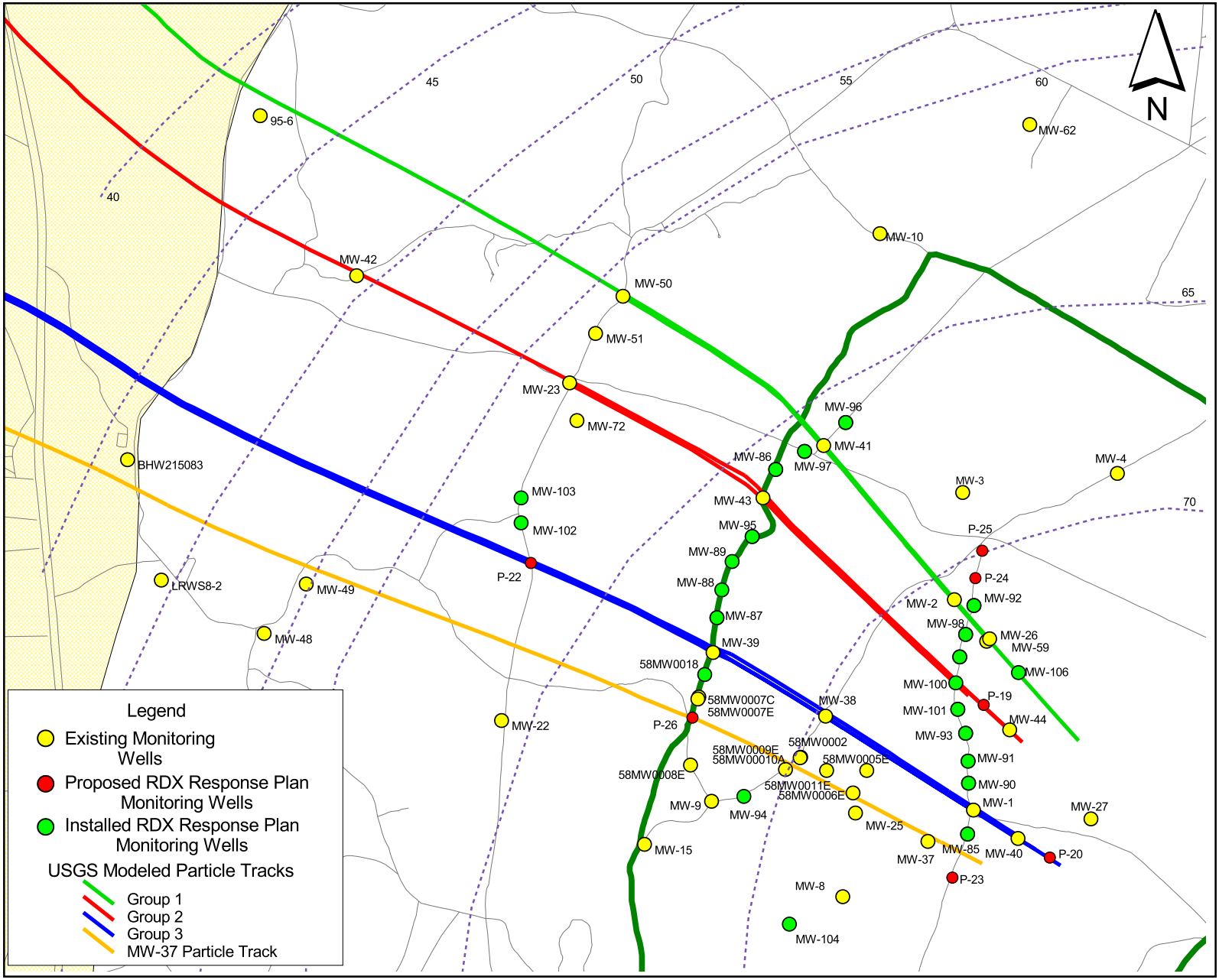
Sources & Notes

Map Coordinates: Stateplane,
NAD83, Zone 4151, Meters
Source: MASSGIS

Location of Existing and Proposed Groundwater Monitoring Wells As Of 12/16/99

L:\MMR\GIS\december99\weekly_figs\dec1699_wells
G:\MMR\well_updates.apr December 20, 1999

December 16, 1999 DRAFT



L:/MMR/GIS/weeklies_figures/June_06_00_RDX_response_updates
G:\MMR\rdx_response_maps_weeklies.apr
June 06, 2000

Proposed RDX Response Plan Wells In The Impact Area

Figure A