WEEKLY PROGRESS UPDATE
FOR MAY 31-JUNE 4, 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 May 31 to June 4, 1999.

1. SUMMARY OF ACTIONS TAKEN

No samples were collected during the week. The Guard, EPA, and MADEP had a meeting on June 3 to discuss technical issues, including the following:

- Ogden provided a handout summarizing results of an internal QA/QC audit of field activities in early April 1999.

- Ogden provided a handout for the Revised Draft Response Plan for Demo Area 1. This version of the plan includes additional soil sampling to evaluate the extent of surface soil contamination, and site reconnaissance to look for evidence of bulk explosive wastes. EPA indicated it hoped to have comments on the plan by 6/8. The Guard/Ogden will attempt to arrange the initial reconnaissance of Demo Area 1 for the week of June 14th. Ogden will provide draft specifications for the drilling technology demonstration to the technical team for review. Portions of this demonstration may also be scheduled for the week of June 14th, depending on the drillers' schedules. Remobilization to collect deeper soil samples at Demo Area 1 is still scheduled for 6/7.

- The validation report for the RDX detection at MW-38M3 was provided. EPA asked for an update on the status of other samples from MW-38 and -39. The latest cumulative summary of results was provided by email on 6/4/99. MW-39 was sampled on 5/21/99 and results are not yet available.

- The 10-page Summary of IAGS Results was discussed. The Guard and EPA will discuss how to expand the 2-page EPA Fact Sheet on June 8. Also, the IART's requests for various maps of groundwater detections were discussed. It was agreed to produce a map showing all detections and all analyte groups on one map, as requested by one IART member.

- A table summarizing explosives results for the KD and U Range soil samples was provided. This table shows the detections as provided in the last weekly report, and also shows the nondetects and the samples with no data reported yet. There was a brief discussion of the compounds detected and the locations of detections. Ogden will evaluate the data and compare with munitions ingredients for these rocket ranges when results are available for the remaining soil samples in these areas, and when PDA confirmation is available for all detections.

- Updates of discussions with the water districts on far field wells were provided. EPA's discussions with Sandwich indicate no interest in participating in locating the Sandwich far field well(s). Ogden is still developing a map and cross-section of the Bourne ZOCs and Zone IIs based on USGS model information. The travel time from Route 28 to the farthest Bourne pumping well was estimated by USGS as 5.7 years; this info will be provided to Bourne. Discussions with the 102nd FW are expected to resume during the week of 6/7 with Bob Burt back from vacation.

- AFCEE drilling in the area upgradient from Raccoon Lane was discussed. Several drive points in this investigation may be useful for characterizing portions of the Training Ranges. Ogden will ask

USGS to provide particle tracks from the drive point locations to determine which profile samples should be split for explosives analysis.

- JPO has developed a list of OB/OD sites for which groundwater study information might be available. JPO will work with AEC to determine which of these sites has been studied and provide information to the technical team.

- EPA asked that the Guard develop study plans for recent detections (aside from Demo 1) for when additional funding is available. These would include RDX detections in groundwater in the Phase I and IIa wells, and NG detection in the J-3 Wetland.

- EPA asked for an update on sampling of the supplemental IRP wells, for the wells which could not be accessed using the conventional pump arrangement. The Guard will follow-up on the previous inquiry to AFCEE.

- EPA asked the Guard to consider whether the "exclusion" zones for currently identified UXO could be accessed by UXO technicians for the purpose of completing IAGS requirements. MW-37, -40, and -44 are currently located in these zones and are awaiting development and sampling.

- EPA asked that the investigations described in the draft Phase IIb Workplan be added to the schedule in the next monthly report. EPA also asked that the reconnaissance of Training Area BA-1 mentioned in the draft Phase IIb Workplan be expedited.

- The draft agenda for the 6/14 IART meeting was discussed. Topics will include: draft fact sheet for State legislature hearing; Textron lease update; grant options for IART funding; IAGS investigation update; and Oak Ridge DU study findings.

2. SUMMARY OF DATA RECEIVED

Preliminary non-validated detections of explosive are summarized in Table 1 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 1, 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 1 includes some detections which have been reported in previous weekly reports. The reason for this repetition is that explosive analyses for a few older samples have been delayed while the laboratory focussed on higher priority samples. In order to show the detections for these older samples, Table 1 includes results for all samples collected since April 30, including some samples which have already had results reported.

The groundwater detections in Table 1 that have not been previously reported include explosives in 27MW0017B, MW-38M4, and MW-54. The detections in 27MW0017B and MW-54 have not been confirmed using PDA spectra from the explosive analysis. RDX was detected and confirmed in MW-38M4 at a concentration less than the EPA Health Advisory for drinking water. This well is downgradient from MW-1, where RDX was detected in the first round of sampling under the IAGS. However, the shallow depth of the detection in MW-38M4 (15-25 feet below water table) suggests a source of contamination much closer to the well than MW-1, which is located 2600 feet away.

The soil detections in Table 1 that have not been previously reported include additional detections of RDX and HMX at the primary target for KD Range (grids 44L and 44N), and the first detection of TNT at this same location (grid 44N). Explosive results are now available for all soil samples from the KD and U Ranges. No explosives were detected at the U Range, nor at the secondary target or suspected former target at the KD Range. RDX, HMX, TNT, TNT breakdown products, and nitroglycerin (NG) were detected at the primary target for the KD Range. NG was detected at several firing positions for the KD Range.

3. DELIVERABLES SUBMITTED

Deliverables submitted during the reporting period include the following:

Weekly Progress Report (May 24 – May 28) June 2, 1999

4. SCHEDULED ACTIONS

Scheduled actions for the week of June 7 include completion of subsurface soil sampling in Demo Area 1.

TABLE 1
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 4/30/99-6/4/99

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMP_TYPE	SBD	SED	LAB_METHOD	OGDEN_ANALYTE	PDA
27MW0017B	27MW0017B	4/30/1999	GROUNDWATE	21	26	8330N	1,3-DINITROBENZENE	NO
27MW0017B	27MW0017B	4/30/1999	GROUNDWATE	21	26	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	NO
27MW0017B	27MW0017B	4/30/1999	GROUNDWATE	21	26	8330N	NITROGLYCERIN	NO
27MW0017BD	27MW0017B	4/30/1999	GROUNDWATE	21	26	8330N	1,3-DINITROBENZENE	NO
27MW0017BD	27MW0017B	4/30/1999	GROUNDWATE	21	26	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	NO
27MW0017BD	27MW0017B	4/30/1999	GROUNDWATE	21	26	8330N	NITROGLYCERIN	NO
W38M3A	MW-38	5/6/1999	GROUNDWATE	53	63	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
W38M4A	MW-38	5/6/1999	GROUNDWATE	15	25	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
W54SSA	MW-54	4/30/1999	GROUNDWATE	0	10	8330N	NITROGLYCERIN	NO
W59SSA	MW-59	5/10/1999	GROUNDWATE	0	10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
W59SSA	MW-59	5/10/1999	GROUNDWATE	0	10	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB001AAA	B-1	5/5/1999	SOIL BORING	3	4	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB001AAA	B-1	5/5/1999	SOIL BORING	3	4	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB001EAA	B-1	5/5/1999	SOIL BORING	7	8	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB001EAA	B-1	5/5/1999	SOIL BORING	7	8	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB001EAA	B-1	5/5/1999	SOIL BORING	7	8	8330N	PICRIC ACID	NO
ABB002CAA	B-2	5/5/1999	SOIL BORING	5	6	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
ABB003AAA	B-3	5/6/1999	SOIL BORING	3	4	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB003IAA	B-3	5/6/1999	SOIL BORING	11	12	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB003IAA	B-3	5/6/1999	SOIL BORING	11	12	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB004MAA	B-4	5/6/1999	SOIL BORING	15	16	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
ABB006AAA	B-6	5/5/1999	SOIL BORING	3	4	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB006AAA	B-6	5/5/1999	SOIL BORING	3	4	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB006BAA	B-6	5/5/1999	SOIL BORING	4	5	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB006BAD	B-6	5/5/1999	SOIL BORING	4	5	8330N	2-AMINO-4,6-DINITROTOLUENE	YES

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.
SBD = SAMPLE COLLECTION BEGIN DEPTH (FEET BGS FOR SOILS AND PROFILE, FEET BELOW WATER TABLE FOR GROUNDWATER)
SED = SAMPLE COLLECTION END DEPTH (FEET BGS FOR SOILS AND PROFILE, FEET BELOW WATER TABLE FOR GROUNDWATER)
PDA/YES = Photo Diode Array, Detect Confirmed
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OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMP_TYPE	SBD	SED	LAB_METHOD	OGDEN_ANALYTE	PDA
ABB006BAD	B-6	5/5/1999	SOIL BORING	4	5	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
ABB006BAD	B-6	5/5/1999	SOIL BORING	4	5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB006BAD	B-6	5/5/1999	SOIL BORING	4	5	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
ABB006CAA	B-6	5/5/1999	SOIL BORING	5	6	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB006EAA	B-6	5/5/1999	SOIL BORING	7	8	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB006EAA	B-6	5/5/1999	SOIL BORING	7	8	8330N	NITROGLYCERIN	YES
ABB006GAA	B-6	5/5/1999	SOIL BORING	9	10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
ABB006MAA	B-6	5/5/1999	SOIL BORING	15	16	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
HC44B1AAA	44B	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HC44C1AAA	44C	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HC44D1AAA	44D	5/10/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HC44E1AAA	44E	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HC44E1AAD	44E	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HC44E1CAA	44E	5/10/1999	SOIL GRID	0.5	1	8330N	NITROGLYCERIN	YES
HC44F1AAA	44F	5/11/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HC44G1AAA	44G	5/11/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HC44L1AAD	44L	5/12/1999	SOIL GRID	0	.25	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
HC44M1AAA	44M	5/12/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HC44N1AAA	44N	5/12/1999	SOIL GRID	0	.25	8330N	2,4,6-TRINITROTOLUENE	YES
HC44N1AAA	44N	5/12/1999	SOIL GRID	0	.25	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
HC44N1AAA	44N	5/12/1999	SOIL GRID	0	.25	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
HC44N1BAA	44N	5/12/1999	SOIL GRID	.25	.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
HC44T1AAA	44T	5/11/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HC44U1BAA	44U	5/11/1999	SOIL GRID	.25	.5	8330N	NITROGLYCERIN	YES
HD44B3AAA	44B	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HD44C3AAA	44C	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES

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HD44C3BAA	44C	5/10/1999	SOIL GRID	0.25	0.5	8330N	NITROGLYCERIN	YES
HD44C3CAA	44C	5/10/1999	SOIL GRID	0.5	1	8330N	NITROGLYCERIN	YES
HD44D3AAA	44D	5/10/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HD44D3BAA	44D	5/10/1999	SOIL GRID	.25	.5	8330N	NITROGLYCERIN	YES
HD44E3AAA	44E	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HD44E3AAD	44E	5/10/1999	SOIL GRID	0	0.25	8330N	NITROGLYCERIN	YES
HD44E3BAA	44E	5/10/1999	SOIL GRID	0.25	0.5	8330N	NITROGLYCERIN	YES
HD44G3AAA	44G	5/11/1999	SOIL GRID	0	.25	8330N	NITROGLYCERIN	YES
HD44L1AAA	44L	5/12/1999	SOIL GRID	0	.25	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
HD44L1AAD	44L	5/12/1999	SOIL GRID	0	.25	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
HD44L1BAA	44L	5/12/1999	SOIL GRID	.25	.5	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
HD44L1CAA	44L	5/12/1999	SOIL GRID	.5	1	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
HD44L5BAA	44L	5/12/1999	SOIL GRID	.25	.5	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
HD44N4BAA	44N	5/12/1999	SOIL GRID	.25	.5	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
HD44N4CAA	44N	5/12/1999	SOIL GRID	.5	1	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
HD44N4CAA	44N	5/12/1999	SOIL GRID	.5	1	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
HD44N4CAA	44N	5/12/1999	SOIL GRID	.5	1	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
HD44N4CAA	44N	5/12/1999	SOIL GRID	.5	1	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES

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