WEEKLY PROGRESS UPDATE
FOR JUNE 7-JUNE 11, 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 June 7 to June 11, 1999.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress is summarized in Table 1. A monitoring well was installed in soil boring B-9 in Demo Area 1. Subsurface soil samples were collected from the Demo Area 1 soil borings during the week and are summarized in Table 2.

Table 1. Drilling progress as of June 11, 1999

Boring	Purpose	Total Depth (ft bgs)	Depth BWT (ft)	Completed Screens (ft bgs)
MW-73	Downgradient of MW-19S	50	10	38.5 - 48.5

bgs = Below ground surface
BWT = Below water table

The Guard, EPA, and MADEP had a meeting on June 10 to discuss technical issues, including the following:

- The technical team met with Bob Burt of the 102nd FW prior to the technical meeting. Maps of J-well time series particle tracks, and aerial photos of the J-well ZOC, were examined for suitable far field monitoring well locations. Aerial photos showed evidence of the paving plant located north of J well that was described by Mr. Burt, about the time that the Otis runways were built. Mr. Burt provided a map of the area showing locations of monitoring wells 12MW0101 and 12MW0102 relative to the J well, a map of the 540,000 gpd ZOC estimated by USGS in 7/98, and a surveyed map showing J well and the nearby property boundary. Ogden will prepare a map(s) showing ZOCs, time series particle tracks, monitoring well locations, property boundary, and aerial photo(s).

- The first agenda item for the technical meeting was a summary of groundwater explosive results for "new" wells (MW-34 to -59), provided in a 3-page handout. The new RDX detections at MW-38M3, -38M4, and -43M2 were mentioned. Sampling of MW-37, -40, and -44 is on hold pending resolution of UXO issues. Ogden is working with the Guard to determine if USACE Technical Document HNC-ED-CS-S-98-2 ("Method for Calculating Range to No More Than One Hazardous Fragment per 600 Square Feet") is applicable for determining UXO safety distances for IAGS activities.

- The scheduled site reconnaissance for Demo Area 1 was discussed. The technical team will meet Paul Zanis at Range Control on Tuesday 6/15 at 0730 hours. Ogden provided an update on the demonstrations of drilling technologies.

- A 3-page handout was faxed earlier showing time series particle tracks for the Bourne supply wells. This information will be added to a map showing the ZOCs and Zone IIs, using an aerial photo

backdrop showing development along Route 28. A figure was provided showing the deepest Bourne pumping well particle track in cross-section view, to illustrate the vertical extent of the ZOC. Ogden and the Guard will prepare a map and section view showing proposed far field locations and profiling depths, for transmittal to Bourne and their consultant.

- A handout was provided showing USGS particle tracks from 5 Raccoon Lane and from several of the drive points proposed by AFCEE for the Raccoon Lane Investigation. Locations of the drive points were discussed, and it was agreed to obtain split samples for explosive analysis from several drive points that may characterize groundwater originating in the eastern portion of MMR.

- A revised detection map was provided showing all analyte groups, as requested at the last IART meeting. Ogden will add ZOCs and unsampled wells to this map, and produce two similar versions of the map. One version will have all detections > HA/MCL. The other version will have all explosive detections > HA/MCL.

- There was a brief discussion of funding issues for upcoming well installations.

- EPA indicated that the QA/QC plan change pages submitted last week were acceptable. EPA requested an update on the explosive analyses for the Raccoon Lane - Arnold Road split samples. EPA requested an update on the status of sampling the supplemental IRP wells.

2. SUMMARY OF DATA RECEIVED

Preliminary non-validated detections of explosive are summarized in Table 3 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 3, 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 3 shows a confirmed detection of RDX in MW-43M2, a Phase II (a) investigation well installed upgradient from the RDX detection in MW-23M1. A number of explosive compounds were detected in MW-45S, installed upgradient from 90WT0013, but were determined to be false positives using PDA spectra. Picric acid was detected in MW-51S, a far field monitoring well installed in the ZOC for Bourne 95-6, but was determined to be a false positive using PDA spectra.

3. DELIVERABLES SUBMITTED

Deliverables submitted during the reporting period include the following:

Weekly Progress Report (May 31 – June 4)	June 8, 1999
Monthly Progress Report No. 26 (May 1999)	June 10, 1999

4. SCHEDULED ACTIONS

Scheduled actions for the week of June 14 include completion of groundwater sampling from the remaining IRP monitoring wells, and collection of split samples from AFCEE drilling in the Raccoon Lane Investigation.

TABLE 2
SAMPLING PROGRESS
6/7-6/11

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED
ABB003ABE	FIELDQC	6/9/1999	FIELDQC	0	0
ABB006XAE	FIELDQC	6/7/1999	FIELDQC	0	0
ABB009DBE	FIELDQC	6/9/1999	FIELDQC	0	0
ABB003ABA	B-3	6/8/1999	SOIL BORING	42	44
ABB003NAA	B-3	6/8/1999	SOIL BORING	16	18
ABB003OAA	B-3	6/8/1999	SOIL BORING	16	20
ABB003PAA	B-3	6/8/1999	SOIL BORING	20	22
ABB003PAD	B-3	6/8/1999	SOIL BORING	20	22
ABB003QAA	B-3	6/8/1999	SOIL BORING	22	24
ABB003RAA	B-3	6/8/1999	SOIL BORING	24	26
ABB003SAA	B-3	6/8/1999	SOIL BORING	26	28
ABB003TAA	B-3	6/8/1999	SOIL BORING	28	30
ABB003UAA	B-3	6/8/1999	SOIL BORING	30	32
ABB003VAA	B-3	6/8/1999	SOIL BORING	32	34
ABB003WAA	B-3	6/8/1999	SOIL BORING	34	36
ABB003WAD	B-3	6/8/1999	SOIL BORING	34	36
ABB003XAA	B-3	6/8/1999	SOIL BORING	36	38
ABB003YAA	B-3	6/8/1999	SOIL BORING	38	40
ABB003ZAA	B-3	6/8/1999	SOIL BORING	40	42
ABB004NAA	B-4	6/9/1999	SOIL BORING	16	18
ABB004OAA	B-4	6/9/1999	SOIL BORING	18	20
ABB004PAA	B-4	6/9/1999	SOIL BORING	20	22
ABB004QAA	B-4	6/9/1999	SOIL BORING	22	24
ABB004RAA	B-4	6/9/1999	SOIL BORING	24	26
ABB004SAA	B-4	6/9/1999	SOIL BORING	26	28
ABB004TAA	B-4	6/9/1999	SOIL BORING	28	30
ABB004TAD	B-4	6/9/1999	SOIL BORING	28	30
ABB004UAA	B-4	6/9/1999	SOIL BORING	30	32
ABB004VAA	B-4	6/9/1999	SOIL BORING	32	34
ABB004WAA	B-4	6/9/1999	SOIL BORING	34	36
ABB004XAA	B-4	6/9/1999	SOIL BORING	36	38
ABB004YAA	B-4	6/9/1999	SOIL BORING	38	40
ABB004ZAA	B-4	6/9/1999	SOIL BORING	40	42
ABB006ABA	B-6	6/8/1999	SOIL BORING	42	44
ABB006NAA	B-6	6/7/1999	SOIL BORING	16	18
ABB006OAA	B-6	6/7/1999	SOIL BORING	16	20
ABB006PAA	B-6	6/7/1999	SOIL BORING	20	22
ABB006QAA	B-6	6/7/1999	SOIL BORING	22	24
ABB006RAA	B-6	6/7/1999	SOIL BORING	24	26
ABB006SAA	B-6	6/7/1999	SOIL BORING	26	28

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

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SAMPLING PROGRESS
6/7-6/11

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED
ABB006UAA	B-6	6/7/1999	SOIL BORING	30	32
ABB006VAA	B-6	6/7/1999	SOIL BORING	32	34
ABB006WAA	B-6	6/7/1999	SOIL BORING	34	36
ABB006XAA	B-6	6/7/1999	SOIL BORING	36	38
ABB006XAD	B-6	6/7/1999	SOIL BORING	36	38
ABB006YAA	B-6	6/7/1999	SOIL BORING	38	40
ABB006ZAA	B-6	6/8/1999	SOIL BORING	40	42
ABB009ABA	B-9	6/9/1999	SOIL BORING	42	44
ABB009BBA	B-9	6/9/1999	SOIL BORING	44	46
ABB009CBA	B-9	6/9/1999	SOIL BORING	46	48
ABB009DBA	B-9	6/9/1999	SOIL BORING	48	50
ABB009NAA	B-9	6/9/1999	SOIL BORING	16	18
ABB009OAA	B-9	6/9/1999	SOIL BORING	18	20
ABB009OAD	B-9	6/9/1999	SOIL BORING	18	20
ABB009PAA	B-9	6/9/1999	SOIL BORING	20	22
ABB009QAA	B-9	6/9/1999	SOIL BORING	22	24
ABB009RAA	B-9	6/9/1999	SOIL BORING	24	26
ABB009SAA	B-9	6/9/1999	SOIL BORING	26	28
ABB009TAA	B-9	6/9/1999	SOIL BORING	28	30
ABB009UAA	B-9	6/9/1999	SOIL BORING	30	32
ABB009VAA	B-9	6/9/1999	SOIL BORING	32	34
ABB009WAA	B-9	6/9/1999	SOIL BORING	34	36
ABB009XAA	B-9	6/9/1999	SOIL BORING	36	38
ABB009XAD	B-9	6/9/1999	SOIL BORING	36	38
ABB009YAA	B-9	6/9/1999	SOIL BORING	38	40
ABB009ZAA	B-9	6/9/1999	SOIL BORING	40	42

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 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 5/23/99-6/11/99

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMP_TYPE	SBD	SED	LAB_METHOD	OGDEN_ANALYTE	PDA
W43M2A	MW-43	5/26/1999	GROUNDWATE	70	80	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	YES
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	1,3-DINITROBENZENE	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	2,6-DINITROTOLUENE	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	3-NITROTOLUENE	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	4-NITROTOLUENE	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZI	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	NITROGLYCERIN	NO
W45SSA	MW-45	5/26/1999	GROUNDWATE	0	10	8330N	PICRIC ACID	NO
W51SSA	MW-51	5/27/1999	GROUNDWATE	0	10	8330N	PICRIC ACID	NO

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
PDA/NO = Photo Diode Array, Detect Not Confirmed