WEEKLY PROGRESS UPDATE
FOR JULY 5-JULY 9, 1999

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 for July 5 to July 9, 1999.

1. SUMMARY OF ACTIONS TAKEN

Drilling continued on MW-63 during this reporting period. Total depth was 355 ft below ground surface, and depth below water table was 201 feet, at the end of the week. Samples collected during the reporting period are summarized in Table 1. Profile samples were collected from MW-63 and from one IRP drive point boring (DP-11) in the Raccoon Lane Investigation. A groundwater sample was collected from well MW-73S, which was recently installed in Demo Area 1 downgradient from MW-19.

The Guard, EPA, and MADEP had a meeting on July 8 to discuss technical issues, including the following:

- The meeting began with a brief presentation of IRP's Raccoon Lane Investigation VOC data for drive points by Rose Forbes of AFCEE. A handout was provided summarizing the status of IAGS results for the split samples analyzed for explosive. Not all explosive results are available and no PDA are available yet for detections. Ogden will fax missing results to EPA and MADEP next week when available.

- A revised version of Tech Team Memo 99-1 was provided. This memo provides a preliminary review of KD and U Range soil results for explosive. In particular the discrete and composite results for grids 44N and 44L were discussed. Ogden is preparing concentration maps for all analytes at KD and U and these are expected to be complete in draft form by about 7/19. Ogden will then prepare a memo or report documenting the unvalidated results for the KD and U Range samples, including explosives and other analytes, in a format similar to the Completion of Work Report.

- EPA asked the Guard to develop a plan for delineating RDX at the 44N location, where concentrations were highest. There was some discussion of the possible sampling approach. EPA asked the Guard to develop a plan for a groundwater investigation at a firing position, based on the nitroglycerin detections. EPA asked the Guard for a description of the types of rocket debris visible at the KD Range, either from the UXO Contractor's notes or from an evaluation by EOD. EPA asked that the soil borings for the KD Range wells include soil sampling for explosives at the same depth intervals employed in Phase I.

- A revised version of the Demo 1 Deep Soil results (5-page table) was provided. This handout summarizes all results for the nine borings in Demo 1. The change from last week was noted in that there were four detections of explosives in the deep samples from boring B-6. The Guard indicated that the revised Response Plan for Demo 1 could be provided to the agencies next week. EPA asked that the figure showing Demo 1 include the locations where C-4 was discovered during the recent site walk. The Guard indicated that the boring logs for B-1 to -9 would be examined for evidence of fill material.

- The draft boring log for the upper portion of MW-63 was provided, along with a 1-page table summarizing explosive results for the profile samples. Several compounds were detected in the first

interval but none were confirmed using PDA spectra. There was insufficient water in the second interval for sampling. The 3rd, 4th, and 5th intervals had no detections. No data were available for VOCs. It was agreed to use the default screen depths of 0-10 bwt and 30-40 bwt unless there were significant VOC detections. Ogden planned to provide the VOC data later in the day.

After the meeting it was discovered that due to an oversight no profile samples had been submitted for VOC analysis. This oversight will be corrected for the remaining samples in the boring. The upper section of the aquifer will be profiled again, to collect the VOC samples. Ogden plans to set the two shallow screens identified above in the current boring. The second boring will be used to profile the upper portion of the aquifer for VOCs, and to set the three deep screens. If the two shallow screens are not correctly positioned based on the subsequent VOC results, a third boring will be used to install additional wells.

- A handout was provided summarizing explosive detections in Phase II groundwater monitoring. This table shows PDA status and is a helpful supplement to the biweekly cumulative summary of explosive results, a much larger table that also shows nondetects but does not include PDA. Ogden pointed out that the handout contains one new detection that had not appeared in previous tables, HMX in MW-39M2. The discrepancy from previous tables is probably due to an error in the rush database, later corrected in the electronic submittals from the lab.

- There was discussion of the next drilling location for the Sonic rig, which should be finished installing MW-63 by about 7/16. A new location is needed a few days prior to that time to allow for road building. The Group 2 far field locations that are furthest along in the planning process are the sentinels for the Bourne supply wells, which were proposed in a letter dated June 23, 1999. The proposed spacing and locations of these wells were discussed. EPA asked that Ogden provide a revised figure showing well locations spaced 1000 ft apart. EPA indicated that they would obtain information on current Sandwich sentinel wells later in the day.

- EPA indicated that they consider the schedule in the approved Phase II (a) Workplan to be enforceable dates. Therefore, if any activities are being delayed relative to this schedule, EPA requests that the Guard provide a formal request for an extension. EPA asked that the Guard provide a list of wells installed after March 31, 1999. EPA asked that the Guard provide a list of any Phase II (a) wells that remain to be completed.

- Miscellaneous: EPA asked that the Guard indicate whether they will provide comments on the recent DU survey report; the Guard indicated it is working on the sampling plan for UXO detonation; EPA requested a specific itinerary for the visit to MMR by the DoD UXO experts; EPA asked for an updated status report on documents that are currently under review or being prepared.

2. SUMMARY OF DATA RECEIVED

Preliminary non-validated detections of explosive are summarized in Table 2 for samples collected during the preceding five-week period. The status of the detections with respect to confirmation using Photo Diode Array (PDA) spectra is also indicated in this table. Where the PDA status is “YES” in Table 2, the detected compound has been confirmed to be present in the sample. Where the status is “NO”, the identification of an explosive has been confirmed to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection.

Table 2 shows detections of nitrotoluenes and Picric Acid in well 90LWA0007 that were determined to be false positives based on PDA spectra. The first profile sample from well MW-63 had detections of nitrotoluenes, nitrobenzenes, and nitroglycerin that were determined to be false positives based on PDA spectra.

Split samples from the AFCEE drive point DP-8 had confirmed RDX and HMX in five samples (45'-50', 55'-60', 65'-70', and 75'-80' bgs). Picric acid and nitroglycerin were also detected in one of the samples (5-10' bgs) but these detections were determined to be false positives based on PDA spectra.

One sample from DP-9 (60'-65' bgs) had a confirmed detection of HMX and a second sample (70'-75' bgs) had a confirmed detection of HMX and RDX. Picric acid, nitroglycerin, and trinitrobenzene were detected in the 10'-15' bgs sample from DP-9 but these detections were determined to be false positives based on PDA spectra.

Trinitrobenzene was detected in both DP-4 and DP-2 but the detections were determined to be false positives based on PDA spectra.

3. DELIVERABLES SUBMITTED

Deliverables submitted during the reporting period include the following:

Weekly Progress Report (June 28-July 2) July 9, 1999

4. SCHEDULED ACTIONS

Scheduled actions for the week of July 12 include finish drilling MW-63 and start drilling of MW-63b, road building for well MW-60 and MW-61 (KD Range), and sampling of base water supply wells.

TABLE 1
SAMPLING PROGRESS
7/5-7/9

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED
G63DJE	FIELDQC	7/6/1999	FIELDQC	0	0
G63DNE	FIELDQC	7/7/1999	FIELDQC	0	0
G63DNF	FIELDQC	7/8/1999	FIELDQC	0	0
G63DNT	FIELDQC	7/8/1999	FIELDQC	0	0
G63DRE	FIELDQC	7/9/1999	FIELDQC	0	0
G63DST	FIELDQC	7/9/1999	FIELDQC	0	0
OT-Y016801	FIELDQC	7/6/1999	FIELDQC	0	0
OT-Y016801F	FIELDQC	7/6/1999	FIELDQC	0	0
W73SSA	MW-73	7/9/1999	GROUNDWATER	0	10
DW6306	GAC WATER	7/6/1999	IDW	0	0
DW6307	GAC WATER	7/7/1999	IDW	0	0
DW6307A	GAC WATER	7/7/1999	IDW	0	0
DW6308	GAC WATER	7/8/1999	IDW	0	0
DW6309	GAC WATER	7/9/1999	IDW	0	0
G63DFA	MW-63	7/6/1999	PROFILE	200	205
G63DGA	MW-63	7/6/1999	PROFILE	210	215
G63DHA	MW-63	7/6/1999	PROFILE	220	225
G63DHD	MW-63	7/6/1999	PROFILE	220	225
G63DIA	MW-63	7/6/1999	PROFILE	230	235
G63DJA	MW-63	7/7/1999	PROFILE	240	245
G63DKA	MW-63	7/7/1999	PROFILE	250	255
G63DLA	MW-63	7/7/1999	PROFILE	260	265
G63DMA	MW-63	7/7/1999	PROFILE	270	275
G63DNA	MW-63	7/7/1999	PROFILE	280	285
G63DOA	MW-63	7/8/1999	PROFILE	290	295
G63DPA	MW-63	7/8/1999	PROFILE	300	305
G63DQA	MW-63	7/8/1999	PROFILE	310	315
G63DRA	MW-63	7/9/1999	PROFILE	320	325
G63DRD	MW-63	7/9/1999	PROFILE	320	325
G63DSA	MW-63	7/9/1999	PROFILE	330	335
OT-Y016301	DP-11	7/6/1999	PROFILE	27	32
OT-Y016301F	DP-11	7/6/1999	PROFILE	27	32
OT-Y016307	DP-11	7/6/1999	PROFILE	37	42
OT-Y016307F	DP-11	7/6/1999	PROFILE	37	42
OT-Y016403	DP-11	7/6/1999	PROFILE	47	52
OT-Y016403F	DP-11	7/6/1999	PROFILE	47	52
OT-Y016407	DP-11	7/6/1999	PROFILE	57	62
OT-Y016407F	DP-11	7/6/1999	PROFILE	57	62
OT-Y016505	DP-11	7/6/1999	PROFILE	67	72
OT-Y016505F	DP-11	7/6/1999	PROFILE	67	72

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 for profile and soil boring, and feet below water table for groundwater
SED = Sample End Depth, measured in feet bgs for profile and soil boring, and feet below water table for groundwater

TABLE 1
SAMPLING PROGRESS
7/5-7/9

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED
OT-Y016601	DP-11	7/6/1999	PROFILE	77	82
OT-Y016601F	DP-11	7/6/1999	PROFILE	77	82
OT-Y016605	DP-11	7/6/1999	PROFILE	87	92
OT-Y016605F	DP-11	7/6/1999	PROFILE	87	92

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SBD = Sample Begin Depth, measured in feet bgs for profile and soil boring, and feet below water table for groundwater
SED = Sample End Depth, measured in feet bgs for profile and soil boring, and feet below water table for groundwater

TABLE 2
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 6/20/99-7/9/99

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMP_TYPE	SBD	SED	LAB_METHOD	OGDEN_ANALYTE	PDA
OT-Y011009F	FIELDQC	6/25/1999	FIELDQC	0	0	8330N	1,3,5-TRINITROBENZENE	NO
OT-Y012301	FIELDQC	6/23/1999	FIELDQC	0	0	8330N	NITROGLYCERIN	
OT-Y012301F	FIELDQC	6/24/1999	FIELDQC	0	0	8330N	1,3,5-TRINITROBENZENE	
OT-Y012301F	FIELDQC	6/24/1999	FIELDQC	0	0	8330N	NITROGLYCERIN	
90LWA0007	90LWA0007	6/18/1999	GROUNDWATE	0	10	8330N	3-NITROTOLUENE	NO
90LWA0007	90LWA0007	6/18/1999	GROUNDWATE	0	10	8330N	4-NITROTOLUENE	NO
90LWA0007	90LWA0007	6/18/1999	GROUNDWATE	0	10	8330N	PICRIC ACID	NO
G63DAA	MW-63	7/1/1999	PROFILE	150	155	8330N	1,3,5-TRINITROBENZENE	NO
G63DAA	MW-63	7/1/1999	PROFILE	150	155	8330N	1,3-DINITROBENZENE	NO
G63DAA	MW-63	7/1/1999	PROFILE	150	155	8330N	3-NITROTOLUENE	NO
G63DAA	MW-63	7/1/1999	PROFILE	150	155	8330N	NITROBENZENE	NO
G63DAA	MW-63	7/1/1999	PROFILE	150	155	8330N	NITROGLYCERIN	NO
OT-Y010501	DP-8	6/23/1999	PROFILE	5	10	8330N	NITROGLYCERIN	NO
OT-Y010501	DP-8	6/23/1999	PROFILE	5	10	8330N	PICRIC ACID	NO
OT-Y010501F	DP-8	6/24/1999	PROFILE	5	10	8330N	PICRIC ACID	NO
OT-Y010705	DP-8	6/23/1999	PROFILE	45	50	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y010705F	DP-8	6/23/1999	PROFILE	45	50	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y010801	DP-8	6/23/1999	PROFILE	55	60	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y010801	DP-8	6/23/1999	PROFILE	55	60	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y010801F	DP-8	6/23/1999	PROFILE	55	60	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y010801F	DP-8	6/23/1999	PROFILE	55	60	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y010805	DP-8	6/23/1999	PROFILE	65	70	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y010805	DP-8	6/23/1999	PROFILE	65	70	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y010805F	DP-8	6/23/1999	PROFILE	65	70	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y010805F	DP-8	6/23/1999	PROFILE	65	70	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y010901	DP-8	6/23/1999	PROFILE	75	80	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES

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SED = SAMPLE COLLECTION END DEPTH (FEET BGS FOR SOILS AND PROFILE, FEET BELOW WATER TABLE FOR GROUNDWATER)
PDA/YES = Photo Diode Array, Detect Confirmed
PDA/NO = Photo Diode Array, Detect Not Confirmed

TABLE 2
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 6/20/99-7/9/99

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMP_TYPE	SBD	SED	LAB_METHOD	OGDEN_ANALYTE	PDA
OT-Y010901F	DP-8	6/23/1999	PROFILE	75	80	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y010905	DP-8	6/23/1999	PROFILE	85	90	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	NO
OT-Y011301F	DP-4	6/25/1999	PROFILE	85	90	8330N	1,3,5-TRINITROBENZENE	NO
OT-Y011305F	DP-4	6/25/1999	PROFILE	95	100	8330N	1,3,5-TRINITROBENZENE	NO
OT-Y011501	DP-9	6/25/1999	PROFILE	10	15	8330N	NITROGLYCERIN	NO
OT-Y011501	DP-9	6/25/1999	PROFILE	10	15	8330N	PICRIC ACID	NO
OT-Y011501F	DP-9	6/25/1999	PROFILE	10	15	8330N	1,3,5-TRINITROBENZENE	NO
OT-Y011501F	DP-9	6/25/1999	PROFILE	10	15	8330N	NITROGLYCERIN	NO
OT-Y011501F	DP-9	6/25/1999	PROFILE	10	15	8330N	PICRIC ACID	NO
OT-Y011801	DP-9	6/25/1999	PROFILE	60	65	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y011801D	DP-9	6/25/1999	PROFILE	60	65	8330N	NITROGLYCERIN	NO
OT-Y011801D	DP-9	6/25/1999	PROFILE	60	65	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y011801D	DP-9	6/25/1999	PROFILE	60	65	8330N	NITROGLYCERIN	NO
OT-Y011801D	DP-9	6/25/1999	PROFILE	60	65	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y011801F	DP-9	6/25/1999	PROFILE	60	65	8330N	NITROGLYCERIN	NO
OT-Y011801F	DP-9	6/25/1999	PROFILE	60	65	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y011805	DP-9	6/25/1999	PROFILE	70	75	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y011805	DP-9	6/25/1999	PROFILE	70	75	8330N	NITROGLYCERIN	NO
OT-Y011805	DP-9	6/25/1999	PROFILE	70	75	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y011805F	DP-9	6/25/1999	PROFILE	70	75	8330N	1,3,5-TRINITROBENZENE	NO
OT-Y011805F	DP-9	6/25/1999	PROFILE	70	75	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
OT-Y011805F	DP-9	6/25/1999	PROFILE	70	75	8330N	NITROGLYCERIN	NO
OT-Y011805F	DP-9	6/25/1999	PROFILE	70	75	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
OT-Y013307F	DP-2	6/28/1999	PROFILE	65	70	8330N	1,3,5-TRINITROBENZENE	NO
OT-Y016301	DP-11	7/6/1999	PROFILE	27	32	8330N	PICRIC ACID	
OT-Y016301F	DP-11	7/6/1999	PROFILE	27	32	8330N	PICRIC ACID	

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