

**WEEKLY PROGRESS UPDATE
FOR FEBRUARY 25 – MARCH 1, 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 February 25 to March 1, 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 1 is summarized in Table 1.

Table 1. Drilling progress as of March 1, 2002				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-203	Central Impact Area (CIAP-20)	350	204	166-176
MW-204	Central Impact Area (CIAP-22)	260	204	76-86; 141-151
MW-206	Central Impact Area (CIAP-19)	220	61	
MW-207	Central Impact Area (CIAP-18)	210	66	
MW-208	Central Impact Area (CIAP-21)	339	201	
bgs = below ground surface bwt = below water table				

Completed well installation of MW-203 (CIAP-20) and MW-204 (CIAP-22). Completed drilling of MW-208 (CIAP-21) and commenced drilling of MW-206 (CIAP-19), and MW-207 (CIAP-18). 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 MW-208. Groundwater samples were collected from Bourne water supply wells, sentry wells and far field wells. A groundwater sample was collected for a preliminary round for a recently installed Central Impact Area well. Water samples were collected from the GAC treatment system. Soil samples were collected from grids at Target 54 in the Central Impact Area. Post-detonation soil samples were collected from crater grids in the Central Impact Area. As part of the Munitions Survey Project, soil samples were collected from a polygon in the J-1 Range.

The Guard, EPA, and MADEP had a meeting on February 28 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)	MAJ Bill Myer (IAGWSPO)	Dave Hill (IAGWSPO)
Karen Wilson (IAGWSPO)	Bill Gallagher (IAGWSPO)	Pam Richardson (IAGWSPO)
LTC Bill FitzPatrick (MAARNG)	Jane Dolan (EPA)	Mike Jasinski (EPA)
Todd Borci (EPA)	Desiree Moyer (EPA)	Len Pinaud (MADEP)
Mark Panni (MADEP)	Darrell Deleppo (ACE)	Ed Wise (ACE)
Heather Sullivan (ACE)	Ellen Iorio (ACE)	Rob Foti (ACE)
Marc Grant (AMEC)	Kim Harriz (AMEC)	Jay Clausen (AMEC-phone)
Herb Colby (AMEC-phone)	Larry Hudgins (Tetra Tech)	Leo Montroy (Tetra Tech-phone)
Susan Stewart (Tetra Tech-phone)	Dave Williams (MDPH)	Joe Dauchy (Tetra Tech-phone)
Linda Daehn (Tetra Tech-phone)	Adam Balogh (TRC-phone)	Mark Hutson (Ellis)

Punchlist Items

- #2 Provide Perchlorate results for PZ208 (AMEC). Results provided earlier, non-detect at PZ208 for perchlorate. Jane Dolan (EPA) to double-check screen depths, and requested that this well be resampled at some point.
- #7 Provide list of past BIP actions reportable under the MCP (AMEC). List was distributed that showed all BIP samples with Explosive or other analyte detected above RCS-1 criteria. Yellow highlighting shows samples with RCS1 exceedances for analytes other than explosives; tan highlighting shows samples with RCS1 exceedances for other analytes and explosives. Samples with RCS1 exceedances for explosives only are not highlighted. Todd Borci (EPA) requested that the table be revised to show samples that had been addressed by a removal action. He also requested that a table/list be compiled showing how many BIP craters remained to be addressed. Footnote to be added to table to explain Q_Code. Additional information to be provided by 3/21 Tech meeting.
- #10 Provide list/schedule of ASR witness interviews (Corps). Schedule distributed to agencies. Witness interviews remaining were provided in a list. All interview summaries were previously distributed via email. Todd Borci to check to see if additional interviewee questions regarding BA-1 Disposal Area were emailed.
- #12 Provide results for Bourne/Sandwich wells (AMEC). Results provided via email. Agenda topic.
- #13 Provide date for USGS Snake Pond Letter Report submittal (IAGWSPO). Report to be submitted 3/15, potentially earlier; follow-on investigation tentatively scheduled to commence 3/19.

Munitions Survey Project Update

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

AirMag. Excavation of 17th anomaly at KD Range is being conducted today.

HUTA2. Intrusive activity was conducted for several days at Transect 4. Intrusive work to be continued at Transects 2&3 on 3/4; QA of Transect 1&5 also to be conducted the week of 3/4.

Eastern MSP. Continue grubbing of area, surface avoidance, and cataloging of surface items. EM61 to commence Saturday, 3/2.

Scar Site. Surveying is being conducted this week.

U Range. Surveying possibly to commence Friday, 3/1.

J Range Polygons. Excavation of J-1 Range Polygon 1 is completed. Approximately 1,900 items were uncovered. 125 Mortars are scheduled to be BIPed Saturday 3/2, pending approval by the Town of Sandwich. These items include:

- 42 81mm Mortars, Inert M374A1 with M567 Series PD Fuze
- 31 81mm Mortars, Potential HE M374A1 with M567 PS Fuze.
- 41 81mm Mortar, Potential HE M374A1 with M524 Series PD Fuze.
- 11 60mm Mortars, Unfuzed M302 Potential White Phosphorus (WP) Mortars.

The 114 81mm Mortars will be BIPed in a 2 ft by 30 ft long trench, 30 inches deep, located near the entrance of J-1 Range. The mortars (approximately 30 at a time) will be laid in the trench separated by sandbags. Plywood will be placed over the trench and secured with sandbags. Blast shields comprised of steel plating will be placed on the Sandwich (southeast) side of the trench. The mortars will be BIPed in 4 separate events. The 11 WP mortars will be BIPed near the 1000m Berm on J-1 Range. After Saturday, the J Range Polygon work will be postponed to focus on work in the Central Impact Area. J Range Polygon excavations to be resumed 4/08.

Follow-up Actions.

- General field work schedule (MSP and groundwater study) to be provided and discussed at 3/7 Tech meeting. Polygons should be investigated prior to J Range well installations in proximal areas. The field program could also have conflicts with Former H Range fieldwork.

Bourne Well Update

- Perchlorate was recently detected in 3 sentinel wells for the Bourne well field.
- In response to these detections, the Guard has directed AMEC to resample all Bourne sentinel wells, all Bourne production wells, and all five well screens in each of Far Field wells: MW-80, MW-81, and MW-82.
- In addition, Bourne has requested that the Guard sample 15 test wells and a spring (east of Upper Pond), which have not been previously sampled. AMEC is working on obtaining locations and depths for these wells. Bill Gallagher (IAGWSPO) to provide list of wells and all information available on the wells to Len Pinaud (MADEP). Some of the well screens are greater than 10 feet long, therefore the Guard intends to collect groundwater samples at 10 foot intervals along these well screens. All this sampling may not be completed by the end of next week.
- The Guard is developing a Response Plan to evaluate these off-base detections of perchlorate near the Bourne well field. Guard to discuss with EPA and MADEP additional well locations in after meeting today. Mobilization to begin drilling additional monitoring wells may commence as early as Monday 3/4.
- Todd Borci requested that an investigation of the on-site sources of the Perchlorate for this area also be addressed (as a second priority) in the Response Plan the Guard is developing. The Guard agreed to evaluate on-base source areas (evaluating what existing wells should be sampled or resampled for Perchlorate) to be addressed in three weeks at the 3/21 Tech meeting. The EPA agreed that after the initial evaluation and sampling for source areas, follow-on sampling may best be addressed in the Long Term Monitoring (LTM) Plan.
- Jane Dolan requested construction details on the new production well recently installed at Range Control. This well was installed to replace the existing water supply well.

Central Impact Area Wells Update

Heather Sullivan (ACE) lead the discussion on finalizing additional well locations in the Central Impact Area. Profile results and screen selection have been completed for MW-205 (CIAP-16), MW-203 (CIAP-24) and MW-202 (CIAP-15). The following agreements were reached for proposed downgradient well locations:

CIAP-23 - All parties agreed that the currently staked and ROA-approved location on Wood Road, approximately half way between 5 Corners and MW-205, should be the final drilling location. At this location, information will be used to determine if deep detections of explosives at MW-205 are separate from Central Impact Area detections to the west and may shed light on the possible origin of detections at MW-205, which current modeling indicates are too deep to have originated at the J-1 Range. The EPA maintains that at an approximate hydraulic gradient of 1foot/70feet, detections in MW-205 may have originated at the very end of the J-1 Range.

Eventually, a well may also need to be scoped at a location to the east of MW-205, however this may be best addressed under the J Ranges scope of work.

CIAP-14 - All parties agreed to hold off on selecting a location for this well, pending results from other Central Impact Area wells. Alternative locations proposed include moving the location southwest between forward tracks from MW-41 (a non detect well) and MW-97 and moving the location northeast of MW-203 on the particle track from MW-204. Todd Borci requested that MW-41, which per last year's LTM Plan was sampled only in the August 2001 round, be sampled as part of the April 2002 round. AMEC to specify in 2002 LTM Plan to be submitted shortly.

CIAP-13 – All parties agreed to original proposed location for this well as downgradient of MW-178, since profile results for MW-202 showed low detections of RDX, approximately 0.3 ppb. An ROA needs to be submitted for this well location.

CIAP-25 – Remains on holding pending results from other wells.

- Heather Sullivan to append 31 January 2002 Project Note summarizing agreed locations for the Central Impact Area wells.
- Proposed wells CIAP-18, CIAP-19 and CIAP-21 are currently being drilled. Profile results for CIAP-21 may be available on 3/1, so there will likely be a screen selection call on Monday 3/4.

MW-187 Finger Printing Results

Jay Clausen (AMEC) and Herb Colby (AMEC) summarized information obtained on MW-187.

- Current particle backtracking indicates that groundwater above bedrock at MW-187 (where high concentrations of benzene, toluene, ethyl benzene, and xylene were detected) originated 1000 years ago at the top of the water table. Jay Clausen to take a second look at possible “more realistic” travel times.
- Fingerprinting results indicate that there are individual peaks in the sample chromatograph that represent BTEX fuel constituents, however the chromatograph pattern lacks a hydrocarbon “hump” around these peaks which is the typical profile seen in new or weathered fuel products.
- Heather Sullivan indicated that the Guard had agreed to advance CIAP-11, which is downgradient of MW-187, to bedrock. Scheduling for installation of CIAP-11 will be included with general fieldwork schedule discussion, next week.
- Todd Borci requested that two separate schedule paths be prepared, 1) showing postponement of HUTA work, deferred to complete wells and 2) execution of field work in current proposed sequence (i.e. HUTA completed by 4/6).

Miscellaneous

- Jane Dolan indicated that Foster Wheeler sampled the new Water Supply Wells (WS-1, WS-2, WS-3) for explosives and perchlorate analysis this week. Darrell Deleppo (ACE) to speak to Hap Gonser (JPO) about getting a copy of the analytical results.
- Todd Borci requested that the Sandwich Town Hall Spring Well be sampled for VOCs. The Guard agreed to collect this sample when samples are collected at production wells at the Sandwich Fish Hatchery (operated by the Dept. of Fish and Wildlife) for explosives, perchlorate, and VOC analysis. EPA also requested copies of the well information once AMEC obtains this information following the meeting next week with the Dept. of Fish and Wildlife.
- Mike Jasinski (EPA) indicated that the AFCEE CS-19 Draft Remedial Investigation Report will be submitted 3/15.

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 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 MW-193M1 (J-3 Range) and a duplicate sample had detections of HMX that were confirmed by PDA spectra. This is the first time this well has been sampled and these first round results were consistent with the groundwater profile results.
- Groundwater samples from MW-193S (J-3 Range) had a detection of RDX that was confirmed by PDA spectra. This is the first time this well has been sampled and these first round results were consistent with the groundwater profile results.
- Groundwater profile samples from MW-208 (CIAP-21) had detections of 1,3,5-trinitrobenzene (1 interval), 1,3-dinitrobenzene (1 interval), nitrobenzene (3 intervals), 3-nitrotoluene (1 interval), 4-nitrotoluene (2 intervals), nitroglycerin (13 intervals), 2A-DNT (3 intervals), 4A-DNT (5 intervals), picric acid (5 intervals), and RDX (2 intervals). The detection of 3-nitrotoluene and one detection of RDX were confirmed by PDA spectra, but with interference. The second detection of RDX was not confirmed by PDA, but with interference.

3. DELIVERABLES SUBMITTED

Weekly Progress Update for February 18 – February 22, 2002

03/01/02

4. SCHEDULED ACTIONS

Scheduled actions for the week of March 4 include complete well installation of MW-208 (CIAP-21), complete drilling of MW-206 (CIAP-19) and MW-207 (CIAP-18), and commence drilling of CIAP-17. Commence drilling of Bourne water supply monitoring borings. Bourne water supply wells, sentry wells and far field wells will be sampled on a regular basis.

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. Road building for the first proposed monitoring well, D1P-9 is scheduled to be completed by March 15, 2002. Subsequent locations have been proposed and the next location will be selected and approved based on the profile results at D1P-9. A resolution meeting to discuss Guard responses to EPA and DEP comments on the Draft Final Demo Area 1 Soil Report was conducted on February 28, 2002. The Draft Memorandum of Resolution was submitted for the Draft Post-Screening Investigation Work Plan on February 27, 2002.

TABLE 2
 SAMPLING PROGRESS
 02/23/2002 - 03/01/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
97-2E	FIELDQC	02/27/2002	FIELDQC	0.00	0.00		
97-3E	FIELDQC	02/26/2002	FIELDQC	0.00	0.00		
97-5E	FIELDQC	02/25/2002	FIELDQC	0.00	0.00		
G207DAE	FIELDQC	02/28/2002	FIELDQC	0.00	0.00		
G208DEE	FIELDQC	02/26/2002	FIELDQC	0.00	0.00		
G208DIE	FIELDQC	02/27/2002	FIELDQC	0.00	0.00		
G208DTE	FIELDQC	03/01/2002	FIELDQC	0.00	0.00		
HC153A1AAE	FIELDQC	02/25/2002	FIELDQC	0.00	0.00		
HC153A1AAT	FIELDQC	02/25/2002	FIELDQC	0.00	0.00		
HC153B1AAE	FIELDQC	02/26/2002	FIELDQC	0.00	0.00		
HC153B1AAT	FIELDQC	02/26/2002	FIELDQC	0.00	0.00		
TW00-4DAE	FIELDQC	03/01/2002	FIELDQC	0.00	0.00		
4036000-01G	4036000-01G	02/27/2002	GROUNDWATER				
4036000-03G	4036000-03G	02/27/2002	GROUNDWATER				
4036000-03GD	4036000-03G	02/27/2002	GROUNDWATER				
4036000-04G	4036000-04G	02/27/2002	GROUNDWATER				
4036000-06G	4036000-06G	02/27/2002	GROUNDWATER				
97-1	97-1	02/26/2002	GROUNDWATER	83.00	93.00	62.00	72.00
97-2	97-2	02/27/2002	GROUNDWATER	75.00	85.00	53.00	63.00
97-3	97-3	02/26/2002	GROUNDWATER	75.00	85.00	36.00	46.00
97-5	97-5	02/25/2002	GROUNDWATER	84.00	94.00	76.00	86.00
MW00-4A	MW00-4A	03/01/2002	GROUNDWATER	64.00	70.00	38.00	44.00
TW00-4DAA	TW00-4DAA	03/01/2002	GROUNDWATER	72.00	90.00	42.00	60.00
TW00-4DBA	TW00-4DBA	02/28/2002	GROUNDWATER	72.00	90.00	42.00	60.00
W159M1A	MW-159	02/25/2002	GROUNDWATER	178.50	188.50	53.00	63.00
W80DDA	MW-80	02/27/2002	GROUNDWATER	158.00	168.00	114.00	124.00
W80M1A	MW-80	02/27/2002	GROUNDWATER	130.00	140.00	86.00	96.00
W80M2A	MW-80	02/28/2002	GROUNDWATER	100.00	110.00	56.00	66.00
W80M3A	MW-80	02/27/2002	GROUNDWATER	70.00	80.00	26.00	26.00
W80SSA	MW-80	02/28/2002	GROUNDWATER	43.00	53.00	0.00	10.00
W80SSD	MW-80	02/28/2002	GROUNDWATER	43.00	53.00	0.00	10.00
W81DDA	MW-81	03/01/2002	GROUNDWATER	184.00	194.00	156.00	166.00
W81M1A	MW-81	02/28/2002	GROUNDWATER	128.00	138.00	100.00	110.00
W81M2A	MW-81	03/01/2002	GROUNDWATER	83.00	93.00	55.00	56.00
W81M3A	MW-81	03/01/2002	GROUNDWATER	53.00	58.00	25.00	30.00
W81SSA	MW-81	03/01/2002	GROUNDWATER	64.00	70.00	0.00	10.00
DW022602	GAC WATER	02/26/2002	IDW	0.00	0.00		
DW022802	GAC WATER	02/28/2002	IDW	0.00	0.00		
DW030102	GAC WATER	03/01/2002	IDW	0.00	0.00		
G206DAA	MW-206	02/28/2002	PROFILE	165.00	165.00	6.50	6.50
G206DBA	MW-206	02/28/2002	PROFILE	173.00	170.00	11.50	11.50
G206DCA	MW-206	03/01/2002	PROFILE	180.00	180.00	21.50	21.50
G206DDA	MW-206	03/01/2002	PROFILE	190.00	190.00	31.50	31.50

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

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
 02/23/2002 - 03/01/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
G206DEA	MW-206	03/01/2002	PROFILE	200.00	200.00	41.50	41.50
G206DFA	MW-206	03/01/2002	PROFILE	210.00	210.00	51.50	51.50
G207DAA	MW-207	02/28/2002	PROFILE	150.00	150.00	6.00	6.00
G207DBA	MW-207	03/01/2002	PROFILE	160.00	160.00	16.00	16.00
G207DCA	MW-207	03/01/2002	PROFILE	170.00	170.00	26.00	26.00
G207DDA	MW-207	03/01/2002	PROFILE	180.00	180.00	36.00	36.00
G207DEA	MW-207	03/01/2002	PROFILE	190.00	190.00	46.00	46.00
G207DFA	MW-207	03/01/2002	PROFILE	200.00	200.00	56.00	56.00
G207DGA	MW-207	03/01/2002	PROFILE	210.00	210.00	66.00	66.00
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90
G208DBA	MW-208	02/26/2002	PROFILE	160.00	160.00	21.90	21.90
G208DCA	MW-208	02/26/2002	PROFILE	170.00	170.00	31.90	31.90
G208DDA	MW-208	02/26/2002	PROFILE	180.00	180.00	41.90	41.90
G208DEA	MW-208	02/26/2002	PROFILE	190.00	190.00	51.90	51.90
G208DFA	MW-208	02/27/2002	PROFILE	200.00	200.00	61.90	61.90
G208DGA	MW-208	02/27/2002	PROFILE	210.00	210.00	71.90	71.90
G208DHA	MW-208	02/27/2002	PROFILE	220.00	220.00	81.90	81.90
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90
G208DJA	MW-208	02/28/2002	PROFILE	240.00	240.00	101.90	101.90
G208DKA	MW-208	02/28/2002	PROFILE	250.00	250.00	111.90	111.90
G208DLA	MW-208	02/28/2002	PROFILE	260.00	260.00	121.90	121.90
G208DLD	MW-208	02/28/2002	PROFILE	260.00	260.00	121.90	121.90
G208DMA	MW-208	02/28/2002	PROFILE	270.00	270.00	131.90	131.90
G208DNA	MW-208	02/28/2002	PROFILE	280.00	280.00	141.90	141.90
G208DOA	MW-208	02/28/2002	PROFILE	290.00	290.00	151.90	151.90
G208DPA	MW-208	03/01/2002	PROFILE	300.00	300.00	161.90	161.90
G208DQA	MW-208	03/01/2002	PROFILE	310.00	310.00	171.90	171.90
G208DRA	MW-208	03/01/2002	PROFILE	320.00	320.00	181.90	181.90
G208DSA	MW-208	03/01/2002	PROFILE	330.00	330.00	191.90	191.90
G208DTA	MW-208	03/01/2002	PROFILE	339.00	339.00	200.90	200.90
HC153A1AAA	153A1	02/25/2002	SOIL GRID	0.00	0.25		
HC153A1BAA	153A1	02/25/2002	SOIL GRID	0.25	0.50		
HC153A1CAA	153A1	02/26/2002	SOIL GRID	0.50	1.00		
HC153B1AAA	153B1	02/26/2002	SOIL GRID	0.00	0.25		
HC153B1BAA	153B1	02/26/2002	SOIL GRID	0.25	0.50		
HC153B1CAA	153B1	02/26/2002	SOIL GRID	0.50	1.00		
HCA02200201AA	A02200201	02/25/2002	SOIL GRID	0.00	0.25		
HD153A1AAA	153A1	02/25/2002	SOIL GRID	0.00	0.25		
HD153A1BAA	153A1	02/25/2002	SOIL GRID	0.25	0.50		
HD153A1CAA	153A1	02/26/2002	SOIL GRID	0.50	1.00		
HD153A3AAA	153A3	02/25/2002	SOIL GRID	0.00	0.25		
HD153A3BAA	153A3	02/25/2002	SOIL GRID	0.25	0.50		
HD153A3CAA	153A3	02/26/2002	SOIL GRID	0.50	1.00		
HD153A5AAA	153A5	02/25/2002	SOIL GRID	0.00	0.25		

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

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
 02/23/2002 - 03/01/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HD153A5BAA	153A5	02/25/2002	SOIL GRID	0.25	0.50		
HD153A5CAA	153A5	02/26/2002	SOIL GRID	0.50	1.00		
HD153A7AAA	153A7	02/25/2002	SOIL GRID	0.00	0.25		
HD153A7BAA	153A7	02/25/2002	SOIL GRID	0.25	0.50		
HD153A7CAA	153A7	02/26/2002	SOIL GRID	0.50	1.00		
HD153B1AAA	153B1	02/26/2002	SOIL GRID	0.00	0.25		
HD153B1BAA	153B1	02/26/2002	SOIL GRID	0.25	0.50		
HD153B1CAA	153B1	02/26/2002	SOIL GRID	0.50	1.00		
HD153B3AAA	153B3	02/26/2002	SOIL GRID	0.00	0.25		
HD153B3BAA	153B3	02/26/2002	SOIL GRID	0.25	0.50		
HD153B3CAA	153B3	02/26/2002	SOIL GRID	0.50	1.00		
HD153B5AAA	153B5	02/26/2002	SOIL GRID	0.00	0.25		
HD153B5BAA	153B5	02/26/2002	SOIL GRID	0.25	0.50		
HD153B5CAA	153B5	02/26/2002	SOIL GRID	0.50	1.00		
HD153B7AAA	153B7	02/26/2002	SOIL GRID	0.00	0.25		
HD153B7BAA	153B7	02/26/2002	SOIL GRID	0.25	0.50		
HD153B7CAA	153B7	02/26/2002	SOIL GRID	0.50	1.00		
HDA02200201AA	A02200201	02/25/2002	SOIL GRID	0.00	0.25		
J1.F.T1.BP1.1.0	J1.T1.BP1.O	02/27/2002	SOIL GRID	0.00	6.00		
J1.F.T1.BP1.2.0	J1.T1.BP1.O	02/27/2002	SOIL GRID	6.00	6.25		
J1.F.T1.BP1.3.0	J1.T1.BP1.O	02/27/2002	SOIL GRID	2.00	2.25		
J1.F.T1.MT1.1.0	J1.T1.MT1.O	02/25/2002	SOIL GRID	0.00	7.25		
J1.F.T1.MT1.1.D	J1.T1.MT1.O	02/25/2002	SOIL GRID	0.00	7.25		
J1.F.T1.MT1.2.0	J1.T1.MT1.O	02/25/2002	SOIL GRID	7.00	7.25		

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

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 02/09/02 - 03/01/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W193M1A	MW-193	02/20/2002	GROUNDWATER	57.00	62.00	23.80	28.80	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO	YES
W193M1D	MW-193	02/20/2002	GROUNDWATER	57.00	62.00	23.80	28.80	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO	YES
W193SSA	MW-193	02/13/2002	GROUNDWATER	31.00	36.00	0.00	10.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	1,3,5-TRINITROBENZENE	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	1,3-DINITROBENZENE	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	4-NITROTOLUENE	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	NITROBENZENE	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	NITROGLYCERIN	NO
G208DAA	MW-208	02/26/2002	PROFILE	150.00	150.00	11.90	11.90	8330N	PICRIC ACID	NO
G208DBA	MW-208	02/26/2002	PROFILE	160.00	160.00	21.90	21.90	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G208DBA	MW-208	02/26/2002	PROFILE	160.00	160.00	21.90	21.90	8330N	NITROGLYCERIN	NO
G208DCA	MW-208	02/26/2002	PROFILE	170.00	170.00	31.90	31.90	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G208DCA	MW-208	02/26/2002	PROFILE	170.00	170.00	31.90	31.90	8330N	NITROBENZENE	NO
G208DCA	MW-208	02/26/2002	PROFILE	170.00	170.00	31.90	31.90	8330N	NITROGLYCERIN	NO
G208DCA	MW-208	02/26/2002	PROFILE	170.00	170.00	31.90	31.90	8330N	PICRIC ACID	NO
G208DDA	MW-208	02/26/2002	PROFILE	180.00	180.00	41.90	41.90	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G208DDA	MW-208	02/26/2002	PROFILE	180.00	180.00	41.90	41.90	8330N	NITROGLYCERIN	NO
G208DDA	MW-208	02/26/2002	PROFILE	180.00	180.00	41.90	41.90	8330N	PICRIC ACID	NO
G208DEA	MW-208	02/26/2002	PROFILE	190.00	190.00	51.90	51.90	8330N	NITROGLYCERIN	NO
G208DFA	MW-208	02/27/2002	PROFILE	200.00	200.00	61.90	61.90	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES*
G208DFA	MW-208	02/27/2002	PROFILE	200.00	200.00	61.90	61.90	8330N	NITROGLYCERIN	NO
G208DGA	MW-208	02/27/2002	PROFILE	210.00	210.00	71.90	71.90	8330N	NITROGLYCERIN	NO
G208DHA	MW-208	02/27/2002	PROFILE	220.00	220.00	81.90	81.90	8330N	NITROGLYCERIN	NO
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	3-NITROTOLUENE	YES*
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	4-NITROTOLUENE	NO
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	NO**
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	NITROBENZENE	NO

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 02/09/02 - 03/01/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	NITROGLYCERIN	NO
G208DIA	MW-208	02/27/2002	PROFILE	230.00	230.00	91.90	91.90	8330N	PICRIC ACID	NO
G208DJA	MW-208	02/28/2002	PROFILE	240.00	240.00	101.90	101.90	8330N	NITROGLYCERIN	NO
G208DKA	MW-208	02/28/2002	PROFILE	250.00	250.00	111.90	111.90	8330N	NITROGLYCERIN	NO
G208DLD	MW-208	02/28/2002	PROFILE	260.00	260.00	121.90	121.90	8330N	NITROGLYCERIN	NO
G208DMA	MW-208	02/28/2002	PROFILE	270.00	270.00	131.90	131.90	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
G208DMA	MW-208	02/28/2002	PROFILE	270.00	270.00	131.90	131.90	8330N	NITROGLYCERIN	NO
G208DMA	MW-208	02/28/2002	PROFILE	270.00	270.00	131.90	131.90	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 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