WEEKLY PROGRESS UPDATE
FOR MARCH 11 – MARCH 15, 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 11 to March 15, 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 15 is summarized in Table 1.

Table 1. Drilling progress as of March 15, 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	167	178.5-188.5, 156-166
MW-207	Central Impact Area (CIAP-18)	330	186	254-264, 224-234
MW-209	Central Impact Area (CIAP-17)	329	211	
02-01	Bourne water supply boring	111	55	
02-02	Bourne water supply boring	125	74	

bgs = below ground surface
bwt = below water table

Completed well installation of MW-206 (CIAP-19), MW-207 (CIAP-18), completed drilling 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 well 02-02 and MW-209. Groundwater samples were collected from Bourne water supply wells and sentry wells. Groundwater samples were collected for preliminary rounds from Demo 1, Southeast Corner of the Ranges, and Central Impact Area wells and for additional perchlorate sampling in select Central Impact Area wells. Water samples were collected from the GAC treatment system. Soil samples were collected from grids at the U Range and from soil cutting piles at recently installed groundwater wells.

The Guard, EPA, and MADEP had a meeting on March 14 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)	Dave Hill (IAGWSPO)	Karen Wilson (IAGWSPO)
Pam Richardson (IAGWSPO)	Kris Curley (IAGWSPO)	LTC Bill FitzPatrick (MAARNG)
COL Albert Bleakley (JPO)	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)	John Rice (AMEC-phone)
Kim Harriz (AMEC)	Herb Colby (AMEC)	Mark Applebee (AMEC)
Jay Clausen (AMEC-phone)	Larry Hudgins (Tetra Tech)	Joe Dauchy (Tetra Tech-phone)
Leo Montroy (Tetra Tech-phone)	Ken Valder (Tetra Tech)	Dave Williams (MDPH)
Adam Balogh (TRC - phone)	Denis LeBlanc (USGS)	

Punchlist Items

#2 Provide RAD results for MW-181 (AMEC). Herb Colby (AMEC) indicated that the thorium results for the groundwater profile sample show non-detect or background values for the water. Radium results are pending.

#6 Provide results for WS-1, WS-2 and WS-3 supply wells and sentry wells (Corps). Sampling of Sentry wells began last Monday and will be finished next week. Results are expected by 4/15. Corps to coordinate with JPO to obtain results.

#7 Provide location ID translation for Tetra Tech transects for HUTA2 (Corps). Explanation emailed 3/8.

#8 Provide list of ASP stored items containing Perchlorate (Corps). Master list of munitions containing perchlorate to be provided today. Will not include all items used in J Ranges. List of items in ASP that contain perchlorate to be provided next.

#9 Provide update on Sandwich Fish Hatchery wells (AMEC). Results were non detect for explosives and perchlorate. Trace detections of chloroform were found in all four wells.

Munitions Survey Project Update

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

AirMag. No activity.

HUTA2. QA of Transect 1 and 5 completed. Intrusive work continued at Transects 2&3; 100% Schonstedt survey has been completed for 17 of 28 grids in Transect 2 and 16 of 28 grids in Transect 3. For Transect 4, the second EM61 survey is being conducted with 9 of 28 grids completed.

- Joe Dauchy (Tetra Tech) discussed a problem with background "noise" at Transect 4. In Transect 4, Tetra Tech is seeing a lot of fine ferrous dust or millimeter-sized magnetic fragments. In order to get rid of the background noise, the dirt would need to be sifted or removed. This high background metal or noise is obstructing the signal from deeper ordnance such that they are probably identifying approximately 95% of munitions (particularly smaller, deeper ordnance), not 100% as they had for the other transects. The noise is mostly a problem in the middle of the transect around the target. Rather than remove topsoil, the Guard would prefer to continue with the investigation as scoped, accepting that approximately 5% of munitions may not be cleared. EPA concurred with the Guard's approach, continued clearance without topsoil removal. The noise problem will be addressed in the HUTA2 Report.

Eastern MSP. EM61 surveys are being conducted on weekends.

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

J Range Polygons. No new activity.

BIP Items- 11 60MM Mortars were BIPed last week. They were all determined to be inert/wax-filled; none were white phosphorus. 114 Items are scheduled to be BIPed Saturday, 30 items at a time in a 3 ft wide by 30 ft long by 30 inch deep trench. The items will be separated by

sandbags and covered with plywood anchored by 20 inches of sandbags. The items to be BIPed include:

42 81MM Mortars, Inert M374A1 with M567 Series PD Fuze
31 81MM Mortars, Potential HE M374A1 with M567 PD Fuze
41 81MM Mortars, Potential HE M374A1 with M524 Series PD Fuze

- The pre- and post BIP sampling approach for these items were discussed. The Guard and agencies agreed that 5 pre-BIP samples and 10 post-BIP samples would be collected from the trench where the BIPs will be conducted. The post-BIP sampling will follow the standard protocol. The Guard to provide a proposed grid configuration for the pre-BIP samples to the agencies.

Bourne Well Update

- Heather Sullivan (Corps) provided an update on the status of the Bourne Response Plan. Borings 02-1 and 02-2 have been completed. The next borings to be completed will be 02-3 and 02-4 and then the boring around 97-5.
- Screens were set at 02-1. A screen was set at 28-38 ft bwt to monitor the VOC detections found in the profile samples and at 44-54 ft bwt since this is the depth of the well screen for Supply Well 3. The VOC detections are thought to have an origin from one of the surrounding commercial or industrial properties.
- The first three profile intervals for 02-2 have detections of perchlorate at estimated values less than 1 ppb. These are the only results so far for 02-2.
- Supply wells 3 and 4 are currently not being used by the Bourne Water District.
- Jay Clausen (AMEC) indicated that the surveyors will be out on Wednesday 3/20 to survey area wells. Once the wells are surveyed, a water level survey should be conducted in order to get a better handle on the hydrogeology of the area.
- Mr. Clausen also indicated that the new bedrock information (higher elevation) has been added to the model. New particle backtracks generated using the updated model show that backtrack from 02-1 at 35 bwt approximately 8000 feet. However, these results are still preliminary.
- Len Pinaud (MADEP) suggested that the Sentinel wells (97 series) be sampled for VOCs. Ben Gregson (IAGWSPO) indicated that currently the Water Supply wells are being sampled biweekly and the 97 series are being sampled monthly for explosives/perchlorate only. Mr. Gregson to speak with the Bourne Water District about sampling frequency and parameters for the Sentinel wells.

Snake Pond Drive Point Sampling

Denis LeBlanc (USGS) summarized the drive point sampling scheme that was being proposed for Snake Pond during Tuesday or Wednesday the week of March 18. A map of the locations would be faxed as soon as possible.

- In prior correspondence, Jane Dolan (EPA) had expressed concern about coverage on the east side of the spit. The USGS planned to sample a cluster of points at the location where perchlorate was previously detected. Samples at two depths would be attempted – one at the previous sampling depth and one deeper. Another sampling site was to the west of the spit on the cove side. Two additional locations were to the east on the submerged sandbar and near the Camp GoodNews beach. Two separate drive pints were proposed at each site, so that should alleviate the concern that a refusal would result in a sample not being collected from any one area. In addition, the USGS would have a hand-held GPS unit to pinpoint the proposed locations accurately.
- All parties agreed that samples for perchlorate and explosives would be collected.

- Herb Colby (AMEC) to find out the minimum sample volume that would be required for these analyses, as this would limit the number of samples that could be collected due to the very low flow rates of sampling.

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. A map showing the distribution of Perchlorate/Explosives detections in Demo 1 Area wells was distributed.

- Road building for D1P-9 is completed; the drill rig will set up on the site by the end of the week.
- The Perchlorate result for MW-173M2 was non detect, so the only detect for MW-173 was in shallower screen, M3. This well is being resampled. Results from MW-172 are still pending.
- A new hand-drawn plume map for both perchlorate and explosives was provided. The map now shows a wider (by a couple hundred feet) perchlorate plume, that is not bounded to the south or north by non detects in any wells. The explosive plume shell is essentially unchanged. The new data has caused the Guard to rethink the plume delineation approach that has already been proposed and accepted by the agencies. The additional delineation wells proposed to be installed after the profile results from D1P-9 are received may not be the most effective way to move forward in delineation. Alternative drilling locations include a D1P-10 well located at south of MW-173 along Pew Road that was proposed to bound the toe and southern extent of the perchlorate plume and a D1P-11 well located on Frank Perkins road south of MW-172 that was proposed as a possibility to bound the perchlorate plume to the south.
- Todd Borci (EPA) suggested, and all parties concurred, that the Tech team await the D1P-9 profile results and the results for resampling MW-173 and the next round results from MW-172. Once this information is available, the follow-on steps could be discussed. All data should be available by 4/9.

Explosive Analysis Detection Limits

Joe Dauchy (Tetra Tech) discussed a comparison of 5 analytical methods for explosive analysis (Regular SW8330, SW8095, GC/MS Linear, GC/MS SIM and SW8330M (low level).

- 38 soil samples from Transect 2, 3, and 4 in the HUTA were analyzed for all methods. A comparison of results showed multiple detections of various explosive compounds in the low level method that were only confirmed for one compound for one sample in the other analyses. This was a confirmed detection of RDX for sample TA310.
- Joe Dauchy hypothesized that the low-level method detections might be false positives associated with organic material in the samples. The fact that more compounds were detected in the shallow soil, which has a higher organic content, supports this theory. Tetra Tech plans to analyze the samples for Total Organic Carbon to see if there is any correlation with the amount of explosives detected in the low level analysis. Results will be summarized in the HUTA2 Report.
- Todd Borci (EPA) wondered if the TNT and associated breakdown products that were detected in the low level 8330 analysis but are not usually detectable in the regular 8330 analysis might not be false positives, but might be real. Jay Clausen (AMEC) confirmed that this could be a possibility.
- Sample chromatographs to be forwarded to EPA/DEP. Joe Dauchy to double check to see if all results were PDA-confirmed.

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 4036000-04G (Bourne water supply well) had a detection of perchlorate. This is the first time perchlorate has been detected in this well.

- Groundwater samples from MW-163S (J-3 Range) had detections of RDX and HMX that were confirmed by PDA spectra. These detections are similar to previous sampling rounds

- Groundwater samples from MW-173M3 (Demo Area 1) had a detection of perchlorate. This resampling result is similar to previous sampling round result, which was the first detection of perchlorate in this well.

- Groundwater samples from MW-176M1 (Central Impact Area) had a detection of RDX that was confirmed by PDA spectra. This is the first time RDX has been detected in this well.

- Groundwater samples from MW-178M1 (Central Impact Area) had a detection of RDX that was confirmed by PDA spectra. This detection is similar to previous sampling rounds.

- Groundwater samples from MW-201M2 (Central Impact Area) had a detection of RDX that was confirmed by PDA spectra. This first round sampling result is consistent with the groundwater profile results.

- Groundwater profile samples from 02-02 (Bourne sentry well) had detections of 1,3,5-trinitrobenzene (1 interval), 1,3-dintirobenzene (1 interval), HMX (1 interval), acetone (2 intervals), chloroform (8 intervals), and perchlorate (6 intervals). The detection of 1,3,5-trinitrobenzene was confirmed by PDA spectra.

- Groundwater profile samples from MW-209 (CIAP-17) had detections of RDX (3 intervals) and nitroglycerin (1 interval). The detections of RDX were confirmed by PDA spectra.

3. DELIVERABLES SUBMITTED

Weekly Progress Update for March 4 – March 8, 2002 03/15/02

4. SCHEDULED ACTIONS

Scheduled actions for the week of March 18 include complete well installation of MW-209 (CIAP-17) and 02-01 and 02-02 (Bourne), commence drilling of MW-210 (D1P-9) and boring 02-03 (Bourne water supply), continue Supplemental Phase IIB soil sampling and commence Demo Area 1 soil sampling.

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, will commence the week of March 18. 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 were re-sampled and the detection at MW-173M3 was duplicated. 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 will commence on March 18.

TABLE 2
SAMPLING PROGRESS
03/09/2002 - 03/15/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
97-5E	FIELDQC	03/12/2002	FIELDQC	0.00	0.00		
G02-01DDE	FIELDQC	03/12/2002	FIELDQC	0.00	0.00		
G02-02DDE	FIELDQC	03/11/2002	FIELDQC	0.00	0.00		
G02-02DDF	FIELDQC	03/11/2002	FIELDQC	0.00	0.00		
G02-02DDT	FIELDQC	03/11/2002	FIELDQC	0.00	0.00		
G02-02DGE	FIELDQC	03/12/2002	FIELDQC	0.00	0.00		
G02-02DGT	FIELDQC	03/12/2002	FIELDQC	0.00	0.00		
HD45H1CAE	FIELDQC	03/13/2002	FIELDQC	0.00	0.00		
SC20301E	FIELDQC	03/11/2002	FIELDQC	0.00	0.00		
W198M1E	FIELDQC	03/14/2002	FIELDQC	0.00	0.00		
W198M1T	FIELDQC	03/14/2002	FIELDQC	0.00	0.00		
4036000-01G	4036000-01G	03/13/2002	GROUNDWATER				
4036000-03G	4036000-03G	03/13/2002	GROUNDWATER				
4036000-04G	4036000-04G	03/13/2002	GROUNDWATER				
4036000-06G	4036000-06G	03/13/2002	GROUNDWATER				
97-1	97-1	03/12/2002	GROUNDWATER	83.00	93.00	92.00	72.00
97-2	97-2	03/12/2002	GROUNDWATER	75.00	85.00	53.00	63.00
97-3	97-3	03/12/2002	GROUNDWATER	75.00	85.00	36.00	46.00
97-5	97-5	03/12/2002	GROUNDWATER	84.00	94.00	76.00	86.00
W173M1A	MW-173	03/15/2002	GROUNDWATER	243.00	253.00	72.20	82.20
W173M2A	MW-173	03/13/2002	GROUNDWATER	243.00	253.00	72.20	82.20
W173M3A	MW-173	03/12/2002	GROUNDWATER	243.00	253.00	72.20	82.20
W182M2	MW-182	03/11/2002	GROUNDWATER	273.00	283.00	101.50	111.50
W198M1A	MW-198	03/14/2002	GROUNDWATER	150.00	155.00	127.80	132.80
W201M1A	MW-201	03/14/2002	GROUNDWATER	306.00	316.00	108.10	118.10
W201M2A	MW-201	03/13/2002	GROUNDWATER	286.00	296.00	88.20	98.20
W23M1A	MW-23	03/14/2002	GROUNDWATER	225.00	235.00	103.00	113.00
W36M3A	MW-36	03/14/2002	GROUNDWATER	175.00	185.00	35.00	45.00
W39M1A	MW-39	03/14/2002	GROUNDWATER	220.00	230.00	84.00	94.00
W39M2A	MW-39	03/14/2002	GROUNDWATER	175.00	185.00	39.00	49.00
W39M2D	MW-39	03/14/2002	GROUNDWATER	175.00	185.00	39.00	49.00
W43M2A	MW-43	03/14/2002	GROUNDWATER	200.00	210.00	67.00	77.00
W50M1A	MW-50	03/15/2002	GROUNDWATER	207.00	217.00	89.00	99.00
W50M1D	MW-50	03/15/2002	GROUNDWATER	207.00	217.00	89.00	99.00
DW031102	GAC WATER	03/12/2002	IDW	0.00	0.00		
DW031202	GAC WATER	03/12/2002	IDW	0.00	0.00		
SC20301	SOIL CUTTINGS	03/11/2002	IDW	0.00	0.00		
SC20601	SOIL CUTTINGS	03/11/2002	IDW	0.00	0.00		
SC20701	SOIL CUTTINGS	03/11/2002	IDW	0.00	0.00		
SC20801	SOIL CUTTINGS	03/11/2002	IDW	0.00	0.00		
SC20801D	SOIL CUTTINGS	03/11/2002	IDW	0.00	0.00		
G02-02DAA	G02-02	03/11/2002	PROFILE	55.00	60.00	3.50	8.50
G02-02DBA	G02-02	03/11/2002	PROFILE	65.00	70.00	13.50	18.50

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
03/09/2002 - 03/15/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
G02-02DCA	G02-02	03/11/2002	PROFILE	75.00	80.00	23.50	28.50
G02-02DDA	G02-02	03/11/2002	PROFILE	85.00	90.00	33.50	38.50
G02-02DEA	G02-02	03/12/2002	PROFILE	95.00	100.00	43.50	48.50
G02-02DFA	G02-02	03/12/2002	PROFILE	105.00	110.00	53.50	58.50
G02-02DGA	G02-02	03/12/2002	PROFILE	115.00	120.00	63.50	68.50
G02-02DHA	G02-02	03/12/2002	PROFILE	120.00	125.00	68.50	73.50
G209DAA	MW-209	03/11/2002	PROFILE	140.00	140.00	22.00	22.00
G209DBA	MW-209	03/11/2002	PROFILE	150.00	150.00	32.00	32.00
G209DCA	MW-209	03/11/2002	PROFILE	160.00	160.00	42.00	42.00
G209DDA	MW-209	03/11/2002	PROFILE	170.00	170.00	52.00	52.00
G209DEA	MW-209	03/11/2002	PROFILE	180.00	180.00	62.00	62.00
G209DFA	MW-209	03/11/2002	PROFILE	190.00	190.00	72.00	72.00
G209DGA	MW-209	03/12/2002	PROFILE	200.00	200.00	82.00	82.00
G209DHA	MW-209	03/12/2002	PROFILE	210.00	210.00	92.00	92.00
G209DIA	MW-209	03/12/2002	PROFILE	220.00	220.00	102.00	102.00
G209DJA	MW-209	03/12/2002	PROFILE	230.00	230.00	112.00	112.00
G209DKA	MW-209	03/12/2002	PROFILE	240.00	240.00	122.00	122.00
G209DLA	MW-209	03/12/2002	PROFILE	250.00	250.00	132.00	132.00
G209DMA	MW-209	03/12/2002	PROFILE	260.00	260.00	142.00	142.00
G209DNA	MW-209	03/12/2002	PROFILE	270.00	270.00	152.00	152.00
G209DOA	MW-209	03/12/2002	PROFILE	280.00	280.00	162.00	162.00
G209DPA	MW-209	03/12/2002	PROFILE	290.00	290.00	172.00	172.00
G209DQA	MW-209	03/12/2002	PROFILE	300.00	300.00	182.00	182.00
G209DRA	MW-209	03/12/2002	PROFILE	310.00	310.00	192.00	192.00
G209DSA	MW-209	03/13/2002	PROFILE	320.00	320.00	202.00	202.00
G209DTA	MW-209	03/13/2002	PROFILE	329.00	329.00	211.00	211.00
HC45F1AAA	45F1	03/13/2002	SOIL GRID	0.00	0.25		
HC45F1BAA	45F1	03/13/2002	SOIL GRID	0.25	0.50		
HC45F1CAA	45F1	03/13/2002	SOIL GRID	0.50	1.00		
HC45G1AAA	45G1	03/13/2002	SOIL GRID	0.00	0.25		
HC45G1BAA	45G1	03/13/2002	SOIL GRID	0.25	0.50		
HC45G1CAA	45G1	03/13/2002	SOIL GRID	0.50	1.00		
HC45H1AAA	45H1	03/13/2002	SOIL GRID	0.00	0.25		
HC45H1BAA	45H1	03/13/2002	SOIL GRID	0.00	0.25		
HC45H1CAA	45H1	03/13/2002	SOIL GRID	0.25	0.50		
HC45I1AAA	45I1	03/14/2002	SOIL GRID	0.00	0.25		
HC45I1BAA	45I1	03/14/2002	SOIL GRID	0.25	0.50		
HC45I1CAA	45I1	03/14/2002	SOIL GRID	0.50	1.00		
HC45I1CAD	45I1	03/14/2002	SOIL GRID	0.50	1.00		
HC45L1AAA	45L1	03/15/2002	SOIL GRID	0.00	0.50		
HC45L1BAA	45L1	03/15/2002	SOIL GRID	1.50	2.00		
HC45M1AAA	45M1	03/15/2002	SOIL GRID	0.00	0.50		
HC45M1BAA	45M1	03/15/2002	SOIL GRID	1.50	2.00		
HD45F1AAA	45F1	03/13/2002	SOIL GRID	0.00	0.25		

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
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SAMPLING PROGRESS
03/09/2002 - 03/15/2002

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HD45F1BAA	45F1	03/13/2002	SOIL GRID	0.25	0.50		
HD45F1CAA	45F1	03/13/2002	SOIL GRID	0.50	1.00		
HD45G1AAA	45G1	03/13/2002	SOIL GRID	0.00	0.25		
HD45G1BAA	45G1	03/13/2002	SOIL GRID	0.25	0.50		
HD45G1CAA	45G1	03/13/2002	SOIL GRID	0.50	1.00		
HD45G1CAD	45G1	03/13/2002	SOIL GRID	0.50	1.00		
HD45H1AAA	45H1	03/13/2002	SOIL GRID	0.25	0.50		
HD45H1BAA	45H1	03/13/2002	SOIL GRID	0.50	1.00		
HD45H1CAA	45H1	03/13/2002	SOIL GRID	0.50	1.00		
HD45I1AAA	45I1	03/14/2002	SOIL GRID	0.00	0.25		
HD45I1BAA	45I1	03/14/2002	SOIL GRID	0.25	0.50		
HD45I1CAA	45I1	03/14/2002	SOIL GRID	0.50	1.00		
HD45I2AAA	45I2	03/14/2002	SOIL GRID	0.00	0.25		
HD45I2BAA	4512	03/14/2002	SOIL GRID	0.25	0.50		
HD45J1AAA	45J1	03/15/2002	SOIL GRID	0.00	0.25		
HD45K1AAA	45K1	03/15/2002	SOIL GRID	0.00	0.25		
HD45L1AAA	45L1	03/15/2002	SOIL GRID	0.00	0.50		
HD45L1BAA	45L1	03/15/2002	SOIL GRID	1.50	2.00		
HD45M1AAA	45M1	03/15/2002	SOIL GRID	0.00	0.50		
HD45M1BAA	45M1	03/15/2002	SOIL GRID	1.50	2.00		
HD45N1AAA	45N1	03/15/2002	SOIL GRID	0.00	0.50		
HD45N1BAA	45N1	03/15/2002	SOIL GRID	1.50	2.00		
HD45P1AAA	45P1	03/15/2002	SOIL GRID	0.00	0.50		
HD45P1BAA	45P1	03/15/2002	SOIL GRID	1.50	2.00		

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 02/23/02 - 03/15/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G02-01DDE	FIELDQC	03/12/2002	FIELDQC	0.00	0.00			OC21V	ACETONE	
G02-02DDF	FIELDQC	03/11/2002	FIELDQC	0.00	0.00			OC21V	BROMODICHLOROMETHANE	
G02-02DDF	FIELDQC	03/11/2002	FIELDQC	0.00	0.00			OC21V	CHLOROFORM	
G02-02DDF	FIELDQC	03/11/2002	FIELDQC	0.00	0.00			OC21V	DIBROMOCHLOROMETHANE	
4036000-04G	4036000-04G	03/13/2002	GROUNDWATER					E314.0	PERCHLORATE	
W163SSA	MW-163	03/07/2002	GROUNDWATER	38.00	48.00	0.00	10.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W163SSA	MW-163	03/07/2002	GROUNDWATER	38.00	48.00	0.00	10.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W173M3A	MW-173	03/12/2002	GROUNDWATER	243.00	253.00	72.20	82.20	E314.0	PERCHLORATE	
W176M1A	MW-176	03/02/2002	GROUNDWATER	270.00	280.00	158.55	168.55	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W178M1A	MW-178	03/02/2002	GROUNDWATER	257.00	267.00	117.00	127.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W201M2A	MW-201	03/13/2002	GROUNDWATER	286.00	296.00	88.20	98.20	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G02-02DAA	G02-02	03/11/2002	PROFILE	55.00	60.00	3.50	8.50	E314.0	PERCHLORATE	
G02-02DAA	G02-02	03/11/2002	PROFILE	55.00	60.00	3.50	8.50	OC21V	ACETONE	
G02-02DAA	G02-02	03/11/2002	PROFILE	55.00	60.00	3.50	8.50	OC21V	CHLOROFORM	
G02-02DBA	G02-02	03/11/2002	PROFILE	65.00	70.00	13.50	18.50	E314.0	PERCHLORATE	
G02-02DBA	G02-02	03/11/2002	PROFILE	65.00	70.00	13.50	18.50	OC21V	CHLOROFORM	
G02-02DCA	G02-02	03/11/2002	PROFILE	75.00	80.00	23.50	28.50	E314.0	PERCHLORATE	
G02-02DCA	G02-02	03/11/2002	PROFILE	75.00	80.00	23.50	28.50	OC21V	CHLOROFORM	
G02-02DDA	G02-02	03/11/2002	PROFILE	85.00	90.00	33.50	38.50	E314.0	PERCHLORATE	
G02-02DDA	G02-02	03/11/2002	PROFILE	85.00	90.00	33.50	38.50	OC21V	CHLOROFORM	
G02-02DEA	G02-02	03/12/2002	PROFILE	95.00	100.00	43.50	48.50	E314.0	PERCHLORATE	
G02-02DEA	G02-02	03/12/2002	PROFILE	95.00	100.00	43.50	48.50	OC21V	CHLOROFORM	
G02-02DFA	G02-02	03/12/2002	PROFILE	105.00	110.00	53.50	58.50	E314.0	PERCHLORATE	
G02-02DFA	G02-02	03/12/2002	PROFILE	105.00	110.00	53.50	58.50	OC21V	CHLOROFORM	
G02-02DGA	G02-02	03/12/2002	PROFILE	115.00	120.00	63.50	68.50	OC21V	CHLOROFORM	
G02-02DHA	G02-02	03/12/2002	PROFILE	120.00	125.00	68.50	73.50	8330N	1,3,5-TRINITROBENZENE	YES
G02-02DHA	G02-02	03/12/2002	PROFILE	120.00	125.00	68.50	73.50	8330N	1,3-DINITROBENZENE	NO
G02-02DHA	G02-02	03/12/2002	PROFILE	120.00	125.00	68.50	73.50	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	NO
G02-02DHA	G02-02	03/12/2002	PROFILE	120.00	125.00	68.50	73.50	OC21V	ACETONE	
G02-02DHA	G02-02	03/12/2002	PROFILE	120.00	125.00	68.50	73.50	OC21V	CHLOROFORM	
G209DKA	MW-209	03/12/2002	PROFILE	240.00	240.00	122.00	122.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	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 02/23/02 - 03/15/02

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G209DLA	MW-209	03/12/2002	PROFILE	250.00	250.00	132.00	132.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G209DMA	MW-209	03/12/2002	PROFILE	260.00	260.00	142.00	142.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G209DPA	MW-209	03/12/2002	PROFILE	290.00	290.00	172.00	172.00	8330N	NITROGLYCERIN	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