

**WEEKLY PROGRESS UPDATE
FOR MARCH 4 – MARCH 8, 2002**

**EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 & 1-2000-0014
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from March 4 to March 8, 2002. Please note that the Weekly Groundwater Wells map and inset will no longer be included with this update. The maps included with the Monthly Progress Report have been modified for use as reference maps for the weekly progress reports.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of March 8 is summarized in Table 1.

Table 1. Drilling progress as of March 8, 2002				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-206	Central Impact Area (CIAP-19)	325	166	
MW-207	Central Impact Area (CIAP-18)	330	186	
MW-208	Central Impact Area (CIAP-21)	339	201	195-205; 158-168
MW-209	Central Impact Area (CIAP-17)	120		
02-01	Bourne water supply boring	110	55	
02-02	Bourne water supply boring	60		
bgs = below ground surface bwt = below water table				

Completed well installation of MW-208 (CIAP-21), completed drilling of MW-206 (CIAP-19), and MW-207 (CIAP-18), commenced drilling of MW-209 (CIAP-17), and borings 02-01 and 02-02. Continued well development for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-206, MW-207 and boring 02-01. Groundwater samples were collected from Bourne water supply wells, sentry wells, spring and far field wells. Groundwater samples were collected for preliminary rounds from Central Impact Area and J-3 Range wells and from the Sandwich Fish Hatchery and Sandwich Town Hall Spring wells. Water samples were collected from the influent and effluent of the FS-12 treatment system. Post-detonation soil samples were collected from crater grids in the Central Impact Area.

As part of the Munitions Survey Project, pre-detonation and post-detonation soil samples were collected from Demo Area 1, J-1 Range, and Transects 3 and 4 in the Central Impact Area HUTA2.

The Guard, EPA, and MADEP had a meeting on March 7 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO-phone)	Kris Curley (IAGWSPO)	Pam Richardson (IAGWSPO)
Jane Dolan (EPA)	Mike Jasinski (EPA)	Todd Borci (EPA)
Desiree Moyer (EPA)	Jim Murphy (EPA)	Mark Panni (MADEP)
Darrell Deleppo (ACE)	Ed Wise (ACE)	Heather Sullivan (ACE)
Gina Tyo (ACE)	Rob Foti (ACE)	Frank Fedele (ACE-phone)
Ellen Iorio (ACE)	Rob Clemens (AMEC)	Marc Grant (AMEC)
Kim Harriz (AMEC)	Herb Colby (AMEC)	Mark Applebee (AMEC-phone)
Jay Clausen (AMEC-phone)	John Rice (AMEC)	Leo Montroy (Tetra Tech-phone)
Susan Stewart (Tetra Tech-phone)	Larry Hudgins (Tetra Tech)	Dave Williams (MDPH)
Adam Balogh (TRC-phone)	Ken Gaynor (Jacobs)	

Punchlist Items

- #3 Provide RAD results for MW-181 (AMEC). Results for Thorium in sediment and Radon in water provided. Thorium results show 5.4+-1.3/2.3+-0.59/2.01+-0.53 pCi/g respectively for Thorium 228/230/232 isotopes in the sediment remaining in the water profile sample. Jay Clausen stated that these are not particularly high; average worldwide results for the earth's crust are 7 pCi/g – no comparison values for the Cape have been identified. For Radon results were non-detect above the minimum detectable counts (MDC) of 24+-15 pCi/L and 26.8+-15J pCi/L in the profile sample water. Massachusetts-average is 790 pCi/L. A calculated result predicting what the Radon result was when the sample was collected is 1.2×10^{15} pCi/L, but this is unrealistic. No indication that these isotopes contributed to the high gross alpha detections in the original profile sample. Remaining results, including Thorium in the water profile and Radium for both the water and sediment from the profile sample (which have a 1 month TAT), should be available by 3/12.
- #6 Provide start date for Additional Polygons at the SE Ranges (Corps). This information was provided in a letter from the Guard. As expressed in the letter, the Guard proposes to fully evaluate the results of the initial 64 anomalies and existing AMEC data, potentially reevaluate the additional 45 anomalies selected by EPA, and then begin fieldwork on the new list. The initial investigation of the 64 is 30% complete. Jane Dolan (EPA) stated that the additional 45 anomalies were identified based on a review of the MSP. Todd Borci (EPA) will provide a response to Guard's letter; the EPA favors continuing with the investigation of the 2nd phase of additional 45 anomalies without delay, restating that the selected additional 45 are only a small subset of all possible anomalies at the SE Ranges and that the information from excavation of these anomalies is needed to optimize monitor well locations.
- #10 Provide results for WS-1, WS-2 and WS-3 supply wells and sentry wells (Corps). Darrell Deleppo (ACE) was told by Hap Gonser (JPO) that the sampling was being conducted this week.

Munitions Survey Project Update

Rob Foti (Corps) provided an update on the MSP3 and HUTA tasks.

AirMag. Excavation of 17th anomaly at KD Range was completed; refrigerator and auto parts were discovered.

HUTA2. QA of Transect 1 was completed; QA of Transect 5 to be completed by the end of the week. Intrusive work continued at Transects 2&3; EM61 picks are finished, 100% Schonstedt survey has been completed for 7 of 28 anomalies. For Transect 4, the initial and 100% Schonstedt survey is completed; the EM61 survey is being conducted today. 6748 lbs of fragments/scrap were identified in Transect 4; 6239 lbs was OE scrap; 509 lbs was non-OE scrap.

- Mike Jasinski (EPA) requested that target outlines be drawn on discovery/analytical figures. Todd Borci requested that an explanation be provided for the sample location IDs (to be added to Punchlist).

Eastern MSP. EM61 surveys are being conducted on weekends.

Scar Site/U Range/BA-1 Disposal Site. No activity.

Other MSP3 Sites – Reconnaissance was completed at NBC training area, Demo 3, Demo 4.

J Range Polygons. J-1 Range Polygon 1 items are scheduled to be BIPed on 3/23, pending Sandwich approval. 1/3 of the items are secured in the trench, the remainder are secured under polyethylene cover. Regular security checks of the area have been scheduled with Camp Edwards Military Police.

BIP Items- 11 Items from various areas are scheduled to be BIPed today including:

- 2 155MM Projectiles, Practice M804 with M557 Series PD Fuze
- 3 105MM – Projectile HEAT M456 with M509 PIBD Fuze
- 1 30MM Projectile, HEDP M789 with M759 PD Fuze
- 1 2.36-inch Rocket, HEAT M6 with M400 BD Fuze
- 1 155MM Projectile, HE M107 with M51 Series PD Fuze
- 1 81MM Mortar, HE M374 with Unknown PD Fuze
- 1 105MM Projectile HC Smoke, M84 Series
- 1 MTSQ M501 Series Fuze

Bourne Well Update

Summary results (as of 3/6) of Perchlorate Response Well Sampling, map of proposed soil boring locations were distributed, and a particle track map for monitor well MW-80 and sentinel well 97-5.

- Ben Gregson (IAGWSPO) indicated the Leo Yuskus (Haley and Ward, consultant to Bourne Water Supply) had intimated to him that the Guard should hold off on the 02-6 drill site since it will impact the Conscom property and this location was not a critical one. Mr. Yuskus also requested that a meeting be scheduled for Monday, 1 pm at the IAGWSPO to go over sampling locations, discuss the effectiveness of the auger rig to collect profile samples, modeling issues (is additional soil property data needed?), and finalize drilling locations. Corps, AMEC, EPA, DEP and Water Supply to attend.
- John Rice (AMEC) indicated that implementation of the Response Plan commenced this week. Drilling near the Bourne Well Field has commenced at boring location 02-1. Sampling is proving to be difficult; the strata are not yielding water readily and silt is clogging the screen. A second drill rig is on-site today and will begin drilling soon at the 02-2 location. Sampling of WS-4 and M-6 have not been completed yet; the other wells on the response plan list have been sampled; results are still pending for some wells.
- Ed Wise (ACE) indicated that Ray Cottengaim (ACE) is working on access issues. Gina Tyo (ACE) suggested that the Corps pursue real estate right of entry to avoid any delays.
- Todd Borci requested that AMEC provide particle tracks from the top and bottom of the MW-80M2 well screen. Jay Clausen said that currently AMEC is updating the bedrock depth information for the model and that this particle tracking could be initiated before the end of the day tomorrow, 3/8 and be completed for the meeting on Monday, 3/11. Jay Clausen also indicated that the preliminary particle tracks provided at the meeting are based on the center point of the wells screens.
- EPA asked the Guard to ask Mr. Yuskus to bring historic pumping information on the Bourne wells to the meeting. Bourne wells are apparently cycled one at a time.

Demo 1 Area Groundwater

Mark Applebee (AMEC) led the discussion on Demo Area 1 Groundwater as a general update and to discuss recent perchlorate detections in Demo 1 downgradient monitoring wells. Table

showing summary of detections in Demo 1 Area wells, proposed well map, and map showing distribution of Perchlorate detections in Demo 1 Area wells were distributed.

- Road building west of Frank Perkins Road for proposed well D1P-9 will commence shortly.
- Because of the lowering of the perchlorate method detection limit, perchlorate was recently detected in MW-173M3 at 0.634 ug/L (unvalidated). This is the furthest well downgradient of the Demo 1 Area, located on Pew Road. Results for MW-173M2, a deeper screen will be available shortly. Perchlorate has not been detected in samples collected from MW-175 and MW-186 located to the north along Pew Road.
- Additional recent detects of perchlorate in wells were there have been previous non-detects include MW-33M, D; MW-36M2; MW-77M1; MW-78M1; and MW-162M2. Results from MW-172, MW-165, and MW-162M1, as wells as at MW-173M2, are pending.
- Because of detection of perchlorate in MW-173 and prior detection in MW-172, the southern plume boundary and plume width is in question. The width was previously considered to be about 500 to 600 feet wide.
- To get a better handle on the plume, the Guard is proposing to install a well (D1P-10) approximately 350 feet south of MW-173 along Pew Road. MW-173 will also be resampled.
- Effects on FS Schedule would be minimal if the new proposed well can be installed in conjunction with the completion of other delineation wells.
- Additional well screen results should be available next week, further discussion will be contingent on these results. To be discussed as an agenda item next week.

Schedule and Documents

Marc Grant (AMEC) reviewed the document and schedule status. Important outstanding items were addressed as follows:

Documents Having Comments

MSP Phase I Report – MOR submitted and initial EPA comment received. Waiting on additional comment from EPA. Jane Dolan to review existing MOR and approve. Outstanding comments may be addressed in supplemental MOR.

Demo 1 GW FS (TM 01-17) – MOR to be scheduled.

MSP2 Demo 1, ASP Geophysics, Former K, Former A Letter Reports. – MOR disapproved, reports to be revised in accordance with comments. Ellen Iorio (ACE) to flag EPA comments that Guard has questions on to discuss with EPA next week.

MSP2 Slit Trench Letter Report. – Revised MOR provided on 2/13. No EPA comment, yet.

CDC Test Results Report – EPA comments, eventually.

Phase IIb Report (Revised TM 01-15) – Schedule CRM for 3/21.

WorkPlan for AirMag Completion Investigation – Corps to provide EPA updated tables and figures next week, and await additional EPA comment.

PSI Demo 1 Soil OU - MOR sent 3/5, approval expected shortly.

MSP3 U Range and Central Impact Area Sites Workplans – EPA comments on RCL and Draft Final tomorrow 3/8; Workplans will be disapproved, but detailed comment will be provided to facilitate revision of Workplans.

MSP2 Demo 2 Letter Report – EPA will approve RCL shortly.

Documents Needing Comments

Training Areas FSP – EPA comment delayed.

Draft Revised ASR – EPA comments in approximately one month.

HUTA Report – EPA comments should be forwarded next week.

Lab Fate & Transport Study – EPA/DEP comments may be provided by 3/29.

UXO Interim Screening Report – EPA/DEP Comments may be provided by 3/29.

Documents to be Submitted

MSP3 Workplans and BIP Reports coming in the next 2 weeks.

Demo 1 Eco-Risk Report will be submitted on 4/5/02

Central Impact Area/SE Ranges Field Schedule

Frank Fedele (ACE) led the discussion on coordination of fieldwork for MSP3/HUTA2 and groundwater investigation tasks in the Central Impact Area and SE Ranges.

- The Guard forwarded a 2/20/02 letter to the agencies outlining upcoming field activities in these areas and proposing a sequence for these activities.
- For the Central Impact Area, activities were prioritized as follows:
 1. HUTA2 (to be completed 4/5)
 2. Central Impact Area Wells
 3. Central Impact Area Pump Test
 4. Target Soil Sampling
 5. MSP3 Work
- Priorities are required because exclusion zones for HUTA2 and MSP3 intrusive work overlap into other work area and therefore limit other activities.
- EPA indicated that this prioritization made perfect sense. The EPA further requested that the Guard submit a more detailed draft schedule. This schedule could be used as a vehicle to establish new milestones for effected deliverables. The EPA emphasized that some integration was needed with the SE Ranges as some of the proposed J Ranges wells were in the Central Impact Area and some of the J Range polygons might also impact areas of the Central Impact Area.
- For the SE Ranges, activities were prioritized as follows:
 1. J-1/J-3/L Ranges off-site work
 2. MSP3, remaining J Ranges polygons and J-3 Range Hillside Barrage Rocket site.
 3. J-2/J-1/J-3/L Ranges Additional Delineation.
- The strategy for the Southeast Ranges was to start off-site and with the J Range Polygons. It was important to get the off-site wells completed prior to the start of seasonal activity at Camp GoodNews. Concurrently, polygons at which wells were scoped could be prioritized among the polygon list. Rob Foti (ACE) understood that the FUDs program at Camp Good News would be ongoing up to the opening of camp; however, a detailed coordination with the Former H Range work had not yet been addressed.
- Todd Borci suggested that this might be a reason to group remaining polygons of initial 64 with additional 45 and address per area, as opposed to addressing them in sequence. By doing so, it would likely be easier to coordinate the implementation schedule for completing this task with other SE Ranges tasks.
- EPA requested that the Guard/Corps provide a letter with a detailed Central Impact Area Schedule and additional information for providing a detailed schedule for the SE Ranges in 2 weeks (3/21). Todd Borci requested that EPA be called in the interim if the Guard/Corps had any questions.

Miscellaneous

- Marc Grant (AMEC) indicated that samples were collected on 3/6 from the four Fish Hatchery Wells in Sandwich. Samples will be analyzed for explosives, perchlorate, and VOCs; results are due Monday, 3/11. Mr. Grant to meet with Dr. Ken Simmons (Dept of Fish and Wildlife) today on how wells are used and any other information available on wells. Receipt of analytical results to be added as a Punchlist item.
- Relative to the ASR interviews, information provided to EPA indicates that private investigator has 90 hours remaining to complete interviews. EPA prioritize interview list in the following order: Interviewees unhighlighted on table provided by Tetra Tech, Witness #4, Witnesses on "BOMARC" list, and individuals on "EPA's list. EPA list to be provided by Jane Dolan to Corps next week. Gina Tyo (ACE) indicated that the Corps would get a cost

estimate from Tetra Tech to complete all proposed interviews. Funding for this additional effort can be included with the funding request to finalize the ASR Report.

- Todd Borci requested that table showing various munitions and items that contain perchlorate be added to the Punchlist.
- Todd Borci requested that a meeting be scheduled regarding the effective utilization and next steps regarding the CDC. Meeting tentatively set for 3/13m Wednesday around 2 or 3 pm. Gina Tyo to coordinate with attendees.
- Jane Dolan requested that the MOR for the MSP Report Sections 9-11 be prepared. Ellen Iorio to address.

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 volatile organic compound (VOC) analyses for groundwater profile samples, are conducted in this timeframe, as well as any analyses pursuant to a special request. 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 explosive 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:

- Groundwater samples from well 4261020-01G (Sandwich Town Hall Spring well) and Sandwich Fish Hatchery wells SANDHATCH1-A, B, C, and D had detections of chloroform. This is the first time these wells have been sampled.
- Groundwater samples from well 97-5 (Bourne sentry well) and MW-80M1, M2 (Bourne far field) had detections of perchlorate. This is the first time perchlorate has been detected in MW-80M2, all other detections were similar to previous sampling rounds.
- Groundwater samples from MW-163S (J-3 Range) had a detection of perchlorate. This detection is similar to previous sampling rounds.
- Groundwater profile samples from MW-206 (CIAP-19) had detections of 4A-DNT (2 intervals), nitroglycerin (2 intervals), RDX (3 intervals), HMX (1 interval), and picric acid (2 intervals). The detections of RDX and HMX were confirmed by PDA spectra.
- Groundwater profile samples from MW-207 (CIAP-18) had detections of 4A-DNT (1 interval), nitroglycerin (2 intervals), and RDX (6 intervals). Five detections of RDX were confirmed by PDA spectra, one detection with interference.

- Groundwater profile samples from Bourne water supply boring 02-01 had detections of 1,3,5-trinitrobenzene (1 interval), 3-nitrotoluene (2 intervals), 4-nitrotoluene (1 interval), nitroglycerin (1 interval), PETN (1 interval), RDX (1 interval), 1,2,4-trichlorobenzene (1 interval), 1,2-dichlorobenzene (3 intervals), 1,4-dichlorobenzene (3 intervals), acetone (4 intervals), benzene (1 interval), chlorobenzene (2 intervals), chloroform (5 intervals), chloromethane (2 intervals), ethylbenzene (1 interval), 2-butanone (1 interval), PCE (1 interval), TCE (1 interval), toluene (3 intervals), and xylenes (1 interval). None of the detections of explosives were confirmed by PDA spectra. One detection of 3-nitrotoluene was not confirmed, but with interference.

3. DELIVERABLES SUBMITTED

Final J-2 Range Additional Delineation Workplan #2	03/07/02
Draft Summary Report – September 2000 UXO Detonations	03/08/02
February 2002 Monthly Progress Report	03/08/02
Weekly Progress Update for February 25 – March 1, 2002	03/08/02

4. SCHEDULED ACTIONS

Scheduled actions for the week of March 11 include complete well installation of MW-206 (CIAP-19) and MW-207 (CIAP-18), complete drilling of 02-01 and 02-02 (Bourne water supply), continue drilling of MW-209 (CIAP-17), and commence drilling of D1P-9 and boring 02-03 (Bourne water supply).

5. SUMMARY OF ACTIVITIES FOR DEMO 1

Additional delineation of the downgradient portion of the groundwater plume will be conducted prior to finalizing the Feasibility Study for the Groundwater Operable Unit. Proposed monitoring well locations have been scoped by the Guard and approved by the agencies for delineation of the groundwater plume. Drilling for the first proposed monitoring well, D1P-9, is scheduled to commence the week of March 11, 2002. Subsequent locations have been proposed and the next location will be selected and approved based on the profile results at D1P-9.

Perchlorate was recently detected for the first time at downgradient monitoring well MW-173M3 located on Pew Road. Perchlorate was not detected at the other two well screens at monitoring well location MW-173 or at any of the screens at monitoring well locations MW-175 and MW-186, which are also located on Pew Road. The three screens at MW-173 will be re-sampled and additional monitoring well locations along Pew Road are being evaluated. EPA approved the memorandum of resolution for the Demo 1 Post-Screening Investigation Work Plan on March 11, 2002 and soil sampling proposed in the Work Plan is scheduled to begin on March 18, 2002.

TABLE 2
 SAMPLING PROGRESS
 03/02/2002 - 03/08/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HCA02270201AA	A02270201AA	03/08/2002	CRATER GRAB	0.00	0.25		
HDA02270201AA	A02270201AA	03/08/2002	CRATER GRAB	0.00	0.25		
D1.A.00.044.1.0	D1.3.00044.R	03/07/2002	CRATER GRID	0.00	0.25		
D1.A.00.044.2.0	D1.3.00044.R	03/07/2002	CRATER GRID	0.00	0.25		
D1.A.00.044.3.0	D1.3.00044.R	03/07/2002	CRATER GRID	0.00	0.25		
J1.A.T1.014.1.0	J1.T1.014.R	03/07/2002	CRATER GRID	0.00	0.25		
J1.A.T1.014.2.0	J1.T1.014.R	03/07/2002	CRATER GRID	0.00	0.25		
J1.A.T1.014.3.0	J1.T1.014.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0B.001.1.0	T3.0B.001.R	03/06/2002	CRATER GRID	1.50	1.75		
T3.A.0B.001.2.0	T3.0B.001.R	03/07/2002	CRATER GRID	1.50	1.75		
T3.A.0B.001.3.0	T3.0B.001.R	03/07/2002	CRATER GRID	1.50	1.75		
T3.A.0B.010.1.0	T3.0B.010.R	03/06/2002	CRATER GRID	2.50	2.75		
T3.A.0B.010.2.0	T3.0B.010.R	03/07/2002	CRATER GRID	2.50	2.75		
T3.A.0B.010.3.0	T3.0B.010.R	03/07/2002	CRATER GRID	2.50	2.75		
T3.A.0B.010.3.D	T3.0B.010.R	03/07/2002	CRATER GRID	2.50	2.75		
T3.A.0D.006.1.0	T3.0D.006.R	03/06/2002	CRATER GRID	0.00	0.25		
T3.A.0D.006.2.0	T3.0D.006.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0D.006.3.0	T3.0D.006.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0F.004.1.0	T3.0F.004.R	03/06/2002	CRATER GRID	0.00	0.25		
T3.A.0F.004.2.0	T3.0F.004.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0F.004.3.0	T3.0F.004.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0Q.011.1.0	T3.0Q.011.R	03/06/2002	CRATER GRID	0.00	0.25		
T3.A.0Q.011.2.0	T3.0Q.011.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0Q.011.3.0	T3.0Q.011.R	03/07/2002	CRATER GRID	0.00	0.25		
T3.A.0Z.005.1.0	T3.0Z.005.R	03/06/2002	CRATER GRID	0.75	1.00		
T3.A.0Z.005.2.0	T3.0Z.005.R	03/07/2002	CRATER GRID	0.75	1.00		
T3.A.0Z.005.3.0	T3.0Z.005.R	03/07/2002	CRATER GRID	0.75	1.00		
T4.A.0P.009.1.0	T4.0P.009.R	03/06/2002	CRATER GRID	0.50	0.75		
T4.A.0P.009.2.0	T4.0P.009.R	03/07/2002	CRATER GRID	0.50	0.75		
T4.A.0P.009.3.0	T4.0P.009.R	03/07/2002	CRATER GRID	0.50	0.75		
T4.A.0Z.008.1.0	T4.0Z.008.R	03/06/2002	CRATER GRID	0.50	0.75		
T4.A.0Z.008.2.0	T4.0Z.008.R	03/07/2002	CRATER GRID	0.50	0.75		
T4.A.0Z.008.3.0	T4.0Z.008.R	03/07/2002	CRATER GRID	0.50	0.75		
4261020-01GT	FIELDQC	03/06/2002	FIELDQC	0.00	0.00		
97-2EE	FIELDQC	03/02/2002	FIELDQC	0.00	0.00		
G02-01DAT	FIELDQC	03/05/2002	FIELDQC	0.00	0.00		
G02-01DBE	FIELDQC	03/06/2002	FIELDQC	0.00	0.00		
G02-01DDE	FIELDQC	03/07/2002	FIELDQC	0.00	0.00		
G02-01DDT	FIELDQC	03/07/2002	FIELDQC	0.00	0.00		
G02-01DFE	FIELDQC	03/02/2002	FIELDQC	0.00	0.00		
G02-01DFT	FIELDQC	03/02/2002	FIELDQC	0.00	0.00		
G206DME	FIELDQC	03/04/2002	FIELDQC	0.00	0.00		
G206DRE	FIELDQC	03/05/2002	FIELDQC	0.00	0.00		

Profiling methods include: Volatiles, Explosives and Perchlorate

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 2
 SAMPLING PROGRESS
 03/02/2002 - 03/08/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HDA02270201AE	FIELDQC	03/08/2002	FIELDQC	0.00	0.00		
M-6BAE	FIELDQC	03/07/2002	FIELDQC	0.00	0.00		
M-6DAE	FIELDQC	03/03/2002	FIELDQC	0.00	0.00		
TW00-1DAE	FIELDQC	03/04/2002	FIELDQC	0.00	0.00		
4261020-01G	4261020-01G	03/06/2002	GROUNDWATER				
97-2EA	97-2E	03/02/2002	GROUNDWATER		97.60		64.50
M-6BAA	M-6	03/07/2002	GROUNDWATER	44.00	84.00	0.00	31.70
M-6CAA	M-6	03/07/2002	GROUNDWATER	44.00	84.00	0.00	31.70
M-6DAA	M-6	03/03/2002	GROUNDWATER	44.00	84.00	0.00	10.00
OW00-1DA	00-1D	03/04/2002	GROUNDWATER	91.00	97.00	48.30	54.30
SANDHATCH1-A	SANDHATCH1-A	03/06/2002	GROUNDWATER				
SANDHATCH1-B	SANDHATCH1-B	03/06/2002	GROUNDWATER				
SANDHATCH1-C	SANDHATCH1-C	03/06/2002	GROUNDWATER				
SANDHATCH1-D	SANDHATCH1-D	03/06/2002	GROUNDWATER				
SPRING1A	SPRING1	03/02/2002	GROUNDWATER				
TW00-1DA	00-1D	03/04/2002	GROUNDWATER	100.00	110.00	56.10	66.10
TW00-5A	00-5	03/02/2002	GROUNDWATER	50.00	56.00	15.50	21.50
TW00-5D	00-5	03/02/2002	GROUNDWATER	50.00	56.00	15.50	21.50
TW00-6A	00-6	03/03/2002	GROUNDWATER		33.00		6.60
TW00-7A	00-7	03/02/2002	GROUNDWATER	57.00	63.00	25.50	31.50
TW00-7D	00-7	03/02/2002	GROUNDWATER	57.00	63.00	25.50	31.50
W163SSA	MW-163	03/07/2002	GROUNDWATER	38.00	48.00	0.00	10.00
W176M1A	MW-176	03/02/2002	GROUNDWATER	270.00	280.00	158.55	168.55
W176M2A	MW-176	03/02/2002	GROUNDWATER	229.00	239.00	117.60	127.60
W178M1A	MW-178	03/02/2002	GROUNDWATER	257.00	267.00	117.00	127.00
W178M2A	MW-178	03/02/2002	GROUNDWATER	167.00	177.00	27.00	37.00
W181SSA	MW-181	03/08/2002	GROUNDWATER	32.25	42.25	0.00	10.00
W182M2A	MW-182	03/07/2002	GROUNDWATER	273.00	283.00	102.89	112.89
W201M3A	MW-201	03/07/2002	GROUNDWATER	226.00	276.00	28.20	78.20
W201M3D	MW-201	03/07/2002	GROUNDWATER	266.00	276.00	28.20	78.20
W202M1A	MW-202	03/07/2002	GROUNDWATER	264.00	274.00	117.70	127.70
W202M2A	MW-202	03/08/2002	GROUNDWATER	215.00	225.00	68.60	78.60
W82DDA	MW-82	03/05/2002	GROUNDWATER	125.00	135.00	97.00	107.00
W82M1A	MW-82	03/04/2002	GROUNDWATER	104.00	114.00	76.00	86.00
W82M2A	MW-82	03/05/2002	GROUNDWATER	78.00	88.00	50.00	60.00
W82M3A	MW-82	03/05/2002	GROUNDWATER	54.00	64.00	26.00	36.00
W82M3D	MW-82	03/05/2002	GROUNDWATER	54.00	64.00	26.00	36.00
W82SSA	MW-82	03/05/2002	GROUNDWATER	25.00	35.00	0.00	10.00
WS-4ADA	WS-4A	03/06/2002	GROUNDWATER	218.00	228.00	148.50	158.50
WS-4ASA	WS-4A	03/06/2002	GROUNDWATER	155.00	165.00	85.50	95.50
FS12TSEF	FS12TSEF	03/05/2002	PROCESS WATER				
FS12TSIN	FS12TSIN	03/05/2002	PROCESS WATER				
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80
G02-01DBA	G02-01	03/06/2002	PROFILE	65.00	70.00	9.80	14.80

Profiling methods include: Volatiles, Explosives and Perchlorate

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 2
 SAMPLING PROGRESS
 03/02/2002 - 03/08/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
G02-01DBA	G02-01	03/07/2002	PROFILE	65.00	70.00	9.80	14.80
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	400.00	39.80	44.80
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80
G206DGA	MW-206	03/04/2002	PROFILE	220.00	220.00	61.50	61.50
G206DHA	MW-206	03/04/2002	PROFILE	230.00	230.00	71.50	71.50
G206DIA	MW-206	03/04/2002	PROFILE	240.00	240.00	81.50	81.50
G206DJA	MW-206	03/04/2002	PROFILE	250.00	250.00	91.50	91.50
G206DKA	MW-206	03/04/2002	PROFILE	260.00	260.00	101.50	101.50
G206DKD	MW-206	03/04/2002	PROFILE	260.00	260.00	101.50	101.50
G206DLA	MW-206	03/04/2002	PROFILE	270.00	270.00	111.50	111.50
G206DMA	MW-206	03/04/2002	PROFILE	280.00	280.00	121.50	121.50
G206DNA	MW-206	03/05/2002	PROFILE	290.00	290.00	131.50	131.50
G206DOA	MW-206	03/05/2002	PROFILE	300.00	300.00	141.50	141.50
G206DPA	MW-206	03/05/2002	PROFILE	310.00	310.00	151.50	151.50
G206DQA	MW-206	03/05/2002	PROFILE	320.00	320.00	161.50	161.50
G206DRA	MW-206	03/05/2002	PROFILE	325.00	325.00	166.50	166.50
G207DHA	MW-207	03/04/2002	PROFILE	220.00	220.00	76.00	76.00
G207DIA	MW-207	03/04/2002	PROFILE	230.00	230.00	86.00	86.00
G207DID	MW-207	03/04/2002	PROFILE	230.00	230.00	86.00	86.00
G207DJA	MW-207	03/04/2002	PROFILE	240.00	240.00	96.00	96.00
G207DKA	MW-207	03/04/2002	PROFILE	250.00	250.00	106.00	106.00
G207DLA	MW-207	03/04/2002	PROFILE	260.00	260.00	116.00	116.00
G207DMA	MW-207	03/04/2002	PROFILE	270.00	270.00	126.00	126.00
G207DNA	MW-207	03/05/2002	PROFILE	280.00	280.00	136.00	136.00
G207DPA	MW-207	03/05/2002	PROFILE	300.00	300.00	156.00	156.00
G207DPD	MW-207	03/05/2002	PROFILE	300.00	300.00	156.00	156.00
G207DQA	MW-207	03/05/2002	PROFILE	310.00	310.00	166.00	166.00
G207DRA	MW-207	03/05/2002	PROFILE	320.00	320.00	176.00	176.00
G207DSA	MW-207	03/05/2002	PROFILE	330.00	330.00	186.00	186.00

Profiling methods include: Volatiles, Explosives and Perchlorate

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 02/16/02 - 03/08/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
4261020-01G	4261020-01G	03/06/2002	GROUNDWATER					OC21V	CHLOROFORM	
97-5	97-5	02/25/2002	GROUNDWATER	84.00	94.00	76.00	86.00	E314.0	PERCHLORATE	
SANDHATCH1-A	SANDHATCH1-A	03/06/2002	GROUNDWATER					OC21V	CHLOROFORM	
SANDHATCH1-B	SANDHATCH1-B	03/06/2002	GROUNDWATER					OC21V	CHLOROFORM	
SANDHATCH1-C	SANDHATCH1-C	03/06/2002	GROUNDWATER					OC21V	CHLOROFORM	
SANDHATCH1-D	SANDHATCH1-D	03/06/2002	GROUNDWATER					OC21V	CHLOROFORM	
W163SSA	MW-163	03/07/2002	GROUNDWATER	38.00	48.00	0.00	10.00	E314.0	PERCHLORATE	
W80M1A	MW-80	02/27/2002	GROUNDWATER	130.00	140.00	86.00	96.00	E314.0	PERCHLORATE	
W80M2A	MW-80	02/28/2002	GROUNDWATER	100.00	110.00	56.00	66.00	E314.0	PERCHLORATE	
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	8330N	1,3,5-TRINITROBENZENE	NO
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	8330N	3-NITROTOLUENE	NO*
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	8330N	4-NITROTOLUENE	NO
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	8330N	NITROGLYCERIN	NO
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	8330N	PENTAERYTHRITOL TETRANITR	NO
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	OC21V	ACETONE	
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	OC21V	CHLOROFORM	
G02-01DAA	G02-01	03/05/2002	PROFILE	55.00	60.00	0.20	4.80	OC21V	CHLOROMETHANE	
G02-01DBA	G02-01	03/06/2002	PROFILE	65.00	70.00	9.80	14.80	OC21V	CHLOROFORM	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	NO
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	1,2,4-TRICHLOROENZENE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	1,2-DICHLOROENZENE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	1,4-DICHLOROENZENE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	ACETONE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	BENZENE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	CHLOROENZENE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	CHLOROFORM	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	CHLOROMETHANE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	ETHYLBENZENE	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	METHYL ETHYL KETONE (2-BUT	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	TETRACHLOROETHYLENE(PCE)	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	TOLUENE	

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

* = Interference in sample

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 02/16/02 - 03/08/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	TRICHLOROETHYLENE (TCE)	
G02-01DDA	G02-01	03/07/2002	PROFILE	85.00	90.00	29.80	34.80	OC21V	XYLENES, TOTAL	
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80	OC21V	1,2-DICHLOROBENZENE	
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80	OC21V	1,4-DICHLOROBENZENE	
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80	OC21V	ACETONE	
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80	OC21V	CHLOROBENZENE	
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80	OC21V	CHLOROFORM	
G02-01DEA	G02-01	03/08/2002	PROFILE	95.00	100.00	39.80	44.80	OC21V	TOLUENE	
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80	8330N	3-NITROTOLUENE	NO
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80	OC21V	1,2-DICHLOROBENZENE	
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80	OC21V	1,4-DICHLOROBENZENE	
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80	OC21V	ACETONE	
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80	OC21V	CHLOROFORM	
G02-01DFA	G02-01	03/08/2002	PROFILE	105.00	110.00	49.80	54.80	OC21V	TOLUENE	
G206DCA	MW-206	03/01/2002	PROFILE	180.00	180.00	21.50	21.50	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G206DCA	MW-206	03/01/2002	PROFILE	180.00	180.00	21.50	21.50	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
G206DCA	MW-206	03/01/2002	PROFILE	180.00	180.00	21.50	21.50	8330N	NITROGLYCERIN	NO
G206DCA	MW-206	03/01/2002	PROFILE	180.00	180.00	21.50	21.50	8330N	PICRIC ACID	NO
G206DDA	MW-206	03/01/2002	PROFILE	190.00	190.00	31.50	31.50	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
G206DDA	MW-206	03/01/2002	PROFILE	190.00	190.00	31.50	31.50	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
G206DEA	MW-206	03/01/2002	PROFILE	200.00	200.00	41.50	41.50	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
G206DGA	MW-206	03/04/2002	PROFILE	220.00	220.00	61.50	61.50	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G206DGA	MW-206	03/04/2002	PROFILE	220.00	220.00	61.50	61.50	8330N	NITROGLYCERIN	NO
G206DGA	MW-206	03/04/2002	PROFILE	220.00	220.00	61.50	61.50	8330N	PICRIC ACID	NO
G207DBA	MW-207	03/01/2002	PROFILE	160.00	160.00	16.00	16.00	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G207DBA	MW-207	03/01/2002	PROFILE	160.00	160.00	16.00	16.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	NO
G207DBA	MW-207	03/01/2002	PROFILE	160.00	160.00	16.00	16.00	8330N	NITROGLYCERIN	NO
G207DDA	MW-207	03/01/2002	PROFILE	180.00	180.00	36.00	36.00	8330N	NITROGLYCERIN	NO
G207DIA	MW-207	03/04/2002	PROFILE	230.00	230.00	86.00	86.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
G207DID	MW-207	03/04/2002	PROFILE	230.00	230.00	86.00	86.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
G207DJA	MW-207	03/04/2002	PROFILE	240.00	240.00	96.00	96.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES

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

* = Interference in sample

TABLE 3
 DETECTED COMPOUNDS-UNVALIDATED
 SAMPLES COLLECTED 02/16/02 - 03/08/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G207DKA	MW-207	03/04/2002	PROFILE	250.00	250.00	106.00	106.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,	YES
G207DLA	MW-207	03/04/2002	PROFILE	260.00	260.00	116.00	116.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,	YES
G207DMA	MW-207	03/04/2002	PROFILE	270.00	270.00	126.00	126.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,	YES*

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

* = Interference in sample