

**MONTHLY PROGRESS REPORT #16
FOR JULY 1998**

**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 July 1 to July 31, 1998. Scheduled actions are for the six-week period ending September 14, 1998.

1. SUMMARY OF ACTIONS TAKEN

Monitoring Well Installation

Nests of three monitoring wells were installed at both MW-32 and MW-33 in accordance with the Immediate Response Plan for Demo Area 1. Well screen depths were established based on groundwater modeling by USGS, and were approximately 146.5-151.5, 161.5-171.5, and 181.5-186.5 feet below ground surface. The well nests at MW-31, -32, and -33 were developed in preparation for sampling.

Sampling

Sampling of new monitoring wells MW-31S/M/D, MW-32S/M/D, and MW-33S/M/D, and resampling of existing wells MW-19S/D were completed in accordance with the Immediate Response Plan for Demo Area 1. The groundwater samples were analyzed for explosives by EPA Method 8330.

Additional soil samples were collected from the bottom and sidewalls of the excavation where the buried munitions were exhumed, in accordance with the requirements for a response action under the Massachusetts Contingency Plan. The soil samples were analyzed for explosives by EPA Method 8330, phosphorous by Method 365.2, and metals by Method ILM 4.0.

Analytical Results

Data deliverables were received from ITS (the laboratory contractor) for Sample Delivery Groups (SDGs) 82-90 in July.

Validation

Ogden completed validation of explosive detections for groundwater samples from MW-31S, MW-31M, and MW-19S.

Meetings

The Impact Area Study Review Team met on July 23. NGB discussed the results of groundwater monitoring downgradient from Demo Area 1 with EPA and MADEP in several conference calls and meetings during the month.

2. SUMMARY OF DATA RECEIVED

Validated detections of explosives in the samples from MW-31S, MW-31M, and MW-19S are summarized in Table 1. No explosives were detected in MW-19D, MW-31D, MW-32S, MW-32M, MW-32D, MW-33S, MW-33M, and MW-33D. The other explosive analytes not shown in Table 1 were not detected in any samples.

Table 1. Validated Results for Detected Explosive Compounds

Location	Method	Compound	Concentration (ug/l)
MW-19S (July 21 resample)	8330	RDX HMX TNT 4A-2,6DNT 2A-4,6DNT 2,4DNT	260 93 16 7.8 3.4 0.31
MW-19S duplicate (July 21 resample)	8330	RDX HMX TNT 4A-2,6DNT 2A-4,6DNT 2,4DNT	260 93 16 7.8 3.4 0.30
MW-31S (300 ft from Demo 1, 98-103 ft bgs)	8330	RDX HMX 4A-2,6DNT 2A-4,6DNT 2,4DNT	64 16 0.9 1.3 0.34
MW-31M (300 ft from Demo 1, 113-123 ft bgs)	8330	RDX HMX	280 29

Table 1 Acronyms and Abbreviations:

- 8330 = EPA Method 8330
- RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
- HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
- TNT = 2,4,6-trinitrotoluene
- 2A-4,6DNT = 2-amino-4,6-dinitrotoluene
- 4A-2,6DNT = 4-amino-2,6-dinitrotoluene
- 2,4DNT = 2,4-dinitrotoluene

3. DELIVERABLES SUBMITTED

Deliverables submitted during the reporting period included the following:

Weekly Progress Update (June 26 to July 2)

July 3, 1998

Monthly Progress Report for July 1998

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Monthly Progress Report #15 for June 1998	July 10, 1998
Weekly Progress Update (July 3 to July 9)	July 10, 1998
Weekly Progress Update (July 10 to July 16)	July 17, 1998
Weekly Progress Update (July 17 to July 23)	July 24, 1998

4. SCHEDULED ACTIONS

Actions for the next six weeks are indicated in Figure 1. This figure provides a Gantt chart based on the Final Action Plan, updated to reflect progress and proposed work. A meeting of the Impact Area Groundwater Study Review Team has been scheduled for September 17, 1998.