

**WEEKLY PROGRESS UPDATE
FOR FEBRUARY 24 – FEBRUARY 28, 2003**

**EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019, 1-2000-0014,
& BOURNE-BWSC-4-15031**

**MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from February 24 through February 28, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of February 28 is summarized in Table 1.

Table 1. Drilling progress as of February 28, 2003				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-255	Demo Area 1 (D1P-19)	270	164	136-146; 170-180; 206-216
MW-259	Demo Area 2 (D2P-3)	240	55	
MW-261	Demo Area 2 (D2P-1)	230	66	
MW-262	Demo Area 2 (D2P-2)	90		
bgs = below ground surface bwt = below water table				

Completed well installation of MW-255 (D1P-19), completed drilling of MW-259 (D2P-3) and MW-261 (D2P-1), and commenced drilling of MW-262 (D2P-2). Well development continued for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected MW-259 and MW-261. Groundwater samples were collected from Bourne water supply, monitoring wells and spring, Sandwich supply wells, and recently installed wells. Influent water samples were collected as part of the pump test conducted at MW-80.

The following are the notes from the February 27, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Hap Gonser (AEC)	Ben Gregson (IAGWSPO)	Dave Hill (IAGWSPO)
Bill Gallagher (IAGWSPO)	LTC Bill FitzPatrick (E&RC)	Todd Borci (EPA)
Meghan Cassidy (EPA)	Desiree Moyer (EPA)	Jane Dolan (EPA)
Len Pinaud (MADEP)	Mark Panni (MADEP)	Dave Williams (MDPH)
Gina Kaso (ACE)	Ed Wise (ACE)	Heather Sullivan (ACE)
Mark Koenig (ACE)	Katarzyna Chelkowska (ACE)	Marc Grant (AMEC-phone)
Kim Harriz (AMEC)	Jay Clausen (AMEC)	Mark Applebee (AMEC-phone)
Dick Skryness (ECC)	Larry Pannell (Jacobs)	John Brawley (Tetra Tech)

Punchlist Items

- #5 Renew Access Agreement for PZ211 (Corps). Property owner has right of entry form, but it has not been signed.
- #6 Provide lot numbers for 20MM rounds at J-2 Range that are being moved to the CDC (Corps). CDC is being demobilized this week and therefore, the rounds are not being moved. Lot numbers have not been documented.
- #10 Provide summary of ITE Perchlorate program activities planned for MW-80 pump test and treatment pilot study (Corps). Summary was emailed previously.

MSP3 and Southeast Ranges Update

Gina Kaso (ACE) provided an update on the MSP3 task and SE Ranges fieldwork.

Ox Pond – A draft map of findings was emailed 2/20. Discussion of next steps is scheduled today as an after meeting.

Gun&Mortar – Anomaly excavation at MP-4 continues. Commenced investigation of GP-7. No significant findings to date. ROA approval was received for excavation at all positions.

Former Demo sites (Inactive Demo sites). The Schonstedt and EM61 surveys are completed. Data will be available early next week.

ASP – The Schonstedt survey is complete. Currently evaluating potential areas to conduct the EM61 survey.

NBC Ranges – The EM61 and Schonstedt surveys are completed. Data will be available next week.

SE Ranges Field Work – UXO clearance at J1P-16 was completed. Commenced UXO clearance at J3P-35. This well is not on the current drilling schedule, but is being prioritized for installation after the Demo 2 wells.

CDC – Gina Kaso stated an updated total of 19768 items are scheduled for destruction in the CDC. Through Friday 2/21, 10,100 items have been destroyed; 9668 remain. The CDC is scheduled to depart on 2/28. The CDC can be brought back when the work at Spring Valley is completed (estimated to be completed in one month), although the return date has not been guaranteed by the Huntsville Corps. Ms. Kaso agreed to keep in touch with the Huntsville Corps and inform the agencies regarding the schedule, as information becomes available.

- Jane Dolan (EPA) requested information on the plans for the 20MM rounds staged at the J Ranges.

ROA Status Table and Drilling Schedule

Heather Sullivan (ACE) distributed a one-page drilling schedule and 3-page ROA status table.

- The drilling schedule to be updated to show J3P-35. All three rigs are currently drilling at Demo Area 2 locations.
- There is nothing new on the ROA Status table since last week.
- Dr. Sue Goodfellow (E&RC) and Karen Wilson (IAGWSPO) approved the J3P-35 location without submitting the ROA to SHPO/NH, because the well is being drilled in an area that is already disturbed.
- Ms. Sullivan to check if boreholes for J2P-17 and J1P-16 are scoped for profiling for VOCs, perchlorate, and explosives.

Bourne Update

Bill Gallagher (IAGWSPO) summarized issues discussed at yesterday's (2/26) Bourne meeting.

Sampling Results - Weekly and monthly groundwater sampling continues. Bourne Supply Well 1 was offline last week, presumably for maintenance. There were no significant new detections in the sampled wells.

Monitoring Well Installation – ROA approval has been received for four proposed well locations. UXO clearance of BP-2 and BP-5 to commence this week. Ms. Sullivan to check as to why all four locations cannot be cleared at one time.

- BWD had three questions for the EPA that were addressed by Meghan Cassidy:
 1. Ms. Cassidy indicated there would be no changes in the proposed scope to investigate the Zone II Area of Bourne Water District wells.
 2. Ms. Cassidy indicated there were no anticipated changes in the sampling program for the Monument Beach Wellfield.
 3. Ms. Cassidy indicated that the EPA MMR Relevant Standard for perchlorate is not a cleanup number. The interim guidance for cleanup is 4-18 ppb. This interim guidance is not pertinent for site characterization. The EPA encourages the Guard to look forward for technology screening, etc. since it is anticipated that the final cleanup guidance will be lower than 4-18 ppb.
- BWD had three questions for the MADEP that were addressed by Len Pinaud (MADEP) and David Delorenzo (MADEP Water Supply):
 1. Mr. Pinaud indicated there would be no changes in the proposed scope to investigate the Zone II Area of Bourne Water District wells.
 2. Mr. Pinaud indicated there were no anticipated changes in the sampling program for the Monument Beach Wellfield.
 3. Mr. Delorenzo indicated the MADEP Division of Water Supply was not anticipating changing the 1.0 ppb Advice level for perchlorate for the Bourne Water District.
- BWD had six questions for the Army/NGB that were addressed by Hap Gonser (AEC):
 1. Mr. Gonser indicated the IAGWSPO planned to move forward with the proposed scope to investigate the Zone II Area of Bourne Water District wells.
 2. Mr. Gonser indicated there were no current changes in the sampling program for the Monument Beach Wellfield, but the program may be revisited prior to the summer season.
 3. Mr. Gonser indicated the IAGWSPO would continue to investigate technologies to treat groundwater contaminated with perchlorate. Mr. Gallagher indicated during the Tech meeting that accordingly, planning for the pilot test of the FBR technology was proceeding. The pump test of MW-80 to evaluate its potential use in the pilot test (to meet MADEP Water Supply requirements) is being executed. The water extracted during the test is being collected in a frac tank. If it is determined that MW-80 can be used in the pilot test, a proposal outlining the test will be provided to the agencies. Information from the pump test will be included in the proposal.
 4. Mr. Gonser indicated the Army was committed to protecting human health and would work with Bourne to determine appropriate actions.
 5. Mr. Gonser indicated that it appeared some additional effort on behalf of BWD consultants would be appropriate.
 6. Mr. Gallagher indicated the Bourne Perchlorate Response Plan MOR will be issued on 2/28. The MOR will include language stating that the IAGWSPO will continue the monitoring program for one quarter (through May). Then a meeting will be convened to discuss further monitoring as the peak season approaches. Mr. Borci stated that what had been discussed previously was to have the current monitoring program continue through the summer.

Northwest Corner Scope of Work

Bill Gallagher (IAGWSPO), in response to questions from EPA and MADEP, addressed the investigation of the Northwest Corner of Camp Edwards.

- Having received MADEP and EPA comments, the Army/Guard was in the process of revising the scope of work to be presented in a letter proposal early next week. Three wells would be proposed on the base boundary. The Army/NGB felt it was premature to drill wells

north or south of the Gallo Skating Rink. However, that does not mean that wells in these areas cannot be drilled in the future.

- Mr. Borci indicated rather than placing the wells on base, upgradient of the detection at well 4036009, he felt it would be better to delineate the extent of the plume in the area of known contamination first. Mr. Gallagher stressed it was better to know where it was coming off base to assist in determining where to place downgradient wells. In addition, the Army/NGB did not think it was useful to determine the extent of the plume immediately prior to its discharge into the canal.
- Mark Panni indicated MADEP would also like some assessment of the way forward after the initial wells were drilled. For instance, if perchlorate was not detected in any of the new wells, what would be the next step?
- EPA and MADEP both indicated that they pre-approved the Army/NGB to sample any existing wells as they determined to be warranted. Mr. Gallagher indicated it was part of the plan to sample Corps' water table well MW-1, one of three located in the vicinity of well 4036009. Screen information had also been obtained on the 95-15 series wells. Two of these wells had been sampled as part of the Site-Wide Perchlorate Plan. Additional screens that did not overlap the screens already sampled would also be proposed for sampling. Mr. Borci requested that Corps' well MW-1 be sampled before the next Tech meeting.

Miscellaneous

- Todd Borci requested an update of the SE Ranges Plume maps. The HMX map should include TNT detections. Ms. Sullivan indicated Herb Colby (AMEC) was in the process of revising the plume maps. Draft maps were expected within 1 to 2 weeks.
- Mr. Borci requested the current and upcoming well schedule be reviewed to assess the possibility of adding a fourth drilling rig.
- Heather Sullivan provided an update of the status of the dry wells to be sampled pursuant to the Site Wide Perchlorate Report. AMEC had noted a couple wells scoped for the LTGM were still dry last week; therefore they tested 4 of the 32 previously dry wells remaining to be sampled for perchlorate. Two wells (122S, 61S) were dry. Two other wells (9S, 72S) were covered with snow and ice and could not be sampled. Therefore, completion of the sampling of the dry wells in March should still be considered tentative. AMEC and the Corps will continue to monitor the water levels to determine when the wells can be sampled.
- In a discussion regarding scheduling of the CRM for the recently submitted RCL and Revised MSP3 Gun and Mortar Workplan, Mr. Borci stated the EPA would need to provide additional comment on the plan, which had been completely re-scoped, prior to scheduling an CRM. For this reason, Mr. Borci indicated he did not approve of the Corps going ahead with MSP3 fieldwork at the Gun and Mortar positions prior to Workplan approval, since the work could be completed by the time resolution of the Workplan was achieved. This may prove to be inefficient, requiring the Corps to remob for additional anomaly investigation. Gina Kaso (Corps) indicated the Corps realized the risk they were taking and as such, requested the EPA be as specific in their comments on the Workplan as possible.
- A revised Central Impact Area Perchlorate Plume Map was distributed to the agencies. Desiree Moyer requested that new proposed Central Impact Area wells be discussed at the next Tech Meeting

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 or perchlorate. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

Table 3 includes detections from the following areas:

Bourne Area

- Groundwater samples from 1-88A and duplicate; 02-12M3; 02-13M1, M2; 97-5; and MW-213M2, M3 had detections of perchlorate. The results were similar to the previous sampling rounds.
- Groundwater samples from M-3 had a detection of perchlorate. This is the first detection of perchlorate in this well. Perchlorate was not detected in the duplicate sample from this well.
- Groundwater samples from 00-1 had a detection of chloromethane. Chloromethane has never been a validated detection in this well.
- Eighteen groundwater samples and duplicate samples had detections of chloroform.
- Influent samples from a pump test at MW-80M1 had detections of perchlorate that were similar to the previous sampling rounds at this well.

Demo Area 2

- Profile samples from MW-259 (D2P-3) had detections of RDX and 2,6-DNT. RDX was detected and confirmed by PDA spectra at 5 feet below the water table. 2,6-DNT was detected and confirmed by PDA spectra at 15 feet below the water table. The well screen was set at the depth (4 to 14 ft bwt) of the RDX detection.
- Profile samples from MW-261 (D2P-1) had detections of RDX. RDX was detected and confirmed by PDA spectra, but with interference in six intervals between 17 feet and 67 feet below the water table. Well screens will be set at the depths (6 to 16 ft bwt and 46 to 56 ft bwt) of the highest RDX detections.

DELIVERABLES SUBMITTED

Weekly Progress Update for February 17 – February 21, 2003	02/26/2003
Final IAGWSP Technical Team Memorandum 02-4 – Method Comparability Study Results for Explosives in Soil Report	02/27/2003
Draft Summary Report – April – June 2002 UXO Detonations	02/28/2003

3. SCHEDULED ACTIONS

Scheduled actions for the week of March 3 include complete well installation of MW-259 (D2P-3) and MW-261 (D2P-1), and complete drilling of MW-262 (D2P-2). Groundwater sampling of the Bourne water supply and monitoring wells and newly installed wells will continue.

4. SUMMARY OF ACTIVITIES FOR DEMO 1

Additional delineation of the downgradient portion of the groundwater plume is being conducted prior to finalizing the Feasibility Study for the Groundwater Operable Unit and as the Interim Action for groundwater remediation is being designed.

Pumping and treating groundwater near the toe of the Demo Area 1 plume and at Frank Perkins Road has been selected as an Interim Action to address the Demo Area 1 Groundwater Operable Unit. The Draft Groundwater RRA/RAM Plan, submitted to the agencies and the IART on January 21, 2003, is being revisited in accordance with agency and public comments. The Draft RRA/RAM Plan is being prepared to address soil contamination at Demo Area 1 was submitted on February 19th. A poster board session and a presentation on the Soil RRA/RAM were conducted at the Impact Area Review Team meeting on February 25th. The informal comment period on the Draft Soil RRA/RAM began on February 25, 2003 and extends until March 11, 2003.

**TABLE 2
SAMPLING PROGRESS
02/23/2003 - 03/01/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
97-2C-E	FIELDQC	02/24/2003	FIELDQC	0	0		
G259DBE	FIELDQC	02/27/2003	FIELDQC	0	0		
G261DAE	FIELDQC	02/25/2003	FIELDQC	0	0		
G261DEE	FIELDQC	02/26/2003	FIELDQC	0	0		
HCA02240301A	FIELDQC	02/28/2003	FIELDQC	0	0		
M-1B-E	FIELDQC	02/28/2003	FIELDQC	0	0		
OW00-1D-E	FIELDQC	02/25/2003	FIELDQC	0	0		
PT80DINFPE	FIELDQC	02/27/2003	FIELDQC	0	0		
W02-10M1T	FIELDQC	02/24/2003	FIELDQC	0	0		
W219M4T	FIELDQC	02/27/2003	FIELDQC	0	0		
W226M2T	FIELDQC	02/25/2003	FIELDQC	0	0		
W233M2T	FIELDQC	02/26/2003	FIELDQC	0	0		
WS-4AD-E	FIELDQC	02/27/2003	FIELDQC	0	0		
4036000-01G-A	4036000-01G	02/25/2003	GROUNDWATER	38	69.8	6	12
4036000-03G-A	4036000-03G	02/25/2003	GROUNDWATER	50	60	6	12
4036000-04G-A	4036000-04G	02/25/2003	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	02/25/2003	GROUNDWATER	108	128	6	12
4036011-A	4036011	02/27/2003	GROUNDWATER	0	0		
4036011-D	4036011	02/27/2003	GROUNDWATER	0	0		
4261000-02G-A	4261000-02G	02/26/2003	GROUNDWATER	53	63		
4261000-03G-A	4261000-03G	02/26/2003	GROUNDWATER	50	60		
4261000-04G-A	4261000-04G	02/26/2003	GROUNDWATER	101	116		
4261000-06G-A	4261000-06G	02/26/2003	GROUNDWATER	85	105		
4261000-06G-D	4261000-06G	02/26/2003	GROUNDWATER	85	105		
4261000-09G-A	4261000-09G	02/26/2003	GROUNDWATER	62	77		
4261000-10G-A	4261000-10G	02/26/2003	GROUNDWATER	115	135		
4261000-11G-A	4261000-11G	02/26/2003	GROUNDWATER	98	118		
4261020-01G-A	4261020-01G	02/26/2003	GROUNDWATER				
97-2C-A	97-2	02/24/2003	GROUNDWATER	132	132	68	68
97-2D-A	97-2	02/27/2003	GROUNDWATER	115.4	115.4	82.9	82.9
97-2F-A	97-2	02/27/2003	GROUNDWATER	120	120	76.7	76.7
M-1B-A	M-1	02/28/2003	GROUNDWATER		45		
M-1C-A	M-1	02/28/2003	GROUNDWATER		55		
M-1D-A	M-1	02/28/2003	GROUNDWATER		65		

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
02/23/2003 - 03/01/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
M-7B-A	M-7	02/27/2003	GROUNDWATER		59		
M-7C-A	M-7	02/27/2003	GROUNDWATER		65		
M-7D-A	M-7	02/27/2003	GROUNDWATER		75		
M-7D-D	M-7	02/27/2003	GROUNDWATER		75		
MW00-4-A	00-4	02/28/2003	GROUNDWATER	64	70	38	44
OW00-1D-A	00-1D	02/25/2003	GROUNDWATER	91	97	48.3	54.3
SPRING1-A	SPRING1	02/24/2003	GROUNDWATER	0	0	0	0
SPRING1-D	SPRING1	02/24/2003	GROUNDWATER	0	0	0	0
TW00-1-A	00-1	02/26/2003	GROUNDWATER	64	70	52.1	58.1
TW00-7-A	00-7	02/24/2003	GROUNDWATER	57	63	25.5	31.5
TW00-7-D	00-7	02/24/2003	GROUNDWATER	57	63	25.5	31.5
TW01-1-A	01-1	02/26/2003	GROUNDWATER	62	67	55.21	60.21
TW01-2-A	01-2	02/25/2003	GROUNDWATER	50	56	24.5	30.5
TW1-88A-A	1-88	02/25/2003	GROUNDWATER	102.9	102.9	67.4	67.4
W02-05M1A	02-05	02/25/2003	GROUNDWATER	110	120	81.44	91.44
W02-05M2A	02-05	02/25/2003	GROUNDWATER	92	102	63.41	73.41
W02-05M3A	02-05	02/25/2003	GROUNDWATER	70	80	41.37	51.37
W02-05M3D	02-05	02/25/2003	GROUNDWATER	70	80	41.37	51.37
W02-07M1A	02-07	02/24/2003	GROUNDWATER	135	145	101.14	111.14
W02-07M2A	02-07	02/24/2003	GROUNDWATER	107	117	72.86	82.86
W02-07M3A	02-07	02/24/2003	GROUNDWATER	47	57	13	23
W02-12M1A	02-12	02/25/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	02/25/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	02/25/2003	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	02/25/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	02/25/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	02/25/2003	GROUNDWATER	68	78	28.3	38.3
W02-13M3D	02-13	02/25/2003	GROUNDWATER	68	78	28.3	38.3
W211M1A	MW-211	02/28/2003	GROUNDWATER	200	210	55	65
W211M2A	MW-211	02/28/2003	GROUNDWATER	175	185	29.7	39.7
W211M3A	MW-211	02/28/2003	GROUNDWATER	150	160	5.01	15.01
W213M2A	MW-213	02/24/2003	GROUNDWATER	89	99	41.15	51.15
W213M3A	MW-213	02/24/2003	GROUNDWATER	77	82	29.38	34.38
W216M1A	MW-216	02/26/2003	GROUNDWATER	253	263	51.19	61.19

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
02/23/2003 - 03/01/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W216M2A	MW-216	02/25/2003	GROUNDWATER	236	246	34.17	44.17
W216SSA	MW-216	02/26/2003	GROUNDWATER	199	209	0	7.13
W219M1A	MW-219	02/24/2003	GROUNDWATER	357	367	178	188
W219M2A	MW-219	02/26/2003	GROUNDWATER	332	342	153.05	163.05
W219M3A	MW-219	02/24/2003	GROUNDWATER	315	325	135.8	145.8
W219M4A	MW-219	02/27/2003	GROUNDWATER	225	235	45.7	55.7
W220DDA	MW-220	02/26/2003	GROUNDWATER	299	309	171.83	181.83
W223DDA	MW-223	02/27/2003	GROUNDWATER	260	270	167.86	177.86
W223M1A	MW-223	02/27/2003	GROUNDWATER	211	221	118.79	128.79
W225M1A	MW-225	02/27/2003	GROUNDWATER	175	185	77.1	87.1
W225M2A	MW-225	02/27/2003	GROUNDWATER	145	155	46.48	56.48
W225M2D	MW-225	02/27/2003	GROUNDWATER	145	155	46.48	56.48
W225M3A	MW-225	02/27/2003	GROUNDWATER	125	135	26.48	36.48
W226M1A	MW-226	02/24/2003	GROUNDWATER	285	295	172	182
W226M2A	MW-226	02/24/2003	GROUNDWATER	175	185	61.7	71.7
W226M3A	MW-226	02/24/2003	GROUNDWATER	135	145	21.53	31.53
W226M3D	MW-226	02/24/2003	GROUNDWATER	135	145	21.53	31.53
W233M1A	MW-233	02/26/2003	GROUNDWATER	356	366	157.8	167.8
W233M2A	MW-233	02/26/2003	GROUNDWATER	331	341	132.8	142.8
W233M3A	MW-233	02/26/2003	GROUNDWATER	231	241	32.8	42.8
W252M1A	MW-252	02/26/2003	GROUNDWATER	174	184	60.6	70.6
W252M2A	MW-252	02/26/2003	GROUNDWATER	145	155	31.62	41.61
W252M3A	MW-252	02/26/2003	GROUNDWATER	115	125	1.63	11.63
WS-4AD-A	WS-4	02/27/2003	GROUNDWATER	218	228	148.5	158.5
WS-4AS-A	WS-4	02/27/2003	GROUNDWATER	155	165	85.5	95.5
XXM972-A	97-2	02/24/2003	GROUNDWATER	75	85	53	63
XXM975-A	97-5	02/24/2003	GROUNDWATER	84	94	76	86
G259DAA	MW-259	02/26/2003	PROFILE	190	190	5.15	5.15
G259DBA	MW-259	02/27/2003	PROFILE	200	200	15.15	15.15
G259DCA	MW-259	02/27/2003	PROFILE	210	210	25.15	25.15
G259DDA	MW-259	02/27/2003	PROFILE	220	220	35.15	35.15
G259DEA	MW-259	02/27/2003	PROFILE	230	230	45.15	45.15
G259DFA	MW-259	02/27/2003	PROFILE	240	240	55.15	55.15
G259DFD	MW-259	02/27/2003	PROFILE	240	240	55.15	55.15

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
02/23/2003 - 03/01/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G261DAA	MW-261	02/25/2003	PROFILE	180	180	16.5	16.5
G261DBA	MW-261	02/26/2003	PROFILE	190	190	26.5	26.5
G261DCA	MW-261	02/26/2003	PROFILE	200	200	36.5	36.5
G261DDA	MW-261	02/26/2003	PROFILE	210	210	46.5	46.5
G261DEA	MW-261	02/26/2003	PROFILE	220	220	56.5	56.5
G261DFA	MW-261	02/26/2003	PROFILE	230	230	66.5	66.5
G261DFD	MW-261	02/26/2003	PROFILE	230	230	66.5	66.5
PT80M1INF10A	MW-80	02/26/2003	PUMP TEST				
PT80M1INF11A	MW-80	02/26/2003	PUMP TEST				
PT80M1INF12A	MW-80	02/27/2003	PUMP TEST				
PT80M1INF13A	MW-80	02/27/2003	PUMP TEST				
PT80M1INF14A	MW-80	02/27/2003	PUMP TEST				
PT80M1INF1A	MW-80	02/25/2003	PUMP TEST				
PT80M1INF2A	MW-80	02/25/2003	PUMP TEST				
PT80M1INF3A	MW-80	02/25/2003	PUMP TEST				
PT80M1INF4A	MW-80	02/25/2003	PUMP TEST				
PT80M1INF4D	MW-80	02/25/2003	PUMP TEST				
PT80M1INF5A	MW-80	02/25/2003	PUMP TEST				
PT80M1INF6A	MW-80	02/26/2003	PUMP TEST				
PT80M1INF7A	MW-80	02/26/2003	PUMP TEST				
PT80M1INF8A	MW-80	02/26/2003	PUMP TEST				
PT80M1INF9A	MW-80	02/26/2003	PUMP TEST				
PTEFF1A	PTEFF1A	02/26/2003	PUMP TEST				
PTEFF2A	PTEFF2A	02/26/2003	PUMP TEST				
PTEFF3A	PTEFF3A	02/26/2003	PUMP TEST				
PTEFF4A	PTEFF4A	02/27/2003	PUMP TEST				
PTEFF4D	PTEFF4A	02/27/2003	PUMP TEST				
PTEFF5A	PTEFF5A	02/27/2003	PUMP TEST				
PTEFF6A	PTEFF6A	02/27/2003	PUMP TEST				

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 01/31/03 - 03/01/03**

OGDEN ID	LOCID OR WELL	SAMPLED	SAMP TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN ANALYTE	PDA
M-3B-D	M-3	02/21/2003	GROUNDWATER	65	65	6.8	6.8	E314.0	PERCHLORATE	
TW00-1-A	00-1	02/26/2003	GROUNDWATER	64	70	52.1	58.1	OC21V	CHLOROMETHANE	
TW1-88B-A	1-88	02/21/2003	GROUNDWATER	105.5	105.5	69.6	69.6	E314.0	PERCHLORATE	
TW1-88B-D	1-88	02/21/2003	GROUNDWATER	105.5	105.5	69.6	69.6	E314.0	PERCHLORATE	
W02-12M3A	02-12	02/21/2003	GROUNDWATER	79	89	28.22	38.22	E314.0	PERCHLORATE	
W02-13M1A	02-13	02/19/2003	GROUNDWATER	98	108	58.33	68.33	E314.0	PERCHLORATE	
W02-13M2A	02-13	02/25/2003	GROUNDWATER	83	93	44.2	54.2	E314.0	PERCHLORATE	
W213M2A	MW-213	02/24/2003	GROUNDWATER	89	99	41.15	51.15	E314.0	PERCHLORATE	
W213M3A	MW-213	02/24/2003	GROUNDWATER	77	82	29.38	34.38	E314.0	PERCHLORATE	
XXM975-A	97-5	02/24/2003	GROUNDWATER	84	94	76	86	E314.0	PERCHLORATE	
TW00-1-A	00-1	02/26/2003	GROUNDWATER	64	70	52.1	58.1	OC21V	CHLOROFORM	
W02-10M1A	02-10	02/22/2003	GROUNDWATER	135	145	94	104	OC21V	CHLOROFORM	
W02-10M2A	02-10	02/22/2003	GROUNDWATER	110	120	68.61	78.61	OC21V	CHLOROFORM	
W02-10M3A	02-10	02/22/2003	GROUNDWATER	85	95	43.65	53.65	OC21V	CHLOROFORM	
W02-10M3D	02-10	02/22/2003	GROUNDWATER	85	95	43.65	53.65	OC21V	CHLOROFORM	
W216M1A	MW-216	02/26/2003	GROUNDWATER	253	263	51.19	61.19	OC21V	CHLOROFORM	
W216SSA	MW-216	02/26/2003	GROUNDWATER	199	209	0	7.13	OC21V	CHLOROFORM	
W219M1A	MW-219	02/24/2003	GROUNDWATER	357	367	178	188	OC21V	CHLOROFORM	
W219M2A	MW-219	02/26/2003	GROUNDWATER	332	342	153.05	163.05	OC21V	CHLOROFORM	
W219M3A	MW-219	02/24/2003	GROUNDWATER	315	325	135.8	145.8	OC21V	CHLOROFORM	
W219M4A	MW-219	02/27/2003	GROUNDWATER	225	235	45.7	55.7	OC21V	CHLOROFORM	
W226M1A	MW-226	02/24/2003	GROUNDWATER	285	295	172	182	OC21V	CHLOROFORM	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

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**

+ = PDAs are not good matches

**TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 01/31/03 - 03/01/03**

OGDEN ID	LOCID OR WELL	SAMPLED	SAMP TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN ANALYTE	PDA
W226M2A	MW-226	02/24/2003	GROUNDWATER	175	185	61.7	71.7	OC21V	CHLOROFORM	
W226M3A	MW-226	02/24/2003	GROUNDWATER	135	145	21.53	31.53	OC21V	CHLOROFORM	
W226M3D	MW-226	02/24/2003	GROUNDWATER	135	145	21.53	31.53	OC21V	CHLOROFORM	
W233M1A	MW-233	02/26/2003	GROUNDWATER	356	366	157.8	167.8	OC21V	CHLOROFORM	
W233M2A	MW-233	02/26/2003	GROUNDWATER	331	341	132.8	142.8	OC21V	CHLOROFORM	
W233M3A	MW-233	02/26/2003	GROUNDWATER	231	241	32.8	42.8	OC21V	CHLOROFORM	
G259DAA	MW-259	02/26/2003	PROFILE	190	190	5.15	5.15	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
G259DAA	MW-259	02/26/2003	PROFILE	190	190	5.15	5.15	8330N	PICRIC ACID	NO
G259DAA	MW-259	02/26/2003	PROFILE	190	190	5.15	5.15	8330N	3-NITROTOLUENE	NO
G259DBA	MW-259	02/27/2003	PROFILE	200	200	15.15	15.15	8330N	2,6-DINITROTOLUENE	YES
G259DBA	MW-259	02/27/2003	PROFILE	200	200	15.15	15.15	8330N	3-NITROTOLUENE	NO
G261DAA	MW-261	02/25/2003	PROFILE	180	180	16.5	16.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G261DAA	MW-261	02/25/2003	PROFILE	180	180	16.5	16.5	8330N	3-NITROTOLUENE	NO
G261DBA	MW-261	02/26/2003	PROFILE	190	190	26.5	26.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G261DBA	MW-261	02/26/2003	PROFILE	190	190	26.5	26.5	8330N	2,4,6-TRINITROTOLUENE	NO
G261DBA	MW-261	02/26/2003	PROFILE	190	190	26.5	26.5	8330N	PICRIC ACID	NO
G261DCA	MW-261	02/26/2003	PROFILE	200	200	36.5	36.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G261DCA	MW-261	02/26/2003	PROFILE	200	200	36.5	36.5	8330N	2,4,6-TRINITROTOLUENE	NO
G261DCA	MW-261	02/26/2003	PROFILE	200	200	36.5	36.5	8330N	PICRIC ACID	NO
G261DDA	MW-261	02/26/2003	PROFILE	210	210	46.5	46.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G261DDA	MW-261	02/26/2003	PROFILE	210	210	46.5	46.5	8330N	PICRIC ACID	NO
G261DEA	MW-261	02/26/2003	PROFILE	220	220	56.5	56.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

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**

+ = PDAs are not good matches

**TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 01/31/03 - 03/01/03**

OGDEN ID	LOCID OR WELL	SAMPLED	SAMP TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN ANALYTE	PDA
G261DFA	MW-261	02/26/2003	PROFILE	230	230	66.5	66.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G261DFD	MW-261	02/26/2003	PROFILE	230	230	66.5	66.5	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES*
G261DFD	MW-261	02/26/2003	PROFILE	230	230	66.5	66.5	8330N	2,4,6-TRINITROTOLUENE	NO
PT80DINF7A	MW-80	02/26/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80DINF8A	MW-80	02/26/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF1A	MW-80	02/25/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF3A	MW-80	02/25/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF4D	MW-80	02/25/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF5A	MW-80	02/25/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF6A	MW-80	02/26/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF7A	MW-80	02/26/2003	PUMP TEST					E314.0	PERCHLORATE	
PT80M1INF8A	MW-80	02/26/2003	PUMP TEST					E314.0	PERCHLORATE	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

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

+ = PDAs are not good matches