REPORT

EPA Region 5 Records Ctr.
360046

QUARTERLY GROUNDWATER MONITORING REPORT (INCLUDING SENTINEL WELLS)

OCTOBER 2008

1190505040 – Madison County – ILR000128249
The Hartford Area Hydrocarbon Plume Site
Hartford, Illinois

Prepared for
Hartford Working Group
Hartford, Illinois

January 15, 2009

URS

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URS

January 15, 2009

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RE: Quarterly Groundwater Monitoring Report – October 2009
The Hartford Area Hydrocarbon Plume Site/Hartford, Illinois
ILR000128249 – Madison County – LPC 1190505040
URS Project No. 215612129

Dear Messrs. Turner and Faryan:

URS Corporation (URS), on behalf of the Hartford Working Group (HWG) is submitting this Quarterly Groundwater Monitoring Report for the 4th Quarter of 2008. The activities presented in this report were completed in accordance with Clayton's January 4, 2006 *Dissolved Phase Groundwater Investigation Report*. This report also includes a discussion of the sentinel well sampling activities and results.

The extent of the dissolved phase plume appears to be defined within the available area of investigation. The findings of the investigation are generally consistent with the flow of groundwater in this area. The plume is bounded by approximately Hawthorne Street to the south and along portions of Illinois Route 3 to the west. Both the Hartford Municipal Wells and sentinel wells have not been impacted by the LNAPL.

The next quarterly monitoring sampling event (1st Quarter 2009) is currently underway and is being conducted in accordance with the January 2006 *Dissolved Phase Groundwater Investigation Report*.

Please contact me with any questions.

Very truly yours,

Steven J. Shroff
Project Manager

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URS

Encl.: Quarterly Groundwater Monitoring Report – October 2007

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EXECUTIVE SUMMARY

This October 2008 Quarterly Groundwater Monitoring Report, prepared for The Hartford Area Hydrocarbon Plume Site (Site) in Hartford, Illinois, focused on monitoring conditions along the perimeter of the dissolved phase plume in northern Hartford.

The Site geology consists of alternating alluvial deposits of clay and silt. This alluvium overlies alluvial sands and sandy glacial outwash that ranges from 60 to 130 feet thick and is known, locally, as the Main Sand. The overlying permeable zones within the alluvium are locally known (in descending order) as the North Olive, the Rand and the EPA Strata. These deposits are overlain and bounded by several clay deposits identified (in descending order) as the A Clay Stratum, which overlies the entire Site, and localized deposits of the B Clay, the C Clay and the D Clay Strata. The regionally extensive Main Sand underlies the fine-grained alluvial deposits.

Gauging results indicated that light non-aqueous phase liquid (LNAPL) was primarily found in the combined EPA and Main Sand Strata, and was limited in Hartford to south of Rand Avenue, east of Illinois State Route 3 and north of East Maple Street. The Rand Stratum well gauging data (Figure B-2) indicated the presence of LNAPL at 19 wells. The gauging data for the October gauging period indicated the apparent LNAPL thickness in Rand Stratum wells was still exaggerated compared to historical data; however, the LNAPL thicknesses have decreased since the July gauging period. The North Olive Stratum well gauging data indicated the presence of measurable LNAPL in one monitoring well. Historically, measurable LNAPL has not been detected in wells gauged in the North Olive Stratum. No measurable LNAPL was present in the Main Sand Stratum below the D Clay. The extent of the dissolved phase hydrocarbon plume is defined within the available area of investigation.

The sentinel wells have not been impacted by the LNAPL underlying northern Hartford. In addition, BTEX or MTBE constituents were not detected at quantifiable concentrations or detected above applicable TACO Tier 1 GROs for Class I groundwater.

Groundwater analytical results along the southern and western boundary of the interpreted extent of the Rapid Optical Screening Tool (ROST) response showed no indications of dissolved phase hydrocarbons, with the exception of HMW-38C (northwest corner of Site) and HMW-43C (southeast corner of Site), located adjacent to the extent of the ROST response. Groundwater analytical results along the northern (HMW-49 series) and eastern boundaries of the Site, and at HMW-38C and HMW-43C, indicate the presence of dissolved phase hydrocarbon concentrations above groundwater comparison values.

SECTIONONE Introduction

This Quarterly Groundwater Monitoring Report, prepared for The Hartford Area Hydrocarbon Plume Site (Site) in Hartford, Illinois (Figure 1) focused on monitoring conditions along the perimeter of the dissolved phase plume, which has formed as a result of the presence of light non-aqueous phase liquid (LNAPL) in northern Hartford (Clayton, 2006). This report also includes the evaluation of the sentinel wells. The five sentinel wells (HMW-25 through HMW-29) were installed to monitor for the possible migration of LNAPL or associated dissolved phase constituents toward the Hartford Well Head Protection Area (WHPA). The LNAPL is located within northern Hartford. The WHPA is the surface area near the two active Hartford municipal water supply wells, which are located in the southwestern portion of Hartford (McGuire et al. 2001). According to McGuire, et al. (2001), the WHPA may provide recharge to the aquifer over a five-year period. Figure 2 shows the location of all the monitoring wells, including the sentinel wells, the Hartford municipal water supply wells, and the WHPA.

This report was prepared by URS Corporation (URS), on behalf of the Hartford Working Group (HWG). The HWG is comprised of the Atlantic Richfield Company (Atlantic Richfield), The Premcor Refining Group Inc. (Premcor), and Shell Oil Products US (Shell). The monitoring and reporting was done in accordance with the monitoring program presented in Clayton's (2006) *Dissolved Phase Groundwater Investigation Report* and the monitoring program developed under Paragraph 47 of the Administrative Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) in the Matter of The Hartford Area Hydrocarbon Plume Site (Docket No. R7003-5-04-001) (USEPA undated). Paragraph 47 of the AOC required that the five sentinel wells be sampled quarterly for one year, in accordance with the *Sentinel Wells Work Plan* approved by the USEPA on November 21, 2003 (Clayton 2003).

Bureau Veritas North America, Inc. (formerly Clayton Group Services, Inc.) (BVNA) conducted the quarterly groundwater sampling and evaluation from December 2003 to April 2007. URS began conducting the sampling during the July 2007 sampling event.

The hydrogeology in the northernmost area of Hartford consists of four hydrostratigraphic units identified in descending order as the North Olive, the Rand and the EPA Strata, all of which overlie the Main Sand. The Main Sand has been subdivided into Main Silt and Main Sand based

on its composition (i.e., percentage of silt versus sand content). These four hydrostratigraphic units are overlain and bounded by several clay deposits identified (in descending order) as the A Clay, B Clay, C Clay, and D Clay. The A Clay forms the surface layer over the entirety of northern Hartford while the B Clay separates the North Olive and Rand Strata. Scattered areas of fill are present within the A Clay. The C Clay separates the Rand and EPA Strata, and the D Clay separates the EPA Stratum and the Main Sand. More detailed information on the hydrostratigraphic units at the Site is provided in the December 2005 *LNAPL Active Recovery System Conceptual Site Model* (Clayton, 2005) and the January 2006 *Dissolved Phase Groundwater Investigation Report* (Clayton, 2006).

Quarterly groundwater sampling of existing wells (that do not contain LNAPL) within the four hydrostratigraphic units in Hartford has been on-going since December 2003. As wells have been installed as part of investigative activities from 2004 through 2006, they have been incorporated into the quarterly monitoring program. As proposed in the *Dissolved Phase Groundwater Investigation Report* (Clayton, 2006), a select number of monitoring wells continue to be sampled and analyzed on a quarterly basis to monitor conditions along the perimeter of the dissolved phase plume. An additional select number of monitoring wells are sampled and analyzed on an annual basis. The quarterly sampling includes selected wells screened in the Rand, EPA and Main Sand Strata, located beyond the interpreted extent of free product. The annual sampling includes selected wells, if free of LNAPL, throughout northern Hartford. Wells in the North Olive Stratum are included in the both the quarterly and annual groundwater-sampling programs; however, as water in this unit is seasonal or ephemeral and occurs as isolated areas of perched water, groundwater is typically not present during sampling events. A list summarizing the wells included in quarterly sampling is provided in Table 1 and the well locations are shown in Figure 2.

This report presents the results of the fourth quarter groundwater monitoring activities performed October 7 through 21, 2008. A discussion of the comprehensive well gauging, groundwater sample collection, groundwater analytical results, and conclusions is presented in Sections 2.0 through 5.0, respectively. Recommendations and future activities are presented in Section 6.0 and references are presented in Section 7.0.

SECTION TWO Well Gauging

Monitoring well gauging was conducted to determine groundwater depths and LNAPL specific thickness (D_o) (if present) in order to determine groundwater flow directions and delineate the current horizontal extent of gauged LNAPL. D_o is defined as the specific thickness of LNAPL, which is representative of the amount of LNAPL in a formation. D_o is a normalized volume of LNAPL (ft^3/ft^2) per unit surface area but is expressed as a thickness (in units of feet). Mapping of apparent LNAPL thicknesses measured in monitoring wells at a site with varying soil and LNAPL type is not an accurate depiction of LNAPL extent or magnitude. In order to provide an estimate of the actual LNAPL in the subsurface, "LNAPL specific thickness" is calculated to estimate the true amount of LNAPL in the formation.

The gauging was performed at wells installed in the North Olive, Rand, EPA, and Main Sand Strata. Gauged monitoring wells were located in the Village of Hartford, the Shell Rand Avenue site, the Shell Tannery Property, and the Premcor Facility. The Shell sites are located immediately northeast and east of the northern half of Hartford, while the Premcor Facility is located immediately east of the central portion of Hartford. URS gauged the Hartford site monitoring wells, the Shell Rand Avenue, and the Shell Tannery property monitoring wells, while Bureau Veritas gauged the monitoring wells located on the Premcor Facility. As part of the well gauging event, the Mississippi River elevation was surveyed by CMT, Inc. on October 7, 2008.

Gauged monitoring wells were inspected and evaluated with respect to their continued suitability for groundwater monitoring. The wells were determined to be in satisfactory condition for continued use in the monitoring program. The results of the monitoring well inspections are included in Appendix A.

The October 2008 groundwater and LNAPL gauging data from Hartford are summarized in Table 2. Monitoring well gauging data for the Shell wells and the wells on the Premcor Facility are summarized in Tables 3 and 4, respectively. An October 2008 groundwater elevation map was created for the North Olive Stratum and is presented in Figure 3. Groundwater flow maps, constructed for the October 2008 gauging event for the Rand, combined EPA and Main Sand, and Main Sand Strata, are presented in Figures 4, 5, and 6, respectively. The area of LNAPL presence, in all strata, is shown in Figure 2. A discussion of the LNAPL extent and specific thickness, including figures, is presented below and in Appendix B. A discussion of the groundwater gauging data is presented below.

Groundwater within the North Olive Stratum, which is potentially seasonal or ephemeral, occurs as isolated areas of perched water on the surface of the underlying B Clay Stratum in Hartford. Historical data has not indicated any significant areas of continually perched water in this stratum. The October 2008 well gauging for the North Olive Stratum revealed that the locations where groundwater was encountered were generally scattered with only small, localized areas that contained water levels above the stratum base. Therefore, the groundwater map created for the North Olive Stratum presents only the elevation data where groundwater was present and the saturated thickness above the stratum base (Figure 3).

Groundwater within the Rand Stratum in Hartford is also considered to represent localized areas of potentially seasonal or ephemeral perched water on the surface of the underlying C Clay Strata. Groundwater in the Rand Stratum appears to be confined northeast of Hartford at the Shell sites, as this is the only area where the Rand Stratum was extensively saturated. Therefore, the groundwater flow map created for the Rand Stratum, in general, does not contour elevation data for monitoring well locations south of Birch Street. The October 2008 groundwater flow map indicates the presence of a groundwater mound located northeast of the Site (Figure 4). Groundwater flows radially away from this mound. Groundwater from this mound extends and flows southwest into the Village and is controlled by the topography of the base of the Rand Stratum.

Groundwater within the EPA Stratum is generally confined and hydraulically connected to the Main Sand in northeastern Hartford, on the Shell Tannery Property, the Shell Rand Avenue Site, and the Premcor Facility. The October 2008 groundwater flow map of the combined EPA and Main Sand Strata indicates the presence of a groundwater divide, located northeast of the Site, trending along a general northwest/southeast axis (Figure 5). Groundwater on the eastern side of the divide flows in a northeasterly direction while flow on the western side of the divide is in a southwesterly direction. As the southwesterly flow reaches beyond the extent of the D Clay Stratum, a portion of groundwater is captured in the west portion of the Premcor Facility (which includes Production Well P-2 and P-6, screened between approximately 84 to 114 feet below ground surface [bgs] in the Main Sand, and Shallow Pumping Well RPW-01 screened between approximately 32 to 72 feet bgs in the EPA Stratum and the Main Sand). A groundwater convergence zone occurs along the western extent of the D Clay Stratum extending northwest from Hawthorne Street near Production Well P-2 to Rand Avenue.

SECTIONTWO Well Gauging

The October 2008 groundwater flow map for the Main Sand indicates the flow direction underlying Hartford was primarily northeasterly with localized variable flow directions in the vicinity of and towards Production Wells P-1/P-2 and Shallow Pumping Well RPW-01 located in the northwestern portion of the Premcor Facility, north of East Hawthorne Street (Figure 6). Hartford Municipal Well #4 was in operation at the time of the October gauging.

The approximate extent of LNAPL, the apparent product thickness, and the LNAPL specific thickness (D_o) (Clayton 2005) were determined, where present, for wells installed in each of the four hydrostratigraphic units (a discussion of D_o and how it is calculated is provided in Appendix B):

- The North Olive Stratum well gauging data indicated the presence of 0.65 feet of measurable LNAPL in one monitoring well (MP-108B) (Figure B-1). Historically, measurable LNAPL has not been detected in wells gauged in the North Olive Stratum.
- The Rand Stratum well gauging data (Figure B-2) indicated the presence of LNAPL at 19 wells, with an apparent product thickness ranging from 0.04 to 5.44 feet and a LNAPL specific thickness ranging from 0.01 feet to 1.37 feet.
    - During the July gauging period, due to the elevated Mississippi River stage and the record amount of rain fall received in this area, ground water elevations at the site were elevated. As a result of the high water table and corresponding confined conditions across much of the site, apparent LNAPL thickness in wells was exaggerated. In addition, wells in the western portion of the Rand Stratum at the site are typically dry, and consequently historical gauging data typically indicates neither water nor LNAPL presence in these wells. Due to the high water table during the July gauging period, previously dry wells in the Rand exhibited the presence of water and some of these wells also exhibited the presence of LNAPL. With the exception of MP-083B, which is screened in the Rand Stratum and is typically dry, all locations where measurable LNAPL was observed were located within the historical interpreted extent of LNAPL boundary, and all locations including MP-083B were located within the ROST interpreted hydrocarbon extent. The interpreted extent of LNAPL boundary has been adjusted to include the MP-083 well cluster.

- The Rand Stratum well gauging data for the October gauging period indicated the apparent LNAPL thickness in wells was still exaggerated compared to historical data; however, the LNAPL thicknesses have decreased since the July gauging period.

- The combined EPA and Main Sand Strata well gauging data (Figure B-3) indicated LNAPL was detected at 55 wells, with an apparent product thickness ranging from 0.01 to 11.57 feet and a LNAPL specific thickness ranging from 0.00 feet to 3.24 feet.

  In October 2008, the approximate extent of LNAPL in the combined EPA and Main Sand Strata was limited in Hartford to south of Rand Avenue, east of Illinois State Route 3, and north of East Maple Street.

- The Main Sand below the D Clay well data did not indicate the presence of measurable LNAPL (Figure B-4). Historically, measurable LNAPL has not been detected in wells gauged in the Main Sand below the D Clay.

These findings regarding approximate extent of LNAPL, the apparent product thickness, and the LNAPL specific thickness are consistent with historical results.

SECTIONTHREE Groundwater Sample Collection

Quarterly groundwater samples were collected from 41 wells (including the five Sentinel Wells) during the fourth quarter of 2008. Only one of the wells installed in the North Olive Stratum was sampled due to the absence of groundwater in this unit. A limited number of wells completed in the Rand and EPA Strata were able to be sampled due to the units' limited presence in the area, the presence of free product in some wells, and/or wells being dry or having limited available water. The majority of the wells included in quarterly sampling are in the Main Sand. A summary list of wells included in the quarterly groundwater sampling and their sampling status as of fourth quarter 2008 is provided in Table 1.

Fourth quarter 2008 groundwater sample collection activities were conducted October 8 through 21, 2008 for the following monitoring wells:

- North Olive Stratum well HMW-48A
- Rand Stratum well HMW-45B, HMW-48B, HMW-50A, and MP-85B
- EPA Stratum wells HMW-47B, HMW-49B, HMW-49C, HMW-50B, and MP-85C
- Main Sand wells HMW-25, HMW-26, HMW-27, HMW-28, HMW-29, HMW-38C, HMW-39B, HMW-39C, HMW-40B, HMW-40C, HMW-43C, HMW-44D, HMW-47C, HMW-48D, HMW-49D, HMW-50C, HMW-52B, HMW-52C, HMW-53C, HMW-54C, MP-33D, MP-40C, MP-58C, MP-59C, MP-78D, MP-81C, MP-83C, MP-85D, MP-86C, MP-89C, and MP-92D.

Fifty-one wells included in the annual groundwater sampling program were not sampled in October 2008 because they were dry or contained an insufficient amount of water for sampling:

- HMW-38A, HMW-38B, HMW-39A, HMW-40A, HMW-43A, HMW-43B, HMW-44A, HMW-45A, HMW-47A, HMW-49A, HMW-52A, HMW-53A, HMW-54A, MP-33A, MP-33B, MP-40A, MP-40B, MP-44A, MP-44B, MP-44C, MP-48A, MP-52A, MP-58A, MP-58B, MP-59A, MP-59B, MP-78A, MP-78B, MP-78C, MP-81A, MP-81B, MP-83A, MP-85A, MP-86A, MP-86B, MP-89A, MP-89B, and MP-92C;

Or contained LNAPL-

- HMW-44B, HMW-44C, HMW-45C, HMW-48C, HMW-53B, HMW-54B, MP-33C, MP-44D, MP-48B, MP-48C, MP-52B, MP-52C, and MP-83B.

SECTION THREE Groundwater Sample Collection

Monitoring well purging and sampling were performed using dedicated low-flow sampling pumps and polyethylene tubing, in accordance with URS' low flow groundwater sampling Standard Operating Procedure (SOP), where applicable (Appendix C). A peristaltic pump and/or bailer were used for purging and sampling at locations where low-flow purging/sampling was not applicable. Upon collection, groundwater samples were placed in laboratory-supplied, pre-preserved (if appropriate) containers. After collection, samples were immediately labeled, placed in a cooler containing ice and delivered under chain of custody procedures to Teklab, Inc. in Collinsville, Illinois for laboratory analysis. The purged groundwater removed from each well was temporarily stored in a tank, equipped with secondary containment and located in a secure area within the Village of Hartford before removal by a waste disposal contractor.

Water quality indicator parameters including temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity, and specific conductivity were electronically measured and recorded using a calibrated Mini-Troll with an associated Pocket PC (in addition to the field logbook) during purging and prior to low-flow sampling. The downloaded data logger indicator parameter records for the October 2008 event are included in Appendix D.

Quarterly groundwater samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, Skinner List Metals (total and dissolved) along with general chemistry and natural attenuation parameters, as described in Clayton's (2006) *Dissolved Phase Groundwater Investigation Report*. The practical quantitation limits and analytical methods are presented in Table 5. The containers with applicable preservation requirements (if appropriate) for each parameter are presented in Table 6.

SECTIONFOUR Groundwater Analytical Results

In October 2008, the fourth quarter groundwater sampling included a total of 41 wells. Twenty-three of the wells sampled during the October 2008 quarterly event were located within the interpreted extent of free product ROST response, and the remaining eighteen wells were located beyond the extent of free product ROST response. The 41 wells sampled did not contain LNAPL, as verified through groundwater gauging efforts.

Groundwater quality values listed in 35 Illinois Administrative Code (IAC) Part 742 (Tiered Approach to Corrective Action Objectives [TACO] Tier 1 Groundwater Remediation Objectives [GROs] for Class I groundwater [Illinois Pollution Control Board, 1997]) was used as comparison values only for evaluating the October 2008 groundwater analytical results. These results were consistent with historical trends. The October 2008 results for BTEX and MTBE, Skinner List Metals, General Chemistry, and Natural Attenuation Parameters and Indicator Parameters are provided in Tables 7 through 10, respectively. Summaries of the fourth quarter 2008 groundwater analytical results (BTEX, MTBE, total lead, and dissolved lead concentrations) for the North Olive Stratum, Rand Stratum, EPA Stratum and Main Sand are presented in Figures 7, 8, 9, and 10, respectively. A discussion of the October 2008 results for BTEX, MTBE and Skinner List Metals (total and dissolved) is presented below.

No detectable concentrations of BTEX constituents were present in the samples collected from 18 of the 41 wells samples (including all the sentinel wells): Rand Stratum wells HMW-50A and MP-85B, EPA Stratum wells HMW-47B and HMW-50B and Main Sand Stratum wells HMW-25, HMW-26, HMW-27, HMW-28, HMW-29, HMW-39C, HMW-40B, HMW-40C, HMW-52B, HMW-52C, MP-81C, MP-89C, MP-92D, and HMW-39B (screened in the B/C Clay).

Benzene was detected in 23 of the 41 wells. Benzene was detected at concentrations above the comparison values in the following 21 wells, which were all located inside the boundaries of the ROST Response: North Olive Stratum well HMW-48A (23,300 µg/L); Rand Stratum wells HMW-45B (1,260 µg/L) and HMW-48B (10,900 µg/L); EPA Stratum wells HMW-49B (78.2 µg/L), HMW-49C (1,150 µg/L), and MP-85C (45 µg/L); and Main Sand wells HMW-38C (4,200 µg/L), HMW-43C (264 µg/L), HMW-44C (483 µg/L), HMW-47C (6,070 µg/L), HMW-48D (5,610 µg/L), HMW-49D (2,860 µg/L), HMW-53C (14.8 µg/L), MP-33D (12,400 µg/L), MP-40C (16,700 µg/L), MP-58C (21,100 µg/L), MP-59C (12,500 µg/L), MP-78D (13,200 µg/L), MP-83C (11,900 µg/L), MP-85D (11,300 µg/L), and MP-86C (21,800 µg/L).

The remaining BTEX constituents (toluene, ethyl benzene, and xylenes) were detected in 22 of the 41 wells. The remaining BTEX constituents (toluene, ethyl benzene, and xylenes) were detected at concentrations above the comparison values in the following 12 wells, which were all located inside the boundaries of the ROST Response: North Olive Stratum well HMW-48A; Rand Stratum well HMW-48B; EPA Stratum wells HMW-49C and MP-85C; and Main Sand wells HMW-47C, MP-33D, MP-40C, MP-58C, MP-59C, MP-78D, MP-83C, and MP-86C.

MTBE was detected in seven of the 41 wells. MTBE was not detected at concentrations above the comparison values in any wells sampled in the North Olive, Rand, and EPA Stratums. MTBE was detected at concentrations above the comparison values in the following three Main Sand Stratum wells, which were all located inside the boundaries of the ROST Response: HMW-47C, HMW-48D, and HMW-49D. Historically, MTBE has not been associated with the LNAPL in northern Hartford.

A total of 14 metals (antimony, arsenic, barium, cadmium, chromium, cobalt, iron, lead, mercury, nickel, selenium, silver, vanadium, and zinc) were detected in the samples. Three of the metals (arsenic, iron, and lead) were present at concentrations above comparison values:

- Total and dissolved arsenic was present above the comparison value (0.05 mg/L) in samples from North Olive Stratum well HMW-48A, Rand Stratum well HMW-48B, and Main Sand Stratum wells HMW-38C, MP-58C and MP-85B.
- Total arsenic was present above the comparison value [0.05 (mg/L)] in samples from Rand Stratum well HMW-45B and Main Sand Stratum well MP-59C.
- Total and dissolved iron was present in samples from 25 wells at concentrations above the comparison value (5 mg/L): North Olive Stratum well HMW-48A; Rand Stratum wells HMW-45B and HMW-48B; EPA Stratum wells HMW-49B and HMW-49C; and Main Sand Stratum wells HMW-26, HMW-38C, HMW-43C, HMW-44D, HMW-47C, HMW-48D, HMW-49D, HMW-50C, HMW-52C, HMW-54C, MP-33D, MP-40C, MP-58C, MP-59C, MP-78D, MP-83C, MP-85C, MP-85D, MP-86C, and MP-92D.
- Total iron was present in one sample at a concentration above the comparison value (5 mg/L): Main Sand Stratum wells HMW-39C.
- Total and dissolved lead was present in samples from seven wells at concentrations above the comparison value (0.0075 mg/L): North Olive Stratum well HMW-48A; Rand

Stratum well HMW-48B; EPA Stratum well MP-85C; and Main Sand Stratum wells HMW-47C, MP-40C, MP-58C, and MP-59C.

- Total lead was present in one sample at a concentration above the comparison value (0.0075 mg/L): Main Sand Stratum well MP-86C.

A qualified chemist conducted a data review on the laboratory samples and the Quality Assurance/Quality Control samples from this monitoring event. This review revealed no concerns with the data.

As part of the Site investigation, quarterly groundwater sampling of existing wells (without LNAPL) has been ongoing since December 2003. As wells were installed as part of investigative activities they were incorporated into the former quarterly monitoring program. The inclusive data set for December 2003 through October 2009 consists of a total of 119 different wells (81 Main Sand wells, 9 EPA Stratum wells, 24 Rand Stratum wells, and 5 North Olive Stratum wells). Summary tables presenting the previous four quarters of historic groundwater analytical results for BTEX constituents and MTBE, metals (total and dissolved), and general chemistry and natural attenuation parameters, are presented in Appendix E for reference. Figures illustrating the historic summary of groundwater analytical results (benzene, MTBE, total BTEX, total SVOCs, total lead, and dissolved lead) for each hydrostratigraphic unit, inclusive of the October 2008 quarterly results, are provided in Appendix F.

SECTIONFIVE Conclusions

The fourth quarter 2008 groundwater gauging and sampling activities conducted in October focused on monitoring conditions along the perimeter of the dissolved phase plume. LNAPL was identified primarily in the combined EPA and Main Sand Strata (Appendix B). The extent of LNAPL in the combined EPA and Main Sand Strata was primarily north of East Maple Street, east of Illinois State Route 3 and south of Rand Avenue. The Rand Stratum well gauging data (Figure B-2) indicated the presence of LNAPL at 19 wells. The gauging data for the October gauging period indicated the apparent LNAPL thickness in Rand Stratum wells was still exaggerated compared to historical data; however, the LNAPL thicknesses have decreased since the July gauging period. The North Olive Stratum well gauging data indicated the presence of measurable LNAPL in one monitoring well. Historically, measurable LNAPL has not been detected in wells gauged in the North Olive Stratum. No measurable LNAPL was present in the Main Sand Stratum below the D Clay.

The conclusions drawn from the fourth quarter 2008 activities are consistent with Clayton's (2006) *Dissolved Phase Groundwater Investigation Report.* The extent of the dissolved phase hydrocarbon plume is defined within the available area of investigation.

The following findings are consistent with groundwater flow in the Main Sand, which, based on a review of both historical and October 2008 flow mapping data, has consistently been northerly:

- The groundwater analytical results along the southern and western boundaries of the interpreted extent of the ROST response did not indicate the presence of dissolved phase hydrocarbons.
- The groundwater analytical results along the northern and eastern boundaries of the Site indicated the presence of dissolved phase hydrocarbon concentrations above applicable groundwater comparison values.
- The sentinel wells have not been impacted by the LNAPL underlying northern Hartford. BTEX or MTBE constituents were not detected at quantifiable concentrations or detected above applicable TACO Tier 1 GROs for Class I groundwater. The conclusion is also based on the groundwater flow mapping of the Main Sand, which shows flow in the area of the LNAPL plume in northern Hartford is to the northeast, away from the Hartford WHPA and the Hartford municipal water supply wells.

SECTIONSIX Recommendations and Future Activities

The next quarterly groundwater monitoring sampling event is currently scheduled for January 2009 and will be conducted in accordance with the January 2006 Dissolved Phase Groundwater Investigation Report (Clayton, 2006). A well gauging event will also be conducted for the Hartford, Shell and Premcor groundwater monitoring wells at that time.

SECTIONSEVEN References

Bureau Veritas North America, Inc., June 22, 2007. *Quarterly Groundwater Monitoring Report, April 2007, The Hartford Area Hydrocarbon Plume Site, Hartford, Illinois.*

Bureau Veritas North America, Inc., June 15, 2007. Sentinel Wells *Quarterly Groundwater Monitoring Report, April 2007, The Hartford Area Hydrocarbon Plume Site, Hartford, Illinois.*

Clayton Group Services, Inc., December 15, 2005. *LNAPL Active Recovery System Conceptual Site Model, The Hartford Area Hydrocarbon Plume Site, Hartford, Illinois.*

Clayton Group Services, Inc., January 4, 2006. *Dissolved Phase Groundwater Investigation Report for The Hartford Area Hydrocarbon Plume Site, Hartford, Illinois.*

Illinois Pollution Control Board, 1997. *Tiered Approach to Corrective Action Objectives: 35 IAC Part 742.* Adopted rule, Final Order June 5, 1997. Last amended February 15, 2007.

United States Environmental Protection Agency, Region 5, Chicago, Illinois. *In the Matter of the Hartford Area Hydrocarbon Plume Site.* (Docket No. R7003-5-04-001).

Tables

TABLE 1
Ocotober 2008 GROUNDWATER SAMPLING WELL LIST
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249
The Hartford Working Group / Hartford, IL

WELL LOCATIONS	STRATUM SCREENED	SENTINEL WELL QUARTERLY SAMPLING	QUARTERLY SAMPLING	ANNUAL SAMPLING
HMW-25	Main Sand	S		
HMW-26	Main Sand	S		
HMW-27	Main Sand	S		
HMW-28	Main Sand	S		
HMW-29	Main Sand	S		
HMW-38A	N. Olive			NS
HMW-38B	B/C Clay			NS
HMW-38C	Main Sand			S
HMW-39A	Main Silt		NS	
HMW-39B	Main Silt		S	
HMW-39C	Main Sand		S	
HMW-40A	A Clay		NS	
HMW-40B	Main Sand		S	
HMW-40C	Main Sand		S	
HMW-43A	N. Olive			NS
HMW-43B	B/C Clay			NS
HMW-43C	Main Sand			S
HMW-44A	N. Olive			NS
HMW-44B	Rand			P
HMW-44C	Main Sand			P
HMW-44D	Main Sand			S
HMW-45A	N. Olive			NS
HMW-45B	Rand			S
HMW-45C	Main Sand			P
HMW-47A	N. Olive			NS
HMW-47B	B/C Clay			S
HMW-47C	Main Sand			S
HMW-48A	N. Olive			S
HMW-48B	Rand			S
HMW-48C	EPA			P
HMW-48D	Main Sand			S
HMW-48E	NI			NI
HMW-49A	N. Olive		NS	
HMW-49B	B/C Clay		S	
HMW-49C	EPA		S	
HMW-49D	Main Sand		S	
HMW-50A	Rand		S	
HMW-50B	EPA		S	
HMW-50C	Main Sand		S	
HMW-52A	Main Silt		NS	
HMW-52B	Main Silt		S	
HMW-52C	Main Sand		S	
HMW-53A	N. Olive			NS
HMW-53B	Main Silt (Rand Horizon) / Main Sand			P

TABLE 1
Ocotober 2008 GROUNDWATER SAMPLING WELL LIST
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249
The Hartford Working Group / Hartford, IL

WELL LOCATIONS	STRATUM SCREENED	SENTINEL WELL QUARTERLY SAMPLING	QUARTERLY SAMPLING	ANNUAL SAMPLING
HMW-53C	Main Sand			S
HMW-54A	N. Olive			NS
HMW-54B	Main Sand			P
HMW-54C	Main Sand			S
HMW-55A	NI		NI	
HMW-55B	NI		NI	
HMW-55C	NI		NI	
HMW-55D	NI		NI	
HMW-56A	NI		NI	
HMW-56B	NI		NI	
HMW-56C	NI		NI	
HMW-56D	NI		NI	
HMW-56E	NI		NI	
MP-33A	A Clay			NS
MP-33B	N. Olive			NS
MP-33C	Rand			P
MP-33D	Main Sand			S
MP-40A	A Clay			NS
MP-40B	Main Silt			NS
MP-40C	Main Sand			S
MP-44A	A Clay			NS
MP-44B	N. Olive			NS
MP-44C	Rand			NS
MP-44D	Main Sand			P
MP-48A	N. Olive			NS
MP-48B	Main Silt			P
MP-48C	Main Sand			P
MP-52A	A Clay			NS
MP-52B	Rand			P
MP-52C	Main Sand			P
MP-58A	A Clay			NS
MP-58B	Main Silt			NS
MP-58C	Main Sand			S
MP-59A	A Clay			NS
MP-59B	Main Silt			NS
MP-59C	Main Sand			S
MP-78A	A Clay			NS
MP-78B	N. Olive			NS
MP-78C	Rand			NS
MP-78D	Main Sand			S
MP-81A	A Clay		NS	
MP-81B	Main Silt		NS	
MP-81C	Main Sand		S	
MP-83A	N. Olive			NS
MP-83B	Rand			P

TABLE 1
Ocotober 2008 GROUNDWATER SAMPLING WELL LIST
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249
The Hartford Working Group / Hartford, IL

WELL LOCATIONS	STRATUM SCREENED	SENTINEL WELL QUARTERLY SAMPLING	QUARTERLY SAMPLING	ANNUAL SAMPLING
MP-83C	Main Sand			S
MP-85A	N. Olive			NS
MP-85B	Rand			S
MP-85C	EPA			S
MP-85D	Main Sand			S
MP-86A	A Clay			NS
MP-86B	Main Silt			NS
MP-86C	Main Sand			S
MP-89A	A Clay		NS	
MP-89B	Main Silt		NS	
MP-89C	Main Sand		S	
MP-92C	N. Olive		NS	
MP-92D	Main Silt (Rand Horizon) / Main Sand		S	

NOTES:
MP-92 A & B are probes which are not constructed to allow groundwater sampling
S = Well sampled
NS = Well not sampled due to being dry, containing an insufficient amount of water for sampling, or being inaccessible
P = Well not sampled due to product present
NI = Well proposed to be installed and included in future sampling

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HB-016	Main	01/07/08	431.42	34.79	35.07	396.63	396.35	0.28	0.02	396.57		39	TD not measured
HB-016	Main	04/07/08	431.42	30.11	30.66	401.31	400.76	0.55	0.04	401.18		39	TD not measured
HB-016	Main	07/08/08	431.42	17.3	29.61	414.12	401.81	12.31	3.46	411.2887		39	
HB-016	Main	10/07/08	431.42	26.72	33.02	404.7	398.4	6.30	1.64	403.251		39	
HB-030	Main	01/07/08	431.08	34.21	35.03	396.87	396.05	0.82	0.07	396.68		39	TD not measured
HB-030	Main	04/07/08	431.08	30.13	30.38	400.95	400.7	0.25	0.02	400.89		39	TD not measured
HB-030	Main	07/08/08	431.08	18.96	24.57	412.12	406.51	5.61	1.48	410.8297		39	
HB-030	Main	10/07/08	431.08	27.21	29.75	403.87	401.33	2.54	0.52	403.2858		39	
HB-031	Main	01/07/08	431.49									44	Inaccessible; Access not Allowed by Property Owner
HB-032	Main	01/07/08	433.45		37.48		395.97		0.00	395.97		45.17	TD not measured
HB-032	Main	04/07/08	433.45		32.45		401		0.00	401	45.95	45.17	
HB-032	Main	07/08/08	433.45		22.43		411.02		0.00	411.02		45.17	
HB-032	Main	10/07/08	433.45		30.61		402.84		0.00	402.84	45.93	45.17	
HB-033	Multiple Strata	01/07/08	429.46									43	No Measurements; Well Dry
HB-033	Multiple Strata	04/07/08	429.46		28.36		401.1		0.00	401.1		43	TD not measured
HB-033	Multiple Strata	07/08/08	429.46		18.15		411.31		0.00	411.31		43	
HB-033	Multiple Strata	10/07/08	429.46		23.14		406.32		0.00	406.32	40.13	43	
HB-037	Main	01/07/08	431.77	35.29	35.35	396.48	396.42	0.06	0.00	396.47		39	TD not measured
HB-037	Main	04/07/08	431.77		30.73		401.04		0.00	401.04		39	TD not measured
HB-037	Main	07/08/08	431.77		21.03		410.74		0.00	410.74		39	
HB-037	Main	10/07/08	431.77	28.09	28.1	403.68	403.67	0.01	0.00	403.6777	37.21	39	
HB-038	Main	01/07/08	429.92		32.79		397.13		0.00	397.13		38.5	TD not measured
HB-038	Main	04/07/08	429.92		28.26		401.66		0.00	401.66		38.5	TD not measured
HB-038	Main	07/08/08	429.92		18.25		411.67		0.00	411.67		38.5	
HB-038	Main	10/07/08	429.92		25.55		404.37		0.00	404.37	34.61	38.5	
HMW-001	Rand	01/07/08	429.94									23.13	No Measurements; Well Dry
HMW-001	Rand	04/07/08	429.94		19.19		410.75		0.00	410.75		23.13	TD not measured
HMW-001	Rand	07/08/08	429.94		16.14		413.8		0.00	413.8		23.13	
HMW-001	Rand	10/07/08	429.94		19.52		410.42		0.00	410.42	22.91	23.13	
HMW-002	Main	01/07/08	429.65	32.99	34.86	396.66	394.79	1.87	0.31	396.23		36.32	TD not measured
HMW-002	Main	04/07/08	429.65	28.73	29.73	400.92	399.92	1.00	0.03	400.69		36.32	TD not measured
HMW-002	Main	07/08/08	429.65	19.05	20.13	410.6	409.52	1.08	0.06	410.3516		36.32	
HMW-002	Main	10/07/08	429.65	25.55	29.3	404.1	400.35	3.75	0.90	403.2375		36.32	
HMW-003	EPA	01/07/08	428.72		30.83		397.89		0.00	397.89		34.97	TD not measured
HMW-003	EPA	04/07/08	428.72		25.05		403.67		0.00	403.67		34.97	TD not measured
HMW-003	EPA	07/08/08	428.72		16.32		412.4		0.00	412.4		34.97	
HMW-003	EPA	10/07/08	428.72		22.51		406.21		0.00	406.21	34.22	34.97	
HMW-004	Rand	01/07/08	428.96		18.85		410.11		0.00	410.11		26	TD not measured
HMW-004	Rand	04/07/08	428.96		8.86		420.1		0.00	420.1		26	TD not measured
HMW-004	Rand	07/08/08	428.96		6.92		422.04		0.00	422.04		26	
HMW-004	Rand	10/07/08	428.96		8.99		419.97		0.00	419.97	25.48	26	
HMW-007	Rand	01/07/08	429.12		25.84		403.28		0.00	403.28		27.56	TD not measured
HMW-007	Rand	04/07/08	429.12		24.82		404.3		0.00	404.3		27.56	TD not measured
HMW-007	Rand	07/08/08	429.12		15.7		413.42		0.00	413.42		27.56	
HMW-007	Rand	10/07/08	429.12									27.56	Inaccessible; Could Not Locate
HMW-008	Main	01/07/08	429.74	33.29	35.58	396.45	394.16	2.29	0.44	395.92		42.56	TD not measured
HMW-008	Main	04/07/08	429.74	28.74	28.88	401	400.86	0.14	0.01	400.97		42.56	TD not measured
HMW-008	Main	07/08/08	429.74	18.75	18.92	410.99	410.82	0.17	0.01	410.9509		42.56	
HMW-008	Main	10/07/08	429.74									42.56	Inaccessible; Could Not Locate
HMW-009	Multiple Strata	01/07/08	430.23								23.18	22.91	No Measurements; Well Dry
HMW-009	Multiple Strata	04/07/08	430.23								23.19	22.91	No Measurements; Well Dry
HMW-009	Multiple Strata	07/08/08	430.23	18.03	18.25	412.2	411.98	0.22		412.1494		22.91	
HMW-009	Multiple Strata	10/07/08	430.23								23.2	22.91	Measured GW depth (22.98) >= bottom of screen interval.
HMW-010	Main	01/07/08	430.2	33.52	34.87	396.68	395.33	1.35	0.14	396.37		42.9	TD not measured
HMW-010	Main	04/07/08	430.2	28.88	31.31	401.32	398.89	2.43	0.48	400.76		42.9	TD not measured
HMW-010	Main	07/08/08	430.2	16.16	31.03	414.04	399.17	14.87	4.39	410.6199		42.9	
HMW-010	Main	10/07/08	430.2	25.8	31.06	404.4	399.14	5.26	1.37	403.1902		42.9	
HMW-013	N. Olive	01/07/08	430.81		18.73		412.08		0.00	412.08		19.57	TD not measured

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The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[1] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HMW-013	N. Olive	04/07/08	430.81		18.3		412.51		0.00	412.51		19.57	TD not measured
HMW-013	N. Olive	07/08/08	430.81	17.9	18.72	412.91	412.09	0.82	0.06	412.7214		19.57	
HMW-013	N. Olive	10/07/08	430.81		18.64		412.17		0.00	412.17	18.95	19.57	
HMW-014	Multiple Strata	01/07/08	430.86	34.15	36.1	396.71	394.76	1.95	0.33	396.26		38.2	TD not measured
HMW-014	Multiple Strata	04/07/08	430.86	29.18	30.57	401.68	400.29	1.39	0.16	401.36		38.2	TD not measured
HMW-014	Multiple Strata	07/08/08	430.86	18.18	23.98	412.68	406.88	5.80	1.54	411.346		38.2	
HMW-014	Multiple Strata	10/07/08	430.86	27.26	28.53	403.6	402.33	1.27	0.12	403.3079		38.2	
HMW-018	Main	01/07/08	431.58	34.56	36.53	397.02	395.05	1.97	0.34	396.57		42.98	TD not measured
HMW-018	Main	04/07/08	431.58	29.67	30.1	401.91	401.48	0.43	0.03	401.81		42.98	TD not measured
HMW-018	Main	07/08/08	431.58	17.89	22.49	413.69	409.09	4.60	1.16	412.632		42.98	
HMW-018	Main	10/07/08	431.58	27.64	29.9	403.94	401.68	2.26	0.43	403.4202		42.98	total depth not measured due to product
HMW-019	Main	01/07/08	431.8	35.02	36.2	396.78	395.6	1.18	0.09	396.51		42.27	TD not measured
HMW-019	Main	04/07/08	431.8	29.35	31.19	402.45	400.61	1.84	0.30	402.03		42.27	TD not measured
HMW-019	Main	07/08/08	431.8	18.41	22.4	413.39	409.4	3.99	0.97	412.4723		42.27	
HMW-019	Main	10/07/08	431.8	27.35	31.19	404.45	400.61	3.84	0.93	403.5668		42.27	total depth not measured due to product
HMW-020	Multiple Strata	01/07/08	430.65	34.09	35.07	396.56	395.58	0.98	0.08	396.33		42.73	TD not measured
HMW-020	Multiple Strata	04/07/08	430.65	29.44	31.25	401.21	399.4	1.81	0.29	400.79		42.73	TD not measured
HMW-020	Multiple Strata	07/08/08	430.65	19.58	22.16	411.07	408.49	2.58	0.53	410.4766		42.73	
HMW-020	Multiple Strata	10/07/08	430.65	25.91	31.23	404.74	399.42	5.32	1.39	403.5164		42.73	
HMW-021	Multiple Strata	01/07/08	430.05									24.4	No Measurements; Well Dry
HMW-021	Multiple Strata	04/07/08	430.05		21.82		408.23		0.00	408.23	24.72	24.4	
HMW-021	Multiple Strata	07/08/08	430.05		13.84		416.21		0.00	416.21		24.4	
HMW-021	Multiple Strata	10/08/08	430.05		18.99		411.06		0.00	411.06	24.8	24.4	
HMW-022	Main	01/07/08	430.15	33.64	36.03	396.51	394.12	2.39	0.47	395.96		40	TD not measured
HMW-022	Main	04/07/08	430.15		29.17		400.98		0.00	400.98	40.41	40	
HMW-022	Main	07/08/08	430.15	17.97	23.17	412.18	406.98	5.20	1.35	410.984		40	
HMW-022	Main	10/07/08	430.15	27.26	27.66	402.89	402.49	0.40	0.03	402.798		40	
HMW-025	Main	01/07/08	427.45		29.9		397.55		0.00	397.55		39	TD not measured
HMW-025	Main	04/07/08	427.45		23.28		404.17		0.00	404.17		39	TD not measured
HMW-025	Main	07/08/08	427.45		12.26		415.19		0.00	415.19		39	
HMW-025	Main	10/07/08	427.45		22.8		404.65		0.00	404.65		39	
HMW-026	Main	01/07/08	425.2		27.45		397.75		0.00	397.75		40	TD not measured
HMW-026	Main	04/07/08	425.2		22.61		402.59		0.00	402.59		40	TD not measured
HMW-026	Main	07/08/08	425.2		11.31		413.89		0.00	413.89		40	
HMW-026	Main	10/07/08	425.2		19.86		405.34		0.00	405.34		40	
HMW-027	Main	01/07/08	430.51		32.67		397.84		0.00	397.84		40	TD not measured
HMW-027	Main	04/07/08	430.51		28.41		402.1		0.00	402.1		40	TD not measured
HMW-027	Main	07/08/08	430.51		17.1		413.41		0.00	413.41		40	
HMW-027	Main	10/07/08	430.51		24.91		405.6		0.00	405.6	39.58	40	
HMW-028	Main	01/07/08	430.97		32.87		398.1		0.00	398.1		40	TD not measured
HMW-028	Main	04/07/08	430.97		27.94		403.03		0.00	403.03		40	TD not measured
HMW-028	Main	07/08/08	430.97		17.34		413.63		0.00	413.63		40	
HMW-028	Main	10/07/08	430.97		25.54		405.43		0.00	405.43	34.41	40	
HMW-029	Main	01/07/08	429.13		30.55		398.58		0.00	398.58		40	TD not measured
HMW-029	Main	04/07/08	429.13		27.54		401.59		0.00	401.59		40	TD not measured
HMW-029	Main	07/08/08	429.13		16.64		412.49		0.00	412.49		40	
HMW-029	Main	10/07/08	429.13		23.31		405.82		0.00	405.82	30.41	40	
HMW-030	Multiple Strata	01/07/08	430.07	33.79	35.35	396.28	394.72	1.56		395.92		43.9	TD not measured
HMW-030	Multiple Strata	04/07/08	430.07	28.78	30.43	401.29	399.64	1.65		400.91	43.86	43.9	
HMW-030	Multiple Strata	07/08/08	430.07	15.94	30.51	414.13	399.56	14.57		410.7789		43.9	
HMW-030	Multiple Strata	10/07/08	430.07	26.77	29.27	403.3	400.8	2.50		402.725		43.9	
HMW-031	Multiple Strata	01/07/08	430.09	34.01	34.7	396.08	395.39	0.69	0.05	395.92		43.9	TD not measured
HMW-031	Multiple Strata	04/07/08	430.09	29.17	29.23	400.92	400.86	0.06	0.00	400.91	43.7	43.9	
HMW-031	Multiple Strata	07/08/08	430.09	18.61	22.03	411.48	408.06	3.42	0.76	410.6934		43.9	
HMW-031	Multiple Strata	10/07/08	430.09	27.18	28.06	402.91	402.03	0.88	0.06	402.7076		43.9	
HMW-032	Multiple Strata	01/07/08	430.01	33.91	34.52	396.1	395.49	0.61	0.04	395.96		42.9	TD not measured
HMW-032	Multiple Strata	04/07/08	430.01	28.99	29.37	401.02	400.64	0.38	0.03	400.93		42.9	TD not measured
HMW-032	Multiple Strata	07/08/08	430.01	18.93	18.96	411.08	411.05	0.03	0.00	411.0731		42.9	
HMW-032	Multiple Strata	10/07/08	430.01	26.72	26.83	403.29	403.18	0.11	0.01	403.2647		42.9	
HMW-033	Multiple Strata	01/07/08	430.13	33.65	36.11	396.48	394.02	2.46	0.47	395.91		43.8	TD not measured

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do'	Piezometric Surface Elevation' (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HMW-033	Multiple Strata	04/07/08	430.13	28.34	32.38	401.79	397.75	4.04	0.95	400.86		43.8	TD not measured
HMW-033	Multiple Strata	07/08/08	430.13	15.52	32.75	414.61	397.38	17.23	4.96	410.6471		43.8	
HMW-033	Multiple Strata	10/07/08	430.13	25.73	32.46	404.4	397.67	6.73	1.77	402.8521		43.8	
HMW-034	Multiple Strata	01/07/08	429.83	33.16	35.22	396.67	394.61	2.06	0.35	396.2		44	TD not measured
HMW-034	Multiple Strata	04/07/08	429.83	28.5	30.75	401.33	399.08	2.25	0.40	400.81		44	TD not measured
HMW-034	Multiple Strata	07/08/08	429.83	15.8	30.28	414.03	399.55	14.48	4.12	410.6996		44	
HMW-034	Multiple Strata	10/07/08	429.83	25.55	30.31	404.28	399.52	4.76	1.17	403.1852		44	
HMW-035	Multiple Strata	01/07/08	429.81	33.14	35.26	396.67	394.55	2.12	0.36	396.18		43.5	TD not measured
HMW-035	Multiple Strata	04/07/08	429.81	28.91	29.48	400.9	400.33	0.57	0.04	400.77		43.5	TD not measured
HMW-035	Multiple Strata	07/08/08	429.81	19.36	19.83	410.45	409.98	0.47	0.03	410.3419		43.5	
HMW-035	Multiple Strata	10/07/08	429.81	26.5	26.82	403.31	402.99	0.32	0.02	403.2364		43.5	
HMW-036	Multiple Strata	01/07/08	429.91	33.22	35.41	396.69	394.5	2.19	0.39	396.19		44.2	TD not measured
HMW-036	Multiple Strata	04/07/08	429.91	28.53	31.13	401.38	398.78	2.60	0.51	400.78		44.2	TD not measured
HMW-036	Multiple Strata	07/08/08	429.91	15.71	30.84	414.2	399.07	15.13	4.32	410.7201		44.2	
HMW-036	Multiple Strata	10/07/08	429.91	25.45	30.77	404.46	399.14	5.32	1.34	403.2364		44.2	
HMW-037	Multiple Strata	01/07/08	429.61	32.89	34.9	396.72	394.71	2.01	0.33	396.26		44	TD not measured
HMW-037	Multiple Strata	04/07/08	429.61	28.8	28.98	400.81	400.63	0.18	0.01	400.77		44	TD not measured
HMW-037	Multiple Strata	07/08/08	429.61		19.19		410.42		0.00	410.42		44	
HMW-037	Multiple Strata	10/07/08	429.61		26.39		403.22		0.00	403.22	44.11	44	
HMW-038A	N. Olive	01/07/08	430.06									17	No Measurements; Well Dry
HMW-038A	N. Olive	04/07/08	430.06								16.88	17	No Measurements; Well Dry
HMW-038A	N. Olive	07/08/08	430.06		15.72		414.34		0.00	414.34		17	
HMW-038A	N. Olive	10/07/08	430.06								16.86	17	Measured GW depth (16.57) >= bottom of screen interval.
HMW-038B	B/C Clay	01/07/08	429.93									25.6	No Measurements; Well Dry
HMW-038B	B/C Clay	04/07/08	429.93		23.72		406.21		0.00	406.21		25.6	TD not measured
HMW-038B	B/C Clay	07/08/08	429.93		17.04		412.89		0.00	412.89		25.6	possible sheen
HMW-038B	B/C Clay	10/07/08	429.93		24.12		405.81		0.00	405.81	25.23	25.6	
HMW-038C	Main	01/07/08	430.23		34.76		395.47		0.00	395.47		42.2	TD not measured
HMW-038C	Main	04/07/08	430.23		28.91		401.32		0.00	401.32		42.2	TD not measured
HMW-038C	Main	07/08/08	430.23		18.38		411.85		0.00	411.85		42.2	
HMW-038C	Main	10/07/08	430.23		28.23		402		0.00	402	42.55	42.2	
HMW-039A	Main Silt	01/07/08	426.46		20.39		406.07		0.00	406.07		21	TD not measured
HMW-039A	Main Silt	04/07/08	426.46		19.28		407.18		0.00	407.18		21	TD not measured
HMW-039A	Main Silt	07/08/08	426.46		11.29		415.17		0.00	415.17		21	
HMW-039A	Main Silt	10/07/08	426.46		20.35		406.11		0.00	406.11	20.64	21	
HMW-039B	Main Silt	01/07/08	426.55		24.07		402.48		0.00	402.48		30	TD not measured
HMW-039B	Main Silt	04/07/08	426.55		20.17		406.38		0.00	406.38		30	TD not measured
HMW-039B	Main Silt	07/08/08	426.55		10.79		415.76		0.00	415.76		30	
HMW-039B	Main Silt	10/07/08	426.55		22.17		404.38		0.00	404.38	29.8	30	
HMW-039C	Main	01/07/08	426.28		30.36		395.92		0.00	395.92		42	TD not measured
HMW-039C	Main	04/07/08	426.28									42	No Measurements; Air Eqpmt in Well
HMW-039C	Main	07/08/08	426.28		13.21		413.07		0.00	413.07		42	
HMW-039C	Main	10/07/08	426.28	23.47	23.47	402.81	402.81	0.00		402.81	38.51	42	got product tone but did not appear On probe
HMW-040A	A Clay	01/07/08	425.01								13.25	13	No Measurements; Well Dry
HMW-040A	A Clay	04/07/08	425.01									13	No Measurements; Well Dry
HMW-040A	A Clay	10/07/08	425.01								13.27	13	Measured GW depth (12.98) >= bottom of screen interval.
HMW-040B	Main	01/07/08	424.86		24.36		400.5		0.00	400.5		25	TD not measured
HMW-040B	Main	04/07/08	424.86		22.15		402.71		0.00	402.71		25	TD not measured
HMW-040B	Main	10/07/08	424.86		21.32		403.54		0.00	403.54	24.69	25	
HMW-040C	Main	01/07/08	425.01		28.79		396.22		0.00	396.22		39	TD not measured
HMW-040C	Main	04/07/08	425.01		22.47		402.54		0.00	402.54		39	TD not measured
HMW-040C	Main	10/07/08	425.01		21.66		403.35		0.00	403.35	39.18	39	transducer in well
HMW-041A	Main Silt	01/07/08	425.42								18.15	18	No Measurements; Well Dry
HMW-041A	Main Silt	04/07/08	425.42								18.13	18	No Measurements; Well Dry
HMW-041A	Main Silt	07/08/08	425.42		13.24		412.18		0.00	412.18		18	
HMW-041A	Main Silt	10/07/08	425.42						0.00		18.15	18	Measured GW depth (17.86) >= bottom of screen interval.
HMW-041B	Main Silt	01/07/08	425.62		28.27		397.35		0.00	397.35		32	TD not measured

TABLE 2
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The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HMW-041B	Main Silt	04/07/08	425.62		23.8		401.82		0.00	401.82		32	TD not measured
HMW-041B	Main Silt	07/08/08	425.62		12.81		412.81		0.00	412.81		32	
HMW-041B	Main Silt	10/07/08	425.62		20.51		405.11		0.00	405.11	31.65	32	
HMW-041C	Main	01/07/08	425.85		28.75		397.1		0.00	397.1		49	TD not measured
HMW-041C	Main	04/07/08	425.85		23.41		402.44		0.00	402.44		49	TD not measured
HMW-041C	Main	07/08/08	425.85		12.57		413.28		0.00	413.28		49	
HMW-041C	Main	10/07/08	425.85		21.41		404.44		0.00	404.44	48.09	49	
HMW-042A	Main Silt	01/07/08	431.39									26.5	No Measurements; Well Dry
HMW-042A	Main Silt	04/07/08	431.39									26.5	No Measurements; Well Dry
HMW-042A	Main Silt	07/08/08	431.39		18.65		412.74		0.00	412.74		26.5	
HMW-042A	Main Silt	10/07/08	431.39								26.17	26.5	Measured GW depth (25.85) >= bottom of screen interval.
HMW-042B	Main	01/07/08	431.46	33.8	33.84	397.66	397.62	0.04	0.00	397.65		40	TD not measured
HMW-042B	Main	04/07/08	431.46		29.44		402.02		0.00	402.02		40	TD not measured
HMW-042B	Main	07/08/08	431.46		18.33		413.13		0.00	413.13		40	
HMW-042B	Main	10/07/08	431.46		26.12		405.34		0.00	405.34	39.75	40	
HMW-043A	N. Olive	01/07/08	428.73									17.8	No Measurements; Well Dry
HMW-043A	N. Olive	04/07/08	428.73									17.8	No Measurements; Well Dry
HMW-043A	N. Olive	07/08/08	428.73									17.8	Invalid gauging data; measured GW depth (17.43) >= bottom of screen interval.
HMW-043A	N. Olive	10/07/08	428.73								17.67	17.8	Measured GW depth (17.46) >= bottom of screen interval.
HMW-043B	B/C Clay	01/07/08	428.63									22.7	No Measurements; Well Dry
HMW-043B	B/C Clay	04/07/08	428.63									22.7	No Measurements; Well Dry
HMW-043B	B/C Clay	07/08/08	428.63		18.95		409.68		0.00	409.68		22.7	
HMW-043B	B/C Clay	10/07/08	428.63								22.37	22.7	Measured GW depth (22.05) >= bottom of screen interval.
HMW-043C	Main	01/07/08	428.96		32.31		396.65		0.00	396.65		41	TD not measured
HMW-043C	Main	04/07/08	428.96		28.06		400.9		0.00	400.9		41	TD not measured
HMW-043C	Main	07/08/08	428.96		18.65		410.31		0.00	410.31		41	
HMW-043C	Main	10/07/08	428.96		25.22		403.74		0.00	403.74	41.2	41	
HMW-044A	N. Olive	01/07/08	429.47		16.07		413.4		0.00	413.4		17.1	TD not measured
HMW-044A	N. Olive	04/07/08	429.47		16.07		413.4		0.00	413.4		17.1	TD not measured
HMW-044A	N. Olive	07/08/08	429.47		16.09		413.38		0.00	413.38		17.1	
HMW-044A	N. Olive	10/07/08	429.47		15.11		414.36		0.00	414.36	16.35	17.1	
HMW-044B	Rand	01/07/08	429.41									24	No Measurements; Well Dry
HMW-044B	Rand	04/07/08	429.41		23.02		406.39		0.00	406.39		24	TD not measured
HMW-044B	Rand	07/08/08	429.41	17.49	21.4	411.92	408.01	3.91		411.0207		24	
HMW-044B	Rand	10/07/08	429.41	22.52		406.89						24	Measured GW depth (23.29) >= bottom of screen interval.
HMW-044C	Main	01/07/08	428.38	31.78	33.55	396.6	394.83	1.77	0.24	396.19		42.5	TD not measured
HMW-044C	Main	04/07/08	428.38	27.28	29.91	401.1	398.47	2.63	0.50	400.5		42.5	TD not measured
HMW-044C	Main	07/08/08	428.38	15.41	27.16	412.97	401.22	11.75	3.19	410.2675		42.5	
HMW-044C	Main	10/07/08	428.38	24.17	28.65	404.21	399.73	4.48	1.04	403.1796		42.5	
HMW-044D	Main	01/07/08	429.76		33.58		396.18		0.00	396.18		50	TD not measured
HMW-044D	Main	04/07/08	429.76		29.3		400.46		0.00	400.46		50	TD not measured
HMW-044D	Main	07/08/08	429.76		19.85		409.91		0.00	409.91		50	
HMW-044D	Main	10/07/08	429.76		26.57		403.19		0.00	403.19	50.46	50	
HMW-045A	N. Olive	01/07/08	431.17									18	No Measurements; Well Dry
HMW-045A	N. Olive	04/07/08	431.17									18	No Measurements; Well Dry
HMW-045A	N. Olive	07/08/08	431.17									18	Invalid gauging data; measured GW depth (17.49) >= bottom of screen interval.
HMW-045A	N. Olive	10/07/08	431.17								17.63	18	Measured GW depth (17.49) >= bottom of screen interval.
HMW-045B	Rand	01/07/08	431.22		27.6		403.62		0.00	403.62		28.5	TD not measured
HMW-045B	Rand	04/07/08	431.22		26.16		405.06		0.00	405.06		28.5	TD not measured
HMW-045B	Rand	07/08/08	431.22		17.73		413.49		0.00	413.49		28.5	
HMW-045B	Rand	10/07/08	431.22		25.09		406.13		0.00	406.13	28.12	28.5	
HMW-045C	Main	01/07/08	430.87	35.12	35.44	395.75	395.43	0.32	0.02	395.68		45	TD not measured
HMW-045C	Main	04/07/08	430.87	29.53	29.83	401.34	401.04	0.30	0.02	401.27		45	TD not measured

TABLE 2
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The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do*	Piezometric Surface Elevation* (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HMW-045C	Main	07/08/08	430.87	16.78	31.15	414.09	399.72	14.37	4.09	410.7849		45	
HMW-045C	Main	10/07/08	430.87	28.29	28.34	402.58	402.53	0.05	0.00	402.5685		45	
HMW-046A	N. Olive	01/07/08	430.51									18.1	No Measurements: Well Dry
HMW-046A	N. Olive	04/07/08	430.51								17.62	18.1	No Measurements. Well Dry
HMW-046A	N. Olive	07/08/08	430.51		16.26		414.25		0.00	414.25		18.1	
HMW-046A	N. Olive	10/07/08	430.51								17.61	18.1	Measured GW depth (17.5) >= bottom of screen interval.
HMW-046B	B/C Clay	01/07/08	430.61		24.75		405.86		0.00	405.86		26	TD not measured
HMW-046B	B/C Clay	04/07/08	430.61		24.2		406.41		0.00	406.41		26	TD not measured
HMW-046B	B/C Clay	07/08/08	430.61		18.88		411.73		0.00	411.73		26	
HMW-046B	B/C Clay	10/07/08	430.61		23.8		406.81		0.00	406.81	25.56	26	
HMW-046C	Main	01/07/08	430.49	34.91	35.14	395.58	395.35	0.23	0.02	395.53		41.2	TD not measured
HMW-046C	Main	04/07/08	430.49	29.21	29.38	401.28	401.11	0.17	0.01	401.24		41.2	TD not measured
HMW-046C	Main	07/08/08	430.49	16.52	28.78	413.97	401.71	12.26	3.45	411.1502		41.2	
HMW-046C	Main	10/07/08	430.49	27.7	30.84	402.79	399.65	3.14	0.67	402.0678		41.2	
HMW-047A	N. Olive	01/07/08	430.5		19.34		411.16		0.00	411.16		20	TD not measured
HMW-047A	N. Olive	04/07/08	430.5		17.38		413.12		0.00	413.12		20	TD not measured
HMW-047A	N. Olive	07/08/08	430.5		14.96		415.54		0.00	415.54		20	
HMW-047A	N. Olive	10/07/08	430.5		18.14		412.36		0.00	412.36	19.6	20	
HMW-047B	B/C Clay	01/07/08	430.13		21.62		408.51		0.00	408.51		23	TD not measured
HMW-047B	B/C Clay	04/07/08	430.13		19.31		410.82		0.00	410.82		23	TD not measured
HMW-047B	B/C Clay	07/08/08	430.13		15.82		414.31		0.00	414.31		23	
HMW-047B	B/C Clay	10/07/08	430.13		17.37		412.76		0.00	412.76	22.68	23	
HMW-047C	Main	01/07/08	430.61	35.01	35.1	395.6	395.51	0.09	0.01	395.58		44.5	TD not measured
HMW-047C	Main	04/07/08	430.61		29.61		401		0.00	401		44.5	TD not measured
HMW-047C	Main	07/08/08	430.61		19.55		411.06		0.00	411.06		44.5	
HMW-047C	Main	10/07/08	430.61		28.35		402.26		0.00	402.26	44.96	44.5	
HMW-048A	N. Olive	01/07/08	429.16		13.86		415.3		0.00	415.3		15	TD not measured
HMW-048A	N. Olive	04/07/08	429.16		9.55		419.61		0.00	419.61		15	TD not measured
HMW-048A	N. Olive	07/08/08	429.16		7.42		421.74		0.00	421.74		15	
HMW-048A	N. Olive	10/07/08	429.16		8.99		420.17		0.00	420.17	14.36	15	
HMW-048B	Rand	01/07/08	429.18		18.89		410.29		0.00	410.29		29.5	TD not measured
HMW-048B	Rand	04/07/08	429.18		10.82		418.36		0.00	418.36		29.5	TD not measured
HMW-048B	Rand	07/08/08	429.18	7.97	7.98	421.21	421.2	0.01	0.00	421.2077		29.5	
HMW-048B	Rand	10/07/08	429.18	9.26	9.26	419.92	419.92	0.00	0.00	419.92	29.17	29.5	
HMW-048C	EPA	01/07/08	429.02	31.1	31.51	397.92	397.51	0.41	0.03	397.83		41	TD not measured
HMW-048C	EPA	04/07/08	429.02	24.44	31.34	404.58	397.68	6.90	1.82	402.99		41	TD not measured
HMW-048C	EPA	07/08/08	429.02	15.92	25.78	413.1	403.24	9.86	2.72	410.8322		41	
HMW-048C	EPA	10/07/08	429.02	22.14	33.71	406.88	395.31	11.57	3.24	404.2189		41	
HMW-048D	Main	01/07/08	428.98		33.27		395.71		0.00	395.71		53	TD not measured
HMW-048D	Main	04/07/08	428.98		28.49		400.49		0.00	400.49		53	TD not measured
HMW-048D	Main	07/08/08	428.98		18.85		410.13		0.00	410.13		53	
HMW-048D	Main	10/07/08	428.98		26.57		402.41		0.00	402.41	53.13	53	
HMW-049A	N. Olive	01/07/08	430.21		12.88		417.33		0.00	417.33		13.5	TD not measured
HMW-049A	N. Olive	04/07/08	430.21		12.73		417.48		0.00	417.48		13.5	TD not measured
HMW-049A	N. Olive	07/08/08	430.21		12.47		417.74		0.00	417.74		13.5	
HMW-049A	N. Olive	10/07/08	430.21		12.81		417.4		0.00	417.4	13.12	13.5	
HMW-049B	B/C Clay	01/07/08	430.23		23.43		406.8		0.00	406.8		24.1	TD not measured
HMW-049B	B/C Clay	04/07/08	430.23		17.84		412.39		0.00	412.39		24.1	TD not measured
HMW-049B	B/C Clay	07/08/08	430.23		13.86		416.37		0.00	416.37		24.1	
HMW-049B	B/C Clay	10/07/08	430.23		18.46		411.77		0.00	411.77	24.17	24.1	
HMW-049C	EPA	01/07/08	430.18		33.03		397.15		0.00	397.15		39.5	TD not measured
HMW-049C	EPA	04/07/08	430.18		25.85		404.33		0.00	404.33		39.5	TD not measured
HMW-049C	EPA	07/08/08	430.18	16.41	16.42	413.77	413.76	0.01	0.00	413.7677		39.5	possible sheen
HMW-049C	EPA	10/07/08	430.18		25.59		404.59		0.00	404.59	39.21	39.5	
HMW-049D	Main	01/07/08	430.25		35.06		395.19		0.00	395.19		51	TD not measured
HMW-049D	Main	04/07/08	430.25		29.43		400.82		0.00	400.82		51	TD not measured
HMW-049D	Main	07/08/08	430.25		19.17		411.08		0.00	411.08		51	
HMW-049D	Main	10/07/08	430.25		28.53		401.72		0.00	401.72	50.04	51	
HMW-050A	Rand	01/07/08	434.43		23.51				0.00	410.92		27	

TABLE 2
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The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation[1] (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HMW-050A	Rand	04/07/08	434.43		8.39				0.00	426.04		27	
HMW-050A	Rand	07/08/08	434.43		9.8				0.00	424.63		27	
HMW-050A	Rand	10/07/08	434.43		11.79		422.64		0.00	422.64		27	
HMW-050B	EPA	01/07/08	434.43		35.64				0.00	398.79		40	
HMW-050B	EPA	04/07/08	434.43		28.99				0.00	405.44		40	
HMW-050B	EPA	07/08/08	434.43		22				0.00	412.43		40	
HMW-050B	EPA	10/07/08	434.43		26.51		407.92		0.00	407.92		40	
HMW-050C	Main	01/07/08	434.28		38.48				0.00	395.8		55	
HMW-050C	Main	04/07/08	434.28		34.35				0.00	399.93		55	
HMW-050C	Main	07/08/08	434.28		25.22				0.00	409.06		55	
HMW-050C	Main	10/07/08	434.28		31.78		402.5		0.00	402.5		55	
HMW-051A	N. Olive	01/07/08	425.46									14	No Measurements; Well Dry
HMW-051A	N. Olive	04/07/08	425.46								13.61	14	No Measurements; Well Dry
HMW-051A	N. Olive	07/08/08	425.46		11.8		413.66		0.00	413.66		14	
HMW-051A	N. Olive	10/07/08	425.46						0.00		13.69	14	Measured GW depth (13.41) >= bottom of screen interval.
HMW-051B	Main	01/07/08	425.51		24.75		400.76		0.00	400.76		25.5	TD not measured
HMW-051B	Main	04/07/08	425.51		22.94		402.57		0.00	402.57		25.5	TD not measured
HMW-051B	Main	07/08/08	425.51		11.98		413.53		0.00	413.53		25.5	
HMW-051B	Main	10/07/08	425.51		21.61		403.9		0.00	403.9	25.34	25.5	
HMW-051C	Main	01/07/08	425.42		28.86		396.56		0.00	396.56		42.5	TD not measured
HMW-051C	Main	04/07/08	425.42		22.82		402.6		0.00	402.6		42.5	TD not measured
HMW-051C	Main	07/08/08	425.42		12.12		413.3		0.00	413.3		42.5	
HMW-051C	Main	10/07/08	425.42		21.73		403.69		0.00	403.69	41.89	42.5	
HMW-052A	Main Silt	01/07/08	427.8									20.5	No Measurements; Well Dry
HMW-052A	Main Silt	04/07/08	427.8									20.5	No Measurements; Well Dry
HMW-052A	Main Silt	07/08/08	427.8		15.2		412.6		0.00	412.6		20.5	
HMW-052A	Main Silt	10/08/08	427.8									20.5	Inaccessible; Covered by Vehicle
HMW-052B	Main Silt	01/07/08	427.81									27	No Measurements; Well Dry
HMW-052B	Main Silt	04/07/08	427.81									27	No Measurements; Well Dry
HMW-052B	Main Silt	07/08/08	427.81		18.14		409.67		0.00	409.67	26.94	27	
HMW-052B	Main Silt	10/08/08	427.81		23.36		404.45		0.00	404.45	26.69	27	
HMW-052C	Main	01/07/08	427.83		31		396.83		0.00	396.83		40	TD not measured
HMW-052C	Main	04/07/08	427.83		26.75		401.08		0.00	401.08		40	TD not measured
HMW-052C	Main	07/08/08	427.83		17.26		410.57		0.00	410.57		40	
HMW-052C	Main	10/08/08	427.83		24.19		403.64		0.00	403.64	39.41	40	
HMW-053A	N. Olive	01/07/08	429.73									15.8	No Measurements; Well Dry
HMW-053A	N. Olive	04/07/08	429.73									15.8	No Measurements; Well Dry
HMW-053A	N. Olive	07/08/08	429.73								15.9	15.8	Invalid gauging data; measured GW depth (15.66) >= bottom of screen interval.
HMW-053A	N. Olive	10/07/08	429.73								15.91	15.8	Measured GW depth (15.68) >= bottom of screen interval.
HMW-053B	Multiple Strata	01/07/08	429.76	33.05	33.88	396.71	395.88	0.83	0.07	396.52		41	TD not measured
HMW-053B	Multiple Strata	04/07/08	429.76	28.71	29.73	401.05	400.03	1.02	0.04	400.82		41	TD not measured
HMW-053B	Multiple Strata	07/08/08	429.76	15.86	29.7	413.9	400.06	13.84	4.07	410.7168		41	
HMW-053B	Multiple Strata	10/07/08	429.76	24.77	30.8	404.99	398.96	6.03	1.61	403.6031		41	
HMW-053C	Main	01/07/08	429.66		33.16		396.5		0.00	396.5		47	TD not measured
HMW-053C	Main	04/07/08	429.66		28.87		400.79		0.00	400.79		47	TD not measured
HMW-053C	Main	07/08/08	429.66		19.51		410.15		0.00	410.15		47	
HMW-053C	Main	10/07/08	429.66		20.06		409.6		0.00	409.6	46.95	47	
HMW-054A	N. Olive	01/07/08	429.54								15.89	15.7	No Measurements; Well Dry
HMW-054A	N. Olive	04/07/08	429.54								15.86	15.7	No Measurements; Well Dry
HMW-054A	N. Olive	07/08/08	429.54								15.86	15.7	Well Dry
HMW-054A	N. Olive	10/07/08	429.54								15.89	15.7	Measured GW depth (15.84) >= bottom of screen interval.
HMW-054B	Main	01/07/08	429.55	32.98	33.91	396.57	395.64	0.93	0.06	396.36		44.5	TD not measured
HMW-054B	Main	04/07/08	429.55	28.14	31.35	401.41	398.2	3.21	0.67	400.67		44.5	TD not measured
HMW-054B	Main	07/08/08	429.55	15.42	31.3	414.13	398.25	15.88	4.40	410.4776		44.5	
HMW-054B	Main	10/07/08	429.55	25.09	30.1	404.46	399.45	5.01	1.20	403.3077		44.5	
HMW-054C	Main	01/07/08	429.56		33.22		396.34		0.00	396.34		49.7	TD not measured

TABLE 2
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The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation[1] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HMW-054C	Main	04/07/08	429.56		28.99		400.57		0.00	400.57		49.7	TD not measured
HMW-054C	Main	07/08/08	429.56		19.6		409.96		0.00	409.96		49.7	
HMW-054C	Main	10/07/08	429.56		26.21		403.35		0.00	403.35	49.89	49.7	
HP-001A	Main	01/07/08	425.84		27.51		398.33		0.00	398.33		40	TD not measured
HP-001A	Main	04/07/08	425.84		19.5		406.34		0.00	406.34		40	TD not measured
HP-001A	Main	07/08/08	425.84		8.99		416.85		0.00	416.85		40	
HP-001A	Main	10/07/08	425.84		20.77		405.07		0.00	405.07	39.91	40	
HP-001B	Main	01/07/08	425.77		27.43		398.34		0.00	398.34		68	TD not measured
HP-001B	Main	04/07/08	425.77		19.39		406.38		0.00	406.38		68	TD not measured
HP-001B	Main	07/08/08	425.77		8.9		416.87		0.00	416.87		68	
HP-001B	Main	10/07/08	425.77		20.65		405.12		0.00	405.12	67.92	68	
HP-001C	Main	01/07/08	425.84		27.52		398.32		0.00	398.32		98	TD not measured.
HP-001C	Main	04/07/08	425.84		19.4		406.44		0.00	406.44		98	TD not measured
HP-001C	Main	07/08/08	425.84		8.92		416.92		0.00	416.92		98	
HP-001C	Main	10/07/08	425.84		20.7		405.14		0.00	405.14	99.72	98	
HP-002	Main	01/07/08	429.92		31.39		398.53		0.00	398.53		40.33	TD not measured
HP-002	Main	04/07/08	429.92		24.04		405.88		0.00	405.88		40.33	TD not measured
HP-002	Main	07/08/08	429.92		13.25		416.67		0.00	416.67		40.33	
HP-002	Main	10/07/08	429.92		24.56		405.36		0.00	405.36	39.78	40.33	
HP-003A	Main	01/07/08	429.28		30.75		398.53		0.00	398.53		45	TD not measured
HP-003A	Main	04/07/08	429.28		23.81		405.47		0.00	405.47		45	TD not measured
HP-003A	Main	07/08/08	429.28		13.16		416.12		0.00	416.12		45	
HP-003A	Main	10/07/08	429.28		23.85		405.43		0.00	405.43	44.9	45	
HP-003B	Main	01/07/08	429.24		30.71		398.53		0.00	398.53		72	TD not measured
HP-003B	Main	04/07/08	429.24		23.74		405.5		0.00	405.5		72	TD not measured
HP-003B	Main	07/08/08	429.24		13.11		416.13		0.00	416.13		72	
HP-003B	Main	10/07/08	429.24		23.9		405.34		0.00	405.34	72.39	72	
HP-003C	Main	01/07/08	429.1		30.54		398.56		0.00	398.56		102	TD not measured
HP-003C	Main	04/07/08	429.1		23.56		405.54		0.00	405.54		102	TD not measured
HP-003C	Main	07/08/08	429.1		12.96		416.14		0.00	416.14		102	
HP-003C	Main	10/07/08	429.1		23.78		405.32		0.00	405.32		102	attempted, but tape not long enough to collect td
HP-004A	Main	01/07/08	430.94		32.8		398.14		0.00	398.14		45.38	TD not measured
HP-004A	Main	04/08/08	430.94		26.97		403.97		0.00	403.97		45.38	TD not measured
HP-004A	Main	07/08/08	430.94		16.49		414.45		0.00	414.45		45.38	
HP-004A	Main	10/07/08	430.94		25.65		405.29		0.00	405.29	45.02	45.38	
HP-004B	Main	01/07/08	430.94		32.76		398.18		0.00	398.18		73.26	TD not measured
HP-004B	Main	04/08/08	430.94		26.92		404.02		0.00	404.02		73.26	TD not measured
HP-004B	Main	07/08/08	430.94		16.45		414.49		0.00	414.49		73.26	
HP-004B	Main	10/07/08	430.94		25.66		405.28		0.00	405.28	73.11	73.26	
HP-004C	Main	01/07/08	430.96		32.77		398.19		0.00	398.19		103.21	TD not measured
HP-004C	Main	04/08/08	430.96		26.9		404.06		0.00	404.06		103.21	TD not measured
HP-004C	Main	07/08/08	430.96		16.43		414.53		0.00	414.53		103.21	
HP-004C	Main	10/07/08	430.96		25.67		405.29		0.00	405.29		103.21	attempted to gauge td but tape not long enough
HP-005A	Main	01/07/08	424.42		25.42		399		0.00	399		40	TD not measured
HP-005A	Main	04/07/08	424.42		17.57		406.85		0.00	406.85		40	TD not measured
HP-005A	Main	07/08/08	424.42		7.2		417.22		0.00	417.22		40	
HP-005A	Main	10/07/08	424.42		19.45		404.97		0.00	404.97	39.43	40	
HP-005B	Main	01/07/08	424.58		25.5		399.08		0.00	399.08		66	TD not measured
HP-005B	Main	04/07/08	424.58		17.73		406.85		0.00	406.85		66	TD not measured
HP-005B	Main	07/08/08	424.58		7.24		417.34		0.00	417.34		66	
HP-005B	Main	10/07/08	424.58		19.45		405.13		0.00	405.13	66.25	66	
HP-005C	Main	01/07/08	424.43		25.51		398.92		0.00	398.92		96	TD not measured
HP-005C	Main	04/07/08	424.43		17.58		406.85		0.00	406.85		96	TD not measured
HP-005C	Main	07/08/08	424.43		7.4		417.03		0.00	417.03		96	
HP-005C	Main	10/07/08	424.43		19.32		405.11		0.00	405.11	95.06	96	
HP-006	Main	01/07/08	425.88		26.86		399.02		0.00	399.02		40	TD not measured
HP-006	Main	04/07/08	425.88		19.15		406.73		0.00	406.73		40	TD not measured
HP-006	Main	07/08/08	425.88		10.28		415.6		0.00	415.6		40	
HP-006	Main	10/07/08	425.88		20.76		405.12		0.00	405.12	40.18	40	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
HP-007	Main	01/07/08	429.04		29.83		399.21		0.00	399.21		45.55	TD not measured
HP-007	Main	04/07/08	429.04		22.69		406.35		0.00	406.35		45.55	TD not measured
HP-007	Main	07/08/08	429.04		12.35		416.69		0.00	416.69		45.55	
HP-007	Main	10/07/08	429.04									45.55	Inaccessible; Covered by Debris
HP-008	Main	01/07/08	429.81		30.36		399.45		0.00	399.45		40.62	TD not measured
HP-008	Main	04/07/08	429.81		24.65		405.16		0.00	405.16		40.62	TD not measured
HP-008	Main	07/08/08	429.81		13.26		416.55		0.00	416.55		40.62	
HP-008	Main	10/07/08	429.81									40.62	Inaccessible; Covered by Debris
HP-009	Main	01/07/08	431.45		32.57		398.88		0.00	398.88		45.21	TD not measured
HP-009	Main	04/07/08	431.45		26.37		405.08		0.00	405.08		45.21	TD not measured
HP-009	Main	07/08/08	431.45		16.05		415.4		0.00	415.4		45.21	
HP-009	Main	10/07/08	431.45									45.21	Inaccessible; Could Not Locate
IEPA-004	Main	01/07/08	430.35	33.72	34.67	396.63	395.68	0.95	0.06	396.41		45.07	TD not measured
IEPA-004	Main	04/07/08	430.35	29.42	30.82	400.93	399.53	1.40	0.15	400.61		45.07	TD not measured
IEPA-004	Main	07/08/08	430.35	18.68	21.85	411.67	408.5	3.17	0.68	410.9409		45.07	
IEPA-004	Main	10/07/08	430.35	26.57	27.48	403.78	402.87	0.91	0.06	403.5707		45.07	
MP-005D	Rand	01/07/08	430.02									28.75	Inaccessible; Could Not Locate
MP-005D	Rand	04/07/08	430.02									28.75	Inaccessible; Covered by Debris
MP-005D	Rand	07/08/08	430.02									28.75	Inaccessible; Covered by Debris
MP-005D	Rand	10/07/08	430.02		17.84		412.18		0.00	412.18	28.07	28.75	
MP-005S	A Clay	01/07/08	429.83									10	Inaccessible; Could Not Locate
MP-005S	A Clay	04/07/08	429.83									10	Inaccessible; Covered by Debris
MP-005S	A Clay	07/08/08	429.83									10	Inaccessible; Covered by Debris
MP-005S	A Clay	10/07/08	429.83								9.61	10	Well Dry
MP-006D	Rand	01/07/08	430.13									27.5	Inaccessible; Could Not Locate
MP-006D	Rand	04/07/08	430.13									27.5	Inaccessible; Covered by Debris
MP-006D	Rand	07/08/08	430.13									27.5	Inaccessible; Covered by Debris
MP-006D	Rand	10/07/08	430.13									27.5	Inaccessible; Could Not Locate
MP-006S	A Clay	01/07/08	430.15									10	Inaccessible; Could Not Locate
MP-006S	A Clay	04/07/08	430.15									10	Inaccessible; Covered by Debris
MP-006S	A Clay	07/08/08	430.15									10	Inaccessible; Covered by Debris
MP-006S	A Clay	10/07/08	430.15									10	Inaccessible; Could Not Locate
MP-007D	Rand	01/07/08	430.16		24.81		405.35		0.00	405.35		27	TD not measured
MP-007D	Rand	04/07/08	430.16									27	Inaccessible; Covered by Trailer
MP-007D	Rand	07/08/08	430.16									27	Inaccessible; Covered by Trailer
MP-007D	Rand	10/07/08	430.16									27	Inaccessible; Covered by Trailer
MP-007S	A Clay	01/07/08	430.17		4.14		426.03		0.00	426.03		10	TD not measured
MP-007S	A Clay	04/07/08	430.17									10	Inaccessible; Covered by Trailer
MP-007S	A Clay	07/08/08	430.17									10	Inaccessible; Covered by Trailer
MP-007S	A Clay	10/07/08	430.17									10	Inaccessible; Covered by Trailer
MP-008D	Rand	01/07/08	430.14		25.18		404.96		0.00	404.96		27.5	TD not measured
MP-008D	Rand	04/07/08	430.14		22.99		407.15		0.00	407.15	25.61	27.5	
MP-008D	Rand	07/08/08	430.14		13.78		416.36		0.00	416.36		27.5	
MP-008D	Rand	10/07/08	430.14		18.61		411.53		0.00	411.53	25.61	27.5	
MP-008S	A Clay	01/07/08	430.2		6.16		424.04		0.00	424.04		10	TD not measured
MP-008S	A Clay	04/07/08	430.2		5.14		425.06		0.00	425.06	9.84	10	
MP-008S	A Clay	07/08/08	430.2		4.61		425.59		0.00	425.59		10	
MP-008S	A Clay	10/07/08	430.2		4.96		425.24		0.00	425.24	9.82	10	
MP-009D	Rand	01/07/08	430	24.02	24.04	405.98	405.96	0.02	0.00	405.98		27.75	TD not measured
MP-009D	Rand	04/07/08	430		21.54		408.46		0.00	408.46	24.61	27.75	
MP-009D	Rand	07/08/08	430	13.25	16.69	416.75	413.31	3.44	0.77	415.9588		27.75	
MP-009D	Rand	10/07/08	430	18.11	19.84	411.89	410.16	1.73	0.25	411.4921		27.75	
MP-009S	A Clay	01/07/08	430.05		4.68		425.37		0.00	425.37		10	TD not measured
MP-009S	A Clay	04/07/08	430.05		4.18		425.87		0.00	425.87	9.53	10	
MP-009S	A Clay	07/08/08	430.05		6.63		423.42		0.00	423.42		10	
MP-009S	A Clay	10/07/08	430.05		7.51		422.54		0.00	422.54	9.52	10	
MP-010D	Main Silt	01/07/08	430.37		22.28		408.09		0.00	408.09		28	TD not measured
MP-010D	Main Silt	04/07/08	430.37		16.12		414.25		0.00	414.25		28	TD not measured
MP-010D	Main Silt	07/08/08	430.37		13.31		417.06		0.00	417.06		28	
MP-010D	Main Silt	10/07/08	430.37		17.1		413.27		0.00	413.27	24.7	28	

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[1] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-010S	A Clay	01/07/08	430.53								9.9	10	No Measurements; Well Dry
MP-010S	A Clay	04/07/08	430.53								9.9	10	No Measurements; Well Dry
MP-010S	A Clay	07/08/08	430.53								9.9	10	Well Dry
MP-010S	A Clay	10/08/08	430.53								9.9	10	Well Dry
MP-011D	Main Silt	01/07/08	431.19		23.4		407.79		0.00	407.79		28	TD not measured
MP-011D	Main Silt	04/07/08	431.19		16.5		414.69		0.00	414.69		28	TD not measured
MP-011D	Main Silt	07/08/08	431.19		13.5		417.69		0.00	417.69		28	
MP-011D	Main Silt	10/07/08	431.19		17.62		413.57		0.00	413.57	24.77	28	
MP-011S	A Clay	01/07/08	431.19								9.7	10	No Measurements; Well Dry
MP-011S	A Clay	04/07/08	431.19								9.68	10	No Measurements; Well Dry
MP-011S	A Clay	07/08/08	431.19								9.7	10	Well Dry
MP-011S	A Clay	10/08/08	431.19								9.74	10	Well Dry
MP-012D	Rand	01/07/08	431.63								23.05	28	No Measurements; Well Dry
MP-012D	Rand	04/07/08	431.63		16.42		415.21		0.00	415.21		28	TD not measured
MP-012D	Rand	07/08/08	431.63		14.04		417.59		0.00	417.59		28	
MP-012D	Rand	10/08/08	431.63		17.79		413.84		0.00	413.84	22.76	28	
MP-012S	A Clay	01/07/08	431.7								9.87	10	No Measurements; Well Dry
MP-012S	A Clay	04/07/08	431.7								9.88	10	No Measurements; Well Dry
MP-012S	A Clay	07/08/08	431.7								9.87	10	Well Dry
MP-012S	A Clay	10/08/08	431.7								9.9	10	Well Dry
MP-013D	Main Silt	01/07/08	429.3		27.52		401.78		0.00	401.78		28	TD not measured
MP-013D	Main Silt	04/07/08	429.3		26.67		402.63		0.00	402.63		28	TD not measured
MP-013D	Main Silt	07/08/08	429.3		18.16		411.14		0.00	411.14		28	no solid tone but visually observed product on probe
MP-013D	Main Silt	10/07/08	429.3	25.1	25.2	404.2	404.1	0.10		404.177		28	
MP-013S	A Clay	01/07/08	429.2								9.15	10	No Measurements; Well Dry
MP-013S	A Clay	04/07/08	429.2		8.45		420.75		0.00	420.75		10	TD not measured
MP-013S	A Clay	07/08/08	429.2		8.05		421.15		0.00	421.15		10	
MP-013S	A Clay	10/07/08	429.2		7.98		421.22		0.00	421.22	9.08	10	
MP-014D	Main Silt	01/07/08	429.51		26.77		402.74		0.00	402.74		27.5	TD not measured
MP-014D	Main Silt	04/07/08	429.51		26.77		402.74		0.00	402.74		27.5	TD not measured
MP-014D	Main Silt	07/08/08	429.51		18.22		411.29		0.00	411.29		27.5	
MP-014D	Main Silt	10/07/08	429.51		25.51		404		0.00	404	26.94	27.5	
MP-014S	A Clay	01/07/08	429.51								9.32	10	No Measurements; Well Dry
MP-014S	A Clay	04/07/08	429.51								9.31	10	No Measurements; Well Dry
MP-014S	A Clay	07/08/08	429.51		9.23		420.28		0.00	420.28		10	
MP-014S	A Clay	10/07/08	429.51		8.96		420.55		0.00	420.55	9.35	10	
MP-015D	Main Silt	01/07/08	429.58		26.8		402.78		0.00	402.78		27.5	TD not measured
MP-015D	Main Silt	04/07/08	429.58		26.75		402.83		0.00	402.83		27.5	TD not measured
MP-015D	Main Silt	07/08/08	429.58		18.54		411.04		0.00	411.04		27.5	
MP-015D	Main Silt	10/07/08	429.58	25.58	25.7	404	403.88	0.12		403.9724		27.5	
MP-015S	A Clay	01/07/08	429.63								9.45	10	No Measurements; Well Dry
MP-015S	A Clay	04/07/08	429.63								9.46	10	No Measurements; Well Dry
MP-015S	A Clay	07/08/08	429.63								9.46	10	Well Dry
MP-015S	A Clay	10/07/08	429.63								9.78	10	Well Dry
MP-016D	Main Silt	01/07/08	429.77									28	No Measurements; Well Dry
MP-016D	Main Silt	04/07/08	429.77									28	No Measurements; Well Dry
MP-016D	Main Silt	07/08/08	429.77	18.65	18.87	411.12	410.9	0.22		411.0694		28	
MP-016D	Main Silt	10/07/08	429.77	25.86	26	403.91	403.77	0.14		403.8778		28	
MP-016S	A Clay	01/07/08	429.75								9.77	10	No Measurements; Well Dry
MP-016S	A Clay	04/07/08	429.75								9.76	10	No Measurements; Well Dry
MP-016S	A Clay	07/08/08	429.75								9.78	10	Well Dry
MP-016S	A Clay	10/07/08	429.75								9.79	10	Well Dry
MP-025	Multiple Strata	01/07/08	429.71		27.77		401.94		0.00	401.94		28.84	TD not measured
MP-025	Multiple Strata	04/07/08	429.71		25.87		403.84		0.00	403.84		28.84	TD not measured
MP-025	Multiple Strata	07/08/08	429.71	16.77	24.17	412.94	405.54	7.40		411.238		28.84	
MP-025	Multiple Strata	10/07/08	429.71	25.17	25.99	404.54	403.72	0.82		404.3514		28.84	
MP-026	Multiple Strata	01/07/08	429.54		28.04		401.5		0.00	401.5		28.84	TD not measured
MP-026	Multiple Strata	04/07/08	429.54		24.96		404.58		0.00	404.58		28.84	TD not measured
MP-026	Multiple Strata	07/08/08	429.54	17.83	22.29	411.71	407.25	4.46		410.6842		28.84	

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	DO	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-026	Multiple Strata	10/07/08	429.54	23.96	26.03	405.58	403.51	2.07		405.1039		28.84	
MP-027	Multiple Strata	01/07/08	429.55		28.67		400.88		0.00	400.88		29.34	TD not measured
MP-027	Multiple Strata	04/07/08	429.55		26.51		403.04		0.00	403.04		29.34	TD not measured
MP-027	Multiple Strata	07/08/08	429.55	16.21	25.82	413.34	403.73	9.61	2.64	411.1297		29.34	
MP-027	Multiple Strata	10/07/08	429.55	25.35	25.37	404.2	404.18	0.02	0.00	404.1954	28.76	29.34	
MP-028	Rand	01/07/08	429.8		25.2		404.6		0.00	404.6		29.34	TD not measured
MP-028	Rand	04/07/08	429.8		18.7		411.1		0.00	411.1		29.34	TD not measured
MP-028	Rand	07/08/08	429.8		15.74		414.06		0.00	414.06		29.34	
MP-028	Rand	10/07/08	429.8		16.21		413.59		0.00	413.59	28.73	29.34	
MP-029A	N. Olive	01/07/08	429.39									12.1	No Measurements; Well Dry
MP-029A	N. Olive	04/07/08	429.39		11.76		417.63		0.00	417.63		12.1	TD not measured
MP-029A	N. Olive	07/08/08	429.39		10.81		418.58		0.00	418.58		12.1	
MP-029A	N. Olive	10/07/08	429.39								11.88	12.1	Measured GW depth (11.86) >= bottom of screen interval.
MP-029B	Rand	01/07/08	429.43									20.5	No Measurements; Well Dry
MP-029B	Rand	04/08/08	429.43								20.31	20.5	No Measurements; Well Dry
MP-029B	Rand	07/08/08	429.43	13.63	13.64	415.8	415.79	0.01		415.7977		20.5	
MP-029B	Rand	10/07/08	429.43	18.48	18.63	410.95	410.8	0.15		410.9155		20.5	
MP-029C	Rand	01/07/08	429.39	24.85	27.71	404.54	401.68	2.86	0.59	403.88		28.6	TD not measured
MP-029C	Rand	04/07/08	429.39	21.45	23.72	407.94	405.67	2.27	0.41	407.42		28.6	TD not measured
MP-029C	Rand	07/08/08	429.39	11.86	21.63	417.53	407.76	9.77	2.69	415.2829		28.6	
MP-029C	Rand	10/07/08	429.39	18.42	23.86	410.97	405.53	5.44	1.37	409.7188		28.6	
MP-029D	Main	01/07/08	429.47	33.1	35.41	396.37	394.06	2.31	0.42	395.84		41.5	TD not measured
MP-029D	Main	04/07/08	429.47	27.56	32.15	401.91	397.32	4.59	1.12	400.85		41.5	TD not measured
MP-029D	Main	07/08/08	429.47	14.76	32.32	414.71	397.15	17.56	5.06	410.6712		41.5	
MP-029D	Main	10/07/08	429.47	26.44	27.62	403.03	401.85	1.18	0.08	402.7586		41.5	
MP-030A	N. Olive	01/07/08	431.2		18.51		412.69		0.00	412.69		19	TD not measured
MP-030A	N. Olive	04/07/08	431.2		18.54		412.66		0.00	412.66		19	TD not measured
MP-030A	N. Olive	07/08/08	431.2		16.98		414.22		0.00	414.22		19	
MP-030A	N. Olive	10/07/08	431.2		18.48		412.72		0.00	412.72	18.57	19	
MP-030B	Rand	01/07/08	431.21		25.37		405.84		0.00	405.84		30.5	TD not measured
MP-030B	Rand	04/07/08	431.21		25.85		405.36		0.00	405.36		30.5	TD not measured
MP-030B	Rand	07/08/08	431.21		16.64		414.57		0.00	414.57		30.5	
MP-030B	Rand	10/07/08	431.21		21.94		409.27		0.00	409.27	29.97	30.5	
MP-030C	Main	01/07/08	431.13	35.09	35.4	396.04	395.73	0.31	0.03	395.97		49.5	TD not measured
MP-030C	Main	04/07/08	431.13		29.85		401.28		0.00	401.28		49.5	TD not measured
MP-030C	Main	07/08/08	431.13		19.51		411.62		0.00	411.62		49.5	
MP-030C	Main	10/07/08	431.13	28.25	28.31	402.88	402.82	0.06	0.00	402.8662		49.5	
MP-031A	A Clay	01/07/08	426.71								9.69	10	No Measurements; Well Dry
MP-031A	A Clay	04/07/08	426.71								9.68	10	No Measurements; Well Dry
MP-031A	A Clay	07/08/08	426.71								9.7	10	Well Dry
MP-031A	A Clay	10/07/08	426.71								9.75	10	Well Dry
MP-031B	N. Olive	01/08/08	426.79	15.99	16	410.8	410.79	0.01		410.8		18	TD not measured
MP-031B	N. Olive	04/07/08	426.79		14.11		412.68		0.00	412.68		18	TD not measured
MP-031B	N. Olive	07/08/08	426.79		10.57		416.22		0.00	416.22		18	
MP-031B	N. Olive	10/07/08	426.79		14.35		412.44		0.00	412.44	17.8	18	
MP-031C	Main	01/07/08	426.98		30.76		396.22		0.00	396.22		38	TD not measured
MP-031C	Main	04/08/08	426.98		25.05		401.93		0.00	401.93		38	TD not measured
MP-031C	Main	07/08/08	426.98		13.98		413		0.00	413		38	
MP-031C	Main	10/08/08	426.98		24.53		402.45		0.00	402.45	38.13	38	
MP-032A	N. Olive	01/07/08	429.68								14.06	14.3	No Measurements; Well Dry
MP-032A	N. Olive	04/07/08	429.68								14.05	14.3	No Measurements; Well Dry
MP-032A	N. Olive	07/08/08	429.68									14.3	Inaccessible; Covered by Vehicle
MP-032A	N. Olive	10/08/08	429.68								14.06	14.3	Well Dry
MP-032B	Main	01/07/08	429.68		30.91		398.77		0.00	398.77		31.3	TD not measured
MP-032B	Main	04/07/08	429.68		28.06		401.62		0.00	401.62		31.3	TD not measured
MP-032B	Main	07/08/08	429.68									31.3	Inaccessible; Covered by Vehicle
MP-032B	Main	10/08/08	429.68	26.19	26.8	403.49	402.88	0.61	0.05	403.3497		31.3	
MP-032C	Main	01/08/08	429.72	33.62	33.67	396.1	396.05	0.05	0.00	396.09		48.4	TD not measured
MP-032C	Main	04/07/08	429.72		27.88		401.84		0.00	401.84		48.4	TD not measured

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1190505040 – Madison County – ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[1] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-032C	Main	07/08/08	429.72									48.4	Inaccessible, Covered by Vehicle
MP-032C	Main	10/08/08	429.72		26.91		402.81		0.00	402.81	48.23	48.4	
MP-033A	A Clay	01/07/08	430.05		9.6		420.45		0.00	420.45		10	TD not measured
MP-033A	A Clay	04/07/08	430.05		9.58		420.47		0.00	420.47		10	TD not measured
MP-033A	A Clay	07/08/08	430.05								9.6	10	Well Dry
MP-033A	A Clay	10/07/08	430.05								9.67	10	Well Dry
MP-033B	N. Olive	01/07/08	430.09								14.15	14.5	No Measurements; Well Dry
MP-033B	N. Olive	04/07/08	430.09								14.14	14.5	No Measurements; Well Dry
MP-033B	N. Olive	07/08/08	430.09								14.15	14.5	Well Dry
MP-033B	N. Olive	10/07/08	430.09								14.21	14.5	Well Dry
MP-033C	Rand	01/07/08	430.09								25.87	26.5	No Measurements; Well Dry
MP-033C	Rand	04/07/08	430.09								25.87	26.5	No Measurements, Well Dry
MP-033C	Rand	07/08/08	430.09	18.52	18.58	411.57	411.51	0.06	0.05	411.5562		26.5	
MP-033C	Rand	10/07/08	430.09	24.41	24.7	405.68	405.39	0.29		405.6133		26.5	
MP-033D	Main	01/07/08	430.09	33.95	34.2	396.14	395.89	0.25	0.02	396.08		44.5	TD not measured
MP-033D	Main	04/07/08	430.09		28.33		401.76		0.00	401.76		44.5	TD not measured
MP-033D	Main	07/08/08	430.09		17.8		412.29		0.00	412.29		44.5	
MP-033D	Main	10/07/08	430.09		27.17		402.92		0.00	402.92	44.48	44.5	
MP-034A	N. Olive	01/07/08	430.97		15.42		415.55		0.00	415.55		16.2	TD not measured
MP-034A	N. Olive	04/07/08	430.97		15.46		415.51		0.00	415.51		16.2	TD not measured
MP-034A	N. Olive	07/08/08	430.97									16.2	Transducer in Well
MP-034A	N. Olive	10/07/08	430.97		15.75		415.22		0.00	415.22	15.83	16.2	
MP-034B	Rand	01/07/08	430.7								24.32	24.7	No Measurements; Well Dry
MP-034B	Rand	04/07/08	430.7								24.37	24.7	No Measurements; Well Dry
MP-034B	Rand	07/08/08	430.7									24.7	Transducer in Well
MP-034B	Rand	10/07/08	430.7	24.17		406.53						24.7	Measured GW depth (24.41) >= bottom of screen interval.
MP-034C	Main	01/07/08	430.88	34.43	35.19	396.45	395.69	0.76	0.06	396.28		43.8	TD not measured
MP-034C	Main	04/07/08	430.88	29.03	29.62	401.85	401.26	0.59	0.05	401.71		43.8	TD not measured
MP-034C	Main	07/08/08	430.88									43.8	Transducer in Well
MP-034C	Main	10/07/08	430.88	27.46	28.88	403.42	402	1.42	0.17	403.0934		43.8	total depth not mea ured due to product
MP-035A	A Clay	01/07/08	430.36								9.88	10	No Measurements; Well Dry
MP-035A	A Clay	04/07/08	430.36								9.86	10	No Measurements; Well Dry
MP-035A	A Clay	07/08/08	430.36								9.87	10	Well Dry
MP-035A	A Clay	10/07/08	430.36								9.96	10	Well Dry
MP-035B	N. Olive	01/07/08	430.41								17.05	17.3	No Measurements; Well Dry
MP-035B	N. Olive	04/07/08	430.41									17.3	Well Dry
MP-035B	N. Olive	07/08/08	430.41								17.05	17.3	Well Dry
MP-035B	N. Olive	10/07/08	430.41								17.15	17.3	Measured GW depth (17.11) >= bottom of screen interval.
MP-035C	Rand	01/07/08	430.44								25.31	25.6	No Measurements; Well Dry
MP-035C	Rand	04/07/08	430.44									25.6	Well Dry
MP-035C	Rand	07/08/08	430.44	18.56	21.25	411.88	409.19	2.69	0.56	411.2613		25.6	
MP-035C	Rand	10/07/08	430.44	24.06		406.38						25.6	Measured GW depth (25.4) >= bottom of screen interval.
MP-035D	Main	01/07/08	430.43	33.93	36.11	396.5	394.32	2.18	0.40	396		43.3	TD not measured
MP-035D	Main	04/07/08	430.43	29	29.72	401.43	400.71	0.72	0.06	401.26		43.3	TD not measured
MP-035D	Main	07/08/08	430.43	18.12	21.71	412.31	408.72	3.59	0.85	411.4843		43.3	
MP-035D	Main	10/07/08	430.43	26.91	29.76	403.52	400.67	2.85	0.61	402.8645		43.3	bottom depth not measured due to product
MP-036A	N. Olive	01/07/08	431.91								12.61	13	No Measurements; Well Dry
MP-036A	N. Olive	04/07/08	431.91								12.6	13	No Measurements; Well Dry
MP-036A	N. Olive	07/08/08	431.91								12.6	13	Well Dry
MP-036A	N. Olive	10/07/08	431.91								12.67	13	Well Dry
MP-036B	Rand	01/08/08	431.94		27.96		403.98		0.00	403.98		29.5	TD not measured
MP-036B	Rand	04/08/08	431.94		24.4		407.54		0.00	407.54		29.5	TD not measured
MP-036B	Rand	07/08/08	431.94		19.31		412.63		0.00	412.63		29.5	
MP-036B	Rand	10/07/08	431.94		22.3		409.64		0.00	409.64	29.22	29.5	
MP-036C	Main	01/07/08	431.99	35.43	37.39	396.56	394.6	1.96	0.34	396.11		44.2	TD not measured
MP-036C	Main	04/08/08	431.99		30.65		401.34		0.00	401.34		44.2	TD not measured
MP-036C	Main	07/08/08	431.99		20.66		411.33		0.00	411.33		44.2	

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[1] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-036C	Main	10/07/08	431.99		29.08		402.91		0.00	402.91	43.85	44.2	
MP-037A	N. Olive	01/07/08	429.01								13.05	13.5	No Measurements; Well Dry
MP-037A	N. Olive	04/07/08	429.01								13.03	13.5	No Measurements; Well Dry
MP-037A	N. Olive	07/08/08	429.01								13.08	13.5	Well Dry
MP-037A	N. Olive	10/07/08	429.01								13.03	13.5	Well Dry
MP-037B	Rand	01/07/08	428.99								22.7	22.8	No Measurements; Well Dry
MP-037B	Rand	04/07/08	428.99		21.17		407.82		0.00	407.82		22.8	TD not measured
MP-037B	Rand	07/08/08	428.99		14.8		414.19		0.00	414.19		22.8	
MP-037B	Rand	10/07/08	428.99		21.61		407.38		0.00	407.38	22.7	22.8	
MP-037C	C Clay	01/07/08	429.07		24.98		404.09		0.00	404.09		28	TD not measured
MP-037C	C Clay	04/07/08	429.07		22.06		407.01		0.00	407.01		28	TD not measured
MP-037C	C Clay	07/08/08	429.07		14.93		414.14		0.00	414.14		28	
MP-037C	C Clay	10/07/08	429.07		21.32		407.75		0.00	407.75	27.95	28	
MP-037D	Main	01/07/08	429.04	32.55	34.61	396.49	394.43	2.06	0.37	396.02		40	TD not measured
MP-037D	Main	04/07/08	429.04	27.9	29.11	401.14	399.93	1.21	0.10	400.86		40	TD not measured
MP-037D	Main	07/08/08	429.04	14.23	30.99	414.81	398.05	16.76	4.98	410.9552		40	
MP-037D	Main	10/07/08	429.04	25.95	25.97	403.09	403.07	0.02	0.00	403.0854	40.05	40	
MP-038A	N. Olive	01/07/08	427.17								12	13	No Measurements; Well Dry
MP-038A	N. Olive	04/07/08	427.17								11.98	13	No Measurements; Well Dry
MP-038A	N. Olive	07/08/08	427.17		11.86		415.31		0.00	415.31		13	
MP-038A	N. Olive	10/07/08	427.17								12.06	13	Well Dry
MP-038B	Main Silt	01/07/08	427.03								23.2	23.2	No Measurements; Well Dry
MP-038B	Main Silt	04/07/08	427.03								23.19	23.2	No Measurements; Well Dry
MP-038B	Main Silt	07/08/08	427.03	13.91	14.06	413.12	412.97	0.15		413.0855		23.2	
MP-038B	Main Silt	10/07/08	427.03	22.67		404.36						23.2	Measured GW depth (23.22) >= bottom of screen interval.
MP-038C	Main	01/07/08	426.91	29.91	32.98	397	393.93	3.07	0.68	396.29		39	TD not measured
MP-038C	Main	04/07/08	426.91		24.57		402.34		0.00	402.34		39	TD not measured
MP-038C	Main	07/08/08	426.91	9.88	25.61	417.03	401.3	15.73	4.66	413.4121		39	
MP-038C	Main	10/08/08	426.91	23.6	23.7	403.31	403.21	0.10	0.01	403.287		39	
MP-039A	N. Olive	01/07/08	432.09								12.9	13	No Measurements; Well Dry
MP-039A	N. Olive	04/07/08	432.09								12.89	13	No Measurements; Well Dry
MP-039A	N. Olive	07/08/08	432.09									13	Invalid gauging data; measured GW depth (12.79) >= bottom of screen interval.
MP-039A	N. Olive	10/07/08	432.09								12.95	13	Well Dry
MP-039B	Rand	01/07/08	432.07								26	26.5	No Measurements; Well Dry
MP-039B	Rand	04/07/08	432.07		17.47		414.6		0.00	414.6		26.5	TD not measured
MP-039B	Rand	07/08/08	432.07		13.68		418.39		0.00	418.39		26.5	
MP-039B	Rand	10/07/08	432.07		17.14		414.93		0.00	414.93	26.07	26.5	
MP-039C	Main	01/07/08	432.07	35.09	37.11	396.98	394.96	2.02	0.35	396.52		44	TD not measured
MP-039C	Main	04/07/08	432.07	29.92	30.85	402.15	401.22	0.93	0.08	401.94		44	TD not measured
MP-039C	Main	07/08/08	432.07	15.53	30.9	416.54	401.17	15.37	4.55	413.0049		44	
MP-039C	Main	10/08/08	432.07	28.55	28.7	403.52	403.37	0.15	0.01	403.4855		44	
MP-040A	A Clay	01/07/08	431.02								11.01	11.5	No Measurements; Well Dry
MP-040A	A Clay	04/08/08	431.02								11.01	11.5	No Measurements; Well Dry
MP-040A	A Clay	07/08/08	431.02		9.96		421.06		0.00	421.06		11.5	
MP-040A	A Clay	10/07/08	431.02		10.62		420.4		0.00	420.4	11.03	11.5	
MP-040B	Main Silt	01/07/08	431.04								29.49	30.2	No Measurements; Well Dry
MP-040B	Main Silt	04/08/08	431.04								29.5	30.2	No Measurements; Well Dry
MP-040B	Main Silt	07/08/08	431.04		21.02		410.02		0.00	410.02		30.2	
MP-040B	Main Silt	10/07/08	431.04		26.87		404.17		0.00	404.17	29.59	30.2	
MP-040C	Main	01/07/08	431.04	34.52	35.46	396.52	395.58	0.94	0.08	396.3		49	TD not measured
MP-040C	Main	04/08/08	431.04		29.29		401.75		0.00	401.75		49	TD not measured
MP-040C	Main	07/08/08	431.04		19.17		411.87		0.00	411.87		49	
MP-040C	Main	10/07/08	431.04		27.81		403.23		0.00	403.23	48.93	49	
MP-041A	N. Olive	01/07/08	431.24								13.5	14	No Measurements; Well Dry
MP-041A	N. Olive	04/07/08	431.24								13.51	14	No Measurements; Well Dry
MP-041A	N. Olive	07/08/08	431.24								13.52	14	Well Dry
MP-041A	N. Olive	10/07/08	431.24								13.51	14	Well Dry
MP-041B	Rand	01/07/08	431.23								25.8	26	No Measurements; Well Dry

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-041B	Rand	04/07/08	431.23		24.84		406.39		0.00	406.39		26	TD not measured
MP-041B	Rand	07/08/08	431.23	19.07	21.05	412.16	410.18	1.98	0.34	411.7046		26	
MP-041B	Rand	10/07/08	431.23	24.87	25.15	406.36	406.08	0.28		406.2956		26	
MP-041C	Main	01/07/08	431.08	34.44	36.07	396.64	395.01	1.63	0.23	396.27		44.8	TD not measured
MP-041C	Main	04/07/08	431.08	29.72	29.85	401.36	401.23	0.13	0.01	401.33		44.8	TD not measured
MP-041C	Main	07/08/08	431.08	18.75	22.9	412.33	408.18	4.15	1.02	411.3755		44.8	
MP-041C	Main	10/07/08	431.08	26.52	31.77	404.56	399.31	5.25	1.37	403.3525		44.8	
MP-042A	N. Olive	01/07/08	430.21								17.76	18	No Measurements; Well Dry
MP-042A	N. Olive	04/07/08	430.21		16.77		413.44		0.00	413.44		18	TD not measured
MP-042A	N. Olive	07/08/08	430.21								17.8	18	Well Dry
MP-042A	N. Olive	10/07/08	430.21		17.66		412.55		0.00	412.55	17.77	18	
MP-042B	Rand	01/07/08	430.2								28.41	28.5	No Measurements; Well Dry
MP-042B	Rand	04/07/08	430.2								28.45	28.5	No Measurements; Well Dry
MP-042B	Rand	07/08/08	430.2		18.62		411.58		0.00	411.58		28.5	
MP-042B	Rand	10/07/08	430.2		25		405.2		0.00	405.2	28.45	28.5	
MP-042C	Main	01/07/08	430.32	33.78	35.85	396.54	394.47	2.07	0.37	396.06		39.5	TD not measured
MP-042C	Main	04/07/08	430.32	29.48	29.89	400.84	400.43	0.41	0.03	400.75		39.5	TD not measured
MP-042C	Main	07/08/08	430.32	16.15	31.27	414.17	399.05	15.12	4.47	410.6924		39.5	
MP-042C	Main	10/07/08	430.32	26.41	30.32	403.91	400	3.91	0.95	403.0107		39.5	
MP-043A	N. Olive	01/07/08	426.75								8.38	8.7	No Measurements; Well Dry
MP-043A	N. Olive	04/07/08	426.75								8.38	8.7	No Measurements; Well Dry
MP-043A	N. Olive	07/08/08	426.75								8.38	8.7	Well Dry
MP-043A	N. Olive	10/08/08	426.75								8.39	8.7	Well Dry
MP-043B	Main Silt	01/07/08	426.72								17.22	17.5	No Measurements; Well Dry
MP-043B	Main Silt	04/07/08	426.72								17.21	17.5	No Measurements; Well Dry
MP-043B	Main Silt	07/08/08	426.72		12.81		413.91		0.00	413.91		17.5	
MP-043B	Main Silt	10/07/08	426.72								17.33	17.5	Measured GW depth (17.27) >= bottom of screen interval.
MP-043C	Multiple Strata	01/07/08	426.39	29.83	30.33	396.56	396.06	0.50	0.04	396.45		36	TD not measured
MP-043C	Multiple Strata	04/07/08	426.39		24.01		402.38		0.00	402.38		36	TD not measured
MP-043C	Multiple Strata	07/08/08	426.39		14.23		412.16		0.00	412.16		36	
MP-043C	Multiple Strata	10/07/08	426.39	22.8	22.81	403.59	403.58	0.01	0.00	403.5877	36.44	36	
MP-044A	A Clay	01/07/08	430.64								9.82	10	No Measurements; Well Dry
MP-044A	A Clay	04/07/08	430.64								9.81	10	No Measurements; Well Dry
MP-044A	A Clay	07/08/08	430.64								9.84	10	Well Dry
MP-044A	A Clay	10/07/08	430.64								9.81	10	Well Dry
MP-044B	N. Olive	01/07/08	430.54								14.6	15	No Measurements; Well Dry
MP-044B	N. Olive	04/07/08	430.54								14.61	15	No Measurements; Well Dry
MP-044B	N. Olive	07/08/08	430.54								14.64	15	Well Dry
MP-044B	N. Olive	10/07/08	430.54								14.61	15	Well Dry
MP-044C	Rand	01/07/08	430.54								24.54	25	No Measurements; Well Dry
MP-044C	Rand	04/07/08	430.54								24.55	25	No Measurements; Well Dry
MP-044C	Rand	07/08/08	430.54		19.21		411.33		0.00	411.33		25	
MP-044C	Rand	10/07/08	430.54		23.41		407.13		0.00	407.13	24.54	25	
MP-044D	Main	01/07/08	430.62	33.92	35.22	396.7	395.4	1.30	0.13	396.4		45	TD not measured
MP-044D	Main	04/07/08	430.62		29.41		401.21		0.00	401.21		45	TD not measured
MP-044D	Main	07/08/08	430.62	19.45	19.46	411.17	411.16	0.01	0.00	411.1677		45	
MP-044D	Main	10/07/08	430.62	27.35	27.36	403.27	403.26	0.01	0.00	403.2677	44.56	45	
MP-045A	N. Olive	01/07/08	430.04								12.76	13	No Measurements, Well Dry
MP-045A	N. Olive	04/07/08	430.04		12.38		417.66		0.00	417.66		13	TD not measured
MP-045A	N. Olive	07/08/08	430.04								12.75	13	Well Dry
MP-045A	N. Olive	10/07/08	430.04								12.76	13	Well Dry
MP-045B	Rand	01/07/08	430.04								23.64	24.2	No Measurements; Well Dry
MP-045B	Rand	04/07/08	430.04								23.64	24.2	No Measurements; Well Dry
MP-045B	Rand	07/08/08	430.04	19.11	19.91	410.93	410.13	0.80		410.746		24.2	
MP-045B	Rand	10/07/08	430.04	22.91	23.61	407.13	406.43	0.70		406.969	23.65	24.2	
MP-045C	Main	01/07/08	429.93	33.11	35.43	396.82	394.5	2.32	0.45	396.29		44	TD not measured
MP-045C	Main	04/07/08	429.93		28.88		401.05		0.00	401.05		44	TD not measured
MP-045C	Main	07/08/08	429.93	19.04	19.08	410.89	410.85	0.04	0.00	410.8808		44	
MP-045C	Main	10/07/08	429.93	26.66	26.71	403.27	403.22	0.05	0.00	403.2585	44.18	44	

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The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	DO	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-046A	N. Olive	01/07/08	429.67								14.69	15	No Measurements; Well Dry
MP-046A	N. Olive	04/07/08	429.67								14.68	15	No Measurements; Well Dry
MP-046A	N. Olive	07/08/08	429.67		14.2		415.47		0.00	415.47		15	
MP-046A	N. Olive	10/07/08	429.67								14.67	15	Well Dry
MP-046B	Rand	01/07/08	429.65								24.25	24.5	No Measurements; Well Dry
MP-046B	Rand	04/07/08	429.65								24.16	24.5	No Measurements; Well Dry
MP-046B	Rand	07/08/08	429.65	16.64	21.81	413.01	407.84	5.17	1.34	411.8209		24.5	
MP-046B	Rand	10/07/08	429.65	23.22	24.12	406.43	405.53	0.90		406.223	24.15	24.5	
MP-046C	Main	01/07/08	429.6	32.85	35	396.75	394.6	2.15	0.40	396.26		41.8	TD not measured
MP-046C	Main	04/07/08	429.6	28.51	29.19	401.09	400.41	0.68	0.06	400.93		41.8	TD not measured
MP-046C	Main	07/08/08	429.6	16.35	27.21	413.25	402.39	10.86	3.13	410.7522		41.8	
MP-046C	Main	10/07/08	429.6	26.14	27.42	403.46	402.18	1.28	0.12	403.1656		41.8	
MP-047A	N. Olive	01/07/08	429.12								14.1	14.4	No Measurements, Well Dry
MP-047A	N. Olive	04/07/08	429.12								14.09	14.4	No Measurements; Well Dry
MP-047A	N. Olive	07/08/08	429.12								14.11	14.4	Well Dry
MP-047A	N. Olive	10/07/08	429.12								14.1	14.4	Well Dry
MP-047B	Rand	01/07/08	429.05								22.33	22.7	No Measurements; Well Dry
MP-047B	Rand	04/07/08	429.05								22.33	22.7	No Measurements; Well Dry
MP-047B	Rand	07/08/08	429.05	16.49	21.75	412.56	407.3	5.26	1.27	411.3502		22.7	
MP-047B	Rand	10/07/08	429.05	22.07	22.3	406.98	406.75	0.23		406.9271		22.7	
MP-047C	Main	01/07/08	429.01	32.25	34.15	396.76	394.86	1.90	0.28	396.32		38.8	TD not measured
MP-047C	Main	04/07/08	429.01	28.08	29.05	400.93	399.96	0.97	0.06	400.71		38.8	TD not measured
MP-047C	Main	07/08/08	429.01	15.95	27.68	413.06	401.33	11.73	3.18	410.3621		38.8	
MP-047C	Main	10/07/08	429.01	25.32	27.63	403.69	401.38	2.31	0.40	403.1587		38.8	
MP-048A	N. Olive	01/07/08	428.92								18.73	19.5	No Measurements; Well Dry
MP-048A	N. Olive	04/07/08	428.92								18.72	19.5	No Measurements; Well Dry
MP-048A	N. Olive	07/08/08	428.92									19.5	Transducer in Well
MP-048A	N. Olive	10/07/08	428.92		18.7		410.22		0.00	410.22	18.81	19.5	
MP-048B	Main Silt	01/07/08	429.04								30.69	31	No Measurements; Well Dry
MP-048B	Main Silt	04/07/08	429.04	27.15	27.2	401.89	401.84	0.05	0.00	401.88		31	TD not measured
MP-048B	Main Silt	07/08/08	429.04									31	Transducer in Well
MP-048B	Main Silt	10/07/08	429.04	24.92	25.22	404.12	403.82	0.30	0.02	404.051		31	total depth not measured due to product
MP-048C	Main	01/07/08	429.41	32.7	33.62	396.71	395.79	0.92	0.07	396.5		48	TD not measured
MP-048C	Main	04/07/08	429.41	26.95	27.83	402.46	401.58	0.88	0.07	402.26		48	TD not measured
MP-048C	Main	07/08/08	429.41	16.42	17.31	412.99	412.1	0.89	0.07	412.7853		48	
MP-048C	Main	10/07/08	429.41	25.68	26.55	403.73	402.86	0.87	0.07	403.5299		48	total depth not measured due to product
MP-049A	A Clay	01/07/08	431.07								10.99	11.5	No Measurements; Well Dry
MP-049A	A Clay	04/08/08	431.07								11	11.5	No Measurements; Well Dry
MP-049A	A Clay	07/08/08	431.07								10.99	11.5	Well Dry
MP-049A	A Clay	10/07/08	431.07								11.06	11.5	Well Dry
MP-049B	Rand	01/07/08	431.08								23.91	24.5	No Measurements; Well Dry
MP-049B	Rand	04/08/08	431.08		20.52		410.56		0.00	410.56		24.5	TD not measured
MP-049B	Rand	07/08/08	431.08		16.22		414.86		0.00	414.86		24.5	
MP-049B	Rand	10/07/08	431.08		19.24		411.84		0.00	411.84	24.02	24.5	
MP-049C	Main	01/07/08	431.07	34.12	35.94	396.95	395.13	1.82	0.29	396.53		43.3	TD not measured
MP-049C	Main	04/08/08	431.07	28.79	30.29	402.28	400.78	1.50	0.19	401.94		43.3	TD not measured
MP-049C	Main	07/08/08	431.07	15.29	25.82	415.78	405.25	10.53	3.03	413.3581		43.3	
MP-049C	Main	10/07/08	431.07	27.54	28.94	403.53	402.13	1.40	0.16	403.208		43.3	total depth not measured due to product
MP-050A	A Clay	01/07/08	430.31									15	No Measurements; Transducer in Well
MP-050A	A Clay	04/07/08	430.31									15	No Measurements; Well Dry
MP-050A	A Clay	07/08/08	430.31									15	Inaccessible; ENSR Transducer present
MP-050A	A Clay	10/07/08	430.31									15	NM - Could not locate
MP-050B	Rand	01/07/08	430.29									24.5	No Measurements; Transducer in Well
MP-050B	Rand	04/07/08	430.29									24.5	No Measurements; Well Dry
MP-050B	Rand	07/08/08	430.29									24.5	Inaccessible; ENSR Transducer present
MP-050B	Rand	10/07/08	430.29									24.5	NM - Could not locate
MP-050C	Main	01/07/08	429.98									44.3	No Measurements; Transducer in Well
MP-050C	Main	04/07/08	429.98									44.3	No Measurements; Well Dry
MP-050C	Main	07/08/08	429.98									44.3	Inaccessible; ENSR Transducer present
MP-050C	Main	10/07/08	429.98									44.3	NM - Could not locate

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-051A	A Clay	01/07/08	430.9								9.79	10.2	No Measurements; Well Dry
MP-051A	A Clay	04/07/08	430.9								9.79	10.2	No Measurements; Well Dry
MP-051A	A Clay	07/08/08	430.9								9.8	10.2	Well Dry
MP-051A	A Clay	10/07/08	430.9								9.8	10.2	Well Dry
MP-051B	N. Olive	01/07/08	430.91		14.6		416.31		0.00	416.31		15.5	TD not measured
MP-051B	N. Olive	04/07/08	430.91		13.51		417.4		0.00	417.4		15.5	TD not measured
MP-051B	N. Olive	07/08/08	430.91		14.3		416.61		0.00	416.61		15.5	
MP-051B	N. Olive	10/07/08	430.91		14.76		416.15		0.00	416.15	14.96	15.5	
MP-051C	Rand	01/07/08	430.93								24.59	25	No Measurements; Well Dry
MP-051C	Rand	04/07/08	430.93								24.6	25	No Measurements; Well Dry
MP-051C	Rand	07/08/08	430.93	18.98	24.21	411.95	406.72	5.23	1.36	410.7471		25	
MP-051C	Rand	10/07/08	430.93		24.55		406.38		0.00	406.38	24.6	25	
MP-051D	Main	01/08/08	430.99	34.14	36.23	396.85	394.76	2.09	0.38	396.37		43.3	TD not measured
MP-051D	Main	04/07/08	430.99	30.03	30.04	400.96	400.95	0.01	0.00	400.96		43.3	TD not measured
MP-051D	Main	07/08/08	430.99	19.23	23.52	411.76	407.47	4.29	1.07	410.7733		43.3	
MP-051D	Main	10/07/08	430.99	27.41	28.52	403.58	402.47	1.11	0.07	403.3247		43.3	
MP-052A	A Clay	01/07/08	429.96								9.99	10.5	No Measurements; Well Dry
MP-052A	A Clay	04/07/08	429.96								9.99	10.5	No Measurements; Well Dry
MP-052A	A Clay	07/08/08	429.96								10	10.5	Well Dry
MP-052A	A Clay	10/07/08	429.96								9.99	10.5	Well Dry
MP-052B	Rand	01/07/08	429.97								22.62	22.8	No Measurements; Well Dry
MP-052B	Rand	04/07/08	429.97								22.63	22.8	No Measurements; Well Dry
MP-052B	Rand	07/08/08	429.97	16.82	18.92	413.15	411.05	2.10	0.38	412.667		22.8	
MP-052B	Rand	10/07/08	429.97	20.98	22.43	408.99	407.54	1.45		408.6565		22.8	
MP-052C	Main	01/07/08	429.99	32.99	34.99	397	395	2.00	0.35	396.54		43	TD not measured
MP-052C	Main	04/07/08	429.99	28.46	28.61	401.53	401.38	0.15	0.01	401.5		43	TD not measured
MP-052C	Main	07/08/08	429.99	14.51	28.64	415.48	401.35	14.13	4.16	412.2301		43	
MP-052C	Main	10/07/08	429.99	25.31	29.45	404.68	400.54	4.14	1.02	403.7278		43	
MP-053A	A Clay	01/07/08	430.59		11.64		418.95		0.00	418.95		12	TD not measured
MP-053A	A Clay	04/07/08	430.59		11.62		418.97		0.00	418.97		12	TD not measured
MP-053A	A Clay	07/08/08	430.59		11.46		419.13		0.00	419.13		12	
MP-053A	A Clay	10/07/08	430.59		11.49		419.1		0.00	419.1	11.76	12	
MP-053B	Rand	01/07/08	430.6								24.48	25	No Measurements; Well Dry
MP-053B	Rand	04/07/08	430.6								24.49	25	No Measurements; Well Dry
MP-053B	Rand	07/08/08	430.6	18.86	22.16	411.74	408.44	3.30	0.75	410.981		25	
MP-053B	Rand	10/07/08	430.6	23.64	24.47	406.96	406.13	0.83		406.7691	24.5	25	
MP-053C	Main	01/07/08	430.52	33.88	34.82	396.64	395.7	0.94	0.08	396.42		44.3	TD not measured
MP-053C	Main	04/07/08	430.52	29.02	30.61	401.5	399.91	1.59	0.22	401.13		44.3	TD not measured
MP-053C	Main	07/08/08	430.52	19.53	19.55	410.99	410.97	0.02	0.00	410.9854		44.3	
MP-053C	Main	10/07/08	430.52	26.24	29.72	404.28	400.8	3.48	0.81	403.4796		44.3	
MP-054A	N. Olive	01/07/08	430								12.44	12.9	No Measurements; Well Dry
MP-054A	N. Olive	04/07/08	430								12.44	12.9	No Measurements; Well Dry
MP-054A	N. Olive	07/08/08	430								12.45	12.9	Well Dry
MP-054A	N. Olive	10/07/08	430		12.35		417.65		0.00	417.65	12.43	12.9	
MP-054B	Rand	01/07/08	429.99								24.36	25	No Measurements; Well Dry
MP-054B	Rand	04/07/08	429.99								24.36	25	No Measurements; Well Dry
MP-054B	Rand	07/08/08	429.99		19.13		410.86		0.00	410.86		25	
MP-054B	Rand	10/07/08	429.99	23.7	24.1	406.29	405.89	0.40		406.198		25	
MP-054C	Main	01/07/08	430.07	33.35	34.69	396.72	395.38	1.34	0.14	396.41		46.5	TD not measured
MP-054C	Main	04/07/08	430.07		29.16		400.91		0.00	400.91		46.5	TD not measured
MP-054C	Main	07/08/08	430.07		19.47		410.6		0.00	410.6		46.5	
MP-054C	Main	10/07/08	430.07		26.68		403.39		0.00	403.39	46.21	46.5	
MP-055A	N. Olive	01/07/08	429.65									17.3	No Measurements; Well Dry
MP-055A	N. Olive	04/07/08	429.65		16.93		412.72		0.00	412.72		17.3	TD not measured
MP-055A	N. Olive	07/08/08	429.65	16.65	16.93	413	412.72	0.28	0.02	412.9356		17.3	
MP-055A	N. Olive	10/07/08	429.65		16.86		412.79		0.00	412.79	16.95	17.3	
MP-055B	Rand	01/07/08	429.64									24.3	No Measurements, Well Dry
MP-055B	Rand	04/07/08	429.64		22.86		406.78		0.00	406.78		24.3	TD not measured
MP-055B	Rand	07/08/08	429.64	16.85	23.11	412.79	406.53	6.26		411.3502		24.3	
MP-055B	Rand	10/07/08	429.64	23.81		405.83					23.85	24.3	Product to bottom

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-055C	Main	01/07/08	429.67	33.12	34.36	396.55	395.31	1.24	0.09	396.26		43.5	TD not measured
MP-055C	Main	04/07/08	429.67		29.02		400.65		0.00	400.65		43.5	TD not measured
MP-055C	Main	07/08/08	429.67	18.54	22.59	411.13	407.08	4.05	0.91	410.1985		43.5	
MP-055C	Main	10/07/08	429.67	25.61	29.18	404.06	400.49	3.57	0.77	403.2389		43.5	
MP-056A	N. Olive	01/07/08	430.25		10.81		419.44		0.00	419.44		11.5	TD not measured
MP-056A	N. Olive	04/07/08	430.25		10.08		420.17		0.00	420.17		11.5	TD not measured
MP-056A	N. Olive	07/08/08	430.25		10.04		420.21		0.00	420.21		11.5	
MP-056A	N. Olive	10/07/08	430.25		10.06		420.19		0.00	420.19	10.97	11.5	
MP-056B	Rand	01/07/08	430.25								27.23	28	No Measurements; Well Dry
MP-056B	Rand	04/07/08	430.25		24.71		405.54		0.00	405.54		28	TD not measured
MP-056B	Rand	07/08/08	430.25	18.07	18.17	412.18	412.08	0.10	0.01	412.157		28	
MP-056B	Rand	10/07/08	430.25	24.6	25.15	405.65	405.1	0.55		405.5235		28	
MP-056C	Main	01/07/08	430.15	33.43	34.51	396.72	395.64	1.08	0.06	396.47		45	TD not measured
MP-056C	Main	04/07/08	430.15	29.06	29.09	401.09	401.06	0.03	0.00	401.08		45	TD not measured
MP-056C	Main	07/08/08	430.15	16.39	27.78	413.76	402.37	11.39	3.30	411.1403		45	
MP-056C	Main	10/07/08	430.15	26.02	29.18	404.13	400.97	3.16	0.71	403.4032		45	
MP-057A	N. Olive	01/07/08	429.05								14.78	15	No Measurements; Well Dry
MP-057A	N. Olive	04/07/08	429.05								14.76	15	No Measurements; Well Dry
MP-057A	N. Olive	07/08/08	429.05								14.77	15	Well Dry
MP-057A	N. Olive	10/07/08	429.05								14.77	15	Well Dry
MP-057B	Rand	01/07/08	429.04								24.3	24.5	No Measurements; Well Dry
MP-057B	Rand	04/07/08	429.04								24.26	24.5	No Measurements; Well Dry
MP-057B	Rand	07/08/08	429.04	20.41	20.47	408.63	408.57	0.06	0.01	408.6162		24.5	
MP-057B	Rand	10/07/08	429.04	24.05		404.99						24.5	Measured GW depth (24.25) >= bottom of screen interval.
MP-057C	Main	01/07/08	429.15	32.42	33.61	396.73	395.54	1.19	0.09	396.46		44.5	TD not measured
MP-057C	Main	04/07/08	429.15	28.2	28.46	400.95	400.69	0.26	0.02	400.89		44.5	TD not measured
MP-057C	Main	07/08/08	429.15	15.14	28.39	414.01	400.76	13.25	3.88	410.9625		44.5	
MP-057C	Main	10/07/08	429.15	25.27	26.84	403.88	402.31	1.57	0.21	403.5189		44.5	
MP-058A	A Clay	01/07/08	430.29								10.03	10.5	No Measurements; Well Dry
MP-058A	A Clay	04/07/08	430.29								10	10.5	No Measurements; Well Dry
MP-058A	A Clay	07/08/08	430.29								10.03	10.5	Well Dry
MP-058A	A Clay	10/07/08	430.29								10.04	10.5	Well Dry
MP-058B	Main Silt	01/07/08	430.29		21.1		409.19		0.00	409.19		21.5	TD not measured
MP-058B	Main Silt	04/07/08	430.29	21.09	21.1	409.2	409.19	0.01		409.2		21.5	TD not measured
MP-058B	Main Silt	07/08/08	430.29		18.77		411.52		0.00	411.52		21.5	
MP-058B	Main Silt	10/07/08	430.29		21.1		409.19		0.00	409.19	21.21	21.5	
MP-058C	Main	01/07/08	430.33	33.38	33.91	396.95	396.42	0.53	0.04	396.83		39.5	TD not measured
MP-058C	Main	04/07/08	430.33		28.86		401.47		0.00	401.47		39.5	TD not measured
MP-058C	Main	07/08/08	430.33		18.17		412.16		0.00	412.16		39.5	
MP-058C	Main	10/07/08	430.33		26.3		404.03		0.00	404.03	39.05	39.5	
MP-059A	A Clay	01/07/08	429.97									9.5	No Measurements; Well Dry
MP-059A	A Clay	04/07/08	429.97		8.97		421		0.00	421		9.5	TD not measured
MP-059A	A Clay	07/08/08	429.97								9.38	9.5	Well Dry
MP-059A	A Clay	10/07/08	429.97		8.19		421.78		0.00	421.78	9.4	9.5	
MP-059B	Main Silt	01/07/08	429.88								17.85	19	No Measurements; Well Dry
MP-059B	Main Silt	04/07/08	429.88								17.84	19	No Measurements; Well Dry
MP-059B	Main Silt	07/08/08	429.88		17.23		412.65		0.00	412.65		19	
MP-059B	Main Silt	10/07/08	429.88								17.9	19	Well Dry
MP-059C	Main	01/07/08	429.9	32.83	32.85	397.07	397.05	0.02	0.00	397.07		37	TD not measured
MP-059C	Main	04/07/08	429.9		27.79		402.11		0.00	402.11		37	TD not measured
MP-059C	Main	07/08/08	429.9		17.34		412.56		0.00	412.56		37	
MP-059C	Main	10/07/08	429.9		25.52		404.38		0.00	404.38	35.61	37	
MP-060A	A Clay	01/07/08	429.21								9.78	10	No Measurements; Well Dry
MP-060A	A Clay	04/07/08	429.21		6.75		422.46		0.00	422.46		10	TD not measured
MP-060A	A Clay	07/08/08	429.21								9.76	10	Well Dry
MP-060A	A Clay	10/07/08	429.21		9.41		419.8		0.00	419.8	9.75	10	
MP-060B	Main Silt	01/07/08	429.2		20.61		408.59		0.00	408.59		21.2	TD not measured
MP-060B	Main Silt	04/07/08	429.2		20.66		408.54		0.00	408.54		21.2	TD not measured
MP-060B	Main Silt	07/08/08	429.2		19.64		409.56		0.00	409.56		21.2	

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1190505040 – Madison County – ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-060B	Main Silt	10/07/08	429.2		20.64		408.56		0.00	408.56	20.75	21.2	
MP-060C	Main	01/07/08	429.21	32.31	33.55	396.9	395.66	1.24	0.11	396.61		37	TD not measured
MP-060C	Main	04/07/08	429.21		28.22		400.99		0.00	400.99		37	TD not measured
MP-060C	Main	07/08/08	429.21	18.59	18.64	410.62	410.57	0.05	0.00	410.6085		37	
MP-060C	Main	10/07/08	429.21	24.43	28	404.78	401.21	3.57	0.84	403.9589		37	
MP-061A	A Clay	01/07/08	429.98								10.31	10.5	No Measurements, Well Dry
MP-061A	A Clay	04/07/08	429.98								10.3	10.5	No Measurements; Well Dry
MP-061A	A Clay	07/08/08	429.98		9.91		420.07		0.00	420.07		10.5	
MP-061A	A Clay	10/07/08	429.98		9.81		420.17		0.00	420.17	10.33	10.5	
MP-061B	Main Silt	01/07/08	429.98								21.31	21.7	No Measurements; Well Dry
MP-061B	Main Silt	04/07/08	429.98								21.29	21.7	No Measurements; Well Dry
MP-061B	Main Silt	07/08/08	429.98		16.9		413.08		0.00	413.08		21.7	
MP-061B	Main Silt	10/07/08	429.98								21.31	21.7	Well Dry
MP-061C	Main	01/07/08	430		32.4		397.6		0.00	397.6		37	TD not measured
MP-061C	Main	04/07/08	430		28.13		401.87		0.00	401.87		37	TD not measured
MP-061C	Main	07/08/08	430		16.91		413.09		0.00	413.09		37	
MP-061C	Main	10/07/08	430		24.61		405.39		0.00	405.39	37.11	37	
MP-062A	A Clay	01/07/08	429.11		8.84		420.27		0.00	420.27		10	TD not measured
MP-062A	A Clay	04/07/08	429.11		7		422.11		0.00	422.11		10	TD not measured
MP-062A	A Clay	07/08/08	429.11		7.2		421.91		0.00	421.91		10	
MP-062A	A Clay	10/07/08	429.11		7.85		421.26		0.00	421.26	9.65	10	
MP-062B	Main Silt	01/07/08	429.11								18.15	18.5	No Measurements; Well Dry
MP-062B	Main Silt	04/07/08	429.11								18.15	18.5	No Measurements; Well Dry
MP-062B	Main Silt	07/08/08	429.11		17.09		412.02		0.00	412.02		18.5	
MP-062B	Main Silt	10/07/08	429.11								18.16	18.5	Well Dry
MP-062C	Main	01/07/08	428.94		31.72		397.22		0.00	397.22		37	TD not measured
MP-062C	Main	04/07/08	428.94		27.13		401.81		0.00	401.81		37	TD not measured
MP-062C	Main	07/08/08	428.94		17		411.94		0.00	411.94		37	
MP-062C	Main	10/07/08	428.94		24.41		404.53		0.00	404.53	37.06	37	
MP-063A	A Clay	01/07/08	429.26		9.84		419.42		0.00	419.42		10.5	TD not measured
MP-063A	A Clay	04/07/08	429.26		8.2		421.06		0.00	421.06		10.5	TD not measured
MP-063A	A Clay	07/08/08	429.26		8.65		420.61		0.00	420.61		10.5	
MP-063A	A Clay	10/07/08	429.26		8.78		420.48		0.00	420.48	9.91	10.5	
MP-063B	Main Silt	01/07/08	429.26								19.78	20.2	No Measurements; Well Dry
MP-063B	Main Silt	04/07/08	429.26								19.76	20.2	No Measurements; Well Dry
MP-063B	Main Silt	07/08/08	429.26		17.86		411.4		0.00	411.4		20.2	
MP-063B	Main Silt	10/07/08	429.26								19.79	20.2	Well Dry
MP-063C	Main	01/07/08	429.29		32.22		397.07		0.00	397.07		37	TD not measured
MP-063C	Main	04/07/08	429.29		27.8		401.49		0.00	401.49		37	TD not measured
MP-063C	Main	07/08/08	429.29		17.93		411.36		0.00	411.36		37	
MP-063C	Main	10/07/08	429.29		24.99		404.3		0.00	404.3	36.79	37	
MP-064A	A Clay	01/07/08	428.73								9.67	10	No Measurements; Well Dry
MP-064A	A Clay	04/07/08	428.73								9.61	10	No Measurements; Well Dry
MP-064A	A Clay	07/08/08	428.73								9.63	10	Well Dry
MP-064A	A Clay	10/07/08	428.73								9.63	10	Well Dry
MP-064B	Main Silt	01/07/08	428.74								21.41	22	No Measurements; Well Dry
MP-064B	Main Silt	04/07/08	428.74								21.4	22	No Measurements; Well Dry
MP-064B	Main Silt	07/08/08	428.74		17.46		411.28		0.00	411.28		22	
MP-064B	Main Silt	10/07/08	428.74		21.31		407.43		0.00	407.43	21.41	22	
MP-064C	Main	01/07/08	428.55	31.35	32.26	397.2	396.29	0.91	0.07	396.99		37	TD not measured
MP-064C	Main	04/07/08	428.55		27.37		401.18		0.00	401.18		37	TD not measured
MP-064C	Main	07/08/08	428.55		17.44		411.11		0.00	411.11		37	
MP-064C	Main	10/07/08	428.55	24.31	24.5	404.24	404.05	0.19	0.02	404.1963		37	
MP-065A	Main Silt	01/07/08	431.41		16.38		415.03		0.00	415.03		16.8	TD not measured
MP-065A	Main Silt	04/07/08	431.41		16.4		415.01		0.00	415.01		16.8	TD not measured
MP-065A	Main Silt	07/08/08	431.41								16.38	16.8	Well Dry
MP-065A	Main Silt	10/07/08	431.41									16.8	Inaccessible; Covered by Debris
MP-065B	Main	01/07/08	431.44								24.82	25.5	No Measurements; Well Dry
MP-065B	Main	04/07/08	431.44								24.84	25.5	No Measurements; Well Dry
MP-065B	Main	07/08/08	431.44		17.45		413.99		0.00	413.99		25.5	

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)[1]	DO	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-065B	Main	10/07/08	431.44									25.5	Inaccessible; Covered by Debris
MP-065C	Main	01/07/08	431.42		33.45		397.97		0.00	397.97		40	TD not measured
MP-065C	Main	04/07/08	431.42		28.22		403.2		0.00	403.2		40	TD not measured
MP-065C	Main	07/08/08	431.42		17.59		413.83		0.00	413.83		40	
MP-065C	Main	10/07/08	431.42									40	Inaccessible; Covered by Debris
MP-066A	Main Silt	01/07/08	430.81		14.25		416.56		0.00	416.56		15	TD not measured
MP-066A	Main Silt	04/07/08	430.81		14.28		416.53		0.00	416.53		15	TD not measured
MP-066A	Main Silt	07/08/08	430.81								14.42	15	Well Dry
MP-066A	Main Silt	10/07/08	430.81									15	Well Dry
MP-066B	Main Silt	01/07/08	430.82		25.21		405.61		0.00	405.61		26	TD not measured
MP-066B	Main Silt	04/07/08	430.82		25.21		405.61		0.00	405.61		26	TD not measured
MP-066B	Main Silt	07/08/08	430.82		21.82		409		0.00	409		26	
MP-066B	Main Silt	10/07/08	430.82									26	NM - Could not locate
MP-066C	Main	01/07/08	430.79		32.5		398.29		0.00	398.29		40	TD not measured
MP-066C	Main	04/07/08	430.79		28.8		401.99		0.00	401.99		40	TD not measured
MP-066C	Main	07/08/08	430.79		17.9		412.89		0.00	412.89		40	
MP-066C	Main	10/07/08	430.79									40	NM - Could not locate
MP-067A	A Clay	01/07/08	430.29		9.91		420.38		0.00	420.38		10.4	TD not measured
MP-067A	A Clay	04/07/08	430.29		9.91		420.38		0.00	420.38		10.4	TD not measured
MP-067A	A Clay	07/08/08	430.29		9.89		420.4		0.00	420.4		10.4	
MP-067A	A Clay	10/07/08	430.29		9.91		420.38		0.00	420.38	10.04	10.4	
MP-067B	Main Silt	01/07/08	430.31		25.41		404.9		0.00	404.9		26	TD not measured
MP-067B	Main Silt	04/07/08	430.31		25.41		404.9		0.00	404.9		26	TD not measured
MP-067B	Main Silt	07/08/08	430.31		19.19		411.12		0.00	411.12		26	
MP-067B	Main Silt	10/07/08	430.31		25.39		404.92		0.00	404.92	25.52	26	
MP-067C	Main	01/07/08	430.19		32.83		397.36		0.00	397.36		40	TD not measured
MP-067C	Main	04/07/08	430.19		28.7		401.49		0.00	401.49		40	TD not measured
MP-067C	Main	07/08/08	430.19		19.05		411.14		0.00	411.14		40	
MP-067C	Main	10/07/08	430.19		25.59		404.6		0.00	404.6	39.9	40	
MP-068	N. Olive	01/07/08	431.36									17	No Measurements; Well Dry
MP-068	N. Olive	04/07/08	431.36								16.43	17	No Measurements; Well Dry
MP-068	N. Olive	07/08/08	431.36									17	Invalid gauging data; measured GW depth (16.71) >= bottom of screen interval.
MP-068	N. Olive	10/07/08	431.36								16.71	17	Well Dry
MP-069	N. Olive	01/07/08	431.57									16.5	No Measurements; Well Dry
MP-069	N. Olive	04/07/08	431.57									16.5	No Measurements; Well Dry
MP-069	N. Olive	07/08/08	431.57									16.5	Invalid gauging data; measured GW depth (16.28) >= bottom of screen interval.
MP-069	N. Olive	10/07/08	431.57								16.28	16.5	Well Dry
MP-070	N. Olive	01/07/08	431									16.5	No Measurements; Well Dry
MP-070	N. Olive	04/07/08	431								15.97	16.5	No Measurements; Well Dry
MP-070	N. Olive	07/08/08	431									16.5	Well Dry
MP-070	N. Olive	10/07/08	431								15.95	16.5	Well Dry
MP-071	N. Olive	01/07/08	430.14									16	No Measurements; Well Dry
MP-071	N. Olive	04/07/08	430.14								14.82	16	No Measurements; Well Dry
MP-071	N. Olive	07/08/08	430.14									16	Well Dry
MP-071	N. Olive	10/07/08	430.14								14.81	16	Well Dry
MP-072	N. Olive	01/07/08	430.51									16	No Measurements; Well Dry
MP-072	N. Olive	04/07/08	430.51								15.77	16	No Measurements; Well Dry
MP-072	N. Olive	07/08/08	430.51									16	Invalid gauging data; measured GW depth (15.75) >= bottom of screen interval.
MP-072	N. Olive	10/07/08	430.51								15.74	16	Well Dry
MP-073	N. Olive	01/07/08	430.84									17	No Measurements; Well Dry
MP-073	N. Olive	04/07/08	430.84								16.85	17	No Measurements; Well Dry
MP-073	N. Olive	07/08/08	430.84									17	Invalid gauging data; measured GW depth (16.82) >= bottom of screen interval.
MP-073	N. Olive	10/07/08	430.84								16.83	17	Well Dry
MP-074	N. Olive	01/07/08	431.38									18	No Measurements; Well Dry
MP-074	N. Olive	04/07/08	431.38								17.81	18	No Measurements; Well Dry
MP-074	N. Olive	07/08/08	431.38		17.16		414.22		0.00	414.22		18	

TABLE 2
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1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-074	N. Olive	10/07/08	431.38								17.78	18	Measured GW depth (17.77) >= bottom of screen interval.
MP-075	N. Olive	01/07/08	430.66									18.5	No Measurements; Well Dry
MP-075	N. Olive	04/07/08	430.66		16.41		414.25		0.00	414.25		18.5	TD not measured
MP-075	N. Olive	07/08/08	430.66		15.73		414.93		0.00	414.93		18.5	
MP-075	N. Olive	10/07/08	430.66		17.64		413.02		0.00	413.02	18.21	18.5	
MP-076	N. Olive	01/07/08	430.75									17.5	No Measurements; Well Dry
MP-076	N. Olive	04/07/08	430.75								17.39	17.5	No Measurements; Well Dry
MP-076	N. Olive	07/08/08	430.75		15.8		414.95		0.00	414.95		17.5	
MP-076	N. Olive	10/07/08	430.75								17.35	17.5	Measured GW depth (17.34) >= bottom of screen interval.
MP-077A	A Clay	01/07/08	430.53								10.46	11	No Measurements, Well Dry
MP-077A	A Clay	04/07/08	430.53								10.49	11	No Measurements, Well Dry
MP-077A	A Clay	07/08/08	430.53								10.5	11	Well Dry
MP-077A	A Clay	10/07/08	430.53								10.48	11	Well Dry
MP-077B	Main Silt	01/07/08	430.62									25	No Measurements; Well Dry
MP-077B	Main Silt	04/07/08	430.62								24.72	25	No Measurements; Well Dry
MP-077B	Main Silt	07/08/08	430.62	18.07	19.66	412.55	410.96	1.59		412.1843		25	
MP-077B	Main Silt	10/07/08	430.62								24.71	25	Measured GW depth (24.59) >= bottom of screen interval.
MP-077C	Main	01/07/08	430.46	33.41	35.22	397.05	395.24	1.81	0.29	396.63		39	TD not measured
MP-077C	Main	04/07/08	430.46	28.73	29.28	401.73	401.18	0.55	0.04	401.6		39	TD not measured
MP-077C	Main	07/08/08	430.46	18.65	18.66	411.81	411.8	0.01	0.00	411.8077		39	
MP-077C	Main	10/07/08	430.46	26.6	26.71	403.86	403.75	0.11	0.01	403.6347		39	
MP-078A	A Clay	01/07/08	430.38		7.9		422.48		0.00	422.48		8.5	TD not measured
MP-078A	A Clay	04/07/08	430.38		7.9		422.48		0.00	422.48		8.5	TD not measured
MP-078A	A Clay	07/08/08	430.38									8.5	Well Dry
MP-078A	A Clay	10/07/08	430.38		7.93		422.45		0.00	422.45	7.97	8.5	
MP-078B	N. Olive	01/07/08	430.23									14	No Measurements; Well Dry
MP-078B	N. Olive	04/07/08	430.23									14	No Measurements; Well Dry
MP-078B	N. Olive	07/08/08	430.23									14	Invalid gauging data; measured GW depth (13.83) >= bottom of screen interval.
MP-078B	N. Olive	10/07/08	430.23								13.84	14	Well Dry
MP-078C	Rand	01/07/08	430.29						0.00			24.5	No Measurements; Well Dry
MP-078C	Rand	04/07/08	430.29						0.00			24.5	No Measurements; Well Dry
MP-078C	Rand	07/08/08	430.29		17.45		412.84		0.00	412.84		24.5	
MP-078C	Rand	10/07/08	430.29		23.8		406.49		0.00	406.49	24.25	24.5	
MP-078D	Main	01/07/08	430.17		34.58		395.59		0.00	395.59		38.2	TD not measured
MP-078D	Main	04/07/08	430.17		28.5		401.67		0.00	401.67		38.2	TD not measured
MP-078D	Main	07/08/08	430.17		17.95		412.22		0.00	412.22		38.2	
MP-078D	Main	10/07/08	430.17		27.81		402.36		0.00	402.36	37.82	38.2	
MP-079A	N. Olive	01/07/08	429.44									17.5	No Measurements; Well Dry
MP-079A	N. Olive	04/07/08	429.44		16.83		412.61		0.00	412.61		17.5	TD not measured
MP-079A	N. Olive	07/08/08	429.44		16.82		412.62		0.00	412.62		17.5	
MP-079A	N. Olive	10/07/08	429.44		16.81		412.63		0.00	412.63	16.83	17.5	
MP-079B	Rand	01/07/08	429.48		28.01		401.47		0.00	401.47		29	TD not measured
MP-079B	Rand	04/07/08	429.48		26.63		402.85		0.00	402.85		29	TD not measured
MP-079B	Rand	07/08/08	429.48		16.15		413.33		0.00	413.33		29	
MP-079B	Rand	10/07/08	429.48		22.34		407.14		0.00	407.14	28.85	29	
MP-079C	Main	01/07/08	429.52	35.75		393.77						37.5	TD not measured
MP-079C	Main	04/07/08	429.52	25.18	35.5	404.34	394.02	10.32	2.96	401.97		37.5	TD not measured
MP-079C	Main	07/08/08	429.52	14.46	26.52	415.06	403	12.06	3.51	412.2862		37.5	
MP-079C	Main	10/08/08	429.52		27.3		402.22		0.00	402.22	37.33	37.5	
MP-079D	Main	01/07/08	429.46		33.65		395.81		0.00	395.81		51	TD not measured
MP-079D	Main	04/07/08	429.46		27.87		401.59		0.00	401.59		51	TD not measured
MP-079D	Main	07/08/08	429.46		17.55		411.91		0.00	411.91		51	
MP-079D	Main	10/07/08	429.46		26.84		402.62		0.00	402.62	50.66	51	
MP-080A	N. Olive	01/07/08	430.03									19	No Measurements; Well Dry
MP-080A	N. Olive	04/07/08	430.03									19	No Measurements; Well Dry
MP-080A	N. Olive	07/08/08	430.03		15.28		414.75		0.00	414.75		19	

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1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-080A	N. Olive	10/07/08	430.03		17.26		412.77		0.00	412.77	18.81	19	
MP-080B	Rand	01/07/08	430.01		20.71		409.3		0.00	409.3		30	TD not measured
MP-080B	Rand	04/07/08	430.01		8.74		421.27		0.00	421.27		30	TD not measured
MP-080B	Rand	07/08/08	430.01		14.25		415.76		0.00	415.76		30	
MP-080B	Rand	10/07/08	430.01		19.57		410.44		0.00	410.44	29.63	30	
MP-080C	Main	01/08/08	430.03	33.69	35.29	396.34	394.74	1.60	0.22	395.97		44	TD not measured
MP-080C	Main	04/08/08	430.03	29.59	29.6	400.44	400.43	0.01	0.00	400.44		44	TD not measured
MP-080C	Main	07/08/08	430.03	13.46	32.5	416.57	397.53	19.04	5.70	412.1908		44	
MP-080C	Main	10/07/08	430.03	25.67	26.26	404.36	403.77	0.59	0.05	404.2243		44	
MP-081A	A Clay	01/07/08	425.57								7.7	8	No Measurements; Well Dry
MP-081A	A Clay	04/07/08	425.57								7.69	8	No Measurements; Well Dry
MP-081A	A Clay	07/08/08	425.57								7.71	8	Well Dry
MP-081A	A Clay	10/07/08	425.57								7.71	8	Well Dry
MP-081B	Main Silt	01/07/08	425.53								18.77	19	No Measurements; Well Dry
MP-081B	Main Silt	04/07/08	425.53								18.75	19	No Measurements; Well Dry
MP-081B	Main Silt	07/08/08	425.53		12.08		413.45		0.00	413.45		19	
MP-081B	Main Silt	10/07/08	425.53								18.77	19	Well Dry
MP-081C	Main	01/07/08	425.4		28.34		397.06		0.00	397.06		32.8	TD not measured
MP-081C	Main	04/07/08	425.4		22.7		402.7		0.00	402.7		32.8	TD not measured
MP-081C	Main	07/08/08	425.4		11.73		413.67		0.00	413.67		32.8	
MP-081C	Main	10/07/08	425.4		20.81		404.59		0.00	404.59	32.41	32.8	
MP-082A	A Clay	01/08/08	431.67								10.62	11	No Measurements; Well Dry
MP-082A	A Clay	04/07/08	431.67								10.6	11	No Measurements; Well Dry
MP-082A	A Clay	07/08/08	431.67									11	Invalid gauging data; measured GW depth (10.6) >= bottom of screen interval.
MP-082A	A Clay	10/07/08	431.67								10.69	11	Well Dry
MP-082B	Main Silt	01/08/08	431.58									26	No Measurements; Well Dry
MP-082B	Main Silt	04/07/08	431.58									26	No Measurements; Well Dry
MP-082B	Main Silt	07/08/08	431.58		18.6		412.98		0.00	412.98		26	
MP-082B	Main Silt	10/08/08	431.58								25.81	26	Measured GW depth (25.71) >= bottom of screen interval.
MP-082C	Main	01/07/08	431.61	34.63	34.69	396.98	396.92	0.06	0.00	396.97		39	TD not measured
MP-082C	Main	04/07/08	431.61		29.29		402.32		0.00	402.32		39	TD not measured
MP-082C	Main	07/08/08	431.61	18.76	18.77	412.85	412.84	0.01	0.00	412.8477		39	
MP-082C	Main	10/07/08	431.61		27.5		404.11		0.00	404.11	38.8	39	strong odor on probe
MP-083A	N. Olive	01/07/08	426.92									16	No Measurements; Well Dry
MP-083A	N. Olive	04/07/08	426.92								15.38	16	No Measurements; Well Dry
MP-083A	N. Olive	07/08/08	426.92									16	Invalid gauging data; measured GW depth (15.38) >= bottom of screen interval.
MP-083A	N. Olive	10/07/08	426.92								15.38	16	Well Dry
MP-083B	Rand	01/07/08	426.94									24	No Measurements; Well Dry
MP-083B	Rand	04/07/08	426.94								23.56	24	No Measurements; Well Dry
MP-083B	Rand	07/08/08	426.94	11.35	19.27	415.59	407.67	7.92	2.21	413.7684		24	
MP-083B	Rand	10/07/08	426.94	20.73	21.33	406.21	405.61	0.60		406.072		24	
MP-083C	Main	01/07/08	426.79		30.93		395.86		0.00	395.86		42.5	TD not measured
MP-083C	Main	04/07/08	426.79		24.79		402		0.00	402		42.5	TD not measured
MP-083C	Main	07/08/08	426.79		14.26		412.53		0.00	412.53		42.5	
MP-083C	Main	10/07/08	426.79		24.08		402.71		0.00	402.71	42.01	42.5	
MP-084A	A Clay	01/07/08	432.08								8.58	9	No Measurements; Well Dry
MP-084A	A Clay	04/07/08	432.08								8.58	9	No Measurements; Well Dry
MP-084A	A Clay	07/08/08	432.08								5.57	9	Well Dry
MP-084A	A Clay	10/08/08	432.08								8.65	9	Well Dry
MP-084B	Main Silt	01/07/08	432.07									26	No Measurements; Well Dry
MP-084B	Main Silt	04/07/08	432.07									26	No Measurements; Well Dry
MP-084B	Main Silt	07/08/08	432.07	19.48	19.89	412.59	412.18	0.41		412.4957		26	
MP-084B	Main Silt	10/07/08	432.07								25.6	26	Measured GW depth (25.44) >= bottom of screen interval.
MP-084C	Multiple Strata	01/07/08	432.1	34.88	37.05	397.22	395.05	2.17	0.40	396.72		40	TD not measured
MP-084C	Multiple Strata	04/07/08	432.1		30.18		401.92		0.00	401.92		40	TD not measured
MP-084C	Multiple Strata	07/08/08	432.1		19.77		412.33		0.00	412.33		40	

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1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-084C	Multiple Strata	10/07/08	432.1		28.35		403.75		0.00	403.75	37.97	40	
MP-085A	N. Olive	01/07/08	428.07		9.6		418.47		0.00	418.47		10.5	TD not measured
MP-085A	N. Olive	04/07/08	428.07		9.26		418.81		0.00	418.81		10.5	TD not measured
MP-085A	N. Olive	07/08/08	428.07		6.42		421.65		0.00	421.65		10.5	
MP-085A	N. Olive	10/07/08	428.07		8.31		419.76		0.00	419.76	10.27	10.5	
MP-085B	Rand	01/07/08	428.06	19.27	19.66	408.79	408.4	0.39	0.03	408.7		24	TD not measured
MP-085B	Rand	04/07/08	428.06		10.05		418.01		0.00	418.01		24	TD not measured
MP-085B	Rand	07/08/08	428.06	6.22	6.23	421.84	421.83	0.01	0.00	421.8377		24	product sheen
MP-085B	Rand	10/07/08	428.06		8.92		419.14		0.00	419.14	20.6	24	
MP-085C	EPA	01/08/08	428.08	31.52	31.59	396.56	396.49	0.07	0.00	396.54		36	TD not measured
MP-085C	EPA	04/07/08	428.08		26.95		401.13		0.00	401.13		36	TD not measured
MP-085C	EPA	07/08/08	428.08		16.89		411.19		0.00	411.19		36	
MP-085C	EPA	10/07/08	428.08		25.58		402.5		0.00	402.5	35.97	36	
MP-085D	Main	01/07/08	427.86		31.91		395.95		0.00	395.95		50	TD not measured
MP-085D	Main	04/07/08	427.86		27.31		400.55		0.00	400.55		50	TD not measured
MP-085D	Main	07/08/08	427.86		17.71		410.15		0.00	410.15		50	
MP-085D	Main	10/07/08	427.86		25.14		402.72		0.00	402.72	49.86	50	
MP-086A	A Clay	01/07/08	431.31									8	No Measurements; Well Dry
MP-086A	A Clay	04/08/08	431.31								7.5	8	No Measurements; Well Dry
MP-086A	A Clay	07/08/08	431.31								7.49	8	Well Dry
MP-086A	A Clay	10/07/08	431.31								7.5	8	Well Dry
MP-086B	Main Silt	01/07/08	431.28								25.62	26	No Measurements; Well Dry
MP-086B	Main Silt	04/08/08	431.28								25.63	26	No Measurements; Well Dry
MP-086B	Main Silt	07/08/08	431.28		18.21		413.07		0.00	413.07		26	
MP-086B	Main Silt	10/07/08	431.28								25.6	26	Well Dry
MP-086C	Main	01/07/08	431.2	34.29	34.45	396.91	396.75	0.16	0.01	396.87		40	TD not measured
MP-086C	Main	04/08/08	431.2		28.83		402.37		0.00	402.37		40	TD not measured
MP-086C	Main	07/08/08	431.2		18.35		412.85		0.00	412.85		40	
MP-086C	Main	10/07/08	431.2		27.11		404.09		0.00	404.09	39.25	40	
MP-087A	A Clay	01/07/08	432.01								6.57	7	No Measurements; Well Dry
MP-087A	A Clay	04/07/08	432.01								6.56	7	No Measurements; Well Dry
MP-087A	A Clay	07/08/08	432.01								6.56	7	Well Dry
MP-087A	A Clay	10/07/08	432.01								6.65	7	Well Dry
MP-087B	Main Silt	01/07/08	432.01									26	No Measurements; Well Dry
MP-087B	Main Silt	04/07/08	432.01									26	No Measurements; Well Dry
MP-087B	Main Silt	07/08/08	432.01	19.59	20	412.42	412.01	0.41		412.3257		26	
MP-087B	Main Silt	10/07/08	432.01								25.7	26	Measured GW depth (25.52) >= bottom of screen interval.
MP-087C	Main	01/07/08	432.08	35	36.5	397.08	395.58	1.50	0.19	396.74		40	TD not measured
MP-087C	Main	04/07/08	432.08	29.89	31.28	402.19	400.8	1.39	0.16	401.87		40	TD not measured
MP-087C	Main	07/08/08	432.08		19.98		412.1		0.00	412.1		40	
MP-087C	Main	10/07/08	432.08		28.21		403.87		0.00	403.87	39.73	40	
MP-088A	A Clay	01/07/08	430.6								9.83	10	No Measurements; Well Dry
MP-088A	A Clay	04/07/08	430.6								9.81	10	No Measurements; Well Dry
MP-088A	A Clay	07/08/08	430.6								9.82	10	Well Dry
MP-088A	A Clay	10/07/08	430.6								9.85	10	Well Dry
MP-088B	Main Silt	01/07/08	430.6									20	No Measurements; Well Dry
MP-088B	Main Silt	04/07/08	430.6								19.69	20	No Measurements; Well Dry
MP-088B	Main Silt	07/08/08	430.6		18.33		412.27		0.00	412.27		20	
MP-088B	Main Silt	10/07/08	430.6								19.71	20	Well Dry
MP-088C	Main	01/07/08	430.51	33.41	33.42	397.1	397.09	0.01	0.00	397.1		38	TD not measured
MP-088C	Main	04/07/08	430.51		28.61		401.9		0.00	401.9		38	TD not measured
MP-088C	Main	07/08/08	430.51		18.38		412.13		0.00	412.13		38	
MP-088C	Main	10/07/08	430.51		26.15		404.36		0.00	404.36	38.72	38	soft bottom
MP-089A	A Clay	01/07/08	429.17		9.56		419.61		0.00	419.61		10	TD not measured
MP-089A	A Clay	04/07/08	429.17	9.1	9.11	420.07	420.06	0.01		420.07		10	TD not measured
MP-089A	A Clay	07/08/08	429.17		8.61		420.56		0.00	420.56		10	
MP-089A	A Clay	10/07/08	429.17		8.81		420.36		0.00	420.36	9.8	10	
MP-089B	Main Silt	01/07/08	429.17								19.77	20	No Measurements; Well Dry
MP-089B	Main Silt	04/07/08	429.17								19.75	20	No Measurements; Well Dry

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-089B	Main Silt	07/08/08	429.17		16.87		412.3		0.00	412.3		20	
MP-089B	Main Silt	10/07/08	429.17								19.77	20	Well Dry
MP-089C	Main	01/07/08	429.25		31.9		397.35		0.00	397.35		38	TD not measured
MP-089C	Main	04/07/08	429.25		27.46		401.79		0.00	401.79		38	TD not measured
MP-089C	Main	07/08/08	429.25		16.84		412.41		0.00	412.41		38	
MP-089C	Main	10/07/08	429.25		24.32		404.93		0.00	404.93	37.85	38	
MP-090BR	Main Silt	01/07/08	429.95								15.91	16.5	No Measurements; Well Dry
MP-090BR	Main Silt	04/07/08	429.95								15.9	16.5	No Measurements; Well Dry
MP-090BR	Main Silt	07/08/08	429.95								15.91	16.5	Well Dry
MP-090BR	Main Silt	10/07/08	429.95								15.98	16.5	Well Dry
MP-090C	Multiple Strata	01/07/08	429.95	32.97	34.25	396.98	395.7	1.28	0.12	396.69		40.6	TD not measured
MP-090C	Multiple Strata	04/07/08	429.95	27.58	28.3	402.37	401.65	0.72	0.06	402.2		40.6	TD not measured
MP-090C	Multiple Strata	07/08/08	429.95	17.28	17.31	412.67	412.64	0.03	0.00	412.6631		40.6	
MP-090C	Multiple Strata	10/07/08	429.95	26.21	26.22	403.74	403.73	0.01	0.00	403.7377	40.5	40.6	
MP-091B	Main Silt	01/07/08	425.98								14.48	15.1	No Measurements; Well Dry
MP-091B	Main Silt	04/07/08	425.98								14.47	15.1	No Measurements; Well Dry
MP-091B	Main Silt	07/08/08	425.98		12.46		413.52		0.00	413.52		15.1	
MP-091B	Main Silt	10/07/08	425.98								14.57	15.1	Well Dry
MP-091C	Main Silt	01/07/08	425.98								27.7	28.2	No Measurements; Well Dry
MP-091C	Main Silt	04/07/08	425.98		23.85		402.13		0.00	402.13		28.2	TD not measured
MP-091C	Main Silt	07/08/08	425.98		13.26		412.72		0.00	412.72		28.2	
MP-091C	Main Silt	10/07/08	425.98		21.81		404.17		0.00	404.17	27.79	28.2	
MP-091D	Main	01/07/08	425.96		29.3		396.66		0.00	396.66		44.6	TD not measured
MP-091D	Main	04/07/08	425.96		23.51		402.45		0.00	402.45		44.6	TD not measured
MP-091D	Main	07/08/08	425.96		12.9		413.06		0.00	413.06		44.6	
MP-091D	Main	10/07/08	425.96		22.19		403.77		0.00	403.77	44.29	44.6	
MP-092C	N. Olive	01/07/08	427.71									20.55	No Measurements; Well Dry
MP-092C	N. Olive	04/07/08	427.71									20.55	No Measurements; Well Dry
MP-092C	N. Olive	07/08/08	427.71		15.6		412.11		0.00	412.11		20.55	
MP-092C	N. Olive	10/08/08	427.71								19.99	20.55	Well Dry
MP-092D	Multiple Strata	01/07/08	427.98		31.16		396.82		0.00	396.82		38.1	TD not measured
MP-092D	Multiple Strata	04/07/08	427.98		24.94		403.04		0.00	403.04		38.1	TD not measured
MP-092D	Multiple Strata	07/08/08	427.98		14.17		413.81		0.00	413.81		38.1	
MP-092D	Multiple Strata	10/07/08	427.98		23.91		404.07		0.00	404.07	36.69	38.1	
MP-093A	Backfill	01/07/08	429.74								6.1	6.62	No Measurements; Well Dry
MP-093A	Backfill	04/07/08	429.74								6.1	6.62	No Measurements; Well Dry
MP-093A	Backfill	07/08/08	429.74								6.11	6.62	Well Dry
MP-093A	Backfill	10/07/08	429.74								6.11	6.62	Well Dry
MP-093B	A Clay	01/07/08	429.84								11.69	12.12	No Measurements; Well Dry
MP-093B	A Clay	04/07/08	429.84								11.68	12.12	No Measurements; Well Dry
MP-093B	A Clay	07/08/08	429.84								11.68	12.12	Well Dry
MP-093B	A Clay	10/07/08	429.84								11.7	12.12	Well Dry
MP-094A	A Clay	01/07/08	428.63								9.73	10	No Measurements; Well Dry
MP-094A	A Clay	04/07/08	428.63		7.17		421.46		0.00	421.46		10	TD not measured
MP-094A	A Clay	07/08/08	428.63		8.33		420.3		0.00	420.3		10	
MP-094A	A Clay	10/07/08	428.63		8.96		419.67		0.00	419.67	9.74	10	
MP-094B	Main Silt	01/07/08	428.72									18	No Measurements; Well Dry
MP-094B	Main Silt	04/07/08	428.72									18	No Measurements; Well Dry
MP-094B	Main Silt	07/08/08	428.72		17.6		411.12		0.00	411.12		18	
MP-094B	Main Silt	10/07/08	428.72								17.81	18	Measured GW depth (17.78) >= bottom of screen interval.
MP-095A	A Clay	01/07/08	428.6								9.65	10	No Measurements; Well Dry
MP-095A	A Clay	04/07/08	428.6								9.64	10	No Measurements; Well Dry
MP-095A	A Clay	07/08/08	428.6								9.65	10	Well Dry
MP-095A	A Clay	10/07/08	428.6								9.66	10	Well Dry
MP-095B	Main Silt	01/07/08	428.67									17	No Measurements; Well Dry
MP-095B	Main Silt	04/07/08	428.67		16.69		411.98		0.00	411.98		17	TD not measured
MP-095B	Main Silt	07/08/08	428.67									17	Invalid gauging data; measured GW depth (16.71) >= bottom of screen interval.

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation[1] (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface[1] Elevation[1] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-095B	Main Silt	10/07/08	428.67								16.74	17	Measured GW depth (16.72) >= bottom of screen interval.
MP-096A	A Clay	01/07/08	429.42		5.08		424.34		0.00	424.34		5.6	TD not measured
MP-096A	A Clay	04/07/08	429.42		5.1		424.32		0.00	424.32		5.6	TD not measured
MP-096A	A Clay	07/08/08	429.42								5.12	5.6	Well Dry
MP-096A	A Clay	10/07/08	429.42								5.11	5.6	Well Dry
MP-096B	N. Olive	01/07/08	429.57								15.57	14.83	No Measurements; Well Dry
MP-096B	N. Olive	04/07/08	429.57								14.55	14.83	No Measurements; Well Dry
MP-096B	N. Olive	07/08/08	429.57								14.57	14.83	Invalid gauging data; measured GW depth (14.56) >= bottom of screen interval.
MP-096B	N. Olive	10/07/08	429.57								14.59	14.83	Measured GW depth (14.51) >= bottom of screen interval.
MP-096C	Rand	01/07/08	429.38									34.24	No Measurements; Well Dry
MP-096C	Rand	04/07/08	429.38									34.24	No Measurements; Well Dry
MP-096C	Rand	07/08/08	429.38	19.25	19.57	410.13	409.81	0.32		410.0564		34.24	
MP-096C	Rand	10/07/08	429.38	22.73	22.95	406.65	406.43	0.22		406.5994		34.24	
MP-096D	Main	01/07/08	429.48	32.89	34.28	396.59	395.2	1.39	0.16	396.27		35.33	TD not measured
MP-096D	Main	04/07/08	429.48	28.42	30.9	401.06	398.58	2.48	0.50	400.49		35.33	TD not measured
MP-096D	Main	07/08/08	429.48	16.1	30.3	413.38	399.18	14.20	4.18	410.114		35.33	
MP-096D	Main	10/07/08	429.48	25.06	30.48	404.42	399	5.42	1.42	403.1734		35.33	
MP-097A	A Clay	01/07/08	429.33								4.78	5.2	No Measurements; Well Dry
MP-097A	A Clay	04/07/08	429.33								4.77	5.2	No Measurements; Well Dry
MP-097A	A Clay	07/08/08	429.33								4.78	5.2	Well Dry
MP-097A	A Clay	10/07/08	429.33								4.81	5.2	Well Dry
MP-097B	N. Olive	01/07/08	429.31									15.8	No Measurements; Well Dry
MP-097B	N. Olive	04/07/08	429.31									15.8	No Measurements; Well Dry
MP-097B	N. Olive	07/08/08	429.31								15.67	15.8	Invalid gauging data; measured GW depth (15.59) >= bottom of screen interval.
MP-097B	N. Olive	10/07/08	429.31								15.68	15.8	Measured GW depth (15.59) >= bottom of screen interval.
MP-097C	Rand	01/07/08	429.3								23.71	24	No Measurements; Well Dry
MP-097C	Rand	04/07/08	429.3								23.7	24	No Measurements; Well Dry
MP-097C	Rand	07/08/08	429.3		17.91		411.39		0.00	411.39		24	
MP-097C	Rand	10/07/08	429.3		22.98		406.32		0.00	406.32	23.72	24	
MP-097D	Main	01/07/08	429.31	32.72	34.23	396.59	395.08	1.51	0.19	396.24		40.6	TD not measured
MP-097D	Main	04/07/08	429.31	28.23	30.66	401.08	398.65	2.43	0.48	400.52		40.6	TD not measured
MP-097D	Main	07/08/08	429.31		19.45		409.86		0.00	409.86		40.6	
MP-097D	Main	10/07/08	429.31		26.06		403.25		0.00	403.25	40.12	40.6	
MP-098A	A Clay	01/07/08	429.4								4.66	5	No Measurements; Well Dry
MP-098A	A Clay	04/07/08	429.4									5	No Measurements; Well Dry
MP-098A	A Clay	07/08/08	429.4								4.66	5	Well Dry
MP-098A	A Clay	10/07/08	429.4								4.68	5	Well Dry
MP-098B	N. Olive	01/07/08	429.38								15.31	15.62	No Measurements; Well Dry
MP-098B	N. Olive	04/07/08	429.38								15.29	15.62	No Measurements; Well Dry
MP-098B	N. Olive	07/08/08	429.38								15.29	15.62	Well Dry
MP-098B	N. Olive	10/07/08	429.38								15.3	15.62	Well Dry
MP-098C	Rand	01/07/08	429.38								23.8	24.12	No Measurements; Well Dry
MP-098C	Rand	04/07/08	429.38								23.77	24.12	No Measurements; Well Dry
MP-098C	Rand	07/08/08	429.38								23.79	24.12	Well Dry
MP-098C	Rand	10/07/08	429.38		23.39		405.99		0.00	405.99	23.82	24.12	
MP-099A	A Clay	01/07/08	431.59									7.25	No Measurements; Well Dry
MP-099A	A Clay	04/07/08	431.59									7.25	No Measurements; Well Dry
MP-099A	A Clay	07/08/08	431.59								6.9	7.25	Well Dry
MP-099A	A Clay	10/07/08	431.59								6.97	7.25	Measured GW depth (6.95) >= bottom of screen interval.
MP-099B	Main Silt	01/07/08	431.58									13.75	No Measurements; Well Dry
MP-099B	Main Silt	04/07/08	431.58									13.75	No Measurements; Well Dry
MP-099B	Main Silt	07/08/08	431.58		13.22		418.36		0.00	418.36		13.75	
MP-099B	Main Silt	10/07/08	431.58								13.42	13.75	Measured GW depth (13.33) >= bottom of screen interval.

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The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do'	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-099C	Main	01/07/08	431.56									35	No Measurements; Well Dry
MP-099C	Main	04/07/08	431.56		29.32		402.24		0.00	402.24		35	TD not measured
MP-099C	Main	07/08/08	431.56		18.81		412.75		0.00	412.75		35	
MP-099C	Main	10/07/08	431.56		27.46		404.1		0.00	404.1	34.79	35	
MP-100A	Backfill	01/08/08	431.55								4.19	4.6	No Measurements; Well Dry
MP-100A	Backfill	04/07/08	431.55								4.18	4.6	No Measurements; Well Dry
MP-100A	Backfill	07/08/08	431.55								4.23	4.6	Well Dry
MP-100A	Backfill	10/07/08	431.55								4.25	4.6	Well Dry
MP-100B	A Clay	01/08/08	431.62								7.25	7.6	No Measurements; Well Dry
MP-100B	A Clay	04/07/08	431.62								7.25	7.6	No Measurements; Well Dry
MP-100B	A Clay	07/08/08	431.62								7.25	7.6	Well Dry
MP-100B	A Clay	10/07/08	431.62								7.31	7.6	Well Dry
MP-100C	Main Silt	01/08/08	431.67									13.6	No Measurements; Well Dry
MP-100C	Main Silt	04/07/08	431.67									13.6	No Measurements; Well Dry
MP-100C	Main Silt	07/08/08	431.67								13.23	13.6	Well Dry
MP-100C	Main Silt	10/07/08	431.67								13.34	13.6	Well Dry
MP-100D	Main	01/08/08	431.65									35	No Measurements; Well Dry
MP-100D	Main	04/07/08	431.65		29.36		402.29		0.00	402.29		35	TD not measured
MP-100D	Main	07/08/08	431.65	18.81	18.95	412.84	412.7	0.14	0.01	412.8078		35	
MP-100D	Main	10/07/08	431.65	27.51	27.68	404.14	403.97	0.17	0.01	404.1009		35	due to product no total depth measured
MP-101A	A Clay	01/07/08	431.29		7.04		424.25		0.00	424.25		8.2	TD not measured
MP-101A	A Clay	04/07/08	431.29		7.08		424.21		0.00	424.21		8.2	TD not measured
MP-101A	A Clay	07/08/08	431.29		7.14		424.15		0.00	424.15		8.2	
MP-101A	A Clay	10/08/08	431.29		7.27		424.02		0.00	424.02	7.95	8.2	
MP-101B	Main Silt	01/07/08	431.3									14.2	No Measurements; Well Dry
MP-101B	Main Silt	04/07/08	431.3									14.2	No Measurements; Well Dry
MP-101B	Main Silt	07/08/08	431.3									14.2	Invalid gauging data; measured GW depth (13.91) >= bottom of screen interval.
MP-101B	Main Silt	10/08/08	431.3								13.98	14.2	Well Dry
MP-101C	Main	01/07/08	431.31		34.32		396.99		0.00	396.99		35	TD not measured
MP-101C	Main	04/07/08	431.31		29.08		402.23		0.00	402.23		35	TD not measured
MP-101C	Main	07/08/08	431.31		18.65		412.66		0.00	412.66		35	
MP-101C	Main	10/08/08	431.31		27.34		403.97		0.00	403.97	34.72	35	
MP-102A	A Clay	01/07/08	431.14								7.74	8.12	No Measurements; Well Dry
MP-102A	A Clay	04/08/08	431.14								7.75	8.12	No Measurements; Well Dry
MP-102A	A Clay	07/08/08	431.14								7.72	8.12	Well Dry
MP-102A	A Clay	10/07/08	431.14								7.8	8.12	Well Dry
MP-102B	Main Silt	01/07/08	431.13									15.25	No Measurements; Well Dry
MP-102B	Main Silt	04/08/08	431.13								14.75	15.25	No Measurements; Well Dry
MP-102B	Main Silt	07/08/08	431.13									15.25	Invalid gauging data; measured GW depth (14.68) >= bottom of screen interval.
MP-102B	Main Silt	10/07/08	431.13								14.82	15.25	Well Dry
MP-102C	Main	01/07/08	431.13								34.55	34.32	No Measurements; Well Dry
MP-102C	Main	04/08/08	431.13		28.65		402.48		0.00	402.48		34.32	TD not measured
MP-102C	Main	07/08/08	431.13	18.11	18.5	413.02	412.63	0.39	0.03	412.9303		34.32	
MP-102C	Main	10/07/08	431.13	26.91	26.93	404.22	404.2	0.02	0.00	404.2154	34.65	34.32	
MP-103A	A Clay	01/07/08	431.23								7.8	8.12	No Measurements; Well Dry
MP-103A	A Clay	04/08/08	431.23								7.81	8.12	No Measurements; Well Dry
MP-103A	A Clay	07/08/08	431.23								7.79	8.12	Well Dry
MP-103A	A Clay	10/08/08	431.23								7.85	8.12	Well Dry
MP-103B	Main Silt	01/07/08	431.25								14.58	14.75	No Measurements; Well Dry
MP-103B	Main Silt	04/08/08	431.25								14.59	14.75	No Measurements; Well Dry
MP-103B	Main Silt	07/08/08	431.25									14.75	Invalid gauging data; measured GW depth (14.56) >= bottom of screen interval.
MP-103B	Main Silt	10/07/08	431.25								14.67	14.75	Well Dry
MP-103C	Main	01/07/08	431.24									34.84	No Measurements; Well Dry
MP-103C	Main	04/08/08	431.24		28.83		402.41		0.00	402.41		34.84	TD not measured
MP-103C	Main	07/08/08	431.24	18.2	19.03	413.04	412.21	0.83	0.07	412.8491		34.84	
MP-103C	Main	10/07/08	431.24	27.06	27.08	404.18	404.16	0.02	0.00	404.1754	35.03	34.84	
MP-104A	A Clay	01/07/08	431.26								7.78	8.12	No Measurements; Well Dry

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-104A	A Clay	04/08/08	431.26								7.79	8.12	No Measurements; Well Dry
MP-104A	A Clay	07/08/08	431.26								7.79	8.12	Well Dry
MP-104A	A Clay	10/07/08	431.26		7.17		424.09		0.00	424.09	7.85	8.12	
MP-104B	Main Silt	01/07/08	431.29									14.75	No Measurements; Well Dry
MP-104B	Main Silt	04/08/08	431.29								14.45	14.75	No Measurements; Well Dry
MP-104B	Main Silt	07/08/08	431.29									14.75	Invalid gauging data; measured GW depth (14.38) >= bottom of screen interval.
MP-104B	Main Silt	10/07/08	431.29								14.5	14.75	Measured GW depth (14.45) >= bottom of screen interval.
MP-104C	Main	01/07/08	431.25									34.82	No Measurements; Well Dry
MP-104C	Main	04/08/08	431.25		28.88		402.37		0.00	402.37		34.82	TD not measured
MP-104C	Main	07/08/08	431.25	18.35	18.55	412.9	412.7	0.20	0.02	412.854		34.82	
MP-104C	Main	10/07/08	431.25	27.14	27.15	404.11	404.1	0.01	0.00	404.1077	34.71	34.82	
MP-105A	N. Olive	01/07/08	430.95								9.7	9.7	No Measurements; Well Dry
MP-105A	N. Olive	04/07/08	430.95								9.69	9.7	No Measurements; Well Dry
MP-105A	N. Olive	07/08/08	430.95								9.71	9.7	Well Dry
MP-105A	N. Olive	10/07/08	430.95								9.7	9.7	Well Dry
MP-105B	N. Olive	01/07/08	431.36								9.39	9.39	No Measurements; Well Dry
MP-105B	N. Olive	04/07/08	431.36								9.38	9.39	No Measurements; Well Dry
MP-105B	N. Olive	07/08/08	431.36								9.4	9.39	Well Dry
MP-105B	N. Olive	10/07/08	431.36								9.38	9.39	Well Dry
MP-105C	N. Olive	01/07/08	431.35								9.36	9.36	No Measurements; Well Dry
MP-105C	N. Olive	04/07/08	431.35								9.35	9.36	No Measurements; Well Dry
MP-105C	N. Olive	07/08/08	431.35								9.38	9.36	Well Dry
MP-105C	N. Olive	10/07/08	431.35								9.36	9.36	Well Dry
MP-105D	N. Olive	01/07/08	431.43								9.24	9.24	No Measurements; Well Dry
MP-105D	N. Olive	04/07/08	431.43								9.24	9.24	No Measurements; Well Dry
MP-105D	N. Olive	07/08/08	431.43								9.28	9.24	Well Dry
MP-105D	N. Olive	10/07/08	431.43								9.24	9.24	Well Dry
MP-105E	N. Olive	01/07/08	431.46								9.51	9.51	No Measurements; Well Dry
MP-105E	N. Olive	04/07/08	431.46								9.51	9.51	No Measurements; Well Dry
MP-105E	N. Olive	07/08/08	431.46								9.52	9.51	Well Dry
MP-105E	N. Olive	10/07/08	431.46								9.51	9.51	Well Dry
MP-106A	A Clay	01/07/08	429.49								5.22	5.6	No Measurements, Well Dry
MP-106A	A Clay	04/07/08	429.49								5.23	5.6	No Measurements; Well Dry
MP-106A	A Clay	07/08/08	429.49								5.25	5.6	Well Dry
MP-106A	A Clay	10/07/08	429.49								5.22	5.6	Well Dry
MP-106B	N. Olive	01/07/08	429.48								13.64	14.1	No Measurements; Well Dry
MP-106B	N. Olive	04/07/08	429.48								13.65	14.1	No Measurements; Well Dry
MP-106B	N. Olive	07/08/08	429.48		13.29		416.19		0.00	416.19		14.1	
MP-106B	N. Olive	10/07/08	429.48								13.72	14.1	Well Dry
MP-106C	Rand	01/07/08	429.49								22.7	23.1	No Measurements; Well Dry
MP-106C	Rand	04/07/08	429.49		15.7		413.79		0.00	413.79		23.1	TD not measured
MP-106C	Rand	07/08/08	429.49		13.23		416.26		0.00	416.26		23.1	
MP-106C	Rand	10/07/08	429.49		15.66		413.83		0.00	413.83	22.7	23.1	
MP-107A	A Clay	01/07/08	429.76								5.21	5.6	No Measurements; Well Dry
MP-107A	A Clay	04/07/08	429.76								5.21	5.6	No Measurements; Well Dry
MP-107A	A Clay	07/08/08	429.76								5.23	5.6	Well Dry
MP-107A	A Clay	10/07/08	429.76								5.21	5.6	Well Dry
MP-107B	N. Olive	01/07/08	429.8								13.24	13.6	No Measurements; Well Dry
MP-107B	N. Olive	04/07/08	429.8								13.25	13.6	No Measurements; Well Dry
MP-107B	N. Olive	07/08/08	429.8								13.28	13.6	Well Dry
MP-107B	N. Olive	10/07/08	429.8		13.11		416.69		0.00	416.69	13.25	13.6	
MP-107C	Rand	01/07/08	429.74								21.8	22.1	No Measurements; Well Dry
MP-107C	Rand	04/07/08	429.74		19.74		410		0.00	410		22.1	TD not measured
MP-107C	Rand	07/08/08	429.74		16.49		413.25		0.00	413.25		22.1	
MP-107C	Rand	10/07/08	429.74		19.98		409.76		0.00	409.76	21.8	22.1	
MP-108A	A Clay	01/07/08	429.57								5.15	5.6	No Measurements; Well Dry
MP-108A	A Clay	04/07/08	429.57								5.15	5.6	No Measurements; Well Dry
MP-108A	A Clay	07/08/08	429.57								5.18	5.6	Well Dry

TABLE 2
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Do[1]	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
MP-108A	A Clay	10/07/08	429.57								5.11	5.6	Well Dry
MP-108B	N. Olive	01/07/08	429.62								13.72	14.1	No Measurements; Well Dry
MP-108B	N. Olive	04/07/08	429.62	10.89	11.49	418.73	418.13	0.60		418.59		14.1	TD not measured
MP-108B	N. Olive	07/08/08	429.62	13.09		416.53						14.1	Invalid gauging data; measured GW depth (13.7) >= bottom of screen interval.
MP-108B	N. Olive	10/07/08	429.62	12.8	13.45	416.82	416.17	0.65	0.04	416.6705		14.1	
MP-108C	Rand	01/07/08	429.6						0.00		21.69	22.1	No Measurements; Well Dry
MP-108C	Rand	04/07/08	429.6						0.00		21.7	22.1	No Measurements; Well Dry
MP-108C	Rand	07/08/08	429.6	16.59		413.01						22.1	Invalid gauging data; measured GW depth (21.72) >= bottom of screen interval.
MP-108C	Rand	10/07/08	429.6						0.00		21.7	22.1	Well Dry
River Dock	(river elev)	01/07/08					400.44		0.00	400.44			
River Dock	(river elev)	04/07/08					411.99		0.00	411.99			
RW-001	Main	01/07/08	433.78		36.92		396.86		0.00	396.86		44.57	TD not measured
RW-001	Main	04/08/08	433.78		31.5		402.28		0.00	402.28		44.57	TD not measured
RW-001	Main	07/08/08	433.78		21.78		412		0.00	412		44.57	
RW-001	Main	10/08/08	433.78		29.88		403.9		0.00	403.9	44.91	44.57	
RW-002	Main	01/07/08	431.99	35.33	37.38	396.66	394.61	2.05	0.36	396.19		51.02	TD not measured
RW-002	Main	04/07/08	431.99	30.65	32.81	401.34	399.18	2.16	0.40	400.84		51.02	TD not measured
RW-002	Main	07/08/08	431.99	19.68	27.48	412.31	404.51	7.80	2.17	410.516		51.02	
RW-002	Main	10/07/08	431.99	27.7	32.3	404.29	399.69	4.60	1.16	403.232		51.02	
RW-003	Main	01/07/08	433.35	37.07	38.73	396.28	394.62	1.66	0.22	395.9		48.35	TD not measured
RW-003	Main	04/07/08	433.35	32.25	33.15	401.1	400.2	0.90	0.06	400.89	47.21	48.35	
RW-003	Main	07/08/08	433.35	22.28	23.36	411.07	409.99	1.08	0.05	410.8216		48.35	
RW-003	Main	10/07/08	433.35	30.4	31.48	402.95	401.87	1.08	0.05	402.7016		48.35	
RW-004	Multiple Strata	01/07/08	429.65		33.65		396		0.00	396		43.9	TD not measured
RW-004	Multiple Strata	04/07/08	429.65		28.73		400.92		0.00	400.92	43.11	43.9	
RW-004	Multiple Strata	07/08/08	429.65		18.21		411.44		0.00	411.44		43.9	
RW-004	Multiple Strata	10/07/08	429.65		26.81		402.84		0.00	402.84	42.93	43.9	
RW-004A	Multiple Strata	01/07/08	429.86	33.58	34.93	396.28	394.93	1.35	0.13	395.97		44.65	TD not measured
RW-004A	Multiple Strata	04/07/08	429.86	28.45	30.25	401.41	399.61	1.80	0.27	401	44.22	44.65	
RW-004A	Multiple Strata	07/08/08	429.86	17.81	22.92	412.05	406.94	5.11	1.27	410.8747		44.65	
RW-004A	Multiple Strata	10/07/08	429.86	26.99	27.21	402.87	402.65	0.22	0.01	402.8194		44.65	
RW-005	Multiple Strata	01/07/08	430.22	33.55	35.55	396.67	394.67	2.00	0.35	396.21		44.67	TD not measured
RW-005	Multiple Strata	04/07/08	430.22	28.85	31.06	401.37	399.16	2.21	0.41	400.86		44.67	TD not measured
RW-005	Multiple Strata	07/08/08	430.22	16.43	29.73	413.79	400.49	13.30	3.90	410.731		44.67	
RW-005	Multiple Strata	10/07/08	430.22	25.88	30.71	404.34	399.51	4.83	1.24	403.2291		44.67	

NOTES:

= No data or DRY (See Comments)

PL = Permeable Lense

SG = Specific gravity of hydrocarbon determined to be an average of 0.77 for data recorded during and after 09/02

(T xx/xx/xxxx) = Date transducer installed in well, however, data may be from miniTROLL or manual gauging

[1] = D_o is a normalized volume of LNAPL (ft^3/ft^2) per unit surface area, but is expressed as a thickness (in units of feet)

[2] = Piezometric surface elevation = [(A)-(C)]+SG[(C)-(B)]

MP-5 through 28 installed as vacuum monitoring probes by Clayton in 7/03 and are not appropriate for determining groundwater flow

HMW-30 through 37, RW-4 and RMW-4A installed as pilot test wells by Clayton in 2004 and are not appropriate for determining groundwater flow

TOC elevations surveyed to USGS datum by CMT

Total Depths listed in January 2007 are from July 2006 unless otherwise indicated

For D_O, URS used Clayton's "Do Calculation Table (rev. 10-11-06)" to populate column

TABLE 3
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells (Shell Sites) Outside of Hartford, Illinois

1190505040 -- Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation* (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
P-077	Main	01/07/08	434.71		38.79				395.92		67.76	
P-077	Main	04/07/08	434.71		34.98				399.73		67.76	
P-077	Main	07/08/08	434.71		26.27				408.44		67.76	
P-077	Main	10/07/08	434.71		32.07		402.64		402.64		67.76	
P-078	Main	01/07/08	433.33		37.41				395.92		64.86	
P-078	Main	04/07/08	433.33		33.54				399.79		64.86	
P-078	Main	07/08/08	433.33		24.55				408.78		64.86	
P-078	Main	10/07/08	433.33		31.65		401.68		401.68		64.86	
P-079	Main	01/07/08	432.72		36.77				395.95		59.57	
P-079	Main	04/07/08	432.72		32.8				399.92		59.57	
P-079	Main	07/08/08	432.72		23.58				409.14		59.57	
P-079	Main	10/07/08	432.72		29.97		402.75		402.75		59.57	
P-080	Main	01/07/08	433.1		37.17				395.93		62	
P-080	Main	04/07/08	433.1		33.17				399.93		62	
P-080	Main	07/08/08	433.1		24.12				408.98		62	
P-080	Main	10/07/08	433.1		30.28		402.82		402.82		62	
P-081	EPA	01/07/08	433.26		36.6				396.66		39.34	
P-081	EPA	04/07/08	433.26		34.37				398.89		39.34	Petroleum-like odor
P-081	EPA	07/08/08	433.26	22.72	23.41	410.54	409.85	0.69	410.3606		39.34	
P-081	EPA	10/07/08	433.26	28.81	30.32	404.45	402.94	1.51	404.0574		39.34	Product visually confirmed on interface probe.
P-104	Rand	01/07/08	432.74		25.15				407.59		24.89	
P-104	Rand	04/07/08	432.74		16.4				416.34		24.89	
P-104	Rand	07/08/08	432.74		10.88				421.86		24.89	
P-104	Rand	10/07/08	432.74		12.35		420.39		420.39		24.89	
P-105	EPA	01/07/08	432.59		35.05				397.54		38.02	
P-105	EPA	04/07/08	432.59		31.47				401.12		38.02	
P-105	EPA	07/08/08	432.59		21.26				411.33		38.02	
P-105	EPA	10/07/08	432.59		27.88		404.71		404.71		38.02	
P-106	Main	01/07/08	432.7		36.7				396		51.48	
P-106	Main	04/07/08	432.7		32.63				400.07		51.48	
P-106	Main	07/08/08	432.7		23.5				409.2		51.48	
P-106	Main	10/07/08	432.7		29.84		402.86		402.86		51.48	
P-107	EPA	01/07/08	431.92		33.26				398.66		39.89	
P-107	EPA	04/07/08	431.92		21.17				410.75		39.89	
P-107	EPA	07/08/08	431.92		19.44				412.48		39.89	
P-107	EPA	10/07/08	431.92		24.05		407.87		407.87		39.89	
P-131	Rand	01/07/08	432.65		25.45				407.2		24.01	
P-131	Rand	04/07/08	432.65		10.49				422.16		24.01	
P-131	Rand	07/08/08	432.65		9.07				423.58		24.01	
P-131	Rand	10/07/08	432.65		10.54		422.11		422.11		24.01	
P-132	EPA	01/07/08	432.12		33.29				398.83		25.97	
P-132	EPA	04/07/08	432.12		26.39				405.73		25.97	
P-132	EPA	07/08/08	432.12		19.79				412.33		25.97	
P-132	EPA	10/07/08	432.12		23.68		408.44		408.44		25.97	
P-133	Rand	01/07/08	431.06		25.08				405.98		22.69	
P-133	Rand	04/07/08	431.06		13.42				417.64		22.69	Petroleum-like odor
P-133	Rand	07/08/08	431.06								22.69	Unable to access due to surrounding area being flooded.
P-133	Rand	10/07/08	431.06								22.69	Area undergoing cleaning/construction activities.
P-134	Rand	01/07/08	432.55								22.14	Dry
P-134	Rand	04/07/08	432.55		11.03				421.52		22.14	
P-134	Rand	07/08/08	432.55		11.25				421.3		22.14	
P-134	Rand	10/07/08	432.55		12.36		420.19		420.19		22.14	
SP-001	Rand	01/07/08	429.01		17.1				411.91		28.01	
SP-001	Rand	04/08/08	429.01		6.86				422.15		28.01	
SP-001	Rand	07/08/08	429.01		7.36				421.65		28.01	
SP-001	Rand	10/07/08	429.01		8.21		420.8		420.8		28.01	
SP-002B	EPA	01/07/08	429.11		30.05				399.06		40.98	
SP-002B	EPA	04/08/08	429.11		30.3				398.81		40.98	
SP-002B	EPA	07/08/08	429.11		29.1				400.01		40.98	Well under great pressure.
SP-002B	EPA	10/07/08	429.11		20.85		408.26		408.26		40.98	

TABLE 3
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells (Shell Sites) Outside of Hartford, Illinois

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
SP-003	Rand	01/07/08	431.64		19.04				412.6		28	
SP-003	Rand	04/07/08	431.64		9.21				422.43		28	
SP-003	Rand	07/08/08	431.64		9.48				422.16		28	
SP-003	Rand	10/07/08	431.64		11.58		420.06		420.06		28	
SP-005	Rand	01/07/08	431.15		18.86				412.29		28.07	
SP-005	Rand	04/07/08	431.15		6.96				424.19		28.07	
SP-005	Rand	07/08/08	431.15		7.19				423.96		28.07	
SP-005	Rand	10/07/08	431.15		9.72		421.43		421.43		28.07	
SP-006	Rand	01/07/08	433.08		20.08				413		27.65	
SP-006	Rand	04/07/08	433.08		8.51				424.57		27.65	Petroleum-like odor
SP-006	Rand	07/10/08	433.08		9.65				423.43		27.65	
SP-006	Rand	10/07/08	433.08		11.6		421.48		421.48		27.65	
SP-007	Rand	01/07/08	429.03		17				412.03		27.08	
SP-007	Rand	04/08/08	429.03		6.27				422.76		27.08	Petroleum-like odor
SP-007	Rand	07/08/08	429.03		6.9				422.13		27.08	
SP-007	Rand	10/07/08	429.03		7.92		421.11		421.11		27.08	
SP-008	Rand	01/07/08	429.03		16.85				412.18		25.11	
SP-008	Rand	04/08/08	429.03		5.84				423.19		25.11	
SP-008	Rand	07/08/08	429.03		6.34				422.69		25.11	
SP-008	Rand	10/07/08	429.03		7.82		421.21		421.21		25.11	
SP-009	Rand	01/07/08	432.65		19.8				412.85		27.3	
SP-009	Rand	04/07/08	432.65		8.28				424.37		27.3	
SP-009	Rand	07/08/08	432.65		8.9				423.75		27.3	
SP-009	Rand	10/07/08	432.65		10.67		421.98		421.98		27.3	
SP-010	Rand	01/07/08	432.61		19.85				412.76		26	
SP-010	Rand	04/07/08	432.61		6.6				426.01		26	
SP-010	Rand	07/08/08	432.61		7.81				424.8		26	
SP-010	Rand	10/07/08	432.61		10.15		422.46		422.46		26	
SP-011	Rand	01/07/08	432.4		19.31				413.09		27.71	
SP-011	Rand	04/07/08	432.4		7.61				424.79		27.71	
SP-011	Rand	07/08/08	432.4		8.39				424.01		27.71	
SP-011	Rand	10/07/08	432.4		10.78		421.62		421.62		27.71	
SP-015	Rand	01/07/08	428.89		17.32				411.57		25	
SP-015	Rand	04/08/08	428.89		6.05				422.84		25	
SP-015	Rand	07/08/08	428.89		6.63				422.26		25	
SP-015	Rand	10/07/08	428.89		8.28		420.61		420.61		25	
SP-016	Rand	01/07/08	429.43		18				411.43		27.31	
SP-016	Rand	04/08/08	429.43		7				422.43		27.31	
SP-016	Rand	07/08/08	429.43		7.48				421.95		27.31	
SP-016	Rand	10/07/08	429.43		8.52		420.91		420.91		27.31	
SP-019	Rand	01/07/08	430.87		20.88				409.99		24.87	
SP-019	Rand	04/07/08	430.87		8.59				422.28		24.87	
SP-019	Rand	07/08/08	430.87		8.63				422.24		24.87	
SP-019	Rand	10/07/08	430.87		12.25		418.62		418.62		24.87	
SP-020	Rand	01/07/08	431.16		20.09				411.07		23.6	
SP-020	Rand	04/07/08	431.16		7.46				423.7		23.6	
SP-020	Rand	07/08/08	431.16		7.19				423.97		23.6	
SP-020	Rand	10/07/08	431.16		11.28		419.88		419.88		23.6	
SP-021	Rand	01/07/08	431.68		22.41				409.27		25	Strong petroleum-like odor
SP-021	Rand	04/07/08	431.68		11.15				420.53		25	
SP-021	Rand	07/08/08	431.68		9.58				422.1		25	Large number of ants observed.
SP-021	Rand	10/07/08	431.68		11.86		419.82		419.82		25	
SP-022	Rand	01/07/08	430.35		18.71				411.64		27.41	
SP-022	Rand	04/08/08	430.35		7.16				423.19		27.41	
SP-022	Rand	07/08/08	430.35								27.41	Unable to access due to surrounding area being flooded.
SP-022	Rand	10/07/08	430.35								27.41	Unable to access due to surrounding area being flooded.
SP-023	Rand	01/07/08	430.7		19.82				410.88		25.25	Strong organic odor
SP-023	Rand	04/08/08	430.7		7.9				422.8		25.25	
SP-023	Rand	07/08/08	430.7		7.93				422.77		25.25	

TABLE 3
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells (Shell Sites) Outside of Hartford, Illinois

1190505040 – Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation* (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
SP-023	Rand	10/07/08	430.7	9.87	9.95	420.83	420.75	0.08	420.814		25.25	Product visually confirmed on interface probe.
SP-024	Rand	01/07/08	428.89		16.8				412.09		25.02	
SP-024	Rand	04/08/08	428.89		6.08				422.81		25.02	Sheen observed; Petroleum-like odor present
SP-024	Rand	07/08/08	428.89	6.63	6.65	422.26	422.24	0.02	422.2548		25.02	Product visually confirmed on interface probe.
SP-024	Rand	10/07/08	428.89	7.8	7.84	421.09	421.05	0.04	421.0796		25.02	Product visually confirmed on interface probe.
SP-025	Rand	01/07/08	428.61								24.96	Well surface destroyed during rem. syst. removal
SP-025	Rand	07/08/08	428.61								24.96	
SP-025	Rand	10/07/08	428.61								24.96	
SP-026	Rand	01/07/08	429.88		17.99				411.89		27.73	
SP-026	Rand	04/08/08	429.88		7.23				422.65		27.73	
SP-026	Rand	07/08/08	429.88		7.79				422.09		27.73	
SP-026	Rand	10/07/08	429.88		8.88		421		421		27.73	
SP-027	Rand	01/07/08	431.93	19.88	20.97	412.05	410.96	1.09	411.77		27.11	Trace product visually observed on probe
SP-027	Rand	04/08/08	431.93		9.91				422.02		27.11	Trace product visually observed on probe
SP-027	Rand	07/08/08	431.93		10.3				421.63		27.11	
SP-027	Rand	10/07/08	431.93		11.2		420.73		420.73		27.11	
SP-028	Rand	01/07/08	432.21		19.57				412.64		27.4	
SP-028	Rand	04/07/08	432.21		10.05				422.16		27.4	
SP-028	Rand	07/08/08	432.21		10.23				421.98		27.4	
SP-028	Rand	10/07/08	432.21		12.1		420.11		420.11		27.4	
SP-029	Rand	01/07/08	431.81		19.55				412.26		27.86	
SP-029	Rand	04/08/08	431.81		8.65				423.16		27.86	
SP-029	Rand	07/08/08	431.81		9.16				422.65		27.86	
SP-029	Rand	10/07/08	431.81	10.6	10.69	421.21	421.12	0.09	421.1866		27.86	Product visually confirmed on interface probe.
SP-030	Rand	01/07/08	431.87		21.01				410.86		26.76	Strong petroleum-like odor
SP-030	Rand	04/08/08	431.87		10.21				421.66		26.76	Strong petroleum-like odor
SP-030	Rand	07/08/08	431.87	10.08	10.8	421.79	421.07	0.72	421.6028		26.76	
SP-030	Rand	10/07/08	431.87	10.99	11.73	420.88	420.14	0.74	420.6876		26.76	Product visually confirmed on interface probe.
SP-031	Rand	01/07/08	429.77		18.27				411.5		25.27	
SP-031	Rand	04/07/08	429.77								25.27	Not gauged because surrounding area under ~2 ft water
SP-031	Rand	07/08/08	429.77		7.61				422.16		25.27	
SP-031	Rand	10/07/08	429.77		9.16		420.61		420.61		25.27	
SP-032	Rand	01/07/08	430.49		18.94				411.55		24.9	
SP-032	Rand	04/08/08	430.49		7.66				422.83		24.9	
SP-032	Rand	07/08/08	430.49		8.28				422.21		24.9	
SP-032	Rand	10/07/08	430.49		9.9		420.59		420.59		24.9	
SP-033	Rand	01/07/08	430.99		19.67				411.32		28.45	
SP-033	Rand	04/08/08	430.99		8.81				422.18		28.45	
SP-033	Rand	07/08/08	430.99		9.08				421.91		28.45	
SP-033	Rand	10/07/08	430.99		10.07		420.92		420.92		28.45	
SP-034	Rand	01/07/08	430.17		19.22				410.95		27.42	
SP-034	Rand	04/07/08	430.17								27.42	Not gauged because surrounding area under ~2 ft water
SP-034	Rand	07/08/08	430.17		7.75				422.42		27.42	
SP-034	Rand	10/07/08	430.17		9.87		420.3		420.3		27.42	
SP-035	Rand	01/07/08	431.13		19.2				411.93		27.47	
SP-035	Rand	04/08/08	431.13		8.49				422.64		27.47	
SP-035	Rand	07/08/08	431.13		9.07				422.06		27.47	
SP-035	Rand	10/07/08	431.13		10.12		421.01		421.01		27.47	
SP-036	Main	01/07/08	429.5		33.85				395.65		53.03	
SP-036	Main	04/07/08	429.5		30.47				399.03		53.03	
SP-036	Main	07/08/08	429.5		22.26				407.24		53.03	
SP-036	Main	10/07/08	429.5		27.18		402.32		402.32		53.03	
SP-037	EPA	01/07/08	429.71		31.6				398.11		34	
SP-037	EPA	04/07/08	429.71		18.68				411.03		34	
SP-037	EPA	07/08/08	429.71		16.1				413.61		34	
SP-037	EPA	10/07/08	429.71		19.42		410.29		410.29		34	
SP-038	Rand	01/07/08	430.9		24.87				406.03		22.61	
SP-038	Rand	04/07/08	430.9		11.68				419.22		22.61	

TABLE 3
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells (Shell Sites) Outside of Hartford, Illinois

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[a] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
SP-038	Rand	07/08/08	430.9		11.72				419.18		22.61	
SP-038	Rand	10/07/08	430.9		15.45		415.45		415.45		22.61	
SP-039	Rand	01/07/08	429.29		18.76				410.53		29	
SP-039	Rand	04/08/08	429.29		3.19				426.1		29	
SP-039	Rand	07/08/08	429.29		3.9				425.39		29	
SP-039	Rand	10/07/08	429.29		7.2		422.09		422.09		29	
SP-040	EPA	01/07/08	429.22		29.95				399.27		39.83	
SP-040	EPA	04/08/08	429.22		21.53				407.69		39.83	
SP-040	EPA	07/08/08	429.22		15.39				413.83		39.83	
SP-040	EPA	10/07/08	429.22		20.52		408.7		408.7		39.83	
SP-041	Main	01/07/08	429.04		33.76				395.28		58.23	
SP-041	Main	04/08/08	429.04		29.21				399.83		58.23	
SP-041	Main	07/08/08	429.04		20.14				408.9		58.23	
SP-041	Main	10/07/08	429.04		27.22		401.82		401.82		58.23	
SP-042	Main	01/07/08	431.76		36.2				395.56		55.57	
SP-042	Main	04/07/08	431.76		31.36				400.4		55.57	
SP-042	Main	07/08/08	431.76		21.73				410.03		55.57	
SP-042	Main	10/07/08	431.76		29.65		402.11		402.11		55.57	
SP-043	EPA	01/07/08	431.79		31.2				400.59		41.39	
SP-043	EPA	04/07/08	431.79		20.81				410.98		41.39	
SP-043	EPA	07/08/08	431.79		16.18				415.61		41.39	
SP-043	EPA	10/07/08	431.79		29.8		401.99		401.99		41.39	
SP-044	Rand	01/07/08	431.89		20.8				411.09		26.23	
SP-044	Rand	04/07/08	431.89		10.51				421.38		26.23	
SP-044	Rand	07/08/08	431.89		11.42				420.47		26.23	
SP-044	Rand	10/07/08	431.89		12.53		419.36		419.36		26.23	
SP-045	EPA	01/07/08	434.16		35.21				398.95		45.63	
SP-045	EPA	04/07/08	434.16		28.33				405.83		45.63	
SP-045	EPA	07/08/08	434.16		21.61				412.55		45.63	
SP-045	EPA	10/07/08	434.16		26.15		408.01		408.01		45.63	
SP-046	Main	01/07/08	434.06		38.45				395.61		54.92	
SP-046	Main	04/07/08	434.06		34.12				399.94		54.92	
SP-046	Main	07/08/08	434.06		24.95				409.11		54.92	
SP-046	Main	10/07/08	434.06		31.75		402.31		402.31		54.92	
SP-047	EPA	01/07/08	432.96		33.99				398.97		44.33	
SP-047	EPA	04/07/08	432.96		27.14				405.82		44.33	
SP-047	EPA	07/08/08	432.96		20.48				412.48		44.33	
SP-047	EPA	10/07/08	432.96		14.81		418.15		418.15		44.33	
SP-048	EPA	01/07/08	432.31		34.29				398.02		46.98	
SP-048	EPA	04/07/08	432.31		27.91				404.4		46.98	
SP-048	EPA	07/08/08	432.31		21.15				411.16		46.98	
SP-048	EPA	10/07/08	432.31		25.95		406.36		406.36		46.98	
SP-049	EPA	01/07/08	428.85		30.56				398.29		41.77	
SP-049	EPA	04/08/08	428.85		24.02				404.83		41.77	
SP-049	EPA	07/08/08	428.85		17.33				411.52		41.77	
SP-049	EPA	10/07/08	428.85		21.98		406.87		406.87		41.77	
SP-050	EPA	01/07/08	432.47		33.74				398.73		44.1	
SP-050	EPA	04/08/08	432.47		26.73				405.74		44.1	
SP-050	EPA	07/08/08	432.47		20.13				412.34		44.1	
SP-050	EPA	10/07/08	432.47		24.9		407.57		407.57		44.1	
SP-051	Main	01/07/08	432.49		36.95				395.54		56.45	
SP-051	Main	04/08/08	432.49		32.72				399.77		56.45	
SP-051	Main	07/08/08	432.49		23.97				408.52		56.45	
SP-051	Main	10/07/08	432.49		30.36		402.13		402.13		56.45	
SP-052	Rand	01/07/08	428.99		18.7				410.29		26.34	
SP-052	Rand	04/17/08	428.99		3.52				425.47		26.34	Well gauged on 4/17/2008
SP-052	Rand	07/08/08	428.99		3.26				425.73		26.34	
SP-052	Rand	10/07/08	428.99		8.18		420.81		420.81		26.34	
SP-053	EPA	01/07/08	428.92		30.58				398.34		35.66	
SP-053	EPA	04/17/08	428.92		18.51				410.41		35.66	Well gauged on 4/17/2008

TABLE 3
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells (Shell Sites) Outside of Hartford, Illinois

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[2] (ft)	Total Well Depth (TOC) (ft)	Historical Total Depth (ft)	Comments
SP-053	EPA	07/08/08	428.92		20.1				408.82		35.66	
SP-053	EPA	10/07/08	428.92		16.3		412.62		412.62		35.66	
SP-054	Main	01/07/08	428.9		33.48				395.42		51.5	
SP-054	Main	04/17/08	428.9		26.41				402.49		51.5	Well gauged on 4/17/2008
SP-054	Main	07/08/08	428.9		19.29				409.61		51.5	
SP-054	Main	10/07/08	428.9		26.9		402		402		51.5	
SP-055	Rand	01/07/08	432.31		19.41				412.9		29.02	
SP-055	Rand	04/07/08	432.31		7.55				424.76		29.02	
SP-055	Rand	07/08/08	432.31		8.62				423.69		29.02	
SP-055	Rand	10/07/08	432.31		10.52		421.79		421.79		29.02	
SP-056	EPA	01/07/08	432.21		33.39				398.82		43.07	
SP-056	EPA	04/07/08	432.21	25.95	26.38	406.26	405.83	0.43	406.15		43.07	
SP-056	EPA	07/08/08	432.21	19.35	19.36	412.86	412.85	0.01	412.8574		43.07	Product confirmed with bailer.
SP-056	EPA	10/07/08	432.21		24.05		408.16		408.16		43.07	
SP-057	Main	01/07/08	432.15		36.61				395.54		54.42	
SP-057	Main	04/07/08	432.15		30.22				401.93		54.42	
SP-057	Main	07/08/08	432.15		22.8				409.35		54.42	
SP-057	Main	10/07/08	432.15		29.98		402.17		402.17		54.42	
SP-058	EPA	01/07/08	431.93		33.42				398.51		48.3	
SP-058	EPA	04/07/08	431.93		26.5				405.43		48.3	
SP-058	EPA	07/08/08	431.93		19.8				412.13		48.3	
SP-058	EPA	10/07/08	431.93		24.52		407.41		407.41		48.3	
SP-059	Main	01/07/08	431.94		36.62				395.32		57.69	
SP-059	Main	04/07/08	431.94		32.68				399.26		57.69	
SP-059	Main	07/08/08	431.94		23.94				408		57.69	
SP-059	Main	10/07/08	431.94		30.01		401.93		401.93		57.69	
SP-060	Main	01/07/08	432.05		36.6				395.45		58.41	
SP-060	Main	04/07/08	432.05		32.88				399.17		58.41	
SP-060	Main	07/08/08	432.05		24.39				407.66		58.41	
SP-060	Main	10/07/08	432.05		29.92		402.13		402.13		58.41	
TP-PZ-1	EPA	01/07/08	437.36		38.42				398.94		48.42	
TP-PZ-1	EPA	04/07/08	437.36		31.81				405.55		48.42	
TP-PZ-1	EPA	07/08/08	437.36		25.19				412.17		48.42	
TP-PZ-1	EPA	10/07/08	437.36		28.85		408.51		408.51		48.42	
TP-PZ-2	EPA	01/07/08	434.43		35.48				398.95		46.81	
TP-PZ-2	EPA	04/07/08	434.43		28.64				405.79		46.81	
TP-PZ-2	EPA	07/08/08	434.43		22.03				412.4		46.81	
TP-PZ-2	EPA	10/07/08	434.43		26.15		408.28		408.28		46.81	

= No data or DRY (See Comments)
PL = Permeable Lense
SG = Specific gravity of hydrocarbon determined to be an average of 0.77 for data recorded during and after 09/02
(T xx/xx/xxxx) = Date transducer installed in well, however, data may be from miniTROLL or manual gauging
[2] = Piezometric surface elevation = [(A)-(C)]+SG[(C)-(B)]
TOC elevations surveyed to USGS datum by CMT
Total Depths listed in January 2007 are from July 2006 unless otherwise indicated

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
DS-01	Main Shallow	01/07/2008	430.94	33.95	34.29	396.99	396.65	0.34	396.92	
DS-01	Main Shallow	04/07/2008	430.94							NM - Unable to access
DS-01	Main Shallow	07/08/2008	430.94		27.29		403.65		403.65	
DS-01	Main Shallow	10/07/2008	430.94	27.76	28.93	403.18	402.01	1.17	402.92	
DS-02	Main Shallow	01/07/2008	431.13	33.99	34.20	397.14	396.93	0.21	397.09	
DS-02	Main Shallow	04/07/2008	431.13							NM - Unable to access
DS-02	Main Shallow	07/08/2008	431.13		27.40		403.73		403.73	
DS-02	Main Shallow	10/07/2008	431.13		28.06		403.07		403.07	
DS-03	Main Shallow	01/07/2008	430.49	33.40	34.92	397.09	395.57	1.52	396.76	
DS-03	Main Shallow	04/07/2008	430.49							NM - Unable to access
DS-03	Main Shallow	07/08/2008	430.49		26.79		403.70		403.70	
DS-03	Main Shallow	10/07/2008	430.49		27.41		403.08		403.08	
DS-04	Main Shallow	01/07/2008	431.26	34.48	34.84	396.78	396.42	0.36	396.70	
DS-04	Main Shallow	04/07/2008	431.26							NM - Unable to access
DS-04	Main Shallow	07/08/2008	431.26		28.00		403.26		403.26	
DS-04	Main Shallow	10/07/2008	431.26		28.54		402.72		402.72	
FP STAFF GAUGE	Surface	01/07/2008	442.21		7.45		434.76		434.76	
FP STAFF GAUGE	Surface	04/07/2008	442.21		7.92		434.29		434.29	
FP STAFF GAUGE	Surface	07/08/2008	442.21		7.91		434.30		434.30	
FP STAFF GAUGE	Surface	10/07/2008	442.21		7.25		434.96		434.96	
GB STAFF GAUGE	Surface	01/07/2008	432.10							NM- Unable to access
GB STAFF GAUGE	Surface	04/07/2008	432.10							NM - Unable to access
GB STAFF GAUGE	Surface	07/08/2008	432.10							NM - Unable to access
GB STAFF GAUGE	Surface	10/07/2008	432.10							NM - Could not Access
GB-01	Main Shallow	01/07/2008	431.59		32.51		399.08		399.08	
GB-01	Main Shallow	04/07/2008	431.59		31.27		400.32		400.32	
GB-01	Main Shallow	07/08/2008	431.59		28.12		403.47		403.47	
GB-01	Main Shallow	10/07/2008	431.59		26.70		404.89		404.89	
GB-06	Main Shallow	01/07/2008	430.53		32.80		397.73		397.73	
GB-06	Main Shallow	04/07/2008	430.53		32.22		398.31		398.31	
GB-06	Main Shallow	07/08/2008	430.53		29.24		401.29		401.29	
GB-06	Main Shallow	10/07/2008	430.53		27.43		403.10		403.10	
LP-04	Main Shallow	01/07/2008	432.55		34.76		397.79		397.79	
LP-04	Main Shallow	04/07/2008	432.55		33.78		398.77		398.77	
LP-04	Main Shallow	07/08/2008	432.55		29.03		403.52		403.52	
LP-04	Main Shallow	10/07/2008	432.55		28.70		403.85		403.85	
MP-01D	EPA	01/07/2008	431.04							NM-Could not locate
MP-01D	EPA	04/07/2008	431.04							NM - Could not locate
MP-01D	EPA	07/08/2008	431.04							NM - Could not locate
MP-01D	EPA	10/07/2008	431.04							NM - Could not locate
MP-01S	North Olive	01/07/2008	431.37							NM-Could not locate
MP-01S	North Olive	04/07/2008	431.37							NM - Could not locate
MP-01S	North Olive	07/08/2008	431.37							NM - Could not locate
MP-01S	North Olive	10/07/2008	431.37							NM - Could not locate
MP-02D	EPA	01/07/2008	430.27							NM-Could not locate
MP-02D	EPA	04/07/2008	430.27							NM - Could not locate
MP-02D	EPA	07/08/2008	430.27							NM - Could not locate
MP-02D	EPA	10/07/2008	430.27							NM - Could not locate

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
MP-02S	North Olive	01/07/2008	430.66							NM-Could not locate
MP-02S	North Olive	04/07/2008	430.66							NM - Could not locate
MP-02S	North Olive	07/08/2008	430.66							NM - Could not locate
MP-02S	North Olive	10/07/2008	430.66							NM - Could not locate
MP-03D	EPA	01/07/2008	430.51							NM-Could not locate
MP-03D	EPA	04/07/2008	430.51							NM - Could not locate
MP-03D	EPA	07/08/2008	430.51							NM - Could not locate
MP-03D	EPA	10/07/2008	430.51							NM - Could not locate
MP-03S	North Olive	01/07/2008	430.59							NM-Could not locate
MP-03S	North Olive	04/07/2008	430.59							NM - Could not locate
MP-03S	North Olive	07/08/2008	430.59							NM - Could not locate
MP-03S	North Olive	10/07/2008	430.59							NM - Could not locate
MP-04D	EPA	01/07/2008	430.42							Dry
MP-04D	EPA	04/07/2008	430.42	30.82	32.00	399.60	398.42	1.18	399.34	
MP-04D	EPA	07/08/2008	430.42	18.18	29.96	412.24	400.46	11.78	409.65	
MP-04D	EPA	10/07/2008	430.42	26.39	29.65	404.03	400.77	3.26	403.31	
MP-04S	North Olive	01/07/2008	430.42							NM-Could not locate
MP-04S	North Olive	04/07/2008	430.42							NM - Could not locate
MP-04S	North Olive	07/08/2008	430.42							NM - Could not locate
MP-04S	North Olive	10/07/2008	430.42							NM - Could not locate
MW-01	Main Shallow	01/07/2008	420.39		20.13		400.26		400.26	
MW-01	Main Shallow	04/07/2008	420.39		10.13		410.26		410.26	
MW-01	Main Shallow	07/08/2008	420.39							NM - Unable to access
MW-01	Main Shallow	10/07/2008	420.39		15.65		404.74		404.74	
MW-02	Main Shallow	01/07/2008	419.10		19.27		399.83		399.83	
MW-02	Main Shallow	04/07/2008	419.10		9.47		409.63		409.63	
MW-02	Main Shallow	07/08/2008	419.10							NM - Unable to access
MW-02	Main Shallow	10/07/2008	419.10		18.85		400.25		400.25	
MW-03	Main Shallow	01/07/2008	421.37		21.66		399.71		399.71	
MW-03	Main Shallow	04/07/2008	421.37		11.63		409.74		409.74	
MW-03	Main Shallow	07/08/2008	421.37							NM - Unable to access
MW-03	Main Shallow	10/07/2008	421.37		17.85		403.52		403.52	
MW-04	Main Shallow	01/07/2008	421.38		21.93		399.45		399.45	
MW-04	Main Shallow	04/07/2008	421.38		11.68		409.70		409.70	
MW-04	Main Shallow	07/08/2008	421.38							NM - Unable to access
MW-04	Main Shallow	10/07/2008	421.38		14.45		406.93		406.93	
P6E	Main Basal	01/07/2008	429.73	33.68	35.33	396.05	394.40	1.65	395.69	
P6E	Main Basal	04/07/2008	429.73	29.90	31.51	399.83	398.22	1.61	399.48	
P6E	Main Basal	07/08/2008	429.73	21.23	22.85	408.50	406.88	1.62	408.14	
P6E	Main Basal	10/07/2008	429.73	26.88	28.50	402.85	401.23	1.62	402.49	
P6N	Main Basal	01/07/2008	430.29		34.51		395.78		395.78	
P6N	Main Basal	04/07/2008	430.29		30.71		399.58		399.58	
P6N	Main Basal	07/08/2008	430.29		22.02		408.27		408.27	
P6N	Main Basal	10/07/2008	430.29		27.62		402.67		402.67	
P6S	Main Basal	01/07/2008	430.28		34.51		395.77		395.77	
P6S	Main Basal	04/07/2008	430.28		30.69		399.59		399.59	
P6S	Main Basal	07/08/2008	430.28		22.00		408.28		408.28	
P6S	Main Basal	10/07/2008	430.28		27.62		402.66		402.66	

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PRODUCT PIPELNE SUMP		01/07/2008			13.59					
PRODUCT PIPELNE SUMP		04/07/2008			12.39					
PRODUCT PIPELNE SUMP		07/08/2008			11.63					
PRODUCT PIPELNE SUMP		10/07/2008								NM - Could not Access
RB-01	Main Shallow	01/07/2008	430.28							Dry
RB-01	Main Shallow	04/07/2008	430.28		31.70		398.58		398.58	
RB-01	Main Shallow	07/08/2008	430.28		23.95		406.33		406.33	
RB-01	Main Shallow	10/07/2008	430.28		26.29		403.99		403.99	
RB-08	EPA/Main	01/07/2008	433.42	24.75		408.67				
RB-08	EPA/Main	04/07/2008	433.42	23.04	26.39	410.38	407.03	3.35	409.64	
RB-08	EPA/Main	07/08/2008	433.42	17.85	21.17	415.57	412.25	3.32	414.84	
RB-08	EPA/Main	10/07/2008	433.42	19.94	23.24	413.48	410.18	3.30	412.75	
RB-08P	EPA/Main	01/07/2008	432.39	33.19	40.65	399.20	391.74	7.46	397.56	
RB-08P	EPA/Main	04/07/2008	432.39	28.75	37.18	403.64	395.21	8.43	401.79	
RB-08P	EPA/Main	07/08/2008	432.39	20.30	31.52	412.09	400.87	11.22	409.62	
RB-08P	EPA/Main	10/07/2008	432.39	23.92	36.89	408.47	395.50	12.97	405.62	
RB-10	EPA/Main	01/07/2008	430.16	33.59	33.84	396.57	396.32	0.25	396.52	
RB-10	EPA/Main	04/07/2008	430.16	31.19	31.20	398.97	398.96	0.01	398.97	
RB-10	EPA/Main	07/08/2008	430.16		24.09		406.07		406.07	
RB-10	EPA/Main	10/07/2008	430.16	25.00	34.97	405.16	395.19	9.97	402.97	
RB-13	EPA/Main	01/07/2008	430.79		32.66		398.13		398.13	
RB-13	EPA/Main	04/07/2008	430.79		31.43		399.36		399.36	
RB-13	EPA/Main	07/08/2008	430.79		23.05		407.74		407.74	
RB-13	EPA/Main	10/07/2008	430.79		25.82		404.97		404.97	
RB-22	Main Shallow	01/07/2008	431.06							Dry
RB-22	Main Shallow	04/07/2008	431.06		30.85		400.21		400.21	
RB-22	Main Shallow	07/08/2008	431.06		22.67		408.39		408.39	
RB-22	Main Shallow	10/07/2008	431.06		26.61		404.45		404.45	
RB-25	EPA/Main	01/07/2008	432.10		35.53		396.57		396.57	
RB-25	EPA/Main	04/07/2008	432.10		32.19		399.91		399.91	
RB-25	EPA/Main	07/08/2008	432.10		24.74		407.36		407.36	
RB-25	EPA/Main	10/07/2008	432.10		28.14		403.96		403.96	
RB-26	EPA/Main	01/07/2008	430.05		32.98		397.07		397.07	
RB-26	EPA/Main	04/07/2008	430.05		29.95		400.10		400.10	
RB-26	EPA/Main	07/09/2008	430.05		21.98		408.07		408.07	
RB-26	EPA/Main	10/07/2008	430.05		25.51		404.54		404.54	
RB-29	North Olive	01/07/2008	431.97	13.73	14.64	418.24	417.33	0.91	418.04	
RB-29	North Olive	04/07/2008	431.97	11.70	12.06	420.27	419.91	0.36	420.19	
RB-29	North Olive	07/08/2008	431.97	11.09	11.45	420.88	420.52	0.36	420.80	
RB-29	North Olive	10/07/2008	431.97	11.60	11.95	420.37	420.02	0.35	420.29	
RB-30	Main Shallow	01/07/2008	431.94		34.93		397.01		397.01	
RB-30	Main Shallow	04/07/2008	431.94		33.40		398.54		398.54	
RB-30	Main Shallow	07/08/2008	431.94		27.21		404.73		404.73	
RB-30	Main Shallow	10/07/2008	431.94		28.50		403.44		403.44	
RB-35	EPA/Main	01/07/2008	429.49	32.23	33.88	397.26	395.61	1.65	396.90	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RB-35	EPA/Main	04/07/2008	429.49	30.28	31.38	399.21	398.11	1.10	398.97	
RB-35	EPA/Main	07/08/2008	429.49	22.33	22.94	407.16	406.55	0.61	407.03	
RB-35	EPA/Main	10/07/2008	429.49	25.37	25.91	404.12	403.58	0.54	404.00	
RB-36	North Olive	01/07/2008	429.21		24.35		404.86		404.86	
RB-36	North Olive	04/07/2008	429.21		18.09		411.12		411.12	
RB-36	North Olive	07/08/2008	429.21		17.55		411.66		411.66	
RB-36	North Olive	10/07/2008	429.21		18.23		410.98		410.98	
RB-37	Main Shallow	01/07/2008	428.52							NM - Skimmer Pump
RB-37	Main Shallow	04/07/2008	428.52							NM - Skimmer Pump
RB-37	Main Shallow	07/08/2008	428.52	22.90	25.09	405.62	403.43	2.19	405.14	
RB-37	Main Shallow	10/07/2008	428.52							NM - Skimmer Pump
RB-38	Main Shallow	01/07/2008	433.73		37.66		396.07		396.07	
RB-38	Main Shallow	04/07/2008	433.73	36.59	36.60	397.14	397.13	0.01	397.14	
RB-38	Main Shallow	07/08/2008	433.73		31.06		402.67		402.67	
RB-38	Main Shallow	10/07/2008	433.73		31.60		402.13		402.13	
RB-39	EPA/Main	01/07/2008	431.54		32.97		398.57		398.57	
RB-39	EPA/Main	04/07/2008	431.54		27.58		403.96		403.96	
RB-39	EPA/Main	07/08/2008	431.54		20.85		410.69		410.69	
RB-39	EPA/Main	10/07/2008	431.54		23.56		407.98		407.98	
RB-40	Main Shallow	01/07/2008	433.51		37.04		396.47		396.47	
RB-40	Main Shallow	04/07/2008	433.51		36.45		397.06		397.06	
RB-40	Main Shallow	07/08/2008	433.51		31.66		401.85		401.85	
RB-40	Main Shallow	10/07/2008	433.51		31.30		402.21		402.21	
RB-41	Main Shallow	01/07/2008	433.25		37.04		396.21		396.21	
RB-41	Main Shallow	04/07/2008	433.25		36.72		396.53		396.53	
RB-41	Main Shallow	07/08/2008	433.25		32.68		400.57		400.57	
RB-41	Main Shallow	10/07/2008	433.25		31.46		401.79		401.79	
RB-42	Main Shallow	01/07/2008	428.47		31.90		396.57		396.57	
RB-42	Main Shallow	04/07/2008	428.47		31.53		396.94		396.94	
RB-42	Main Shallow	07/08/2008	428.47		28.34		400.13		400.13	
RB-42	Main Shallow	10/07/2008	428.47		26.59		401.88		401.88	
RB-43	Main Shallow	01/07/2008	427.99		28.85		399.14		399.14	
RB-43	Main Shallow	04/07/2008	427.99		28.15		399.84		399.84	
RB-43	Main Shallow	07/08/2008	427.99		25.48		402.51		402.51	
RB-43	Main Shallow	10/07/2008	427.99		23.50		404.49		404.49	
RB-44	Main Shallow	01/07/2008	432.99		34.16		398.83		398.83	
RB-44	Main Shallow	04/07/2008	432.99		32.92		400.07		400.07	
RB-44	Main Shallow	07/08/2008	432.99		28.80		404.19		404.19	
RB-44	Main Shallow	10/07/2008	432.99		28.18		404.81		404.81	
RB-45	Main Shallow	01/07/2008	431.95		33.38		398.57		398.57	
RB-45	Main Shallow	04/07/2008	431.95		32.05		399.90		399.90	
RB-45	Main Shallow	07/08/2008	431.95		26.93		405.02		405.02	
RB-45	Main Shallow	10/07/2008	431.95		27.20		404.75		404.75	
RB-46	Main Shallow	01/07/2008	430.61		33.00		397.61		397.61	
RB-46	Main Shallow	04/07/2008	430.61		30.68		399.93		399.93	
RB-46	Main Shallow	07/08/2008	430.61		23.05		407.56		407.56	
RB-46	Main Shallow	10/07/2008	430.61		26.17		404.44		404.44	
RB-47	Main Shallow	01/07/2008	431.05		33.70		397.35		397.35	
RB-47	Main Shallow	04/07/2008	431.05		31.14		399.91		399.91	

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RB-47	Main Shallow	07/08/2008	431.05		23.41		407.64		407.64	
RB-47	Main Shallow	10/07/2008	431.05		26.93		404.12		404.12	
RB-48	Main Shallow	01/07/2008	431.36							NM - Skimmer Pump
RB-48	Main Shallow	04/07/2008	431.36							NM - Skimmer Pump
RB-48	Main Shallow	07/08/2008	431.36		21.43		409.93		409.93	
RB-48	Main Shallow	10/07/2008	431.36							NM - Skimmer Pump
RB-49	A Clay	01/07/2008	429.32		5.05		424.27		424.27	
RB-49	A Clay	04/07/2008	429.32		2.45		426.87		426.87	
RB-49	A Clay	07/09/2008	429.32		3.88		425.44		425.44	
RB-49	A Clay	10/07/2008	429.32		2.30		427.02		427.02	
RB-50	A Clay	01/07/2008	431.47		8.58		422.89		422.89	
RB-50	A Clay	04/07/2008	431.47		3.65		427.82		427.82	
RB-50	A Clay	07/09/2008	431.47		4.85		426.62		426.62	
RB-50	A Clay	10/07/2008	431.47		5.24		426.23		426.23	
RB-51	Main Shallow	01/07/2008	431.54		32.49		399.05		399.05	
RB-51	Main Shallow	04/07/2008	431.54		28.45		403.09		403.09	
RB-51	Main Shallow	07/09/2008	431.54		19.30		412.24		412.24	
RB-51	Main Shallow	10/07/2008	431.54		25.25		406.29		406.29	
RB-52	Main Shallow	01/07/2008	431.97							NM - Skimmer Pump
RB-52	Main Shallow	04/07/2008	431.97							NM - Skimmer Pump
RB-52	Main Shallow	07/09/2008	431.97	22.29	22.50	409.68	409.47	0.21	409.63	
RB-52	Main Shallow	10/07/2008	431.97							NM - Skimmer Pump
RB-53	EPA/Main	01/07/2008	433.31							NM - Skimmer Pump
RB-53	EPA/Main	04/07/2008	433.31							NM - Skimmer Pump
RB-53	EPA/Main	07/08/2008	433.31	21.79	32.53	411.52	400.78	10.74	409.16	
RB-53	EPA/Main	10/07/2008	433.31							NM - Skimmer Pump
RB-54	EPA	01/07/2008	431.79		29.42		402.37		402.37	
RB-54	EPA	04/07/2008	431.79		18.52		413.27		413.27	
RB-54	EPA	07/08/2008	431.79		13.08		418.71		418.71	
RB-54	EPA	10/07/2008	431.79		16.70		415.09		415.09	
RB-55	EPA	01/07/2008	433.82							NM - Skimmer Pump
RB-55	EPA	04/07/2008	433.84							NM - Skimmer Pump
RB-55	EPA	07/08/2008	433.84	23.24	36.74	410.60	397.10	13.50	407.63	
RB-55	EPA	10/07/2008	433.84							NM - Skimmer Pump
RB-56	EPA/Main	01/07/2008	431.89							NM - Skimmer Pump
RB-56	EPA/Main	04/07/2008	431.89							NM - Skimmer Pump
RB-56	EPA/Main	07/08/2008	431.89	23.09	23.63	408.80	408.26	0.54	408.68	
RB-56	EPA/Main	10/08/2008	431.89							NM - Skimmer Pump
RD NORTH STAFF GAUGE	Surface	01/07/2008								
RD NORTH STAFF GAUGE	Surface	04/07/2008								NM - No longer exists
RMP-05B	North Olive	01/07/2008	430.96		18.00		412.96		412.96	
RMP-05B	North Olive	04/07/2008	430.96		18.03		412.93		412.93	
RMP-05B	North Olive	07/08/2008	430.96		17.85		413.11		413.11	
RMP-05B	North Olive	10/07/2008	430.96		17.99		412.97		412.97	Measured depth to top of fluid (17.99) >= bottom of screen interval
RMP-05C	EPA	01/07/2008	431.24		35.57		395.67		395.67	
RMP-05C	EPA	04/07/2008	431.24		33.31		397.93		397.93	

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1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMP-05C	EPA	07/08/2008	431.24		22.05		409.19		409.19	
RMP-05C	EPA	10/08/2008	431.24		28.23		403.01		403.01	
RMP-05D	Main Below D Clay	01/07/2008	431.41		36.05		395.36		395.36	
RMP-05D	Main Below D Clay	04/07/2008	431.41		32.11		399.30		399.30	
RMP-05D	Main Below D Clay	07/08/2008	431.41		23.15		408.26		408.26	
RMP-05D	Main Below D Clay	10/08/2008	431.41		29.36		402.05		402.05	
RMP-06B	North Olive	01/07/2008	429.97							Dry
RMP-06B	North Olive	04/07/2008	429.97							Dry
RMP-06B	North Olive	07/08/2008	429.97		12.94		417.03		417.03	
RMP-06B	North Olive	10/07/2008	429.97		13.65		416.32		416.32	
RMP-06C	EPA	01/07/2008	429.88		33.04		396.84		396.84	
RMP-06C	EPA	04/07/2008	429.88		31.29		398.59		398.59	
RMP-06C	EPA	07/08/2008	429.88		19.95		409.93		409.93	
RMP-06C	EPA	10/07/2008	429.88		25.50		404.38		404.38	
RMP-06D	Main Below D Clay	01/07/2008	430.26		34.40		395.86		395.86	
RMP-06D	Main Below D Clay	04/07/2008	430.26		30.61		399.65		399.65	
RMP-06D	Main Below D Clay	07/08/2008	430.26		21.88		408.38		408.38	
RMP-06D	Main Below D Clay	10/07/2008	430.26		27.54		402.72		402.72	
RMP-07B	North Olive	01/07/2008	430.58							Dry
RMP-07B	North Olive	04/07/2008	430.58		17.70		412.88		412.88	
RMP-07B	North Olive	07/08/2008	430.58							Dry
RMP-07B	North Olive	10/07/2008	430.58							Dry
RMP-07C	EPA	01/07/2008	430.49		34.26		396.23		396.23	
RMP-07C	EPA	04/07/2008	430.49		32.14		398.35		398.35	
RMP-07C	EPA	07/08/2008	430.49		20.90		409.59		409.59	
RMP-07C	EPA	10/07/2008	430.49		26.81		403.68		403.68	
RMP-07D	Main Below D Clay	01/07/2008	430.56		34.80		395.76		395.76	
RMP-07D	Main Below D Clay	04/07/2008	430.56		30.89		399.67		399.67	
RMP-07D	Main Below D Clay	07/08/2008	430.56		22.00		408.56		408.56	
RMP-07D	Main Below D Clay	10/07/2008	430.56		27.92		402.64		402.64	
RMP-08B	North Olive	01/07/2008	433.42							Dry
RMP-08B	North Olive	04/07/2008	433.42							Dry
RMP-08B	North Olive	07/08/2008	433.42		19.25		414.17		414.17	
RMP-08B	North Olive	10/07/2008	433.42		19.64		413.78		413.78	Measured depth to top of fluid (19.64) >= bottom of screen interval
RMP-08C	EPA	01/07/2008	433.37		35.89		397.48		397.48	
RMP-08C	EPA	04/07/2008	433.37		34.81		398.56		398.56	
RMP-08C	EPA	07/08/2008	433.37		23.62		409.75		409.75	
RMP-08C	EPA	10/07/2008	433.37		28.64		404.73		404.73	
RMP-08D	Main Below D Clay	01/07/2008	433.33		37.22		396.11		396.11	
RMP-08D	Main Below D Clay	04/07/2008	433.33		33.63		399.70		399.70	
RMP-08D	Main Below D Clay	07/08/2008	433.33		25.15		408.18		408.18	
RMP-08D	Main Below D Clay	10/07/2008	433.33		30.31		403.02		403.02	
RMP-09B	North Olive	01/07/2008	433.95		20.87		413.08		413.08	
RMP-09B	North Olive	04/07/2008	433.95		18.69		415.26		415.26	
RMP-09B	North Olive	07/08/2008	433.95		19.44		414.51		414.51	
RMP-09B	North Olive	10/07/2008	433.95		20.01		413.94		413.94	
RMP-09C	Main Shallow	01/07/2008	434.20	37.72	39.34	396.48	394.86	1.62	396.12	
RMP-09C	Main Shallow	04/07/2008	434.20	33.70	35.50	400.50	398.70	1.80	400.10	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMP-09C	Main Shallow	07/08/2008	434.20	21.74	35.68	412.46	398.52	13.94	409.39	
RMP-09C	Main Shallow	10/07/2008	434.20	30.84	31.66	403.36	402.54	0.82	403.18	
RMP-10B	North Olive	01/07/2008	430.70		17.80		412.90		412.90	
RMP-10B	North Olive	04/07/2008	430.70							Dry
RMP-10B	North Olive	07/10/2008	430.70							Dry
RMP-10B	North Olive	10/07/2008	430.70		17.69		413.01		413.01	Measured depth to top of fluid (17.69) >= bottom of screen interval
RMP-10C	Main Shallow	01/07/2008	430.74	34.09	35.76	396.65	394.98	1.67	396.28	
RMP-10C	Main Shallow	04/07/2008	430.74		30.42		400.32		400.32	
RMP-10C	Main Shallow	07/08/2008	430.74	20.72	22.94	410.02	407.80	2.22	409.53	
RMP-10C	Main Shallow	10/07/2008	430.74	27.39	27.49	403.35	403.25	0.10	403.33	
RMP-11B	North Olive	01/07/2008	429.81							Dry
RMP-11B	North Olive	04/07/2008	429.81							Dry
RMP-11B	North Olive	07/08/2008	429.81		17.15		412.66		412.66	
RMP-11B	North Olive	10/07/2008	429.81							Dry
RMP-11C	Main Shallow	01/07/2008	429.82	32.89	35.66	396.93	394.16	2.77	396.32	
RMP-11C	Main Shallow	04/07/2008	429.82		29.61		400.21		400.21	
RMP-11C	Main Shallow	07/08/2008	429.82	18.91	26.05	410.91	403.77	7.14	409.34	
RMP-11C	Main Shallow	10/07/2008	429.82	25.18	31.68	404.64	398.14	6.50	403.21	
RMP-12B	North Olive	01/07/2008	430.45							Dry
RMP-12B	North Olive	04/07/2008	430.45		14.27		416.18		416.18	
RMP-12B	North Olive	07/08/2008	430.45		14.21		416.24		416.24	
RMP-12B	North Olive	10/07/2008	430.45							Dry
RMP-12D	Main Shallow	01/07/2008	430.35		33.77		396.58		396.58	
RMP-12D	Main Shallow	04/07/2008	430.35		29.64		400.71		400.71	
RMP-12D	Main Shallow	07/08/2008	430.35		20.49		409.86		409.86	
RMP-12D	Main Shallow	10/07/2008	430.35							NM - Could not locate
RMP-13C	Main Shallow	01/07/2008	431.32		34.42		396.90		396.90	
RMP-13C	Main Shallow	04/07/2008	431.32		33.10		398.22		398.22	
RMP-13C	Main Shallow	07/08/2008	431.32		19.63		411.69		411.69	
RMP-13C	Main Shallow	10/07/2008	431.32		25.90		405.42		405.42	
RMP-14C	Main Shallow	01/07/2008	430.64	32.62	39.92	398.02	390.72	7.30	396.41	
RMP-14C	Main Shallow	04/07/2008	430.64	28.77	35.39	401.87	395.25	6.62	400.41	
RMP-14C	Main Shallow	07/08/2008	430.64	20.37	24.25	410.27	406.39	3.88	409.42	
RMP-14C	Main Shallow	10/07/2008	430.64	24.79	37.25	405.85	393.39	12.46	403.11	
RMP-15B	North Olive	01/07/2008	433.77		20.82		412.95		412.95	
RMP-15B	North Olive	04/07/2008	433.77		20.81		412.96		412.96	
RMP-15B	North Olive	07/08/2008	433.77							Dry
RMP-15B	North Olive	10/07/2008	433.77							Dry
RMP-16B	EPA	01/07/2008	434.13	37.87	39.29	396.26	394.84	1.42	395.95	
RMP-16B	EPA	04/07/2008	434.13		35.24		398.89		398.89	
RMP-16B	EPA	07/08/2008	434.13	21.93	34.52	412.20	399.61	12.59	409.43	
RMP-16B	EPA	10/07/2008	434.13	34.39	38.02	399.74	396.11	3.63	398.94	
RMP-17A	Main Shallow	01/07/2008	434.20	37.74	39.71	396.46	394.49	1.97	396.03	
RMP-17A	Main Shallow	04/07/2008	434.20		34.28		399.92		399.92	
RMP-17A	Main Shallow	07/08/2008	434.20	21.66	36.44	412.54	397.76	14.78	409.29	
RMP-17A	Main Shallow	10/07/2008	434.20	30.49	34.85	403.71	399.35	4.36	402.75	
RMP-18A	Main Shallow	01/07/2008	430.07	33.43	35.16	396.64	394.91	1.73	396.26	
RMP-18A	Main Shallow	04/07/2008	430.07	29.53	30.78	400.54	399.29	1.25	400.27	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMP-18A	Main Shallow	07/08/2008	430.07	17.84	30.92	412.23	399.15	13.08	409.35	
RMP-18A	Main Shallow	10/07/2008	430.07	26.42	27.37	403.65	402.70	0.95	403.44	
RMP-19A	Main Shallow	01/07/2008	430.41	33.80	34.75	396.61	395.66	0.95	396.40	
RMP-19A	Main Shallow	04/07/2008	430.41	29.67	30.67	400.74	399.74	1.00	400.52	
RMP-19A	Main Shallow	07/08/2008	430.41	20.71	20.78	409.70	409.63	0.07	409.68	
RMP-19A	Main Shallow	10/07/2008	430.41	26.89	27.30	403.52	403.11	0.41	403.43	
RMW-01A	A Clay	01/07/2008	429.78		10.10		419.68		419.68	
RMW-01A	A Clay	04/07/2008	429.78		10.07		419.71		419.71	
RMW-01A	A Clay	07/08/2008	429.78		10.07		419.71		419.71	
RMW-01A	A Clay	10/08/2008	429.78		10.10		419.68		419.68	Measured depth to top of fluid (10.10) >= bottom of screen interval
RMW-01B	Main Silt	01/07/2008	429.72		26.21		403.51		403.51	
RMW-01B	Main Silt	04/07/2008	429.72	25.08	25.85	404.64	403.87	0.77	404.47	
RMW-01B	Main Silt	07/08/2008	429.72	18.45	23.33	411.27	406.39	4.88	410.20	
RMW-01B	Main Silt	10/07/2008	429.72	22.63	26.21	407.09	403.51	3.58	406.30	
RMW-01C	Main Shallow	01/07/2008	429.48	31.90	34.99	397.58	394.49	3.09	396.90	
RMW-01C	Main Shallow	04/07/2008	429.48	28.50	30.95	400.98	398.53	2.45	400.44	
RMW-01C	Main Shallow	07/08/2008	429.48	17.09	29.53	412.39	399.95	12.44	409.65	
RMW-01C	Main Shallow	10/07/2008	429.48	23.60	33.98	405.88	395.50	10.38	403.60	
RMW-01D	Main Intermediate	01/07/2008	429.66		32.79		396.87		396.87	
RMW-01D	Main Intermediate	04/07/2008	429.66		28.55		401.11		401.11	
RMW-01D	Main Intermediate	07/08/2008	429.66		19.47		410.19		410.19	
RMW-01D	Main Intermediate	10/07/2008	429.66		25.57		404.09		404.09	
RMW-01E	Main Deep	01/07/2008	429.63		32.78		396.85		396.85	
RMW-01E	Main Deep	04/07/2008	429.63		28.53		401.10		401.10	
RMW-01E	Main Deep	07/08/2008	429.63		19.45		410.18		410.18	
RMW-01E	Main Deep	10/07/2008	429.63		25.60		404.03		404.03	
RMW-01F	Main Basal	01/07/2008	429.43		32.54		396.89		396.89	
RMW-01F	Main Basal	04/07/2008	429.43		28.38		401.05		401.05	
RMW-01F	Main Basal	07/08/2008	429.43		19.22		410.21		410.21	
RMW-01F	Main Basal	10/07/2008	429.43		25.39		404.04		404.04	
RMW-02A	North Olive	01/07/2008	433.64		21.92		411.72		411.72	
RMW-02A	North Olive	04/07/2008	433.64		21.92		411.72		411.72	
RMW-02A	North Olive	07/08/2008	433.64							Dry
RMW-02A	North Olive	10/07/2008	433.64		21.94		411.70		411.70	screen interval
RMW-02B	B/C Clay Perm Lens	01/07/2008	433.64		26.56		407.08		407.08	
RMW-02B	B/C Clay Perm Lens	04/07/2008	433.64		25.37		408.27		408.27	
RMW-02B	B/C Clay Perm Lens	07/08/2008	433.64		22.28		411.36		411.36	
RMW-02B	B/C Clay Perm Lens	10/07/2008	433.64		24.19		409.45		409.45	
RMW-02C	Main Shallow	01/07/2008	433.34	36.53	38.16	396.81	395.18	1.63	396.45	
RMW-02C	Main Shallow	04/07/2008	433.34	32.58	33.34	400.76	400.00	0.76	400.59	
RMW-02C	Main Shallow	07/08/2008	433.34	23.44	24.43	409.90	408.91	0.99	409.68	
RMW-02C	Main Shallow	10/07/2008	433.34	29.14	32.44	404.20	400.90	3.30	403.47	
RMW-02D	Main Intermediate	01/07/2008	433.41		36.90		396.51		396.51	
RMW-02D	Main Intermediate	04/07/2008	433.41		32.75		400.66		400.66	
RMW-02D	Main Intermediate	07/08/2008	433.41		23.61		409.80		409.80	
RMW-02D	Main Intermediate	10/07/2008	433.41		29.80		403.61		403.61	
RMW-02E	Main Deep	01/07/2008	433.54		37.04		396.50		396.50	
RMW-02E	Main Deep	04/07/2008	433.54		32.83		400.71		400.71	

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RMW-02E	Main Deep	07/08/2008	433.54		23.74		409.80		409.80	
RMW-02E	Main Deep	10/07/2008	433.54		29.95		403.59		403.59	
RMW-02F	Main Basal	01/07/2008	433.64		37.15		396.49		396.49	
RMW-02F	Main Basal	04/07/2008	433.64		33.02		400.62		400.62	
RMW-02F	Main Basal	07/08/2008	433.64		23.90		409.74		409.74	
RMW-02F	Main Basal	10/07/2008	433.64		30.07		403.57		403.57	
RMW-03A	North Olive	01/07/2008	434.10		22.25		411.85		411.85	
RMW-03A	North Olive	04/07/2008	434.10		21.37		412.73		412.73	
RMW-03A	North Olive	07/08/2008	434.10		19.32		414.78		414.78	
RMW-03A	North Olive	10/07/2008	434.10		20.83		413.27		413.27	
RMW-03B	EPA	01/07/2008	434.01	37.96	39.37	396.05	394.64	1.41	395.74	
RMW-03B	EPA	04/07/2008	434.01	34.65	34.70	399.36	399.31	0.05	399.35	
RMW-03B	EPA	07/08/2008	434.01	21.61	36.23	412.40	397.78	14.62	409.18	
RMW-03B	EPA	10/07/2008	434.01	29.64	36.00	404.37	398.01	6.36	402.97	
RMW-03C	Main Below D Clay	01/07/2008	434.21		38.45		395.76		395.76	
RMW-03C	Main Below D Clay	04/07/2008	434.21		34.43		399.78		399.78	
RMW-03C	Main Below D Clay	07/08/2008	434.21		25.39		408.82		408.82	
RMW-03C	Main Below D Clay	10/07/2008	434.21		31.56		402.65		402.65	
RMW-04A	North Olive	01/07/2008	433.02		20.82		412.20		412.20	
RMW-04A	North Olive	04/07/2008	433.02		19.49		413.53		413.53	
RMW-04A	North Olive	07/08/2008	433.02		15.69		417.33		417.33	
RMW-04A	North Olive	10/08/2008	433.02		15.99		417.03		417.03	
RMW-04B	EPA	01/07/2008	433.07		34.32		398.75		398.75	
RMW-04B	EPA	04/07/2008	433.07		31.62		401.45		401.45	
RMW-04B	EPA	07/08/2008	433.07		24.05		409.02		409.02	
RMW-04B	EPA	10/08/2008	433.07		27.02		406.05		406.05	
RMW-04C	Main Below D Clay	01/07/2008	433.11		37.07		396.04		396.04	
RMW-04C	Main Below D Clay	04/07/2008	433.11		33.86		399.25		399.25	
RMW-04C	Main Below D Clay	07/08/2008	433.11		25.90		407.21		407.21	
RMW-04C	Main Below D Clay	10/08/2008	433.11		30.54		402.57		402.57	
RMW-04D	Main Intermediate	01/07/2008	432.83		36.84		395.99		395.99	
RMW-04D	Main Intermediate	04/07/2008	432.83		33.51		399.32		399.32	
RMW-04D	Main Intermediate	07/08/2008	432.83		25.55		407.28		407.28	
RMW-04D	Main Intermediate	10/08/2008	432.83		30.27		402.56		402.56	
RMW-04E	Main Deep	01/07/2008	432.82		36.80		396.02		396.02	
RMW-04E	Main Deep	04/07/2008	432.82		33.44		399.38		399.38	
RMW-04E	Main Deep	07/08/2008	432.82		25.52		407.30		407.30	
RMW-04E	Main Deep	10/08/2008	432.82		30.24		402.58		402.58	
RMW-04F	Main Basal	01/07/2008	432.37		36.33		396.04		396.04	
RMW-04F	Main Basal	04/07/2008	432.37		33.05		399.32		399.32	
RMW-04F	Main Basal	07/08/2008	432.37		25.08		407.29		407.29	
RMW-04F	Main Basal	10/08/2008	432.37		29.79		402.58		402.58	
RMW-05A	North Olive	01/07/2008	431.85		21.26		410.59		410.59	
RMW-05A	North Olive	04/07/2008	431.85		12.18		419.67		419.67	
RMW-05A	North Olive	07/08/2008	431.85		13.60		418.25		418.25	
RMW-05A	North Olive	10/07/2008	431.85		15.45		416.40		416.40	
RMW-05B	EPA	01/07/2008	431.78		33.21		398.57		398.57	
RMW-05B	EPA	04/07/2008	431.78		27.88		403.90		403.90	
RMW-05B	EPA	07/08/2008	431.78		21.10		410.68		410.68	

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-05B	EPA	10/07/2008	431.78		23.85		407.93		407.93	
RMW-05C	Main Below D Clay	01/07/2008	431.78		33.75		398.03		398.03	
RMW-05C	Main Below D Clay	04/07/2008	431.78		32.63		399.15		399.15	
RMW-05C	Main Below D Clay	07/08/2008	431.78		24.69		407.09		407.09	
RMW-05C	Main Below D Clay	10/07/2008	431.78		29.08		402.70		402.70	
RMW-06A	North Olive	01/07/2008	430.40		17.96		412.44		412.44	
RMW-06A	North Olive	04/07/2008	430.40		17.95		412.45		412.45	
RMW-06A	North Olive	07/08/2008	430.40		16.56		413.84		413.84	
RMW-06A	North Olive	10/07/2008	430.40		17.38		413.02		413.02	
RMW-06B	B/C Clay Perm Lens	01/07/2008	430.39		24.70		405.69		405.69	
RMW-06B	B/C Clay Perm Lens	04/07/2008	430.39		19.84		410.55		410.55	
RMW-06B	B/C Clay Perm Lens	07/08/2008	430.39		17.44		412.95		412.95	
RMW-06B	B/C Clay Perm Lens	10/07/2008	430.39		17.94		412.45		412.45	
RMW-06C	B/C Clay	01/07/2008	430.37		30.51		399.86		399.86	
RMW-06C	B/C Clay	04/07/2008	430.37		30.50		399.87		399.87	
RMW-06C	B/C Clay	07/08/2008	430.37		22.81		407.56		407.56	
RMW-06C	B/C Clay	10/07/2008	430.37		24.62		405.75		405.75	
RMW-06D	EPA/Main	01/07/2008	430.41		34.11		396.30		396.30	
RMW-06D	EPA/Main	04/07/2008	430.41		31.88		398.53		398.53	
RMW-06D	EPA/Main	07/08/2008	430.41		24.81		405.60		405.60	
RMW-06D	EPA/Main	10/07/2008	430.41		27.35		403.06		403.06	
RMW-06E	Main Intermediate	01/07/2008	430.02		34.01		396.01		396.01	
RMW-06E	Main Intermediate	04/07/2008	430.02		31.65		398.37		398.37	
RMW-06E	Main Intermediate	07/08/2008	430.02		24.50		405.52		405.52	
RMW-06E	Main Intermediate	10/07/2008	430.02		27.42		402.60		402.60	
RMW-06F	Main Deep	01/07/2008	429.67		33.65		396.02		396.02	
RMW-06F	Main Deep	04/07/2008	429.67		31.28		398.39		398.39	
RMW-06F	Main Deep	07/08/2008	429.67		24.15		405.52		405.52	
RMW-06F	Main Deep	10/07/2008	429.67		27.04		402.63		402.63	
RMW-06G	Main Basal	01/07/2008	430.01		34.01		396.00		396.00	
RMW-06G	Main Basal	04/07/2008	430.01		31.62		398.39		398.39	
RMW-06G	Main Basal	07/08/2008	430.01		24.45		405.56		405.56	
RMW-06G	Main Basal	10/07/2008	430.01		27.39		402.62		402.62	
RMW-07A	North Olive	01/07/2008	429.00		19.49		409.51		409.51	
RMW-07A	North Olive	04/07/2008	429.00		8.64		420.36		420.36	
RMW-07A	North Olive	07/08/2008	429.00		17.37		411.63		411.63	
RMW-07A	North Olive	10/07/2008	429.00		17.83		411.17		411.17	
RMW-07B	B/C Clay Perm Lens	01/07/2008	429.11		23.08		406.03		406.03	
RMW-07B	B/C Clay Perm Lens	04/07/2008	429.11		18.28		410.83		410.83	
RMW-07B	B/C Clay Perm Lens	07/08/2008	429.11		17.76		411.35		411.35	
RMW-07B	B/C Clay Perm Lens	10/07/2008	429.11		18.32		410.79		410.79	
RMW-07C	Main Shallow	01/07/2008	429.34							NM - Skimmer Pump
RMW-07C	Main Shallow	04/07/2008	429.34							NM - Skimmer Pump
RMW-07C	Main Shallow	07/08/2008	429.34	21.70	32.48	407.64	396.86	10.78	405.27	
RMW-07C	Main Shallow	10/07/2008	429.34							NM - Skimmer Pump
RMW-07D	Main Intermediate	01/07/2008	428.62		32.66		395.96		395.96	
RMW-07D	Main Intermediate	04/07/2008	428.62		30.56		398.06		398.06	
RMW-07D	Main Intermediate	07/08/2008	428.62		23.62		405.00		405.00	
RMW-07D	Main Intermediate	10/07/2008	428.62		26.15		402.47		402.47	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-07E	Main Deep	01/07/2008	428.95		33.00		395.95		395.95	
RMW-07E	Main Deep	04/07/2008	428.95		30.91		398.04		398.04	
RMW-07E	Main Deep	07/08/2008	428.95		24.00		404.95		404.95	
RMW-07E	Main Deep	10/07/2008	428.95		26.48		402.47		402.47	
RMW-07F	Main Basal	01/07/2008	429.20		33.21		395.99		395.99	
RMW-07F	Main Basal	04/07/2008	429.20		31.13		398.07		398.07	
RMW-07F	Main Basal	07/08/2008	429.20		24.22		404.98		404.98	
RMW-07F	Main Basal	10/07/2008	429.20		26.74		402.46		402.46	
RMW-08A	Main Silt	01/07/2008	432.52		33.55		398.97		398.97	
RMW-08A	Main Silt	04/07/2008	432.52		33.56		398.96		398.96	
RMW-08A	Main Silt	07/08/2008	432.52		28.54		403.98		403.98	
RMW-08A	Main Silt	10/07/2008	432.52		30.18		402.34		402.34	
RMW-08B	Main Shallow	01/07/2008	432.49		36.42		396.07		396.07	
RMW-08B	Main Shallow	04/07/2008	432.49		34.90		397.59		397.59	
RMW-08B	Main Shallow	07/08/2008	432.49		28.57		403.92		403.92	
RMW-08B	Main Shallow	10/07/2008	432.49		30.19		402.30		402.30	
RMW-08C	Main Intermediate	01/07/2008	432.32		36.19		396.13		396.13	
RMW-08C	Main Intermediate	04/07/2008	432.32		34.65		397.67		397.67	
RMW-08C	Main Intermediate	07/08/2008	432.32		28.33		403.99		403.99	
RMW-08C	Main Intermediate	10/07/2008	432.32		29.93		402.39		402.39	
RMW-08D	Main Deep	01/07/2008	432.43		36.32		396.11		396.11	
RMW-08D	Main Deep	04/07/2008	432.43		34.79		397.64		397.64	
RMW-08D	Main Deep	07/08/2008	432.43		28.42		404.01		404.01	
RMW-08D	Main Deep	10/07/2008	432.43		30.04		402.39		402.39	
RMW-08E	Main Basal	01/07/2008	432.52		36.36		396.16		396.16	
RMW-08E	Main Basal	04/07/2008	432.52		34.76		397.76		397.76	
RMW-08E	Main Basal	07/08/2008	432.52							NM - Could not locate
RMW-08E	Main Basal	10/07/2008	432.52		30.10		402.42		402.42	
RMW-09A	North Olive	01/07/2008	430.71		12.40		418.31		418.31	
RMW-09A	North Olive	04/07/2008	430.71		11.46		419.25		419.25	
RMW-09A	North Olive	07/08/2008	430.71		11.66		419.05		419.05	
RMW-09A	North Olive	10/07/2008	430.71		10.85		419.86		419.86	
RMW-09B	EPA	01/07/2008	430.67	33.55	36.50	397.12	394.17	2.95	396.47	
RMW-09B	EPA	04/07/2008	430.67	32.42	33.90	398.25	396.77	1.48	397.92	
RMW-09B	EPA	07/08/2008	430.67	24.70	32.52	405.97	398.15	7.82	404.25	
RMW-09B	EPA	10/07/2008	430.67	26.34	33.17	404.33	397.50	6.83	402.83	
RMW-10A	North Olive	01/08/2008	430.53		12.72		417.81		417.81	
RMW-10A	North Olive	04/07/2008	430.53	9.50	10.06	421.03	420.47	0.56	420.91	
RMW-10A	North Olive	07/08/2008	430.53	10.64	11.20	419.89	419.33	0.56	419.77	
RMW-10A	North Olive	10/07/2008	430.53	11.14	11.38	419.39	419.15	0.24	419.34	
RMW-10B	Main Shallow	01/08/2008	430.42		33.65		396.77		396.77	
RMW-10B	Main Shallow	04/07/2008	430.42		32.22		398.20		398.20	
RMW-10B	Main Shallow	07/08/2008	430.42		26.13		404.29		404.29	
RMW-10B	Main Shallow	10/07/2008	430.42		27.41		403.01		403.01	
RMW-10C	Main Intermediate	01/08/2008	428.09		31.33		396.76		396.76	
RMW-10C	Main Intermediate	04/07/2008	428.09		29.78		398.31		398.31	
RMW-10C	Main Intermediate	07/08/2008	428.09		23.65		404.44		404.44	
RMW-10C	Main Intermediate	10/07/2008	428.09		25.07		403.02		403.02	
RMW-10D	Main Deep	01/08/2008	428.00		31.25		396.75		396.75	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-10D	Main Deep	04/07/2008	428.00		29.68		398.32		398.32	
RMW-10D	Main Deep	07/08/2008	428.00		23.57		404.43		404.43	
RMW-10D	Main Deep	10/07/2008	428.00		24.97		403.03		403.03	
RMW-10E	Main Basal	01/08/2008	427.87		31.05		396.82		396.82	
RMW-10E	Main Basal	04/07/2008	427.87		29.52		398.35		398.35	
RMW-10E	Main Basal	07/08/2008	427.87		23.40		404.47		404.47	
RMW-10E	Main Basal	10/07/2008	427.87		24.79		403.08		403.08	
RMW-11A	North Olive	01/07/2008	429.70		15.17		414.53		414.53	
RMW-11A	North Olive	04/07/2008	429.70							NM - Unable to access
RMW-11A	North Olive	07/08/2008	429.70		13.40		416.30		416.30	
RMW-11A	North Olive	10/07/2008	429.70		13.91		415.79		415.79	
RMW-11B	B/C Clay Perm Lens	01/07/2008	429.88		23.22		406.66		406.66	
RMW-11B	B/C Clay Perm Lens	04/07/2008	429.88							NM - Unable to access
RMW-11B	B/C Clay Perm Lens	07/08/2008	429.88		22.39		407.49		407.49	
RMW-11B	B/C Clay Perm Lens	10/07/2008	429.88		22.48		407.40		407.40	
RMW-11C	Main Shallow	01/07/2008	430.27	33.15	34.56	397.12	395.71	1.41	396.81	
RMW-11C	Main Shallow	04/07/2008	430.27							NM - Unable to access
RMW-11C	Main Shallow	07/08/2008	430.27	26.13	26.56	404.14	403.71	0.43	404.05	
RMW-11C	Main Shallow	10/07/2008	430.27	27.01	27.95	403.26	402.32	0.94	403.05	
RMW-12A	North Olive	01/07/2008	432.43		15.84		416.59		416.59	
RMW-12A	North Olive	04/07/2008	432.43		11.47		420.96		420.96	
RMW-12A	North Olive	07/08/2008	432.43		11.02		421.41		421.41	
RMW-12A	North Olive	10/07/2008	432.43		12.39		420.04		420.04	
RMW-12B	B/C Clay Perm Lens	01/07/2008	432.57		30.21		402.36		402.36	
RMW-12B	B/C Clay Perm Lens	04/07/2008	432.57		30.06		402.51		402.51	
RMW-12B	B/C Clay Perm Lens	07/08/2008	432.57		25.23		407.34		407.34	
RMW-12B	B/C Clay Perm Lens	10/07/2008	432.57		24.88		407.69		407.69	
RMW-12C	Main Shallow	01/07/2008	432.25		35.14		397.11		397.11	
RMW-12C	Main Shallow	04/07/2008	432.25		33.60		398.65		398.65	
RMW-12C	Main Shallow	07/08/2008	432.25		27.74		404.51		404.51	
RMW-12C	Main Shallow	10/07/2008	432.25		28.84		403.41		403.41	
RMW-13A	North Olive	01/07/2008	429.26		10.65		418.61		418.61	
RMW-13A	North Olive	04/07/2008	429.26		7.79		421.47		421.47	
RMW-13A	North Olive	07/08/2008	429.26		7.15		422.11		422.11	
RMW-13A	North Olive	10/07/2008	429.26		7.58		421.68		421.68	
RMW-13B	B/C Clay Perm Lens	01/07/2008	429.25		22.37		406.88		406.88	
RMW-13B	B/C Clay Perm Lens	04/07/2008	429.25		21.38		407.87		407.87	
RMW-13B	B/C Clay Perm Lens	07/08/2008	429.25		19.23		410.02		410.02	
RMW-13B	B/C Clay Perm Lens	10/07/2008	429.25		18.20		411.05		411.05	
RMW-13C	Main Shallow	01/07/2008	429.06		32.04		397.02		397.02	
RMW-13C	Main Shallow	04/07/2008	429.06		30.38		398.68		398.68	
RMW-13C	Main Shallow	07/08/2008	429.06		24.09		404.97		404.97	
RMW-13C	Main Shallow	10/07/2008	429.06		25.70		403.36		403.36	
RMW-14A	North Olive	01/07/2008	433.12		22.16		410.96		410.96	
RMW-14A	North Olive	04/07/2008	433.12		20.92		412.20		412.20	
RMW-14A	North Olive	07/08/2008	433.12		19.76		413.36		413.36	
RMW-14A	North Olive	10/07/2008	433.12		20.23		412.89		412.89	
RMW-14B	B/C Clay Perm Lens	01/07/2008	433.14		23.57		409.57		409.57	
RMW-14B	B/C Clay Perm Lens	04/07/2008	433.14		20.85		412.29		412.29	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-14B	B/C Clay Perm Lens	07/08/2008	433.14		19.72		413.42		413.42	
RMW-14B	B/C Clay Perm Lens	10/07/2008	433.14		20.22		412.92		412.92	
RMW-14C	Main Below D Clay	01/07/2008	433.10		36.41		396.69		396.69	
RMW-14C	Main Below D Clay	04/07/2008	433.10		34.10		399.00		399.00	
RMW-14C	Main Below D Clay	07/08/2008	433.10		27.10		406.00		406.00	
RMW-14C	Main Below D Clay	10/07/2008	433.10		29.84		403.26		403.26	
RMW-15A	North Olive	01/07/2008	432.96		19.11		413.85		413.85	
RMW-15A	North Olive	04/07/2008	432.96		17.20		415.76		415.76	
RMW-15A	North Olive	07/08/2008	432.96		15.71		417.25		417.25	
RMW-15A	North Olive	10/07/2008	432.96		15.20		417.76		417.76	
RMW-15B	B/C Clay	01/07/2008	432.96		19.15		413.81		413.81	
RMW-15B	B/C Clay	04/07/2008	432.96		17.43		415.53		415.53	
RMW-15B	B/C Clay	07/08/2008	432.96		15.92		417.04		417.04	
RMW-15B	B/C Clay	10/07/2008	432.96	15.37	15.38	417.59	417.58	0.01	417.59	
RMW-15C	EPA/Main	01/07/2008	432.95							NM - Skimmer Pump
RMW-15C	EPA/Main	04/07/2008	432.95							NM - Skimmer Pump
RMW-15C	EPA/Main	07/08/2008	432.95	22.11	37.67	410.84	395.28	15.56	407.42	
RMW-15C	EPA/Main	10/07/2008	432.95							NM - Skimmer Pump
RMW-15D	Main Intermediate	01/07/2008	432.77		36.91		395.86		395.86	
RMW-15D	Main Intermediate	04/07/2008	432.77		33.45		399.32		399.32	
RMW-15D	Main Intermediate	07/08/2008	432.77		25.86		406.91		406.91	
RMW-15D	Main Intermediate	10/07/2008	432.77		30.02		402.75		402.75	
RMW-15E	Main Deep	01/07/2008	432.80		36.91		395.89		395.89	
RMW-15E	Main Deep	04/07/2008	432.80		33.48		399.32		399.32	
RMW-15E	Main Deep	07/08/2008	432.80		25.88		406.92		406.92	
RMW-15E	Main Deep	10/07/2008	432.80		30.01		402.79		402.79	
RMW-15F	Main Basal	01/07/2008	432.36		36.49		395.87		395.87	
RMW-15F	Main Basal	04/07/2008	432.36		33.00		399.36		399.36	
RMW-15F	Main Basal	07/08/2008	432.36		25.44		406.92		406.92	
RMW-15F	Main Basal	10/07/2008	432.36		29.60		402.76		402.76	
RMW-16A	Main Silt	01/07/2008	430.07							Dry
RMW-16A	Main Silt	04/07/2008	430.07		28.54		401.53		401.53	
RMW-16A	Main Silt	07/08/2008	430.07		19.23		410.84		410.84	
RMW-16A	Main Silt	10/07/2008	430.07		25.33		404.74		404.74	
RMW-16B	Main Shallow	01/07/2008	430.12		32.70		397.42		397.42	
RMW-16B	Main Shallow	04/07/2008	430.12		28.60		401.52		401.52	
RMW-16B	Main Shallow	07/08/2008	430.12		19.26		410.86		410.86	
RMW-16B	Main Shallow	10/07/2008	430.12		25.24		404.88		404.88	
RMW-16C	Main Intermediate	01/07/2008	430.15		32.91		397.24		397.24	
RMW-16C	Main Intermediate	04/07/2008	430.15		28.76		401.39		401.39	
RMW-16C	Main Intermediate	07/08/2008	430.15		19.59		410.56		410.56	
RMW-16C	Main Intermediate	10/07/2008	430.15		25.79		404.36		404.36	
RMW-16D	Main Deep	01/07/2008	430.13		32.90		397.23		397.23	
RMW-16D	Main Deep	04/07/2008	430.13		28.76		401.37		401.37	
RMW-16D	Main Deep	07/08/2008	430.13		19.58		410.55		410.55	
RMW-16D	Main Deep	10/07/2008	430.13		25.74		404.39		404.39	
RMW-16E	Main Basal	01/07/2008	430.12		32.88		397.24		397.24	
RMW-16E	Main Basal	04/07/2008	430.12		28.73		401.39		401.39	
RMW-16E	Main Basal	07/08/2008	430.12		19.56		410.56		410.56	

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-16E	Main Basal	10/07/2008	430.12		25.72		404.40		404.40	
RMW-17A	Main Silt	01/07/2008	431.80							Dry
RMW-17A	Main Silt	04/07/2008	431.80		30.32		401.48		401.48	
RMW-17A	Main Silt	07/08/2008	431.80		20.78		411.02		411.02	
RMW-17A	Main Silt	10/07/2008	431.80		26.50		405.30		405.30	
RMW-17B	Main Shallow	01/07/2008	431.79		33.85		397.94		397.94	
RMW-17B	Main Shallow	04/07/2008	431.79		30.22		401.57		401.57	
RMW-17B	Main Shallow	07/08/2008	431.79		20.77		411.02		411.02	
RMW-17B	Main Shallow	10/07/2008	431.79		26.50		405.29		405.29	
RMW-17C	Main Intermediate	01/07/2008	431.51		33.76		397.75		397.75	
RMW-17C	Main Intermediate	04/07/2008	431.51		29.60		401.91		401.91	
RMW-17C	Main Intermediate	07/08/2008	431.51		20.35		411.16		411.16	
RMW-17C	Main Intermediate	10/07/2008	431.51		26.61		404.90		404.90	
RMW-17D	Main Deep	01/07/2008	431.56		33.78		397.78		397.78	
RMW-17D	Main Deep	04/07/2008	431.56		29.61		401.95		401.95	
RMW-17D	Main Deep	07/08/2008	431.56		20.35		411.21		411.21	
RMW-17D	Main Deep	10/07/2008	431.56		26.67		404.89		404.89	
RMW-17E	Main Basal	01/07/2008	431.61		33.74		397.87		397.87	
RMW-17E	Main Basal	04/07/2008	431.61		29.51		402.10		402.10	
RMW-17E	Main Basal	07/08/2008	431.61		20.22		411.39		411.39	
RMW-17E	Main Basal	10/07/2008	431.61		26.64		404.97		404.97	
RMW-18A	Main Silt	01/07/2008	429.54		25.10		404.44		404.44	
RMW-18A	Main Silt	04/07/2008	429.54		25.08		404.46		404.46	
RMW-18A	Main Silt	07/09/2008	429.54	21.41	21.43	408.13	408.11	0.02	408.13	
RMW-18A	Main Silt	10/07/2008	429.54	24.89	24.92	404.65	404.62	0.03	404.64	Measured depth to top of fluid (24.89) >= bottom of screen interval
RMW-18B	Main Shallow	01/07/2008	429.42		32.38		397.04		397.04	
RMW-18B	Main Shallow	04/07/2008	429.42		29.18		400.24		400.24	
RMW-18B	Main Shallow	07/09/2008	429.42		21.29		408.13		408.13	
RMW-18B	Main Shallow	10/07/2008	429.42		25.45		403.97		403.97	
RMW-19A	Main Silt	01/07/2008	431.33		32.62		398.71		398.71	
RMW-19A	Main Silt	04/08/2008	431.33		30.30		401.03		401.03	
RMW-19A	Main Silt	07/08/2008	431.33		22.41		408.92		408.92	
RMW-19A	Main Silt	10/07/2008	431.33	26.11	26.13	405.22	405.20	0.02	405.22	
RMW-19B	Main Shallow	01/07/2008	431.71		33.40		398.31		398.31	
RMW-19B	Main Shallow	04/07/2008	431.71		30.60		401.11		401.11	
RMW-19B	Main Shallow	07/08/2008	431.71		22.52		409.19		409.19	
RMW-19B	Main Shallow	10/07/2008	431.71		26.50		405.21		405.21	
RMW-20A	Main Silt	01/07/2008	431.56							NM - Skimmer Pump
RMW-20A	Main Silt	04/07/2008	431.56	30.42	30.75	401.14	400.81	0.33	401.07	
RMW-20A	Main Silt	07/08/2008	431.56		22.42		409.14		409.14	
RMW-20A	Main Silt	10/07/2008	431.56	25.67	27.42	405.89	404.14	1.75	405.51	
RMW-20B	Main Shallow	01/07/2008	431.56							NM - Skimmer Pump
RMW-20B	Main Shallow	04/07/2008	431.56							NM - Skimmer Pump
RMW-20B	Main Shallow	07/08/2008	431.56		22.26		409.30		409.30	
RMW-20B	Main Shallow	10/07/2008	431.56							NM - Skimmer Pump
RMW-21A	Main Shallow	01/07/2008	432.16	29.85	29.95	402.31	402.21	0.10	402.29	
RMW-21A	Main Shallow	04/07/2008	432.16		21.17		410.99		410.99	
RMW-21A	Main Shallow	07/08/2008	432.16		22.22		409.94		409.94	

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1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-21A	Main Shallow	10/07/2008	432.16	26.14	27.27	406.02	404.89	1.13	405.77	
RMW-21B	Main Shallow	01/07/2008	432.09							NM - Skimmer Pump
RMW-21B	Main Shallow	04/07/2008	432.09							NM - Skimmer Pump
RMW-21B	Main Shallow	07/08/2008	432.09	22.00	23.36	410.09	408.73	1.36	409.79	
RMW-21B	Main Shallow	10/07/2008	432.09							NM - Skimmer Pump
RMW-21C	Main Intermediate	01/07/2008	429.05		30.23		398.82		398.82	
RMW-21C	Main Intermediate	04/07/2008	429.05		27.57		401.48		401.48	
RMW-21C	Main Intermediate	07/08/2008	429.05		19.35		409.70		409.70	
RMW-21C	Main Intermediate	10/07/2008	429.05		23.30		405.75		405.75	
RMW-21D	Main Deep	01/07/2008	428.73		29.91		398.82		398.82	
RMW-21D	Main Deep	04/07/2008	428.73		27.25		401.48		401.48	
RMW-21D	Main Deep	07/08/2008	428.73		19.05		409.68		409.68	
RMW-21D	Main Deep	10/07/2008	428.73		22.96		405.77		405.77	
RMW-21E	Main Basal	01/07/2008	428.30		29.47		398.83		398.83	
RMW-21E	Main Basal	04/07/2008	428.30		26.80		401.50		401.50	
RMW-21E	Main Basal	07/08/2008	428.30		18.60		409.70		409.70	
RMW-21E	Main Basal	10/07/2008	428.30		22.52		405.78		405.78	
RMW-22A	Main Silt	01/07/2008	430.84							Dry
RMW-22A	Main Silt	04/07/2008	430.84		18.02		412.82		412.82	
RMW-22A	Main Silt	07/08/2008	430.84		16.16		414.68		414.68	
RMW-22A	Main Silt	10/07/2008	430.84		24.81		406.03		406.03	
RMW-22B	Main Shallow	01/07/2008	430.76		31.87		398.89		398.89	
RMW-22B	Main Shallow	04/07/2008	430.76		28.45		402.31		402.31	
RMW-22B	Main Shallow	07/08/2008	430.76		19.65		411.11		411.11	
RMW-22B	Main Shallow	10/07/2008	430.76		24.80		405.96		405.96	
RMW-23A	Main Shallow	01/07/2008	430.45	30.43	33.27	400.02	397.18	2.84	399.40	
RMW-23A	Main Shallow	04/08/2008	430.45	27.91	28.56	402.54	401.89	0.65	402.40	
RMW-23A	Main Shallow	07/08/2008	430.45	19.55	21.80	410.90	408.65	2.25	410.40	
RMW-23A	Main Shallow	10/07/2008	430.45	24.10	24.74	406.35	405.71	0.64	406.21	
RMW-24A	North Olive	01/07/2008	433.30		22.43		410.87		410.87	
RMW-24A	North Olive	04/07/2008	433.30		22.47		410.83		410.83	
RMW-24A	North Olive	07/08/2008	433.30		22.45		410.85		410.85	
RMW-24A	North Olive	10/07/2008	433.30		22.47		410.83		410.83	Measured depth to top of fluid (22.47) >= bottom of screen interval
RMW-24B	B/C Clay Perm Lens	01/07/2008	433.28		28.77		404.51		404.51	
RMW-24B	B/C Clay Perm Lens	04/07/2008	433.28		28.74		404.54		404.54	
RMW-24B	B/C Clay Perm Lens	07/08/2008	433.28		23.11		410.17		410.17	
RMW-24B	B/C Clay Perm Lens	10/07/2008	433.28		27.25		406.03		406.03	
RMW-24C	EPA/Main	01/07/2008	433.28	36.70	38.41	396.58	394.87	1.71	396.20	
RMW-24C	EPA/Main	04/07/2008	433.28		34.01		399.27		399.27	
RMW-24C	EPA/Main	07/08/2008	433.28	21.40	34.41	411.88	398.87	13.01	409.02	
RMW-24C	EPA/Main	10/07/2008	433.28	28.38	34.67	404.90	398.61	6.29	403.52	
RMW-24D	Main Below D Clay	01/07/2008	433.43		37.38		396.05		396.05	
RMW-24D	Main Below D Clay	04/07/2008	433.43		33.46		399.97		399.97	
RMW-24D	Main Below D Clay	07/08/2008	433.43		24.57		408.86		408.86	
RMW-24D	Main Below D Clay	10/07/2008	433.43		30.48		402.95		402.95	
RMW-25A	EPA	01/07/2008	433.51		36.53		396.98		396.98	
RMW-25A	EPA	04/07/2008	433.51		34.84		398.67		398.67	
RMW-25A	EPA	07/08/2008	433.51		23.81		409.70		409.70	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-25A	EPA	10/07/2008	433.51		29.30		404.21		404.21	
RMW-25B	Main Below D Clay	01/07/2008	433.58	37.45	38.21	396.13	395.37	0.76	395.96	
RMW-25B	Main Below D Clay	04/07/2008	433.58		33.62		399.96		399.96	
RMW-25B	Main Below D Clay	07/08/2008	433.58	24.90	25.64	408.68	407.94	0.74	408.52	
RMW-25B	Main Below D Clay	10/07/2008	433.58	30.57	31.15	403.01	402.43	0.58	402.88	
RMW-26A	North Olive	01/07/2008	432.69							Dry
RMW-26A	North Olive	04/07/2008	432.69							Dry
RMW-26A	North Olive	07/08/2008	432.69		17.58		415.11		415.11	
RMW-26A	North Olive	10/07/2008	432.69		18.84		413.85		413.85	
RMW-26B	B/C Clay Perm Lens	01/07/2008	433.01							Dry
RMW-26B	B/C Clay Perm Lens	04/07/2008	433.01							Dry
RMW-26B	B/C Clay Perm Lens	07/08/2008	433.01		18.36		414.65		414.65	
RMW-26B	B/C Clay Perm Lens	10/07/2008	433.01		20.38		412.63		412.63	
RMW-26C	EPA	01/07/2008	432.79		35.57		397.22		397.22	
RMW-26C	EPA	04/07/2008	432.79		34.19		398.60		398.60	
RMW-26C	EPA	07/08/2008	432.79		22.97		409.82		409.82	
RMW-26C	EPA	10/07/2008	432.79		28.19		404.60		404.60	
RMW-26D	Main Below D Clay	01/07/2008	432.43		36.43		396.00		396.00	
RMW-26D	Main Below D Clay	04/07/2008	432.43		32.71		399.72		399.72	
RMW-26D	Main Below D Clay	07/08/2008	432.43		24.10		408.33		408.33	
RMW-26D	Main Below D Clay	10/07/2008	432.43		29.58		402.85		402.85	
RMW-27A	Main Silt	01/07/2008	429.81		24.97		404.84		404.84	
RMW-27A	Main Silt	04/07/2008	429.81		24.97		404.84		404.84	
RMW-27A	Main Silt	07/08/2008	429.81		24.98		404.83		404.83	
RMW-27A	Main Silt	10/07/2008	429.81		24.96		404.85		404.85	screen interval
RMW-27B	Main Shallow	01/07/2008	429.81		31.93		397.88		397.88	
RMW-27B	Main Shallow	04/07/2008	429.81		30.25		399.56		399.56	
RMW-27B	Main Shallow	07/08/2008	429.81		25.89		403.92		403.92	
RMW-27B	Main Shallow	10/07/2008	429.81		25.89		403.92		403.92	
RMW-28A	North Olive	01/07/2008	432.42		27.29		405.13		405.13	
RMW-28A	North Olive	04/07/2008	432.42		27.27		405.15		405.15	
RMW-28A	North Olive	07/08/2008	432.42		26.41		406.01		406.01	
RMW-28A	North Olive	10/07/2008	432.42		24.73		407.69		407.69	
RMW-28B	EPA	01/07/2008	432.42							NM - Skimmer Pump
RMW-28B	EPA	04/07/2008	432.42							NM - Skimmer Pump
RMW-28B	EPA	07/08/2008	432.42	24.57	24.59	407.85	407.83	0.02	407.85	
RMW-28B	EPA	10/07/2008	432.42	27.82	33.95	404.60	398.47	6.13	403.25	
RMW-28C	Main Below D Clay	01/07/2008	432.54		36.82		395.72		395.72	
RMW-28C	Main Below D Clay	04/07/2008	432.54		32.99		399.55		399.55	
RMW-28C	Main Below D Clay	07/08/2008	432.54		25.08		407.46		407.46	
RMW-28C	Main Below D Clay	10/07/2008	432.54		29.86		402.68		402.68	
RMW-29A	Main Silt	01/07/2008	432.65		36.36		396.29		396.29	
RMW-29A	Main Silt	04/07/2008	432.65		33.83		398.82		398.82	
RMW-29A	Main Silt	07/08/2008	432.65		25.73		406.92		406.92	
RMW-29A	Main Silt	10/07/2008	432.65	29.60	29.89	403.05	402.76	0.29	402.99	
RMW-30A	Main Silt	01/07/2008	428.96		25.33		403.63		403.63	
RMW-30A	Main Silt	04/07/2008	428.96		25.33		403.63		403.63	
RMW-30A	Main Silt	07/08/2008	428.96		21.64		407.32		407.32	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-30A	Main Silt	10/07/2008	428.96		25.32		403.64		403.64	Measured depth to top of fluid (25.32) >= bottom of screen interval
RMW-30B	Main Shallow	01/07/2008	428.89		30.24		398.65		398.65	
RMW-30B	Main Shallow	04/07/2008	428.89		29.41		399.48		399.48	
RMW-30B	Main Shallow	07/08/2008	428.89		21.50		407.39		407.39	
RMW-30B	Main Shallow	10/07/2008	428.89		26.31		402.58		402.58	
RMW-31A	Main Silt	01/07/2008	433.26							Dry
RMW-31A	Main Silt	04/07/2008	433.26							Dry
RMW-31A	Main Silt	07/08/2008	433.26	27.69	28.58	405.57	404.68	0.89	405.37	
RMW-31A	Main Silt	10/07/2008	433.26							Dry
RMW-31B	Main Shallow	01/07/2008	433.35	37.45	42.65	395.90	390.70	5.20	394.76	
RMW-31B	Main Shallow	04/07/2008	433.35		34.35		399.00		399.00	
RMW-31B	Main Shallow	07/08/2008	433.35		26.95		406.40		406.40	
RMW-31B	Main Shallow	10/07/2008	433.35	30.39	36.60	402.96	396.75	6.21	401.59	
RMW-31C	Main Intermediate	01/07/2008	433.05		38.08		394.97		394.97	
RMW-31C	Main Intermediate	04/07/2008	433.05		33.97		399.08		399.08	
RMW-31C	Main Intermediate	07/08/2008	433.05		26.61		406.44		406.44	
RMW-31C	Main Intermediate	10/07/2008	433.05		31.08		401.97		401.97	
RMW-31D	Main Deep	01/07/2008	432.96		38.08		394.88		394.88	
RMW-31D	Main Deep	04/07/2008	432.96		33.88		399.08		399.08	
RMW-31D	Main Deep	07/08/2008	432.96		26.57		406.39		406.39	
RMW-31D	Main Deep	10/07/2008	432.96		31.03		401.93		401.93	
RMW-31E	Main Basal	01/07/2008	432.86		38.81		394.05		394.05	
RMW-31E	Main Basal	04/07/2008	432.86		34.21		398.65		398.65	
RMW-31E	Main Basal	07/08/2008	432.86		27.29		405.57		405.57	
RMW-31E	Main Basal	10/07/2008	432.86		31.76		401.10		401.10	
RMW-32A	Main Silt	01/07/2008	429.52		21.65		407.87		407.87	
RMW-32A	Main Silt	04/07/2008	429.52		21.64		407.88		407.88	
RMW-32A	Main Silt	07/08/2008	429.52		21.63		407.89		407.89	
RMW-32A	Main Silt	10/07/2008	429.52		21.66		407.86		407.86	Measured depth to top of fluid (21.66) >= bottom of screen interval
RMW-32B	Main Shallow	01/07/2008	429.37	33.63	36.98	395.74	392.39	3.35	395.00	
RMW-32B	Main Shallow	04/07/2008	429.37	30.00	32.76	399.37	396.61	2.76	398.76	
RMW-32B	Main Shallow	07/08/2008	429.37	21.44	32.91	407.93	396.46	11.47	405.41	
RMW-32B	Main Shallow	10/07/2008	429.37	26.65	31.15	402.72	398.22	4.50	401.73	
RMW-33A	North Olive	01/07/2008	434.59		22.92		411.67		411.67	
RMW-33A	North Olive	04/07/2008	434.59		19.90		414.69		414.69	
RMW-33A	North Olive	07/08/2008	434.59		17.97		416.62		416.62	
RMW-33A	North Olive	10/07/2008	434.59		20.66		413.93		413.93	
RMW-33B	B/C Clay Perm Lens	01/07/2008	434.51		25.11		409.40		409.40	
RMW-33B	B/C Clay Perm Lens	04/07/2008	434.51		21.61		412.90		412.90	
RMW-33B	B/C Clay Perm Lens	07/08/2008	434.51		18.35		416.16		416.16	
RMW-33B	B/C Clay Perm Lens	10/07/2008	434.51		21.35		413.16		413.16	
RMW-33C	EPA	01/07/2008	434.59		38.06		396.53		396.53	
RMW-33C	EPA	04/07/2008	434.59		35.98		398.61		398.61	
RMW-33C	EPA	07/08/2008	434.59		24.56		410.03		410.03	
RMW-33C	EPA	10/07/2008	434.59		30.48		404.11		404.11	
RMW-33D	Main Below D Clay	01/07/2008	434.64		38.84		395.80		395.80	
RMW-33D	Main Below D Clay	04/07/2008	434.64		35.00		399.64		399.64	

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-33D	Main Below D Clay	07/08/2008	434.64		26.20		408.44		408.44	
RMW-33D	Main Below D Clay	10/07/2008	434.64		32.03		402.61		402.61	
RMW-34A	North Olive	01/07/2008	432.24		20.50		411.74		411.74	
RMW-34A	North Olive	04/07/2008	432.24		11.75		420.49		420.49	
RMW-34A	North Olive	07/08/2008	432.24		9.82		422.42		422.42	
RMW-34A	North Olive	10/07/2008	432.24		12.95		419.29		419.29	
RMW-34B	EPA	01/07/2008	431.81		34.42		397.39		397.39	
RMW-34B	EPA	04/07/2008	431.81		32.75		399.06		399.06	
RMW-34B	EPA	07/08/2008	431.81		21.90		409.91		409.91	
RMW-34B	EPA	10/07/2008	431.81		26.96		404.85		404.85	
RMW-34C	Main Below D Clay	01/07/2008	431.95		35.94		396.01		396.01	
RMW-34C	Main Below D Clay	04/07/2008	431.95		32.46		399.49		399.49	
RMW-34C	Main Below D Clay	07/08/2008	431.95		24.10		407.85		407.85	
RMW-34C	Main Below D Clay	10/07/2008	431.95		29.07		402.88		402.88	
RMW-34D	Main Intermediate	01/07/2008	432.24		36.21		396.03		396.03	
RMW-34D	Main Intermediate	04/07/2008	432.24		32.70		399.54		399.54	
RMW-34D	Main Intermediate	07/08/2008	432.24		24.30		407.94		407.94	
RMW-34D	Main Intermediate	10/07/2008	432.24		29.38		402.86		402.86	
RMW-34E	Main Deep	01/07/2008	432.13		36.08		396.05		396.05	
RMW-34E	Main Deep	04/07/2008	432.13		32.57		399.56		399.56	
RMW-34E	Main Deep	07/08/2008	432.13		24.20		407.93		407.93	
RMW-34E	Main Deep	10/07/2008	432.13		29.27		402.86		402.86	
RMW-34F	Main Basal	01/07/2008	432.26		36.21		396.05		396.05	
RMW-34F	Main Basal	04/07/2008	432.26		32.67		399.59		399.59	
RMW-34F	Main Basal	07/08/2008	432.26		24.28		407.98		407.98	
RMW-34F	Main Basal	10/07/2008	432.26		29.37		402.89		402.89	
RMW-35A	North Olive	01/07/2008	431.99		21.27		410.72		410.72	
RMW-35A	North Olive	04/07/2008	431.99		12.31		419.68		419.68	
RMW-35A	North Olive	07/08/2008	431.99		13.10		418.89		418.89	
RMW-35A	North Olive	10/07/2008	431.99		15.51		416.48		416.48	
RMW-35B	EPA	01/07/2008	432.32		33.84		398.48		398.48	
RMW-35B	EPA	04/07/2008	432.32		28.89		403.43		403.43	
RMW-35B	EPA	07/08/2008	432.32		22.47		409.85		409.85	
RMW-35B	EPA	10/07/2008	432.32		25.00		407.32		407.32	
RMW-35C	Main Below D Clay	01/07/2008	432.06		36.11		395.95		395.95	
RMW-35C	Main Below D Clay	04/07/2008	432.06		32.93		399.13		399.13	
RMW-35C	Main Below D Clay	07/08/2008	432.06		24.85		407.21		407.21	
RMW-35C	Main Below D Clay	10/07/2008	432.06		29.41		402.65		402.65	
RMW-35D	Main Intermediate	01/07/2008	431.70		35.71		395.99		395.99	
RMW-35D	Main Intermediate	04/07/2008	431.70		32.42		399.28		399.28	
RMW-35D	Main Intermediate	07/08/2008	431.70		24.45		407.25		407.25	
RMW-35D	Main Intermediate	10/07/2008	431.70		28.92		402.78		402.78	
RMW-35E	Main Deep	01/07/2008	431.82		35.83		395.99		395.99	
RMW-35E	Main Deep	04/07/2008	431.82		32.57		399.25		399.25	
RMW-35E	Main Deep	07/08/2008	431.82		24.55		407.27		407.27	
RMW-35E	Main Deep	10/07/2008	431.82		29.02		402.80		402.80	
RMW-35F	Main Basal	01/07/2008	432.35		36.27		396.08		396.08	
RMW-35F	Main Basal	04/07/2008	432.35		33.11		399.24		399.24	
RMW-35F	Main Basal	07/08/2008	432.35		25.07		407.28		407.28	

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1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-35F	Main Basal	10/07/2008	432.35		29.50		402.85		402.85	
RMW-36A	North Olive	01/07/2008	431.57		18.63		412.94		412.94	
RMW-36A	North Olive	04/07/2008	431.57		17.41		414.16		414.16	
RMW-36A	North Olive	07/08/2008	431.57		18.69		412.88		412.88	
RMW-36A	North Olive	10/08/2008	431.57		18.76		412.81		412.81	
RMW-36B	EPA	01/07/2008	431.37		33.87		397.50		397.50	
RMW-36B	EPA	04/07/2008	431.37		30.29		401.08		401.08	
RMW-36B	EPA	07/08/2008	431.37		22.85		408.52		408.52	
RMW-36B	EPA	10/07/2008	431.37		25.37		406.00		406.00	
RMW-36C	Main Below D Clay	01/07/2008	431.67		35.71		395.96		395.96	
RMW-36C	Main Below D Clay	04/07/2008	431.67		32.92		398.75		398.75	
RMW-36C	Main Below D Clay	07/08/2008	431.67		25.35		406.32		406.32	
RMW-36C	Main Below D Clay	10/07/2008	431.67		29.01		402.66		402.66	
RMW-36D	Main Intermediate	01/07/2008	431.12		35.12		396.00		396.00	
RMW-36D	Main Intermediate	04/07/2008	431.12		32.39		398.73		398.73	
RMW-36D	Main Intermediate	07/08/2008	431.12		24.86		406.26		406.26	
RMW-36D	Main Intermediate	10/07/2008	431.12		28.44		402.68		402.68	
RMW-36E	Main Deep	01/07/2008	431.02		35.00		396.02		396.02	
RMW-36E	Main Deep	04/07/2008	431.02		32.25		398.77		398.77	
RMW-36E	Main Deep	07/08/2008	431.02		24.72		406.30		406.30	
RMW-36E	Main Deep	10/07/2008	431.02		28.32		402.70		402.70	
RMW-36F	Main Basal	01/07/2008	431.19		35.17		396.02		396.02	
RMW-36F	Main Basal	04/07/2008	431.19		32.40		398.79		398.79	
RMW-36F	Main Basal	07/08/2008	431.19		24.87		406.32		406.32	
RMW-36F	Main Basal	10/07/2008	431.19		28.49		402.70		402.70	
RMW-37A	Main Silt	01/07/2008	431.40		27.95		403.45		403.45	
RMW-37A	Main Silt	04/07/2008	431.40		17.40		414.00		414.00	
RMW-37A	Main Silt	07/08/2008	431.40		15.86		415.54		415.54	
RMW-37A	Main Silt	10/07/2008	431.40		21.11		410.29		410.29	
RMW-37B	Main Shallow	01/07/2008	431.50		34.88		396.62		396.62	
RMW-37B	Main Shallow	04/07/2008	431.50		30.63		400.87		400.87	
RMW-37B	Main Shallow	07/08/2008	431.50		21.80		409.70		409.70	
RMW-37B	Main Shallow	10/07/2008	431.50		27.69		403.81		403.81	
RMW-38A	Main Below D Clay	01/07/2008	433.00							NM - Skimmer Pump
RMW-38A	Main Below D Clay	04/07/2008	433.00							NM - Skimmer Pump
RMW-38A	Main Below D Clay	07/08/2008	433.00	21.22	42.25	411.78	390.75	21.03	407.15	
RMW-38A	Main Below D Clay	10/07/2008	433.00							NM - Skimmer Pump
RMW-39A	Main Silt	01/07/2008	431.06		17.99		413.07		413.07	
RMW-39A	Main Silt	04/07/2008	431.06		18.02		413.04		413.04	
RMW-39A	Main Silt	07/08/2008	431.06							Dry
RMW-39A	Main Silt	10/07/2008	431.06		18.00		413.06		413.06	Measured depth to top of fluid (18.00) >= bottom of screen interval
RMW-39B	Main Silt	01/07/2008	431.29							Dry
RMW-39B	Main Silt	04/07/2008	431.29							Dry
RMW-39B	Main Silt	07/08/2008	431.29							Dry
RMW-39B	Main Silt	10/07/2008	431.29							Dry
RMW-39C	Main Shallow	01/07/2008	431.27		34.67		396.60		396.60	
RMW-39C	Main Shallow	04/07/2008	431.27		33.58		397.69		397.69	
RMW-39C	Main Shallow	07/08/2008	431.27		28.00		403.27		403.27	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)[2]	Comments
RMW-39C	Main Shallow	10/07/2008	431.27		28.52		402.75		402.75	
RMW-40	EPA	01/07/2008	432.41		35.31		397.10		397.10	
RMW-40	EPA	04/07/2008	432.41		33.76		398.65		398.65	
RMW-40	EPA	07/08/2008	432.41		22.60		409.81		409.81	
RMW-40	EPA	10/07/2008	432.41		28.10		404.31		404.31	
RMW-41A	Main Intermediate	01/07/2008	434.03		38.49		395.54		395.54	
RMW-41A	Main Intermediate	04/07/2008	434.03		34.50		399.53		399.53	
RMW-41A	Main Intermediate	07/08/2008	434.03		25.54		408.49		408.49	
RMW-41A	Main Intermediate	10/07/2008	434.03		31.62		402.41		402.41	
RMW-41B	Main Deep	01/07/2008	433.97		38.35		395.62		395.62	
RMW-41B	Main Deep	04/07/2008	433.97		34.32		399.65		399.65	
RMW-41B	Main Deep	07/08/2008	433.97		25.38		408.59		408.59	
RMW-41B	Main Deep	10/07/2008	433.97		31.45		402.52		402.52	
RMW-41C	Main Basal	01/07/2008	434.05		38.33		395.72		395.72	
RMW-41C	Main Basal	04/07/2008	434.05		34.29		399.76		399.76	
RMW-41C	Main Basal	07/08/2008	434.05		25.45		408.60		408.60	
RMW-41C	Main Basal	10/07/2008	434.05		31.42		402.63		402.63	
RMW-42A	North Olive	01/07/2008	431.76		21.80		409.96		409.96	
RMW-42A	North Olive	04/07/2008	431.76		21.80		409.96		409.96	
RMW-42A	North Olive	07/08/2008	431.76		22.80		408.96		408.96	
RMW-42A	North Olive	10/07/2008	431.76							Dry
RMW-42B	EPA	01/07/2008	432.01	35.08	36.11	396.93	395.90	1.03	396.70	
RMW-42B	EPA	04/07/2008	432.01	32.24	33.42	399.77	398.59	1.18	399.51	
RMW-42B	EPA	07/08/2008	432.01	20.08	35.02	411.93	396.99	14.94	408.64	
RMW-42B	EPA	10/07/2008	432.01	26.72	35.47	405.29	396.54	8.75	403.36	
RMW-42C	Main Below D Clay	01/07/2008	431.98		35.88		396.10		396.10	
RMW-42C	Main Below D Clay	04/07/2008	431.98		32.10		399.88		399.88	
RMW-42C	Main Below D Clay	07/08/2008	431.98		23.72		408.26		408.26	
RMW-42C	Main Below D Clay	10/07/2008	431.98		29.00		402.98		402.98	
RMW-43A	Main Intermediate	01/07/2008	433.74		34.73		399.01		399.01	
RMW-43A	Main Intermediate	04/07/2008	433.74		30.49		403.25		403.25	
RMW-43A	Main Intermediate	07/09/2008	433.74		21.46		412.28		412.28	
RMW-43A	Main Intermediate	10/07/2008	433.74		27.62		406.12		406.12	
RMW-43B	Main Deep	01/07/2008	433.25		34.23		399.02		399.02	
RMW-43B	Main Deep	04/07/2008	433.25		29.96		403.29		403.29	
RMW-43B	Main Deep	07/09/2008	433.25		20.95		412.30		412.30	
RMW-43B	Main Deep	10/07/2008	433.25		27.14		406.11		406.11	
RMW-43C	Main Basal	01/07/2008	432.67		33.66		399.01		399.01	
RMW-43C	Main Basal	04/07/2008	432.67		29.41		403.26		403.26	
RMW-43C	Main Basal	07/09/2008	432.67		20.39		412.28		412.28	
RMW-43C	Main Basal	10/07/2008	432.67		26.57		406.10		406.10	
RMW-44A	Main Intermediate	01/07/2008	431.24		35.20		396.04		396.04	
RMW-44A	Main Intermediate	04/07/2008	431.24		34.06		397.18		397.18	
RMW-44A	Main Intermediate	07/08/2008	431.24		28.33		402.91		402.91	
RMW-44A	Main Intermediate	10/07/2008	431.24		29.11		402.13		402.13	
RMW-44B	Main Deep	01/07/2008	431.16		35.16		396.00		396.00	
RMW-44B	Main Deep	04/07/2008	431.16		34.02		397.14		397.14	
RMW-44B	Main Deep	07/08/2008	431.16		28.28		402.88		402.88	
RMW-44B	Main Deep	10/07/2008	431.16		29.02		402.14		402.14	

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RMW-44C	Main Basal	01/07/2008	430.95		34.89		396.06		396.06	
RMW-44C	Main Basal	04/07/2008	430.95		33.74		397.21		397.21	
RMW-44C	Main Basal	07/08/2008	430.95		28.00		402.95		402.95	
RMW-44C	Main Basal	10/07/2008	430.95		28.74		402.21		402.21	
RMW-45A	North Olive	01/07/2008	430.84		16.85		413.99		413.99	
RMW-45A	North Olive	04/07/2008	430.84							Dry
RMW-45A	North Olive	07/08/2008	430.84		16.86		413.98		413.98	
RMW-45A	North Olive	10/07/2008	430.84		16.84		414.00		414.00	Measured depth to top of fluid (16.84) >= bottom of screen interval
RMW-45B	Main Shallow	01/07/2008	430.80							NM - Skimmer Pump
RMW-45B	Main Shallow	04/07/2008	430.80							NM - Skimmer Pump
RMW-45B	Main Shallow	07/08/2008	430.80	18.30	31.91	412.50	398.89	13.61	409.51	
RMW-45B	Main Shallow	10/07/2008	430.80							NM - Skimmer Pump
RMW-45C	Main Shallow	01/07/2008	430.75		34.59		396.16		396.16	
RMW-45C	Main Shallow	04/07/2008	430.75		30.54		400.21		400.21	
RMW-45C	Main Shallow	07/08/2008	430.75		21.40		409.35		409.35	
RMW-45C	Main Shallow	10/07/2008	430.75		27.63		403.12		403.12	
RMW-46A	North Olive	01/07/2008	428.79		14.72		414.07		414.07	
RMW-46A	North Olive	04/07/2008	428.79		14.72		414.07		414.07	
RMW-46A	North Olive	07/08/2008	428.79		14.73		414.06		414.06	
RMW-46A	North Olive	10/07/2008	428.79		14.76		414.03		414.03	Measured depth to top of fluid (14.76) >= bottom of screen interval
RMW-46B	EPA	01/07/2008	429.07		31.89		397.18		397.18	
RMW-46B	EPA	04/07/2008	429.07		30.18		398.89		398.89	
RMW-46B	EPA	07/08/2008	429.07		20.04		409.03		409.03	
RMW-46B	EPA	10/07/2008	429.07		24.96		404.11		404.11	
RMW-46C	Main Below D Clay	01/07/2008	428.98		32.91		396.07		396.07	
RMW-46C	Main Below D Clay	04/07/2008	428.98		29.18		399.80		399.80	
RMW-46C	Main Below D Clay	07/08/2008	428.98		20.78		408.20		408.20	
RMW-46C	Main Below D Clay	10/07/2008	428.98		26.03		402.95		402.95	
RMW-47A	North Olive	01/07/2008	433.82		22.11		411.71		411.71	
RMW-47A	North Olive	04/07/2008	433.82		22.14		411.68		411.68	
RMW-47A	North Olive	07/08/2008	433.82		21.26		412.56		412.56	
RMW-47A	North Olive	10/07/2008	433.82		21.90		411.92		411.92	Measured depth to top of fluid (21.90) >= bottom of screen interval
RMW-47B	EPA	01/07/2008	433.50	37.10	38.67	396.40	394.83	1.57	396.05	
RMW-47B	EPA	04/07/2008	433.50						399.27	0800 Transducer Reading
RMW-47B	EPA	07/08/2008	433.50	21.29	34.66	412.21	398.84	13.37	409.27	
RMW-47B	EPA	10/07/2008	433.50							NM - Skimmer Pump
RMW-47C	Main Below D Clay	01/07/2008	433.48		37.48		396.00		396.00	
RMW-47C	Main Below D Clay	04/07/2008	433.48		33.60		399.88		399.88	
RMW-47C	Main Below D Clay	07/08/2008	433.48		24.36		409.12		409.12	
RMW-47C	Main Below D Clay	10/07/2008	433.48		30.74		402.74		402.74	
RMW-48A	North Olive	01/07/2008	433.82		17.53		416.29		416.29	
RMW-48A	North Olive	04/07/2008	433.82		17.51		416.31		416.31	
RMW-48A	North Olive	07/08/2008	433.82		17.52		416.30		416.30	
RMW-48A	North Olive	10/07/2008	433.82		17.53		416.29		416.29	Measured depth to top of fluid (17.53) >= bottom of screen interval
RMW-48B	Main Shallow	01/07/2008	434.16							NM - Skimmer Pump

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-48B	Main Shallow	04/07/2008	434.16							NM - Skimmer Pump
RMW-48B	Main Shallow	07/08/2008	434.16	22.09	37.12	412.07	397.04	15.03	408.76	
RMW-48B	Main Shallow	10/07/2008	434.16							NM - Skimmer Pump
RMW-49A	North Olive	01/07/2008	429.86		16.11		413.75		413.75	
RMW-49A	North Olive	04/07/2008	429.86		16.09		413.77		413.77	
RMW-49A	North Olive	07/08/2008	429.86		16.09		413.77		413.77	
RMW-49A	North Olive	10/07/2008	429.86		16.12		413.74		413.74	Measured depth to top of fluid (16.12) >= bottom of screen interval
RMW-49B	Main Shallow	01/07/2008	429.96	33.58	34.20	396.38	395.76	0.62	396.24	
RMW-49B	Main Shallow	04/07/2008	429.96		29.62		400.34		400.34	
RMW-49B	Main Shallow	07/08/2008	429.96		20.55		409.41		409.41	
RMW-49B	Main Shallow	10/07/2008	429.96	26.69	26.93	403.27	403.03	0.24	403.22	
RMW-50A	Main Shallow	01/07/2008	431.82		33.75		398.07		398.07	
RMW-50A	Main Shallow	04/07/2008	431.82		29.95		401.87		401.87	
RMW-50A	Main Shallow	07/09/2008	431.82		21.10		410.72		410.72	
RMW-50A	Main Shallow	10/07/2008	431.82		26.62		405.20		405.20	
RMW-50B	Main Intermediate	01/07/2008	431.66		33.75		397.91		397.91	
RMW-50B	Main Intermediate	04/07/2008	431.66		29.76		401.90		401.90	
RMW-50B	Main Intermediate	07/09/2008	431.66		21.02		410.64		410.64	
RMW-50B	Main Intermediate	10/07/2008	431.66		26.65		405.01		405.01	
RMW-50C	Main Deep	01/07/2008	431.64		33.73		397.91		397.91	
RMW-50C	Main Deep	04/07/2008	431.64		29.71		401.93		401.93	
RMW-50C	Main Deep	07/09/2008	431.64		21.00		410.64		410.64	
RMW-50C	Main Deep	10/07/2008	431.64		26.63		405.01		405.01	
RMW-50D	Main Basal	01/07/2008	431.60		33.60		398.00		398.00	
RMW-50D	Main Basal	04/07/2008	431.60		29.64		401.96		401.96	
RMW-50D	Main Basal	07/09/2008	431.60		20.92		410.68		410.68	
RMW-50D	Main Basal	10/07/2008	431.60		26.51		405.09		405.09	
RMW-51A	Main Shallow	01/07/2008	428.59		29.82		398.77		398.77	
RMW-51A	Main Shallow	04/07/2008	428.59		27.01		401.58		401.58	
RMW-51A	Main Shallow	07/08/2008	428.59		17.00		411.59		411.59	
RMW-51A	Main Shallow	10/07/2008	428.59		22.31		406.28		406.28	
RMW-51B	Main Intermediate	01/07/2008	428.42		29.91		398.51		398.51	
RMW-51B	Main Intermediate	04/07/2008	428.42		25.70		402.72		402.72	
RMW-51B	Main Intermediate	07/08/2008	428.42		16.30		412.12		412.12	
RMW-51B	Main Intermediate	10/07/2008	428.42		22.80		405.62		405.62	
RMW-51C	Main Deep	01/07/2008	428.70		30.19		398.51		398.51	
RMW-51C	Main Deep	04/07/2008	428.70		25.98		402.72		402.72	
RMW-51C	Main Deep	07/08/2008	428.70		16.56		412.14		412.14	
RMW-51C	Main Deep	10/07/2008	428.70		23.10		405.60		405.60	
RMW-51D	Main Basal	01/07/2008	428.20		29.72		398.48		398.48	
RMW-51D	Main Basal	04/07/2008	428.20		25.55		402.65		402.65	
RMW-51D	Main Basal	07/08/2008	428.20		16.15		412.05		412.05	
RMW-51D	Main Basal	10/07/2008	428.20		22.63		405.57		405.57	
RMW-52A	Main Shallow	01/07/2008	432.37		32.90		399.47		399.47	
RMW-52A	Main Shallow	04/07/2008	432.37		28.75		403.62		403.62	
RMW-52A	Main Shallow	07/10/2008	432.37		20.12		412.25		412.25	
RMW-52A	Main Shallow	10/07/2008	432.37		25.61		406.76		406.76	
RMW-52B	Main Intermediate	01/07/2008	432.30		32.88		399.42		399.42	

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1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-52B	Main Intermediate	04/07/2008	432.30		28.53		403.77		403.77	
RMW-52B	Main Intermediate	07/10/2008	432.30		20.10		412.20		412.20	
RMW-52B	Main Intermediate	10/07/2008	432.30		25.80		406.50		406.50	
RMW-52C	Main Deep	01/07/2008	432.26		32.80		399.46		399.46	
RMW-52C	Main Deep	04/07/2008	432.26		28.49		403.77		403.77	
RMW-52C	Main Deep	07/10/2008	432.26		20.05		412.21		412.21	
RMW-52C	Main Deep	10/07/2008	432.26		25.75		406.51		406.51	
RMW-52D	Main Basal	01/07/2008	432.21		32.74		399.47		399.47	
RMW-52D	Main Basal	04/07/2008	432.21		28.43		403.78		403.78	
RMW-52D	Main Basal	07/10/2008	432.21		19.95		412.26		412.26	
RMW-52D	Main Basal	10/07/2008	432.21		25.70		406.51		406.51	
RMW-53A	Main Intermediate	01/07/2008	433.55		33.72		399.83		399.83	
RMW-53A	Main Intermediate	04/07/2008	433.55		29.28		404.27		404.27	
RMW-53A	Main Intermediate	07/09/2008	433.55		20.34		413.21		413.21	
RMW-53A	Main Intermediate	10/07/2008	433.55		26.75		406.80		406.80	
RMW-53B	Main Deep	01/07/2008	433.46		33.59		399.87		399.87	
RMW-53B	Main Deep	04/07/2008	433.46		29.18		404.28		404.28	
RMW-53B	Main Deep	07/09/2008	433.46		20.22		413.24		413.24	
RMW-53B	Main Deep	10/07/2008	433.46		26.65		406.81		406.81	
RMW-53C	Main Basal	01/07/2008	433.46		33.60		399.86		399.86	
RMW-53C	Main Basal	04/07/2008	433.46		29.21		404.25		404.25	
RMW-53C	Main Basal	07/09/2008	433.46		20.27		413.19		413.19	
RMW-53C	Main Basal	10/07/2008	433.46		26.64		406.82		406.82	
RMW-54A	Main Intermediate	01/07/2008	431.80		31.88		399.92		399.92	
RMW-54A	Main Intermediate	04/07/2008	431.80		27.96		403.84		403.84	
RMW-54A	Main Intermediate	07/09/2008	431.80		19.22		412.58		412.58	
RMW-54A	Main Intermediate	10/07/2008	431.80		24.94		406.86		406.86	
RMW-54B	Main Basal	01/07/2008	431.70		31.78		399.92		399.92	
RMW-54B	Main Basal	04/07/2008	431.70		27.88		403.82		403.82	
RMW-54B	Main Basal	07/09/2008	431.70		19.12		412.58		412.58	
RMW-54B	Main Basal	10/07/2008	431.70		24.82		406.88		406.88	
RMW-54C	Main Deep	01/07/2008	431.59		31.66		399.93		399.93	
RMW-54C	Main Deep	04/07/2008	431.59		27.78		403.81		403.81	
RMW-54C	Main Deep	07/09/2008	431.59		19.00		412.59		412.59	
RMW-54C	Main Deep	10/07/2008	431.59		24.71		406.88		406.88	
RMW-55A	Main Intermediate	01/07/2008	429.86		29.95		399.91		399.91	
RMW-55A	Main Intermediate	04/07/2008	429.86		26.53		403.33		403.33	
RMW-55A	Main Intermediate	07/09/2008	429.86		18.05		411.81		411.81	
RMW-55A	Main Intermediate	10/07/2008	429.86		23.03		406.83		406.83	
RMW-55B	Main Deep	01/07/2008	429.99		30.08		399.91		399.91	
RMW-55B	Main Deep	04/07/2008	429.99		26.65		403.34		403.34	
RMW-55B	Main Deep	07/09/2008	429.99		18.19		411.80		411.80	
RMW-55B	Main Deep	10/07/2008	429.99		23.16		406.83		406.83	
RMW-55C	Main Basal	01/07/2008	430.06		30.14		399.92		399.92	
RMW-55C	Main Basal	04/07/2008	430.06		26.71		403.35		403.35	
RMW-55C	Main Basal	07/09/2008	430.06		18.25		411.81		411.81	
RMW-55C	Main Basal	10/07/2008	430.06		23.22		406.84		406.84	
RMW-56A	EPA	01/07/2008	434.71	39.98	40.93	394.73	393.78	0.95	394.52	
RMW-56A	EPA	04/07/2008	434.71	37.68	39.69	397.03	395.02	2.01	396.59	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-56A	EPA	07/08/2008	434.71	24.89	24.91	409.82	409.80	0.02	409.82	
RMW-56A	EPA	10/07/2008	434.71	31.64	35.61	403.07	399.10	3.97	402.20	
RMW-56B	Main Below D Clay	01/07/2008	434.61		40.15		394.46		394.46	
RMW-56B	Main Below D Clay	04/07/2008	434.61		36.30		398.31		398.31	
RMW-56B	Main Below D Clay	07/08/2008	434.61		27.02		407.59		407.59	
RMW-56B	Main Below D Clay	10/07/2008	434.61		33.01		401.60		401.60	
RMW-57A	EPA	01/07/2008	434.23	38.08	39.58	396.15	394.65	1.50	395.82	
RMW-57A	EPA	04/07/2008	434.23	34.58	36.92	399.65	397.31	2.34	399.14	
RMW-57A	EPA	07/08/2008	434.23	21.72	36.40	412.51	397.83	14.68	409.28	
RMW-57A	EPA	10/07/2008	434.23	30.48	34.13	403.75	400.10	3.65	402.95	
RMW-57B	Main Below D Clay	01/07/2008	434.19		38.37		395.82		395.82	
RMW-57B	Main Below D Clay	04/07/2008	434.19		34.35		399.84		399.84	
RMW-57B	Main Below D Clay	07/08/2008	434.19		25.30		408.89		408.89	
RMW-57B	Main Below D Clay	10/07/2008	434.19		31.49		402.70		402.70	
RMW-58A	EPA	01/07/2008	430.93	32.31	35.19	398.62	395.74	2.88	397.99	
RMW-58A	EPA	04/07/2008	430.93	30.94	34.37	399.99	396.56	3.43	399.24	
RMW-58A	EPA	07/08/2008	430.93	20.29	33.72	410.64	397.21	13.43	407.69	
RMW-58A	EPA	10/07/2008	430.93	23.55	33.50	407.38	397.43	9.95	405.19	
RMW-58B	Main Below D Clay	01/07/2008	430.98	34.70	34.95	396.28	396.03	0.25	396.23	
RMW-58B	Main Below D Clay	04/07/2008	430.98		32.02		398.96		398.96	
RMW-58B	Main Below D Clay	07/08/2008	430.98		24.58		406.40		406.40	
RMW-58B	Main Below D Clay	10/07/2008	430.98		29.15		401.83		401.83	
RMW-59A	EPA	01/07/2008	430.83	32.95	35.21	397.88	395.62	2.26	397.38	
RMW-59A	EPA	04/07/2008	430.83	31.36	34.40	399.47	396.43	3.04	398.80	
RMW-59A	EPA	07/08/2008	430.83	20.18	34.75	410.65	396.08	14.57	407.44	
RMW-59A	EPA	10/07/2008	430.83	23.36	33.75	407.47	397.08	10.39	405.18	
RMW-59B	Main Below D Clay	01/07/2008	430.97		34.77		396.20		396.20	
RMW-59B	Main Below D Clay	04/07/2008	430.97		31.97		399.00		399.00	
RMW-59B	Main Below D Clay	07/08/2008	430.97		24.55		406.42		406.42	
RMW-59B	Main Below D Clay	10/07/2008	430.97		28.14		402.83		402.83	
RMW-60A	North Olive	01/07/2008	430.79							Dry
RMW-60A	North Olive	04/07/2008	430.79		17.70		413.09		413.09	
RMW-60A	North Olive	07/08/2008	430.79		17.74		413.05		413.05	
RMW-60A	North Olive	10/07/2008	430.79		17.49		413.30		413.30	Measured depth to top of fluid (17.49) >= bottom of screen interval
RMW-60B	EPA	01/07/2008	430.78	32.31	35.30	398.47	395.48	2.99	397.81	
RMW-60B	EPA	04/07/2008	430.78	30.72	34.51	400.06	396.27	3.79	399.23	
RMW-60B	EPA	07/08/2008	430.78	20.06	33.71	410.72	397.07	13.65	407.72	
RMW-60B	EPA	10/07/2008	430.78	23.22	33.75	407.56	397.03	10.53	405.24	
RMW-60C	Main Below D Clay	01/07/2008	430.78	33.16	40.07	397.62	390.71	6.91	396.10	
RMW-60C	Main Below D Clay	04/07/2008	430.78		31.79		398.99		398.99	
RMW-60C	Main Below D Clay	07/08/2008	430.78	24.34	24.36	406.44	406.42	0.02	406.44	
RMW-60C	Main Below D Clay	10/07/2008	430.78		27.95		402.83		402.83	
RMW-61A	EPA	01/07/2008	429.91	31.75	33.25	398.16	396.66	1.50	397.83	
RMW-61A	EPA	04/07/2008	429.91	29.88	32.48	400.03	397.43	2.60	399.46	
RMW-61A	EPA	07/08/2008	429.91	19.00	32.59	410.91	397.32	13.59	407.92	
RMW-61A	EPA	10/07/2008	429.91	23.08	32.11	406.83	397.80	9.03	404.84	
RMW-61B	Main Below D Clay	01/07/2008	429.71		33.82		395.89		395.89	
RMW-61B	Main Below D Clay	04/07/2008	429.71		30.40		399.31		399.31	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-61B	Main Below D Clay	07/08/2008	429.71		22.78		406.93		406.93	
RMW-61B	Main Below D Clay	10/07/2008	429.71		26.98		402.73		402.73	
RMW-62A	EPA	01/07/2008	429.70	31.61	32.71	398.09	396.99	1.10	397.85	
RMW-62A	EPA	04/07/2008	429.70	30.08	31.03	399.62	398.67	0.95	399.41	
RMW-62A	EPA	07/08/2008	429.70	19.16	31.99	410.54	397.71	12.83	407.72	
RMW-62A	EPA	10/07/2008	429.70	23.91	31.98	405.79	397.72	8.07	404.01	
RMW-62B	Main Below D Clay	01/07/2008	429.52		33.61		395.91		395.91	
RMW-62B	Main Below D Clay	04/07/2008	429.52		30.21		399.31		399.31	
RMW-62B	Main Below D Clay	07/08/2008	429.52		22.64		406.88		406.88	
RMW-62B	Main Below D Clay	10/07/2008	429.52		26.76		402.76		402.76	
RMW-63A	North Olive	01/07/2008	429.75		13.71		416.04		416.04	
RMW-63A	North Olive	04/07/2008	429.75		11.11		418.64		418.64	
RMW-63A	North Olive	07/08/2008	429.75		10.23		419.52		419.52	
RMW-63A	North Olive	10/07/2008	429.75		10.04		419.71		419.71	
RMW-63B	EPA	01/07/2008	429.63		31.73		397.90		397.90	
RMW-63B	EPA	04/07/2008	429.63		30.22		399.41		399.41	
RMW-63B	EPA	07/08/2008	429.63		22.12		407.51		407.51	
RMW-63B	EPA	10/07/2008	429.63		25.01		404.62		404.62	
RMW-63C	Main Below D Clay	01/07/2008	429.53		30.59		398.94		398.94	
RMW-63C	Main Below D Clay	04/07/2008	429.53		30.23		399.30		399.30	
RMW-63C	Main Below D Clay	07/08/2008	429.53		22.67		406.86		406.86	
RMW-63C	Main Below D Clay	10/07/2008	429.53		26.75		402.78		402.78	
RMW-64B	EPA	01/07/2008	433.52	37.00	37.73	396.52	395.79	0.73	396.36	
RMW-64B	EPA	04/07/2008	433.52		34.55		398.97		398.97	
RMW-64B	EPA	07/08/2008	433.52	21.40	34.96	412.12	398.56	13.56	409.14	
RMW-64B	EPA	10/07/2008	433.52	28.61	34.80	404.91	398.72	6.19	403.55	
RMW-64C	Main Below D Clay	01/07/2008	433.61	37.67	37.73	395.94	395.88	0.06	395.93	
RMW-64C	Main Below D Clay	04/07/2008	433.61	33.75	33.80	399.86	399.81	0.05	399.85	
RMW-64C	Main Below D Clay	07/08/2008	433.61	24.85	24.90	408.76	408.71	0.05	408.75	
RMW-64C	Main Below D Clay	10/07/2008	433.61		30.76		402.85		402.85	
RMW-65A	Main Silt	01/07/2008	433.79		30.09		403.70		403.70	
RMW-65A	Main Silt	04/07/2008	433.79		30.13		403.66		403.66	
RMW-65A	Main Silt	07/08/2008	433.79		30.12		403.67		403.67	
RMW-65A	Main Silt	10/07/2008	433.79		30.09		403.70		403.70	Measured depth to top of fluid (30.09) >= bottom of screen interval
RMW-65B	Main Shallow	01/07/2008	433.90		37.61		396.29		396.29	
RMW-65B	Main Shallow	04/07/2008	433.90		36.39		397.51		397.51	
RMW-65B	Main Shallow	07/08/2008	433.90		30.50		403.40		403.40	
RMW-65B	Main Shallow	10/07/2008	433.90		31.42		402.48		402.48	
RMW-65C	Main Intermediate	01/07/2008	433.80		37.51		396.29		396.29	
RMW-65C	Main Intermediate	04/07/2008	433.80		36.24		397.56		397.56	
RMW-65C	Main Intermediate	07/08/2008	433.80		30.31		403.49		403.49	
RMW-65C	Main Intermediate	10/07/2008	433.80		31.32		402.48		402.48	
RMW-65D	Main Deep	01/07/2008	433.70		37.36		396.34		396.34	
RMW-65D	Main Deep	04/07/2008	433.70		36.10		397.60		397.60	
RMW-65D	Main Deep	07/08/2008	433.70		30.16		403.54		403.54	
RMW-65D	Main Deep	10/07/2008	433.70		31.18		402.52		402.52	
RMW-65E	Main Basal	01/07/2008	433.78		37.42		396.36		396.36	
RMW-65E	Main Basal	04/07/2008	433.78		36.14		397.64		397.64	

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-65E	Main Basal	07/08/2008	433.78		30.21		403.57		403.57	
RMW-65E	Main Basal	10/07/2008	433.78		31.24		402.54		402.54	
RMW-66A	Main Silt	01/07/2008	430.15		25.72		404.43		404.43	
RMW-66A	Main Silt	04/07/2008	430.15		25.75		404.40		404.40	
RMW-66A	Main Silt	07/08/2008	430.15		25.74		404.41		404.41	
RMW-66A	Main Silt	10/07/2008	430.15		25.70		404.45		404.45	Measured depth to top of fluid (25.70) >= bottom of screen interval
RMW-66B	Main Shallow	01/07/2008	430.09		33.77		396.32		396.32	
RMW-66B	Main Shallow	04/07/2008	430.09		32.81		397.28		397.28	
RMW-66B	Main Shallow	07/08/2008	430.09		27.56		402.53		402.53	
RMW-66B	Main Shallow	10/07/2008	430.09		27.76		402.33		402.33	
RMW-66C	Main Intermediate	01/07/2008	430.19		33.84		396.35		396.35	
RMW-66C	Main Intermediate	04/07/2008	430.19		32.87		397.32		397.32	
RMW-66C	Main Intermediate	07/08/2008	430.19		27.61		402.58		402.58	
RMW-66C	Main Intermediate	10/07/2008	430.19		27.80		402.39		402.39	
RMW-66D	Main Deep	01/07/2008	429.89		33.54		396.35		396.35	
RMW-66D	Main Deep	04/07/2008	429.89		32.58		397.31		397.31	
RMW-66D	Main Deep	07/08/2008	429.89		27.31		402.58		402.58	
RMW-66D	Main Deep	10/07/2008	429.89		27.50		402.39		402.39	
RMW-66E	Main Basal	01/07/2008	429.99		33.64		396.35		396.35	
RMW-66E	Main Basal	04/07/2008	429.99		32.69		397.30		397.30	
RMW-66E	Main Basal	07/08/2008	429.99		27.42		402.57		402.57	
RMW-66E	Main Basal	10/07/2008	429.99		27.60		402.39		402.39	
RMW-67A	Main Silt	01/07/2008	430.99		25.98		405.01		405.01	
RMW-67A	Main Silt	04/07/2008	430.99		26.09		404.90		404.90	
RMW-67A	Main Silt	07/08/2008	430.99		26.14		404.85		404.85	
RMW-67A	Main Silt	10/07/2008	430.99		26.10		404.89		404.89	Measured depth to top of fluid (26.10) >= bottom of screen interval
RMW-67B	Main Shallow	01/07/2008	431.12		34.84		396.28		396.28	
RMW-67B	Main Shallow	04/07/2008	431.12						396.81	12:01 Transducer Reading
RMW-67B	Main Shallow	07/08/2008	431.12		30.00		401.12		401.12	
RMW-67B	Main Shallow	10/07/2008	431.12		29.15		401.97		401.97	
RMW-67C	Main Intermediate	01/07/2008	430.94		34.63		396.31		396.31	
RMW-67C	Main Intermediate	04/07/2008	430.94		34.15		396.79		396.79	
RMW-67C	Main Intermediate	07/08/2008	430.94		29.84		401.10		401.10	
RMW-67C	Main Intermediate	10/07/2008	430.94		28.97		401.97		401.97	
RMW-68A	North Olive	01/07/2008	432.70		18.64		414.06		414.06	
RMW-68A	North Olive	04/08/2008	432.70		18.64		414.06		414.06	
RMW-68A	North Olive	07/09/2008	432.70		18.67		414.03		414.03	
RMW-68A	North Olive	10/07/2008	432.70		18.50		414.20		414.20	Measured depth to top of fluid (18.50) >= bottom of screen interval
RMW-68B	B/C Clay Perm Lens	01/07/2008	432.92	27.61	29.76	405.31	403.16	2.15	404.84	
RMW-68B	B/C Clay Perm Lens	04/08/2008	432.92	25.89	29.76	407.03	403.16	3.87	406.18	
RMW-68B	B/C Clay Perm Lens	07/09/2008	432.92	20.37	29.80	412.55	403.12	9.43	410.48	
RMW-68B	B/C Clay Perm Lens	10/07/2008	432.92	21.62	29.77	411.30	403.15	8.15	409.51	
RMW-68C	EPA	01/07/2008	432.76		34.40		398.36		398.36	
RMW-68C	EPA	04/08/2008	432.76		32.72		400.04		400.04	
RMW-68C	EPA	07/09/2008	432.76		25.34		407.42		407.42	
RMW-68C	EPA	10/07/2008	432.76		27.48		405.28		405.28	

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1190505040 -- Madison County -- ILR 000128249
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-68D	Main Below D Clay	01/07/2008	432.63		35.97		396.66		396.66	
RMW-68D	Main Below D Clay	04/08/2008	432.63		33.17		399.46		399.46	
RMW-68D	Main Below D Clay	07/09/2008	432.63		26.36		406.27		406.27	
RMW-68D	Main Below D Clay	10/07/2008	432.63		29.27		403.36		403.36	
RMW-68E	Main Intermediate	01/07/2008	432.51		35.85		396.66		396.66	
RMW-68E	Main Intermediate	04/08/2008	432.51		33.05		399.46		399.46	
RMW-68E	Main Intermediate	07/09/2008	432.51		26.22		406.29		406.29	
RMW-68E	Main Intermediate	10/07/2008	432.51		29.12		403.39		403.39	
RMW-68F	Main Deep	01/07/2008	432.51		35.82		396.69		396.69	
RMW-68F	Main Deep	04/08/2008	432.51		33.00		399.51		399.51	
RMW-68F	Main Deep	07/09/2008	432.51		26.21		406.30		406.30	
RMW-68F	Main Deep	10/07/2008	432.51		29.13		403.38		403.38	
RMW-68G	Main Basal	01/07/2008	432.46		35.76		396.70		396.70	
RMW-68G	Main Basal	04/08/2008	432.46		32.99		399.47		399.47	
RMW-68G	Main Basal	07/09/2008	432.46		26.15		406.31		406.31	
RMW-68G	Main Basal	10/07/2008	432.46		29.01		403.45		403.45	
RMW-69A	North Olive	01/07/2008	432.35		15.02		417.33		417.33	
RMW-69A	North Olive	04/07/2008	432.35		11.62		420.73		420.73	
RMW-69A	North Olive	07/09/2008	432.35		9.91		422.44		422.44	
RMW-69A	North Olive	10/07/2008	432.35		11.15		421.20		421.20	
RMW-69B	EPA	01/07/2008	432.41	33.75	34.52	398.66	397.89	0.77	398.49	
RMW-69B	EPA	04/07/2008	432.41	32.36	33.58	400.05	398.83	1.22	399.78	
RMW-69B	EPA	07/09/2008	432.41	25.51	28.74	406.90	403.67	3.23	406.19	
RMW-69B	EPA	10/07/2008	432.41	26.14	32.33	406.27	400.08	6.19	404.91	
RMW-69C	Main Below D Clay	01/07/2008	432.43		35.09		397.34		397.34	
RMW-69C	Main Below D Clay	04/07/2008	432.43		33.29		399.14		399.14	
RMW-69C	Main Below D Clay	07/09/2008	432.43		27.04		405.39		405.39	
RMW-69C	Main Below D Clay	10/07/2008	432.43		28.62		403.81		403.81	
RMW-69D	Main Intermediate	01/07/2008	432.43		35.09		397.34		397.34	
RMW-69D	Main Intermediate	04/07/2008	432.43		33.20		399.23		399.23	
RMW-69D	Main Intermediate	07/09/2008	432.43		26.97		405.46		405.46	
RMW-69D	Main Intermediate	10/07/2008	432.43		28.60		403.83		403.83	
RMW-69E	Main Deep	01/07/2008	432.56		35.20		397.36		397.36	
RMW-69E	Main Deep	04/07/2008	432.56		33.27		399.29		399.29	
RMW-69E	Main Deep	07/09/2008	432.56		27.10		405.46		405.46	
RMW-69E	Main Deep	10/07/2008	432.56		28.73		403.83		403.83	
RMW-69F	Main Basal	01/07/2008	432.69		35.33		397.36		397.36	
RMW-69F	Main Basal	04/07/2008	432.69		33.51		399.18		399.18	
RMW-69F	Main Basal	07/09/2008	432.69		27.23		405.46		405.46	
RMW-69F	Main Basal	10/07/2008	432.69		28.86		403.83		403.83	
RMW-70A	North Olive	01/07/2008	432.21		20.02		412.19		412.19	
RMW-70A	North Olive	04/07/2008	432.21		16.99		415.22		415.22	
RMW-70A	North Olive	07/09/2008	432.21		16.69		415.52		415.52	
RMW-70A	North Olive	10/07/2008	432.21		17.94		414.27		414.27	
RMW-70B	Main Silt	01/07/2008	432.30		23.07		409.23		409.23	
RMW-70B	Main Silt	04/07/2008	432.30		17.22		415.08		415.08	
RMW-70B	Main Silt	07/09/2008	432.30		16.85		415.45		415.45	
RMW-70B	Main Silt	10/07/2008	432.30		18.16		414.14		414.14	
RMW-70C	Main Shallow	01/07/2008	432.24		34.47		397.77		397.77	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation[1] (ft)	Comments
RMW-70C	Main Shallow	04/07/2008	432.24		32.52		399.72		399.72	
RMW-70C	Main Shallow	07/09/2008	432.24		25.99		406.25		406.25	
RMW-70C	Main Shallow	10/07/2008	432.24		27.89		404.35		404.35	
RMW-70D	Main Intermediate	01/07/2008	432.07		34.27		397.80		397.80	
RMW-70D	Main Intermediate	04/07/2008	432.07		32.32		399.75		399.75	
RMW-70D	Main Intermediate	07/09/2008	432.07		25.80		406.27		406.27	
RMW-70D	Main Intermediate	10/07/2008	432.07		27.70		404.37		404.37	
RMW-70E	Main Deep	01/07/2008	428.64		30.76		397.88		397.88	
RMW-70E	Main Deep	04/07/2008	428.64		28.90		399.74		399.74	
RMW-70E	Main Deep	07/09/2008	428.64		22.54		406.10		406.10	
RMW-70E	Main Deep	10/07/2008	428.64		24.29		404.35		404.35	
RMW-70F	Main Basal	01/07/2008	428.83		31.10		397.73		397.73	
RMW-70F	Main Basal	04/07/2008	428.83		29.15		399.68		399.68	
RMW-70F	Main Basal	07/09/2008	428.83		22.67		406.16		406.16	
RMW-70F	Main Basal	10/07/2008	428.83		24.55		404.28		404.28	
RMW-71A	Main Intermediate	01/07/2008	428.94		29.89		399.05		399.05	
RMW-71A	Main Intermediate	04/07/2008	428.94		28.67		400.27		400.27	
RMW-71A	Main Intermediate	07/08/2008	428.94		25.48		403.46		403.46	
RMW-71A	Main Intermediate	10/07/2008	428.94		24.05		404.89		404.89	
RMW-71B	Main Deep	01/07/2008	428.76		29.66		399.10		399.10	
RMW-71B	Main Deep	04/07/2008	428.76		28.45		400.31		400.31	
RMW-71B	Main Deep	07/08/2008	428.76		25.38		403.38		403.38	
RMW-71B	Main Deep	10/07/2008	428.76		23.91		404.85		404.85	
RMW-71C	Main Basal	01/07/2008	428.71		29.61		399.10		399.10	
RMW-71C	Main Basal	04/07/2008	428.71		28.40		400.31		400.31	
RMW-71C	Main Basal	07/08/2008	428.71		25.32		403.39		403.39	
RMW-71C	Main Basal	10/07/2008	428.71							NM - Could not Access
RMW-72A	North Olive	01/07/2008	429.26							Dry
RMW-72A	North Olive	04/07/2008	429.26		17.96		411.30		411.30	
RMW-72A	North Olive	07/08/2008	429.26							Dry
RMW-72A	North Olive	10/07/2008	429.26							Dry
RMW-72B	EPA	01/07/2008	429.30							NM - Skimmer Pump
RMW-72B	EPA	04/07/2008	429.30							NM - Skimmer Pump
RMW-72B	EPA	07/09/2008	429.30	21.10	21.60	408.20	407.70	0.50	408.09	
RMW-72B	EPA	10/07/2008	429.30							NM - ICE Unit
RMW-72C	Main Below D Clay	01/07/2008	429.36		33.29		396.07		396.07	
RMW-72C	Main Below D Clay	04/07/2008	429.36		29.44		399.92		399.92	
RMW-72C	Main Below D Clay	07/08/2008	429.36		21.07		408.29		408.29	
RMW-72C	Main Below D Clay	10/07/2008	429.36		26.37		402.99		402.99	
RMW-73A	North Olive	01/07/2008	430.15		16.05		414.10		414.10	
RMW-73A	North Olive	04/07/2008	430.15		15.86		414.29		414.29	
RMW-73A	North Olive	07/08/2008	430.15		14.91		415.24		415.24	
RMW-73A	North Olive	10/07/2008	430.15		14.47		415.68		415.68	
RMW-73B	EPA	01/07/2008	430.12	32.71	32.72	397.41	397.40	0.01	397.41	
RMW-73B	EPA	04/08/2008	430.12	30.55	30.85	399.57	399.27	0.30	399.50	
RMW-73B	EPA	07/08/2008	430.12	22.47	22.78	407.65	407.34	0.31	407.58	
RMW-73B	EPA	10/07/2008	430.12	25.77	26.13	404.35	403.99	0.36	404.27	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-73C	Main Below D Clay	01/07/2008	430.16		34.55		395.61		395.61	
RMW-73C	Main Below D Clay	04/08/2008	430.16		30.56		399.60		399.60	
RMW-73C	Main Below D Clay	07/08/2008	430.16		23.24		406.92		406.92	
RMW-73C	Main Below D Clay	10/07/2008	430.16		27.64		402.52		402.52	
RMW-80A	EPA	01/07/2008	430.23		34.21		396.02		396.02	
RMW-80A	EPA	04/07/2008	430.08		27.47		402.61		402.61	
RMW-80A	EPA	07/08/2008	430.08		19.69		410.39		410.39	
RMW-80A	EPA	10/07/2008	430.08		23.44		406.64		406.64	
RMW-80B	Main Below D Clay	01/07/2008	430.15		33.89		396.26		396.26	
RMW-80B	Main Below D Clay	04/07/2008	430.01		30.75		399.26		399.26	
RMW-80B	Main Below D Clay	07/08/2008	430.01		22.80		407.21		407.21	
RMW-80B	Main Below D Clay	10/07/2008	430.01		27.20		402.81		402.81	
RMW-81A	North Olive	01/07/2008	430.88							Dry
RMW-81A	North Olive	04/07/2008	430.85		18.57		412.28		412.28	
RMW-81A	North Olive	07/08/2008	430.85		18.57		412.28		412.28	
RMW-81A	North Olive	10/07/2008	430.85		18.59		412.26		412.26	Measured depth to top of fluid (18.59) >= bottom of screen interval
RMW-81B	EPA	01/07/2008	431.00	32.36	36.09	398.64	394.91	3.73	397.82	
RMW-81B	EPA	04/07/2008	430.99	30.22	34.88	400.77	396.11	4.66	399.74	
RMW-81B	EPA	07/08/2008	430.99	20.64	31.77	410.35	399.22	11.13	407.90	
RMW-81B	EPA	10/07/2008	430.99	23.31	33.41	407.68	397.58	10.10	405.46	
RMW-81C	Main Below D Clay	01/08/2008	431.08	34.73	34.78	396.35	396.30	0.05	396.34	
RMW-81C	Main Below D Clay	04/07/2008	431.07		32.16		398.91		398.91	
RMW-81C	Main Below D Clay	07/08/2008	431.07	24.75	24.80	406.32	406.27	0.05	406.31	
RMW-81C	Main Below D Clay	10/07/2008	431.07		28.23		402.84		402.84	
RMW-82A	North Olive	01/07/2008	427.67		10.25		417.42		417.42	
RMW-82A	North Olive	04/07/2008	427.66		10.27		417.39		417.39	
RMW-82A	North Olive	07/08/2008	427.66		9.85		417.81		417.81	
RMW-82A	North Olive	10/07/2008	427.66		11.23		416.43		416.43	
RMW-82B	EPA	01/07/2008	427.86	31.28	31.60	396.58	396.26	0.32	396.51	
RMW-82B	EPA	04/07/2008	427.85	29.34	30.22	398.51	397.63	0.88	398.32	
RMW-82B	EPA	07/08/2008	427.85	20.21	28.61	407.64	399.24	8.40	405.79	
RMW-82B	EPA	10/07/2008	427.85	22.79	30.35	405.06	397.50	7.56	403.40	
RMW-82C	Main Below D Clay	01/07/2008	427.73	30.90	31.34	396.83	396.39	0.44	396.73	
RMW-82C	Main Below D Clay	04/07/2008	427.72	29.07	30.38	398.65	397.34	1.31	398.36	
RMW-82C	Main Below D Clay	07/08/2008	427.72	22.10	22.42	405.62	405.30	0.32	405.55	
RMW-82C	Main Below D Clay	10/07/2008	427.72	24.84	25.10	402.88	402.62	0.26	402.82	
RMW-83A	North Olive	01/07/2008	433.19		14.45		418.74		418.74	
RMW-83A	North Olive	04/07/2008	433.22		13.90		419.32		419.32	
RMW-83A	North Olive	07/08/2008	433.22		13.44		419.78		419.78	
RMW-83A	North Olive	10/07/2008	433.22		13.66		419.56		419.56	
RMW-83B	Main Shallow	01/07/2008	433.09	35.98	38.81	397.11	394.28	2.83	396.49	
RMW-83B	Main Shallow	04/08/2008	433.10	34.20	36.99	398.90	396.11	2.79	398.29	
RMW-83B	Main Shallow	07/08/2008	433.10	26.01	35.80	407.09	397.30	9.79	404.94	
RMW-83B	Main Shallow	10/07/2008	433.10	28.37	36.40	404.73	396.70	8.03	402.96	
RMW-84A	North Olive	01/07/2008	433.33		14.43		418.90		418.90	
RMW-84A	North Olive	04/07/2008	433.33		13.71		419.62		419.62	
RMW-84A	North Olive	07/08/2008	433.33		13.95		419.38		419.38	
RMW-84A	North Olive	10/07/2008	433.33		13.65		419.68		419.68	

TABLE 4
SUMMARY OF 2008 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER
Wells Located in Premcor Facility

1190505040 -- Madison County – ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-84B	EPA	01/07/2008	433.47	36.38	38.52	397.09	394.95	2.14	396.62	
RMW-84B	EPA	04/07/2008	433.48	34.99	36.71	398.49	396.77	1.72	398.11	
RMW-84B	EPA	07/08/2008	433.48	26.84	35.77	406.64	397.71	8.93	404.68	
RMW-84B	EPA	10/07/2008	433.48	28.71	36.45	404.77	397.03	7.74	403.07	
RMW-84C	Main Below D Clay	01/07/2008	433.53		36.98		396.55		396.55	
RMW-84C	Main Below D Clay	04/07/2008	433.54		35.23		398.31		398.31	
RMW-84C	Main Below D Clay	07/08/2008	433.54		28.80		404.74		404.74	
RMW-84C	Main Below D Clay	10/07/2008	433.54		30.67		402.87		402.87	
RMW-85A	North Olive	01/07/2008	430.32		14.17		416.15		416.15	
RMW-85A	North Olive	04/07/2008	430.32		12.00		418.32		418.32	
RMW-85A	North Olive	07/08/2008	430.32		11.67		418.65		418.65	
RMW-85A	North Olive	10/07/2008	430.32		10.01		420.31		420.31	
RMW-85B	EPA	01/07/2008	430.20	31.66	33.12	398.54	397.08	1.46	398.22	
RMW-85B	EPA	04/07/2008	430.18	29.92	33.47	400.26	396.71	3.55	399.48	
RMW-85B	EPA	07/08/2008	430.18	19.65	33.34	410.53	396.84	13.69	407.52	
RMW-85B	EPA	10/07/2008	430.18	22.60	33.75	407.58	396.43	11.15	405.13	
RMW-85C	Main Below D Clay	01/07/2008	430.23		33.75		396.48		396.48	
RMW-85C	Main Below D Clay	04/07/2008	430.22		30.95		399.27		399.27	
RMW-85C	Main Below D Clay	07/08/2008	430.22		23.61		406.61		406.61	
RMW-85C	Main Below D Clay	10/07/2008	430.22		27.06		403.16		403.16	
RMW-86A	North Olive	01/07/2008	433.49		21.43		412.06		412.06	
RMW-86A	North Olive	04/07/2008	433.47		21.46		412.01		412.01	
RMW-86A	North Olive	07/08/2008	433.47		21.45		412.02		412.02	
RMW-86A	North Olive	10/07/2008	433.47		21.43		412.04		412.04	Measured depth to top of fluid (21.43) >= bottom of screen interval
RMW-86B	EPA	01/07/2008	433.53	36.47	37.83	397.06	395.70	1.36	396.76	
RMW-86B	EPA	04/07/2008	433.50	33.81	37.61	399.69	395.89	3.80	398.85	
RMW-86B	EPA	07/08/2008	433.50	26.53	32.01	406.97	401.49	5.48	405.76	
RMW-86B	EPA	10/07/2008	433.50	29.00	34.53	404.50	398.97	5.53	403.28	
RMW-86C	Main Below D Clay	01/07/2008	433.46		36.70		396.76		396.76	
RMW-86C	Main Below D Clay	04/07/2008	433.39		34.58		398.81		398.81	
RMW-86C	Main Below D Clay	07/08/2008	433.39		27.75		405.64		405.64	
RMW-86C	Main Below D Clay	10/07/2008	433.39		30.21		403.18		403.18	
RMW-87A	North Olive	01/07/2008	429.30		15.34		413.96		413.96	
RMW-87A	North Olive	04/07/2008	429.27		12.44		416.83		416.83	
RMW-87A	North Olive	07/08/2008	429.27		11.12		418.15		418.15	
RMW-87A	North Olive	10/07/2008	429.27		11.77		417.50		417.50	
RMW-87B	EPA	01/07/2008	429.38	31.85	33.96	397.53	395.42	2.11	397.07	
RMW-87B	EPA	04/07/2008	429.37	29.53	32.90	399.84	396.47	3.37	399.10	
RMW-87B	EPA	07/08/2008	429.37	20.67	33.29	408.70	396.08	12.62	405.92	
RMW-87B	EPA	10/07/2008	429.37	23.60	33.49	405.77	395.88	9.89	403.59	
RMW-87C	Main Below D Clay	01/07/2008	428.97		31.94		397.03		397.03	
RMW-87C	Main Below D Clay	04/07/2008	428.93		29.85		399.08		399.08	
RMW-87C	Main Below D Clay	07/08/2008	428.93		23.11		405.82		405.82	
RMW-87C	Main Below D Clay	10/07/2008	428.93		25.42		403.51		403.51	
RMW-88A	EPA	01/07/2008	428.32	28.52	32.87	399.80	395.45	4.35	398.85	
RMW-88A	EPA	04/07/2008	428.30	27.30	32.07	401.00	396.23	4.77	399.95	
RMW-88A	EPA	07/09/2008	428.30	18.15	30.55	410.15	397.75	12.40	407.42	
RMW-88A	EPA	10/07/2008	428.30	20.56	30.73	407.74	397.57	10.17	405.50	

TABLE 4
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Comments
RMW-88B	Main Below D Clay	01/07/2008	428.30	30.92	31.57	397.38	396.73	0.65	397.24	
RMW-88B	Main Below D Clay	04/07/2008	428.29	28.74	29.13	399.55	399.16	0.39	399.46	
RMW-88B	Main Below D Clay	07/09/2008	428.29	22.08	22.45	406.21	405.84	0.37	406.13	
RMW-88B	Main Below D Clay	10/07/2008	428.29	24.41	24.79	403.88	403.50	0.38	403.80	
RMW-89A	Main Silt	01/07/2008	429.06		24.55		404.51		404.51	
RMW-89A	Main Silt	04/07/2008	429.09		24.57		404.52		404.52	
RMW-89A	Main Silt	07/09/2008	429.09		23.37		405.72		405.72	
RMW-89A	Main Silt	10/07/2008	429.09		22.34		406.75		406.75	
RMW-89B	Main Shallow	01/07/2008	428.98	29.30	39.00	399.68	389.98	9.70	397.55	
RMW-89B	Main Shallow	04/07/2008	429.01	28.12	33.33	400.89	395.68	5.21	399.74	
RMW-89B	Main Shallow	07/09/2008	429.01	21.83	23.41	407.18	405.60	1.58	406.83	
RMW-89B	Main Shallow	10/07/2008	429.01	22.33	35.15	406.68	393.86	12.82	403.86	
RMW-90A	Main Silt	01/07/2008	430.01		26.52		403.49		403.49	
RMW-90A	Main Silt	04/08/2008	430.00	26.27	26.55	403.73	403.45	0.28	403.67	
RMW-90A	Main Silt	07/09/2008	430.00	21.18	26.59	408.82	403.41	5.41	407.63	
RMW-90A	Main Silt	10/07/2008	430.00	21.45	26.54	408.55	403.46	5.09	407.43	
RMW-90B	Main Shallow	01/07/2008	429.83	31.85	37.33	397.98	392.50	5.48	396.77	
RMW-90B	Main Shallow	04/08/2008	429.83	28.67	37.35	401.16	392.48	8.68	399.25	
RMW-90B	Main Shallow	07/09/2008	429.83	21.20		408.63				
RMW-90B	Main Shallow	10/07/2008	429.83	25.68	36.10	404.15	393.73	10.42	401.86	
RMW-91A	A Clay Perm Lens	01/07/2008	428.96		11.20		417.76		417.76	
RMW-91A	A Clay Perm Lens	04/07/2008	428.95		10.24		418.71		418.71	
RMW-91A	A Clay Perm Lens	07/08/2008	428.95		9.00		419.95		419.95	
RMW-91A	A Clay Perm Lens	10/07/2008	428.95		8.70		420.25		420.25	
RMW-91B	EPA	01/07/2008	428.54	31.42	33.22	397.12	395.32	1.80	396.72	
RMW-91B	EPA	04/07/2008	428.61	30.26	30.51	398.35	398.10	0.25	398.30	
RMW-91B	EPA	07/08/2008	428.61	22.24	30.22	406.37	398.39	7.98	404.61	
RMW-91B	EPA	10/07/2008	428.61	24.01	30.65	404.60	397.96	6.64	403.14	
RMW-91C	Main Below D Clay	01/07/2008	428.86		32.10		396.76		396.76	
RMW-91C	Main Below D Clay	04/07/2008	428.86		30.42		398.44		398.44	
RMW-91C	Main Below D Clay	07/08/2008	428.86		24.10		404.76		404.76	
RMW-91C	Main Below D Clay	10/07/2008	428.86		25.77		403.09		403.09	
RMW-92A	Main Silt	01/07/2008	431.65							Dry
RMW-92A	Main Silt	04/07/2008	431.59							Dry
RMW-92A	Main Silt	07/08/2008	431.59							Dry
RMW-92A	Main Silt	10/07/2008	431.59							Dry
RMW-92B	Main Shallow	01/07/2008	431.78		35.00		396.78		396.78	
RMW-92B	Main Shallow	04/07/2008	431.73		33.89		397.84		397.84	
RMW-92B	Main Shallow	07/08/2008	431.73		28.65		403.08		403.08	
RMW-92B	Main Shallow	10/08/2008	431.73		29.13		402.60		402.60	
RMW-93A	North Olive	01/07/2008	429.19							Dry
RMW-93A	North Olive	04/07/2008	429.19		20.17		409.02		409.02	
RMW-93A	North Olive	07/08/2008	429.19		18.65		410.54		410.54	
RMW-93A	North Olive	10/07/2008	429.19		19.95		409.24		409.24	Measured depth to top of fluid (19.95) >= bottom of screen interval
RMW-93B	EPA	01/07/2008	429.18	32.14	35.94	397.04	393.24	3.80	396.20	
RMW-93B	EPA	04/07/2008	429.18	28.52	31.26	400.66	397.92	2.74	400.06	
RMW-93B	EPA	07/08/2008	429.18	17.35	31.84	411.83	397.34	14.49	408.64	
RMW-93B	EPA	10/07/2008	429.18	24.68	31.45	404.50	397.73	6.77	403.01	

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RMW-94A	North Olive	01/07/2008	429.61		19.52		410.09		410.09	
RMW-94A	North Olive	04/07/2008	429.61		19.50		410.11		410.11	
RMW-94A	North Olive	07/08/2008	429.61		19.51		410.10		410.10	
RMW-94A	North Olive	10/07/2008	429.61		19.55		410.06		410.06	Measured depth to top of fluid (19.55) >= bottom of screen interval
RMW-94B	Main Shallow	01/07/2008	429.56	32.61	35.67	396.95	393.89	3.06	396.28	
RMW-94B	Main Shallow	04/07/2008	429.56	29.08	29.79	400.48	399.77	0.71	400.32	
RMW-94B	Main Shallow	07/08/2008	429.56	18.65	27.75	410.91	401.81	9.10	408.91	
RMW-94B	Main Shallow	10/07/2008	429.56	25.66	28.95	403.90	400.61	3.29	403.18	
RMW-95	Main Shallow	01/07/2008	429.68							NM - ICE Unit
RMW-95	Main Shallow	04/07/2008	429.68	29.03	30.70	400.65	398.98	1.67	400.28	
RMW-95	Main Shallow	07/08/2008	429.68	17.62	30.75	412.06	398.93	13.13	409.17	
RMW-95	Main Shallow	10/07/2008	429.68	25.61	29.84	404.07	399.84	4.23	403.14	
RMW-96	Main Shallow	01/07/2008	429.68							NM - ICE Unit
RMW-96	Main Shallow	04/07/2008	429.68	28.98	31.00	400.70	398.68	2.02	400.26	
RMW-96	Main Shallow	07/08/2008	429.68	17.55	31.38	412.13	398.30	13.83	409.09	
RMW-96	Main Shallow	10/07/2008	429.68	25.08	32.04	404.60	397.64	6.96	403.07	
RMW-97	Main Shallow	01/07/2008	429.83	33.13	35.11	396.70	394.72	1.98	396.26	
RMW-97	Main Shallow	04/07/2008	429.83	29.16	31.37	400.67	398.46	2.21	400.18	
RMW-97	Main Shallow	07/08/2008	429.83	17.62	31.75	412.21	398.08	14.13	409.10	
RMW-97	Main Shallow	10/07/2008	429.83	25.15	32.27	404.68	397.56	7.12	403.11	
RMW-98A	Main Silt	01/07/2008	429.75		24.28		405.47		405.47	
RMW-98A	Main Silt	04/07/2008	429.75		24.28		405.47		405.47	
RMW-98A	Main Silt	07/08/2008	429.75		21.68		408.07		408.07	
RMW-98A	Main Silt	10/08/2008	429.75	22.12	22.55	407.63	407.20	0.43	407.54	
RMW-98B	Main Silt	01/07/2008	429.69	33.10	33.71	396.59	395.98	0.61	396.46	
RMW-98B	Main Silt	04/07/2008	429.69	29.10	29.75	400.59	399.94	0.65	400.45	
RMW-98B	Main Silt	07/08/2008	429.69	21.26	21.40	408.43	408.29	0.14	408.40	
RMW-98B	Main Silt	10/07/2008	429.69	25.99	28.24	403.70	401.45	2.25	403.20	
RPW-01	EPA/Main	01/08/2008	431.36	42.95	43.28	388.41	388.08	0.33	388.34	
RPW-01	EPA/Main	04/07/2008	433.47	39.27	42.73	394.20	390.74	3.46	393.44	
RPW-01	EPA/Main	07/08/2008	433.49	22.29	41.20	411.20	392.29	18.91	407.04	TOC currently estimated
RPW-01	EPA/Main	10/10/2008	433.49	34.80	39.55	398.69	393.94	4.75	397.64	NM - Well Under Rehab. Estimated TOC elevation
SVE-01D	EPA	01/07/2008	430.66							NM-Unable to access
SVE-01D	EPA	04/07/2008	430.66							NM - Could not locate
SVE-01D	EPA	07/08/2008	430.66							NM - Could not locate
SVE-01D	EPA	10/07/2008	430.66							NM - Could not locate
SVE-01S	North Olive	01/07/2008	431.11		24.68		406.43		406.43	
SVE-01S	North Olive	04/07/2008	431.11							NM - Could not locate
SVE-01S	North Olive	07/08/2008	431.11							NM - Could not locate
SVE-01S	North Olive	10/07/2008	431.11							NM - Could not locate
T-01	Main Shallow	01/07/2008	431.44							NM - Skimmer Pump
T-01	Main Shallow	04/07/2008	431.44							NM - Skimmer Pump
T-01	Main Shallow	07/08/2008	431.44	21.11	21.14	410.33	410.30	0.03	410.32	
T-01	Main Shallow	10/07/2008	431.44							NM - Skimmer Pump
TH2-88	Main Shallow	01/07/2008	430.88		33.60		397.28		397.28	
TH2-88	Main Shallow	04/07/2008	430.88		31.49		399.39		399.39	
TH2-88	Main Shallow	07/09/2008	430.88		24.96		405.92		405.92	
TH2-88	Main Shallow	10/07/2008	430.88		27.18		403.70		403.70	

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NOTES:
NM = Not Measured
[1] Piezometric Surface Elevation = [Water Surface Elevation] + SG [Hydrocarbon Thickness]
SG = Specific gravity of hydrocarbon determined to be an average of 0.78 on the Premcor facility for data recorded during and after 9/03.
TOC elevations surveyed to USGS datum by CMT.
Top of casing elevation changes present in the table indicate that the associated wells have been re-surveyed.

TABLE 5
COMPOUND/ANALYTE LIST FOR WATER SAMPLES - VOCs & Inorganics
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249
The Hartford Working Group / Hartford, Illinois

PARAMETER	PREPARATION METHOD		ANALYTICAL METHOD		COMPOUND	METHOD DETECTION LIMIT (MDL) (a)	PRACTICAL QUANTITATION LIMIT (PQL) (a)	PROJECT DETECTION LIMIT (PDL) (b)
	Source	Method No.	Source	Method No.				
VOCs						(µg/L)	(µg/L)	(µg/L)
	SW-846	5030	SW-846	8260	Benzene	0.5	2	5
	SW-846	5030	SW-846	8260	Ethylbenzene	1	5	700
	SW-846	5030	SW-846	8260	Methyl tertiary butyl ether (MTBE)	0.5	2	70
	SW-846	5030	SW-846	8260	Toluene	1	5	1,000
	SW-846	5030	SW-846	8260	Xylenes (total)	1	5	10,000
Metals						(mg/L)	(mg/L)	(mg/L)
	SW-846	3020A	SW-846	7041	Antimony	0.0017	0.005	0.006
	SW-846	3020A	SW-846	7060A	Arsenic	0.0007	0.003	0.05
	SW-846	3005A	SW-846	6010	Barium	0.0024	0.005	2.0
	SW-846	3005A	SW-846	6010	Beryllium	0.0003	0.001	0.004
	SW-846	3005A	SW-846	6010	Cadmium	0.0003	0.002	0.005
	SW-846	3005A	SW-846	6010	Chromium-Total	0.004	0.01	0.1
	SW-846	3005A	SW-846	6010	Cobalt	0.0022	0.01	1.0
	SW-846	3005A	SW-846	6010	Iron	0.007	0.02	5.0
	SW-846	3020A	SW-846	7421	Lead	0.0004	0.002	0.0075
	–	–	SW-846	7470	Mercury	0.000051	0.0002	0.002
	SW-846	3005A	SW-846	6010	Nickel	0.0033	0.01	0.1
	SW-846	3020A	SW-846	7740	Selenium	0.0035	0.006	0.05
	SW-846	3005A	SW-846	6010	Silver	0.003	0.01	0.05
	SW-846	3005A	SW-846	6010	Vanadium	0.0032	0.01	0.049
	SW-846	3005A	SW-846	6010	Zinc	0.0021	0.01	5.0

TABLE 5

COMPOUND/ANALYTE LIST FOR WATER SAMPLES - VOCs & Inorganics

The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249

The Hartford Working Group / Hartford, Illinois

PARAMETER	PREPARATION METHOD		ANALYTICAL METHOD		COMPOUND	METHOD DETECTION LIMIT (MDL) [a]	PRACTICAL QUANTITATION LIMIT (PQL) [a]	PROJECT DETECTION LIMIT (PDL) [b]
	Source	Method No.	Source	Method No.				
General						(mg/L)	(mg/L)	(mg/L)
	–	–	Standard Method	M2320B	Alkalinity, Total (as, Ca, CO_3)	0	0	NA
	–	–	EPA Method	E350.1	Ammonia as N	0.04	0.1	NA
	–	–	SW-846	9251.0	Chloride	0.6	1	200
	–	–	Standard Method	M5220D	COD	7.3	20	NA
	–	–	SW-846	9010B, 9014	Cyanide Total	0.003	0.007	0.2
	–	–	SW-846	9012A	Cyanide Total	0.003	0.007	0.2
	–	–	Standard Method	M2340C	Hardness (as, Ca, CO_3)	3	5	NA
	–	–	EPA Method	E353.2	Nitrate as N	0.010	0.05	10.0
	–	–	EPA Method	E353.2	Nitrate-Nitrite	0.010	0.05	NA
	–	–	EPA Method	E353.2	Nitrite as N	0.01	0.05	NA
	–	–	EPA Method	E353.3	Nitrite as N	0.01	0.01	NA
	–	–	EPA Method	E365.2	Phosphorus as P	0.01	0.02	NA
	–	–	EPA Method	E365.4	Phosphorus as P	0.02	0.02	NA
	–	–	EPA Method	E365.2 (D)	Phosphorus, Dissolved as P	0.01	0.02	NA
	–	–	EPA Method	E365.4 (D)	Phosphorus, Dissolved as P	0.02	0.02	NA
	–	–	SW-846	9036.0	Sulfate	40	40	400
	–	–	SW-846	9038.0	Sulfate	1.0	5	400
	–	–	Standard Method	M4500SD	Sulfide	0.013	0.50	NA
	–	–	Standard Method	M2540C	Total Dissolved Solids	10	20	NA
	–	–	EPA Method	E415.1	Total Organic Carbon	0.5	1	NA
	–	–	Standard Method	M2540D	Total Suspended Solids	5	6	NA

NOTES:

µg/L = Micrograms per liter

mg/L = Milligrams per liter [except for ph (unitless)]

[a] = Method detection limit and practical quantitation limit as identified by Teklab, Inc. (Hennessy, 2007)

[b] = Project detection limit (PDL) is the IPCB TACO Tier 1 Class I Groundwater Remediation Objective (02/15/07)

NA = Not available

– = Not applicable

TABLE 6
SAMPLE CONTAINER, PRESERVATION, AND HOLDING TIME REQUIREMENTS FOR WATER SAMPLES
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249
The Hartford Working Group / Hartford, Illinois

PARAMETER	ANALYSIS	HOLDING TIME	CONTAINER	PRESERVATION
Organics	BTEX and MTBE	14 days	3-40 ml VOC vials	HCl to pH < 2, no headspace Maintained at 4 +/- 2 degrees Celcius
Metals	Inorganic Metals	180 days	500 ml plastic jar	HNO_3 to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Mercury	28 days		
General	Alkalinity	14 days	1 L plastic jar	Maintained at 4 +/- 2 degrees Celcius
	Chloride	28 days		
	Sulfate	28 days		
	Hardness	180 days		
	Nitrite	48 hours		
	Total Dissolved Solids (TDS)	7 days		
	Total Suspended Solids (TSS)	7 days		
	Total Cyanide	14 days	250 ml plastic jar	NaOH to pH>12 Maintained at 4 +/- 2 degrees Celcius
	Chemical Oxygen Demand (COD)	28 days	500 ml plastic jar	H2SO4 to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Ammonia, Total	28 days		
	Phosphorus, Total	28 days		
	Nitrate +/- Nitrite	28 days		
	Phosphorus, Dissolved	28 days	250 ml plastic	H2SO4 to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Total Organic Carbon (TOC)	28 days	125 ml plastic	H2SO4 to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Sulfide, Total	7 days	250 ml plastic jar	NaOH and ZnAcetate to pH>9 Maintained at 4 +/- 2 degrees Celcius

Table 7
Summary of Groundwater Analytical Results - BTEX and MTBE - October 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent				
		Benzene	Toluene	Ethylbenzene	Xylene (total)	Methyl tert-butyl ether (MTBE)
TACO Comparison Value		5 ug/l	1,000 ug/l	700 ug/l	10,000 ug/l	70 ug/l
HMW-025	10/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-026	10/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-027	10/09/2008	2 U	5 U	5 U	5 U	0.9 J
HMW-028	10/08/2008	2 U	5 U	5 U	5 U	2 U
HMW-029	10/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-038C[1]	10/13/2008	4,200	50 J	189	874	50 U
HMW-038C	10/13/2008	4,090	50 J	180	819	50 U
HMW-039B	10/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-039C	10/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-040B	10/21/2008	2 U	5 U	5 U	5 U	2 U
HMW-040C	10/13/2008	2 U	5 U	5 U	5 U	2 U
HMW-043C	10/13/2008	264	31 J	26 J	62.4	20 U
HMW-044D	10/13/2008	483	50 U	50 U	11 J	20 U
HMW-045B	10/21/2008	1,260	125 U	125 U	50 J	26 J
HMW-047B	10/21/2008	2 U	5 U	5 U	5 U	2 U
HMW-047C	10/15/2008	6,070	280 J	1,040	2,270	150 J
HMW-048A	10/16/2008	23,300	1,000 U	3,360	9,390	400 U
HMW-048B	10/16/2008	10,900	240 J	2,280	4,560	200 U
HMW-048D	10/16/2008	5,610	250 U	250 U	250 U	85 J
HMW-049B	10/14/2008	78.2	25 U	28	16 J	10 U
HMW-049C	10/10/2008	1,150	1,010	598	2,880	59
HMW-049D[1]	10/10/2008	2,860	51 J	125 U	34 J	136
HMW-049D	10/10/2008	2,750	48 J	125 U	36 J	132
HMW-050A	10/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-050B	10/13/2008	2 U	5 U	5 U	5 U	2 U
HMW-050C	10/14/2008	4.3	2.2 J	5 U	1 J	0.8 J
HMW-052B	10/21/2008	2 U	5 U	5 U	5 U	2 U
HMW-052C	10/16/2008	2 U	5 US	5 U	5 US	2 U
HMW-053C	10/16/2008	14.8	3 J	5 U	1.3 J	2 U
HMW-054C	10/16/2008	2.8	1.8 JS	5 U	1.4 JS	2 U
MP-033D	10/17/2008	12,400	7,750	1,260	5,300	500 U
MP-040C	10/17/2008	16,700	17,700	1,560	7,290	200 U
MP-058C[1]	10/15/2008	21,100	19,200	1,040	12,600	200 U
MP-058C	10/15/2008	21,100	19,200	1,100	12,700	200 U
MP-059C[1]	10/15/2008	12,500	13,200	2,140	11,300	200 U
MP-059C	10/15/2008	12,300	12,700	2,200 J	10,600	1,000 U
MP-078D	10/17/2008	13,200	18,100	2,300 J	11,400	1,000 U
MP-081C	10/10/2008	2 U	5 U	5 U	5 U	2 U
MP-083C	10/17/2008	11,900	15,700	1,320	6,110	400 U
MP-085B	10/20/2008	2 U	5 U	5 U	5 U	2 U
MP-085C	10/15/2008	45	3,690 S	2,500	10,900	50 U
MP-085D	10/17/2008	11,300	100 J	130 J	210 J	200 U
MP-086C	10/17/2008	21,800	14,700	1,380	8,620	400 U
MP-089C	10/10/2008	2 U	5 U	5 U	5 U	2 U
MP-092D	10/10/2008	2 U	5 U	5 U	5 U	2 U

Notes:

= Exceeds Screening Criteria

1 = Duplicate Sample

U = Not Detected (value preceding "U" is reporting limit)

J = Estimated value

S = Spike recovery outside acceptable recovery limits

B = Analyte detected in associated method blank

NA = Not analyzed

R = RPD outside acceptable recovery limits

E = Value above quantitation range

H = Holding time exceeded

Q = QC criteria failed or noncompliant CCV

All units are in ug/L-milligrams per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO), last amended February 15, 2007. TACO values used for comparison purposes only.

Table 8
Summary of Groundwater Analytical Results - Metals - October 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent																													
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)	Lead	Lead (Dissolved)	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.006 mg/l	0.006 mg/l	0.05 mg/l	0.05 mg/l	2 mg/l	2 mg/l	0.004 mg/l	0.004 mg/l	0.005 mg/l	0.005 mg/l	0.1 mg/l	0.1 mg/l	1 mg/l	1 mg/l	5 mg/l	5 mg/l	0.0075 mg/l	0.0075 mg/l	0.002 mg/l	0.002 mg/l	0.1 mg/l	0.1 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.049 mg/l	0.049 mg/l	5 mg/l	5 mg/l
HMW-025	10/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.317	0.307	0.001 U	0.001 U	0.0003 J	0.0003 J	0.01 U	0.01 U	0.0022 J	0.01 U	0.0394	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0053 J	0.0047 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0036 J	0.003 J
HMW-026	10/09/2008	0.005 U	0.005 U	0.0015 J	0.0017 J	0.13	0.13	0.001 U	0.001 U	0.0003 J	0.0003 J	0.01 U	0.01 U	0.0068 J	0.0056 J	19.1	20	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0031 J	0.003 J
HMW-027	10/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.128	0.119	0.001 U	0.001 U	0.0006 J	0.0003 J	0.01 U	0.01 U	0.0095 J	0.0084 J	0.449	0.0597	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0162	0.0154	0.006 U	0.006 U	0.0034 J	0.01 U	0.01 U	0.01 U	0.0061 J	0.0033 J
HMW-028	10/08/2008	0.005 U	0.005 U	0.0008 J	0.0007 J	0.0993	0.0912	0.001 U	0.001 U	0.0004 J	0.0003 J	0.01 U	0.01 U	0.0067 J	0.01 U	0.0533	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.013	0.0119	0.0051 J	0.011 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0095 J
HMW-029	10/09/2008	0.005 U	0.005 U	0.0009 J	0.003 U	0.115	0.105	0.001 U	0.001 U	0.0006 J	0.0006 J	0.01 U	0.01 U	0.0074 J	0.0053 J	0.979	0.131	0.002 U	0.002 U	0.0002 U	0.0002 U	0.012	0.0106	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0122	0.0098 J
HMW-038C[1]	10/13/2008	0.005 U	0.005 U	0.0863	0.0855	0.305	0.269	0.001 U	0.001 U	0.0007 J	0.0003 J	0.01 U	0.01 U	0.0172 U	0.0136 U	30.7	29.6	0.0045	0.003	0.0002 U	0.0002 U	0.0078 J	0.004 J	0.0037 J	0.0037 J	0.0033 J	0.0033 J	0.0072 J	0.0112	0.0397	0.01 U
HMW-038C	10/13/2008	0.005 U	0.005 U	0.0863	0.0877	0.27	0.274	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.016 U	0.011 U	29.7	32.8 S	0.0042	0.0029	0.0002 U	0.0002 U	0.0084 J	0.01 U	0.0046 J	0.0038 J	0.01 U	0.01 U	0.0073 J	0.0138	0.0581	0.01 U
HMW-039B	10/14/2008	0.005 U	0.005 U	0.001 J	0.003 U	0.198	0.188	0.001 U	0.001 U	0.0003 J	0.0005 J	0.01 U	0.01 U	0.0022 J	0.01 U	0.0422	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0123 U	0.0118
HMW-039C	10/14/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.508	0.486	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0022 J	0.0026 J	5.26	4.88	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0026 J
HMW-040B	10/21/2008	0.005 US	0.005 U	0.0009 J	0.0009 J	0.406	0.387	0.001 U	0.001 U	0.002 U	0.002 U	0.0042 J	0.01 U	0.0022 J	0.0024 J	0.12	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0079 J	0.0059 J	0.0077	0.0077	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0029 J
HMW-040C	10/13/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.283	0.265	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.116	0.02 U	0.002 U	0.0005 J	0.0002 U	0.0002 U	0.0047 J	0.01 U	0.006 U	0.0064	0.01 U	0.01 U	0.01 U	0.01 U	0.0152	0.0083 J
HMW-043C	10/13/2008	0.005 U	0.005 U	0.0146	0.014	0.166	0.142	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0106 U	0.01 U	8.47 S	8.53	0.002 U	0.002 U	0.0002 U	0.0002 U	0.007 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.009 J	0.0245	0.0074 J
HMW-044D	10/13/2008	0.005 US	0.005 U	0.0011 J	0.003 U	0.507	0.527	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	8.67	9.34	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 UJ	0.006 U	0.01 U	0.01 U	0.01 U	0.0088 J	0.0184	0.0045 J
HMW-045B	10/21/2008	0.005 U	0.005 U	0.0906	0.0334	0.394	0.367	0.001 U	0.001 U	0.002 U	0.0003 J	0.0047 J	0.01 U	0.0362	0.0179	24.2	8.49	0.0032	0.0018 J	0.0002 U	0.0002 U	0.0223	0.0131	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0109 U	0.0049 J
HMW-047C	10/15/2008	0.005 U	0.005 U	0.0057	0.0042 U	0.501	0.489	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0073 J	0.008 J	27.2	26.4	0.0138 J	0.0096	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0112 U	0.01 U
HMW-048A	10/16/2008	0.002 J	0.0022 J	0.176	0.17	0.726	0.702	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0097 J	0.01	33.3 S	32.6	0.104	0.0743	0.0002 U	0.0002 U	0.0113	0.01	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-048B	10/16/2008	0.005 U	0.005 U	0.0869	0.114 S	0.601	0.635	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0082 J	0.0089 J	42	41.6	0.0081	0.0088	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0151	0.01 U
HMW-048D	10/16/2008	0.005 UJ	0.005 U	0.0011 J	0.003 U	0.127	0.359	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0053 J	0.0061 J	34.3	27.5 S	0.002 U	0.002 U	0.00013 J	0.0002 U	0.01 U	0.0035 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-049B	10/14/2008	0.005 US	0.005 U	0.0139 J	0.0094	0.644	0.618	0.001 U	0.001 U	0.0007 J	0.002 U	0.01 U	0.01 U	0.0117	0.0121	32.1	29.7	0.0005 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 UJ	0.006 U	0.01 U	0.01 U	0.0042 J	0.01 U	0.0237	0.0025 J
HMW-049C	10/10/2008	0.005 U	0.005 U	0.0045	0.0035	0.325	0.3	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.0056 J	0.006 J	9.72 S	9.03	0.0012 J	0.002 U	0.0002 U	0.0002 U	0.0105	0.0176	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0803	0.283
HMW-049D[1]	10/10/2008	0.005 U	0.005 U	0.0022 J	0.0017 J	0.375	0.367	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0073 J	0.0075 J	36.6	36.1	0.002 U	0.0027 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0074 J	0.0051 J
HMW-049D	10/10/2008	0.005 U	0.005 U	0.0022 J	0.0015 J	0.371	0.365	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0065 J	0.0072 J	36.4	35.9	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0054 J	0.0037 J
HMW-050A	10/14/2008	0.005 U	0.005 U	0.0013 J	0.003 U	0.05	0.0426	0.001 U	0.001 U	0.0003 J	0.002 U	0.004 J	0.005 J	0.01 U	0.01 U	0.552	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.004 J	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0061 J
HMW-050B	10/13/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.128	0.126	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	1.47	1.47	0.002 U	0.0005 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0089 J	0.01 U	0.01 U
HMW-050C	10/14/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.242	0.227	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0072 J	0.0067 J	12.1	9.52	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 J
HMW-052B	10/21/2008	0.005 U	0.005 U	0.0007 J	0.0008 J	0.104	0.0984	0.001 U	0.001 U	0.0003 J	0.0004 J	0.01 U	0.01 U	0.0027 J	0.0033 J	0.273	0.197	0.0004 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0143 U	0.0133
HMW-052C	10/16/2008	0.005 U	0.005 U	0.003 U	0.001 J	0.258	0.271	0.001 U	0.001 U	0.0007 J	0.002 U	0.0049 J	0.01 U	0.0059 J	0.0052 J	7.57	7.32	0.0007 J	0.002 U	0.0002 U	0.0002 U	0.006 J	0.0045 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0343	0.0229
HMW-053C	10/16/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.346	0.347	0.001 U	0.001 U	0.002 U	0.002 U	0.0053 J	0.01 U	0.0041 J	0.0036 J	4.61	4.11	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-054C	10/16/2008	0.005 U	0.005 U	0.0007 J	0.003 U	0.453	0.466	0.001 U	0.001 U	0.002 U	0.002 U	0.0067 J	0.01 U	0.0044 J	0.004 J	6.08	5.36	0.0006 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-033D	10/17/2008	0.005 U	0.005 U	0.0055 J	0.0051	0.419	0.422	0.001 U	0.001 U	0.0003 J	0.002 U	0.006 J	0.01 U	0.0055 J	0.0032 J	18.5	16.4	0.0062	0.0016 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.004 J	0.01 U	0.0148	0.003 J
MP-040C	10/17/2008	0.005 U	0.005 U	0.0115	0.0079	0.594	0.618	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.0068 J	0.0073 J	15	13.5	0.0627	0.0232	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0023 J
MP-058C[1]	10/15/2008	0.0036 J	0.0025 J	0.243	0.152	0.961	0.944	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0146	0.0119	50.5	49.4	0.0744	0.0126	0.0002 U	0.0002 U	0.0097 J	0.0048 J	0.0067	0.006 U	0.01 U	0.01 U	0.0119	0.0065 J	0.0083 J	0.0068 J
MP-058C	10/15/2008	0.0035 J	0.0024 J	0.242 J	0.216	0.95	0.949	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.0131	0.0139	50	49.7	0.076	0.0128	0.0002 U	0.0002 U	0.0086 J	0.0085 J	0.012 U	0.006 U	0.01 U	0.01 U	0.0108	0.0062 J	0.01 U	0.01 U
MP-059C[1]	10/15/2008	0.0036 J	0.005 U	0.053	0.0408	0.729	0.448 J	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.0099 J	0.0114	50.9	51.1	0.0576	0.0094	0.0002 U	0.0002 U	0.0039 J	0.0036 J	0.012 J	0.006 U	0.01 U	0.01 U	0.0048 J	0.0046 J	0.0061 J	0.0054 J
MP-059C	10/15/2008	0.0036 J	0.0021 J	0.0491 J	0.0334	0.728	0.725 J	0.001 U	0.001 U	0.0011 J	0.002 U	0.01 U	0.01 U	0.0128	0.0111	50.8 S	50.6 S	0.0581	0.0098 J	0.0002 U	0.0002 U	0.0035 J	0.01 U	0.0121	0.006	0.01 U	0.01 U	0.0052 J	0.01 U	0.01 U	0.01 U
MP-078D	10/17/2008	0.005 U	0.005 U	0.0204	0.026	0.347	0.348	0.001 U	0.001 U	0.002 U	0.002 U	0.0056 J	0.01 U	0.0045 J	0.0058 J	21.5	19.9	0.0061	0.0042	0.0002 U	0.0002 U	0.0037 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0027 J
MP-081C	10/10/2008	0.005 US	0.005 U	0.003 U	0.003 U	0.0651	0.0625	0.001 U	0.001 U	0.0003 J	0.0004 J	0.01 U	0.01 U	0.0067 J	0.0073 J	0.0096 J	0.0098 J	0.002 U	0.002 U	6e-005 J	8e-005 J	0.0204	0.0188	0.0077	0.0053 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0056 J	0.0085 J
MP-083C	10/17/2008	0.005 U	0.005 U	0.0014 J	0.0025 J	0.338	0.378	0.001 U	0.001 U	0.002 U	0.002 U	0.0062 J	0.01 U	0.0025 J	0.01 U	12.3	9.87	0.0015 J	0.0015 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0022 J
MP-085B	10/20/2008	0.005 U	0.005 U	0.0716	0.0641	0.16	0.152	0.001 U	0.001 U	0.002 U	0.002 U	0.004 J	0.01 U	0.0044 J	0.0044 J	4.84	4.57	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-085C	10/15/2008	0.005 U	0.005 U	0.0034 J	0.0042 U	0.387	0.375	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0036 J	0.0031 J	16.8	16.4	0.0129 J	0.011 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0197 U	0.01 U
MP-085D	10/17/2008	0.005 U	0.005 U	0.001 J	0.0009 J	0.492	0.498	0.001 U	0.001 U	0.0005 J	0.002 U	0.0055 J	0.01 U	0.0061 J	0.0055 J	28.4	27.2	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0348	0.0024 J
MP-086C	10/17/2008	0.005 U	0.005 U	0.028	0.0277	0.919	0.9	0.001 U	0.001 U	0.0006 J	0.002 U	0.01 U	0.01 U	0.007 J	0.0055 J	51 S	49.4	0.0183	0.0049	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0026 J
MP-089C	10/10/2008	0.005 U	0.005 U	0.0016 J	0.0007 J	0.0576	0.0563	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.0093 J	0.0095 J	1.17	1.03	0.002 U	0.004 U	0.0002 U	6e-005 J	0.017	0.0161	0.0089	0.037	0.01 U	0.01 U	0.01 U	0.01 U	0.0026 J	0.0041 J
MP-092D	10/10/2008	0.005 U	0.005 U	0.0047	0.0035	0.576	0.565	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0062 J	0.0064 J	5.47	5.44	0.002 U	0.002 U	0.0002 U	0.0002 U	0.004 J	0.0036 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.004 J	0.0025 J

Notes:

1 = Duplicate Sample

U = Not Detected (value preceding "U" is reporting limit)

J = Estimated value

All units are in mg/L-milligrams per liter

B = Analyte detected in associated method blank

Q = QC criteria failed or noncompliant CCV

NA = Not analyzed

H = Holding time exceeded

E = Value above quantitation range

= Exceeds Screening Criteria

R = RPD outside acceptable recovery limits

S = Spike recovery outside acceptable recovery limits

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO), last amended February 15, 2007. TACO values used for comparison purposes only.

Table 9
Summary of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters - October 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO3)	Ammonia (as N)	Chemica Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO3)	Nitrate	Nitrate + Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		mg/l	mg/l	mg/l	200 mg/l	0.2 mg/l	mg/l	10 mg/l	mg/l	mg/l	mg/l	mg/l	400 mg/l	mg/l	mg/l	mg/l	mg/l
HMW-025	10/09/2008	458	0.10U	30 J	322	0.007 UJ	560	0.07	0.07	0.01 U	0.068 U	0.068 U	50 U	0.05 U	1,040	NA	6 U
HMW-026	10/09/2008	608	0.26	50 U	34	0.007 UJ	720	0.011 J	0.011 J	0.01 U	0.269	0.301	182	0.05 U	960	NA	36
HMW-027	10/09/2008	614	0.10U	21 J	21	0.007 UJ	680	0.352	0.365	0.01	0.068 U	0.068 U	111	0.05 U	782	NA	6 U
HMW-028	10/08/2008	476	0.10U	50 U	21	0.007 U	560	0.585	0.585	0.01 U	0.068 UJ	0.068 UJ	144	0.05 U	704	NA	6 U
HMW-029	10/09/2008	514	0.10UJ	50 U	25	0.007 UJ	640	0.132	0.143	0.01	0.068 U	0.068 U	179	0.05 U	832	NA	6 U
HMW-038C[1]	10/13/2008	692	0.87	92	103	0.007 UJ	760	0.018 J	0.018 J	0.01 U	0.464	0.442	50 U	0.25	880	NA	65
HMW-038C	10/13/2008	692	0.83	87	98	0.007 UJ	740	0.016 J	0.016 J	0.01 U	0.466	0.423	50 U	0.26	854	NA	59
HMW-039B	10/14/2008	230	0.10U	50 U	153	0.007 U	220	0.458	0.458	0.01 U	0.064 J	0.084 U	50 U	0.05 U	632	NA	6 U
HMW-039C	10/14/2008	260	0.48	23 J	381	0.007 U	320	0.05 U	0.05 U	0.01 U	0.287	0.262 U	50 U	0.05 U	878	NA	12
HMW-040B	10/21/2008	428	0.10U	50 U	11	0.007 U	460	10.1	10.1	0.01 U	0.068 UJ	0.076 U	56 J	0.02 JH	582	NA	6 U
HMW-040C	10/13/2008	286	0.10U	50 U	12	0.007 UJ	300	6.68	6.68	0.01 U	0.087 U	0.083 U	50 U	0.05 U	374	NA	6 U
HMW-043C	10/13/2008	428	0.22	50 U	31	0.007 U	500	0.017 J	0.017 J	0.01 U	0.158	0.136	117	0.06	632	NA	12
HMW-044D	10/13/2008	540	0.27J	35 J	41	0.007 U	600	0.023 J	0.023 J	0.01 U	0.348	0.362	59 J	0.12	652	NA	12
HMW-045B	10/21/2008	652	0.10U	56	153	0.007 U	740	0.011 J	0.011 J	0.01 U	0.144 U	0.068 U	50 U	0.04 J	908	NA	9
HMW-047C	10/15/2008	600	0.05U	113	215	0.007 U	700	0.05 U	0.05 U	0.01 U	1.16	1.12	50 U	0.06	952	NA	37
HMW-048A	10/16/2008	326	0.16	226	449	0.007 U	680	1.34	1.34	0.01 U	0.351	0.37	50 U	0.07	1,290	NA	53
HMW-048B	10/16/2008	626	0.10U	96	109	0.007 U	660	0.051	0.051	0.01 U	1.2	1.08	50 U	0.06	794	NA	82
HMW-048D	10/16/2008	610	0.27	44 J	44	0.007 U	620	0.031 J	0.031 J	0.01 U	0.788	0.66	50 U	0.06	682	NA	60
HMW-049B	10/14/2008	760	0.18UJ	56	354	0.007 U	960	0.05	0.05	0.01 U	1.21	1.21	50 U	0.15	1,370	NA	128
HMW-049C	10/10/2008	380	0.34	42 J	14	0.007 U	340	0.023 J	0.023 J	0.01 UJ	0.358	0.272	63 J	0.01 J	430	NA	23
HMW-049D[1]	10/10/2008	570	0.20	42 J	59	0.007 U	580	0.051	0.051	0.01 UJ	0.646	0.653	88	0.05 U	696	NA	60
HMW-049D	10/10/2008	568	0.19	47 J	59	0.007 U	633	0.042 J	0.042 J	0.01 UJ	0.63	0.641	79	0.03 J	680	NA	61
HMW-050A	10/14/2008	436	0.10U	50 U	3	0.007 U	620	4.77	4.77	0.01 U	0.222	0.196 U	271 J	0.01 J	848	NA	11
HMW-050B	10/13/2008	338	1.56	50 U	16	0.007 UJ	420	0.017 J	0.017 J	0.01 U	0.857	0.985	172	0.29	606	NA	6 U
HMW-050C	10/14/2008	384	0.82	40 J	510	0.007 U	900	0.05 U	0.05 U	0.01 U	0.517	0.468	500 U	0.11	1,690	NA	29
HMW-052B	10/21/2008	544	0.10U	50 U	16	0.559	600	0.03 J	0.03 J	0.01 U	0.068 U	0.068 U	158	0.04 JH	798	NA	502
HMW-052C	10/16/2008	610	0.08J	50 U	35	0.407	660	0.012 J	0.012 J	0.01 U	0.075 U	0.065 J	126	0.05 U	838	NA	21
HMW-053C	10/16/2008	520	0.21	50 U	30	0.007 U	540	0.05 U	0.05 U	0.01 U	0.286	0.292	50 U	0.14	604	NA	6
HMW-054C	10/16/2008	540	0.20	50 U	36	0.007 U	580	0.05 U	0.05 U	0.01 U	0.292	0.295	53	0.16	672	NA	13
MP-033D	10/17/2008	626	0.07J	113	45	0.007 U	600	0.05 U	0.05 U	0.01 U	0.359	0.276	50 U	0.07	702	NA	65
MP-040C	10/17/2008	604	0.10J	127	297	0.007 U	820	0.05 U	0.05 U	0.01 U	0.277	0.256	50 U	0.43	1,150	NA	38
MP-058C[1]	10/15/2008	914	1.42	394	38	0.007 U	880	0.014 J	0.014 J	0.01 U	0.458	0.333	50 U	0.29	1,050	NA	112
MP-058C	10/15/2008	920	1.55	410	40	0.007 U	880	0.05 U	0.05 U	0.01 U	0.49	0.344	50 U	0.29	1,060	NA	104
MP-059C[1]	10/15/2008	816	0.54	313	29	0.007 U	840	0.035 J	0.035 J	0.01 U	0.45	0.203	50 U	0.35	908	NA	109
MP-059C	10/15/2008	838	0.78J	248	36	0.007 UJ	780	0.089	0.089	0.01 U	0.408	0.197 U	54	0.35	922	NA	84
MP-078D	10/17/2008	538	0.10U	134	61	0.007 UJ	560	0.05 U	0.05 U	0.01 U	0.461	0.46	50 U	0.14	660	NA	61
MP-081C	10/10/2008	596	0.11	50 U	36	0.007 U	740	1.09	1.09	0.01 UJ	0.068 U	0.068 U	228	0.05 U	1,070	NA	6 U
MP-083C	10/17/2008	430	0.06J	132	87	0.007 U	440	0.05 U	0.05 U	0.01 U	0.23 U	0.204	50 U	0.07	588	NA	19
MP-085B	10/20/2008	342	0.10U	23 J	48	0.007 U	260	0.011 J	0.011 J	0.01 U	1.66	1.6	50 U	0.5	458	NA	16
MP-085C	10/15/2008	470	0.75	87	8	0.007 U	440	0.094	0.094	0.01 U	0.77	0.79	50 U	0.12	480	NA	31
MP-085D	10/17/2008	590	0.39	54	46	0.007 U	580	0.05 U	0.05 U	0.01 U	0.658	0.658	50 U	0.06	664	NA	45
MP-086C	10/17/2008	868	0.14	269	79	0.007 U	840	0.017 J	0.017 J	0.01 U	0.684	0.62	50 U	0.28	1,040	NA	99
MP-089C	10/10/2008	434	0.10U	50 U	13	0.007 U	600	1.13	1.18	0.01 UJ	0.068 U	0.068 U	252	0.05 U	860	NA	6 U
MP-092D	10/10/2008	674	0.14J	26 J	32	0.007 UJ	620	0.025 J	0.025 J	0.01 UJ	0.068 U	0.068 U	60	0.05 U	758	NA	15

Notes:

1 = Duplicate Sample

U = Not Detected (value preceding "U" is reporting limit)

J = Estimated value

All units are in mg/L-milligrams per liter

B = Analyte detected in associated method blank

Q = QC criteria failed or noncompliant CCV

NA = Not analyzed

H = Holding time exceeded

E = Value above quantitation range

= Exceeds Screening Criteria

R = RPD outside acceptable recovery limits

S = Spike recovery outside acceptable recovery limits

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO), last amended February 15, 2007. TACO values used for comparison purposes only.

TABLE 10
INDICATOR PARAMETERS - OCTOBER 2008 QUARTERLY SAMPLING
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well Number	Date	Temperature °C	pH (std. units)	Conductivity (uS/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	ORP (mV)
FOUTH QUARTER 2008							
HMW-25	10/09/08	17.73	6.68	1388.18	1.98	2.63	103.31
HMW-26	10/09/08	18.38	6.60	1251.08	4.10	0.84	-73.39
HMW-27	10/09/08	20.36	6.52	1127.50	13.80	0.78	75.35
HMW-28	10/08/08	17.83	6.61	960.41	2.00	3.58	197.82
HMW-29	10/09/08	15.77	6.67	1017.46	26.06	0.53	101.34
HMW-38C	10/13/08	19.39	6.51	1530.17	63.32	0.20	-106.61
HMW-39B	10/14/08	17.90	7.01	929.39	6.59	1.54	154.85
HMW-39C	10/14/08	16.44	7.10	1335.85	9.63	0.17	-115.58
HMW-40B	10/21/08						
HMW-40C	10/13/08	17.71	6.87	570.30	3.71	0.97	182.49
HMW-43C	10/13/08	19.36	6.75	1033.39	15.90	0.13	-113.81
HMW-44D	10/13/08	19.76	6.27	1114.09	9.59	0.31	-90.71
HMW-45B	10/21/08						
HMW-47B	10/21/08						
HMW-47C	10/15/08	18.52	6.00	1383.10	60.50	0.01	-26.90
HMW-48A	10/16/08	19.26	6.43	1880.37	4.44	1.14	-67.29
HMW-48B	10/16/08	19.65	6.55	1445.53	15.09	0.21	-116.54
HMW-48D	10/16/08	15.68	6.47	1228.61	147.88	0.24	-97.09
HMW-49B	10/14/08	20.54	6.28	2336.18	32.79	0.69	-93.92
HMW-49C	10/10/08	30.05	6.14	657.59	227.78	0.63	-26.89
HMW-49D	10/10/08	18.57	6.43	1076.50	115.15	0.26	-140.77
HMW-50A	10/14/08	18.71	6.68	1076.03	24.27	0.34	128.98
HMW-50B	10/13/08	18.13	7.34	821.13	-0.17	0.29	-158.28

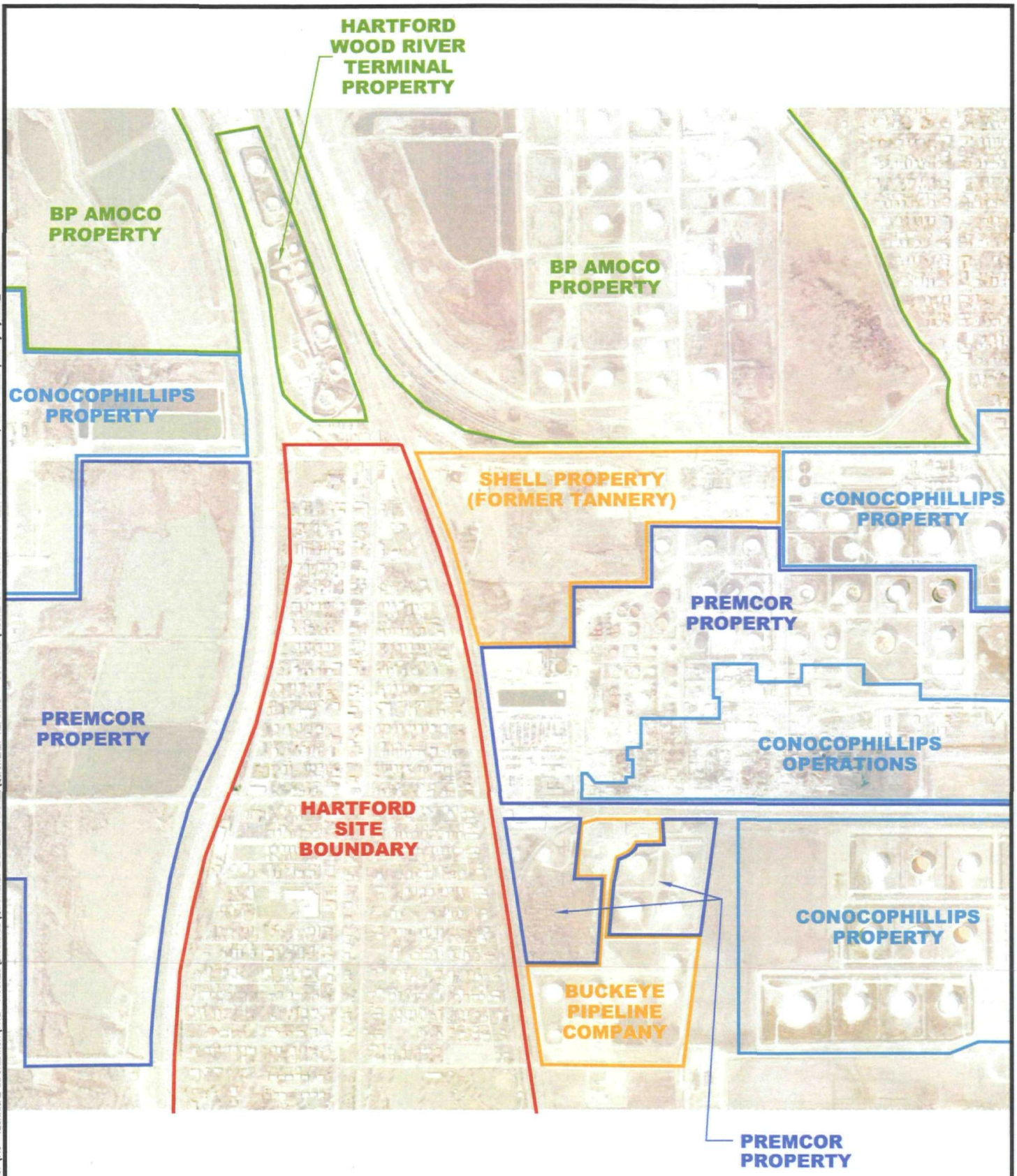
TABLE 10
INDICATOR PARAMETERS - OCTOBER 2008 QUARTERLY SAMPLING
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR 000128249
The Hartford Working Group / Hartford, Illinois

Well Number	Date	Temperature °C	pH (std. units)	Conductivity (uS/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	ORP (mV)
FOUTH QUARTER 2008							
HMW-50C	10/14/08	17.96	6.90	2691.33	22.63	0.44	-120.80
HMW-52B	10/21/08						
HMW-52C	10/16/08	18.06	6.59	1.15	13.63	1.89	-33.84
HMW-53C	10/16/08	18.24	5.75	0.88	12.29	0.05	25.42
HMW-54C	10/16/08	17.53	5.81	941.59	20.97	0.07	11.36
MP-33D	10/17/08	17.01	6.70	1226.10	53.55	0.18	-100.12
MP-40C	10/17/08	19.02	6.59	1820.69	10.87	0.24	-84.69
MP-58C	10/15/08	20.00	6.36	1548.85	27.02	0.74	-105.36
MP-59C	10/15/08	18.06	6.60	1521.59	26.37	0.48	-111.45
MP-78D	10/17/08	15.56	6.61	1164.33	30.23	0.57	-99.89
MP-81C	10/10/08	18.18	6.66	1471.73	0.46	0.28	124.55
MP-83C	10/17/08	15.72	6.64	0.83	4.39	0.59	-72.00
MP-85B	10/20/08	21.92	6.74	729.62	2.18	0.38	-125.63
MP-85C	10/15/08	18.55	6.62	874.35	17.49	0.25	-105.32
MP-85D	10/17/08	16.37	6.60	0.99	8.25	0.02	-107.74
MP-86C	10/17/08	19.53	6.78	1.60	8.00	0.08	-143.38
MP-89C	10/10/08	18.26	6.69	1177.30	2.65	0.06	34.70
MP-92D	10/10/08	16.66	6.65	1263.21	3.92	0.22	-19.24

NOTES:
Highlighted wells were purged dry and sampled with a peristaltic pump and/or 2" bailer. No indicator parameters were collected.
°C = degrees Centigrade
mg/L = milligrams per liter
mV = millivolts
NM = Not Measured
ntu = nephelometric turbidity units
uS/cm = microsiemens per centimeter

Figures



NOT TO SCALE

N

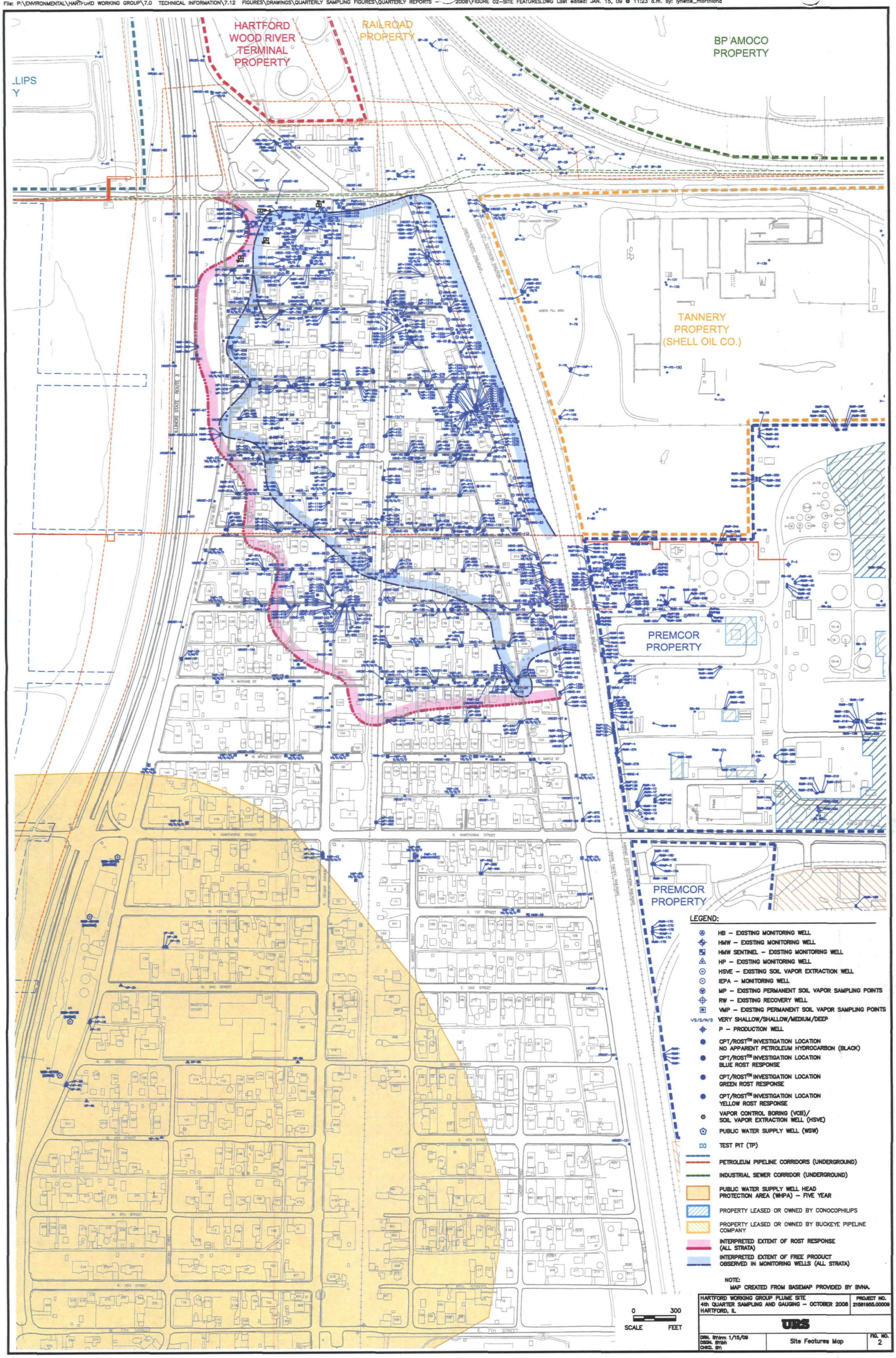
NOTE:

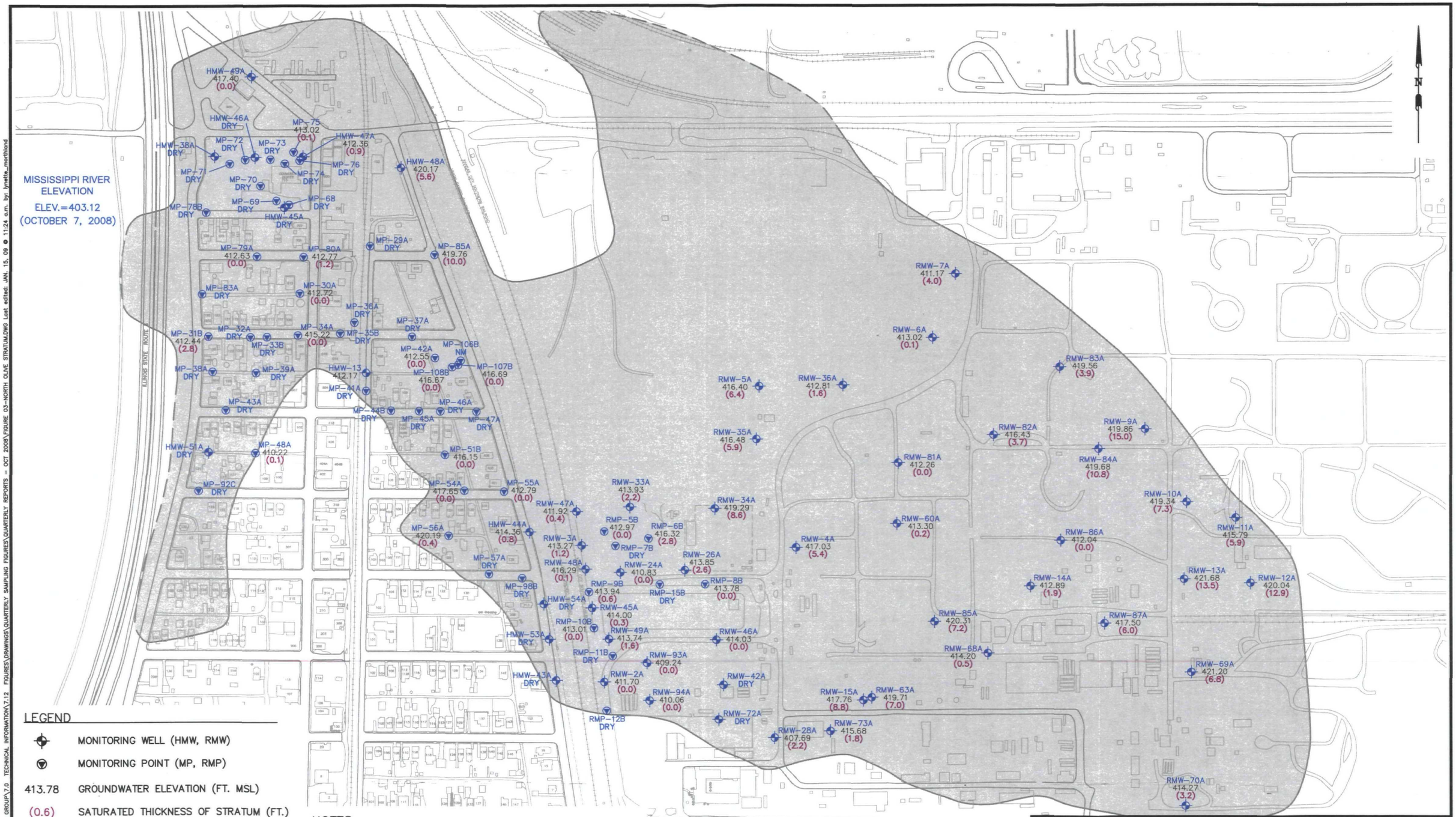
MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE 4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008 HARTFORD, IL	PROJECT NO. 21561955.00009
URS	
DRN. BY:lrm 1/15/09 DSGN. BY:bh CHKD. BY:	VILLAGE OF HARTFORD, IL AND SURROUNDING AREA MAP	FIG. NO. 1

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 01–AREA MAP.DWG Last edited: JAN. 15, 09 @ 12:38 p.m. by: lynette_morthland

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – 2008\FIGURE 02–SITE FEATURES.DWG Last edited: JAN. 15, 09 @ 11:23 a.m. by: lynette_morthland





LEGEND

⊕	MONITORING WELL (HMW, RMW)
▼	MONITORING POINT (MP, RMP)
413.78	GROUNDWATER ELEVATION (FT. MSL)
(0.6)	SATURATED THICKNESS OF STRATUM (FT.)
(0.0)	WATER IN PROBE/WELL IS WITHIN THE SUMP OF WELL AND/OR BELOW BASE OF STRATUM
DRY	WELL DRY – NO MEASUREMENTS
NM	NOT MEASURED
	INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)

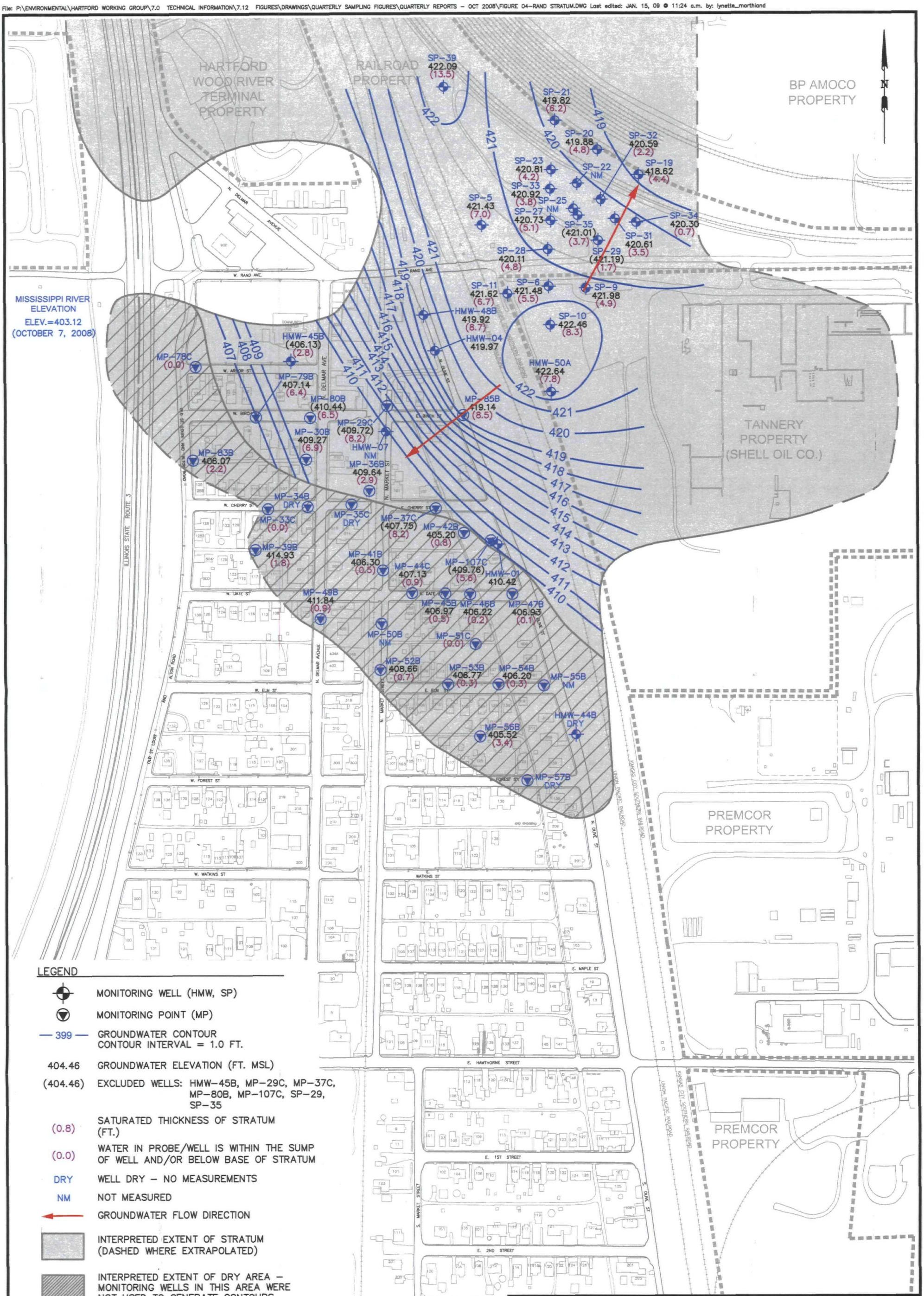
NOTES:

1. GROUNDWATER ELEVATIONS CORRECTED FOR FREE PHASE HYDROCARBONS IF PRESENT.
2. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE 4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008 HARTFORD, IL	PROJECT NO. 21561955.00009
URS	
DRN. BY: lrm 1/15/09 DSGN. BY: bh CHKD. BY:	Groundwater Elevation Map North Olive Stratum
	FIG. NO. 3

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 03-NORTH OLIVE STRATUM.DWG Last edited: JAN. 15, 09 @ 11:24 a.m. by: lynette_morthland

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 04–RAND STRATUM.DWG Last edited: JAN. 15, 09 @ 11:24 a.m. by: lynette_morthland



LEGEND

- MONITORING WELL (HMW, SP)
- MONITORING POINT (MP)
- — 399 — GROUNDWATER CONTOUR CONTOUR INTERVAL = 1.0 FT.
- 404.46 GROUNDWATER ELEVATION (FT. MSL)
- (404.46) EXCLUDED WELLS: HMW–45B, MP–29C, MP–37C, MP–80B, MP–107C, SP–29, SP–35
- (0.8) SATURATED THICKNESS OF STRATUM (FT.)
- (0.0) WATER IN PROBE/WELL IS WITHIN THE SUMP OF WELL AND/OR BELOW BASE OF STRATUM
- DRY WELL DRY – NO MEASUREMENTS
- NM NOT MEASURED
- GROUNDWATER FLOW DIRECTION
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF DRY AREA – MONITORING WELLS IN THIS AREA WERE NOT USED TO GENERATE CONTOURS.

NOTES:

1. GROUNDWATER ELEVATIONS CORRECTED FOR FREE PHASE HYDROCARBONS IF PRESENT.
2. MAP PRESENTS WELLS AND AVAILABLE GROUNDWATER ELEVATIONS FOR ONLY THOSE WELLS EVALUATED AS APPROPRIATELY SCREENING THE RAND STRATUM.
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 300
SCALE FEET

HARTFORD WORKING GROUP PLUME SITE 4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008 HARTFORD, IL	PROJECT NO. 21561955.00009
URS	
DRN. BY:lrm 1/15/09 DSGN. BY:bh CHKD. BY:	Groundwater Flow Map Rand Stratum
	FIG. NO. 4

MISSISSIPPI RIVER ELEVATION

ELEV.= 403.12
(OCTOBER 7, 2008)

LEGEND

- MONITORING WELL
- MONITORING POINT
- PRODUCTION/PUMPING WELL
- 399 — GROUNDWATER CONTOUR CONTOUR INTERVAL = 0.5 FT.
- 399.99 GROUNDWATER ELEVATION (FT. MSL)
- (399.99) EXCLUDED WELLS: HB-37, HMW-27, HMW-53C, MP-31C, MP-32C, MP-35D, MP-79C, MP-80C, MP-85C, RMP-13C, RMP-16B, RMW-62A, RMW-69B, RMW-88A, RMW-90B, SP-43, SP-47
- DRY WELL DRY – NO MEASUREMENTS
- NM NOT MEASURED
- GROUNDWATER FLOW DIRECTION
- INTERPRETED EXTENT OF EPA STRATUM (DASHED WHERE EXTRAPOLATED)

NOTES:

1. GROUNDWATER ELEVATIONS CORRECTED FOR FREE PHASE HYDROCARBONS IF PRESENT.
2. MAP PRESENTS WELLS AND AVAILABLE GROUNDWATER ELEVATIONS FOR SELECT WELLS IN THE UPPER MAIN SAND AND THOSE WELLS SCREENING THE EPA STRATUM.
3. SHALLOW PUMPING WELL RPW-01 AND PRODUCTION WELL P-2 WERE OPERATING DURING THE GAUGING EVENT.
4. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 450
SCALE FEET

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

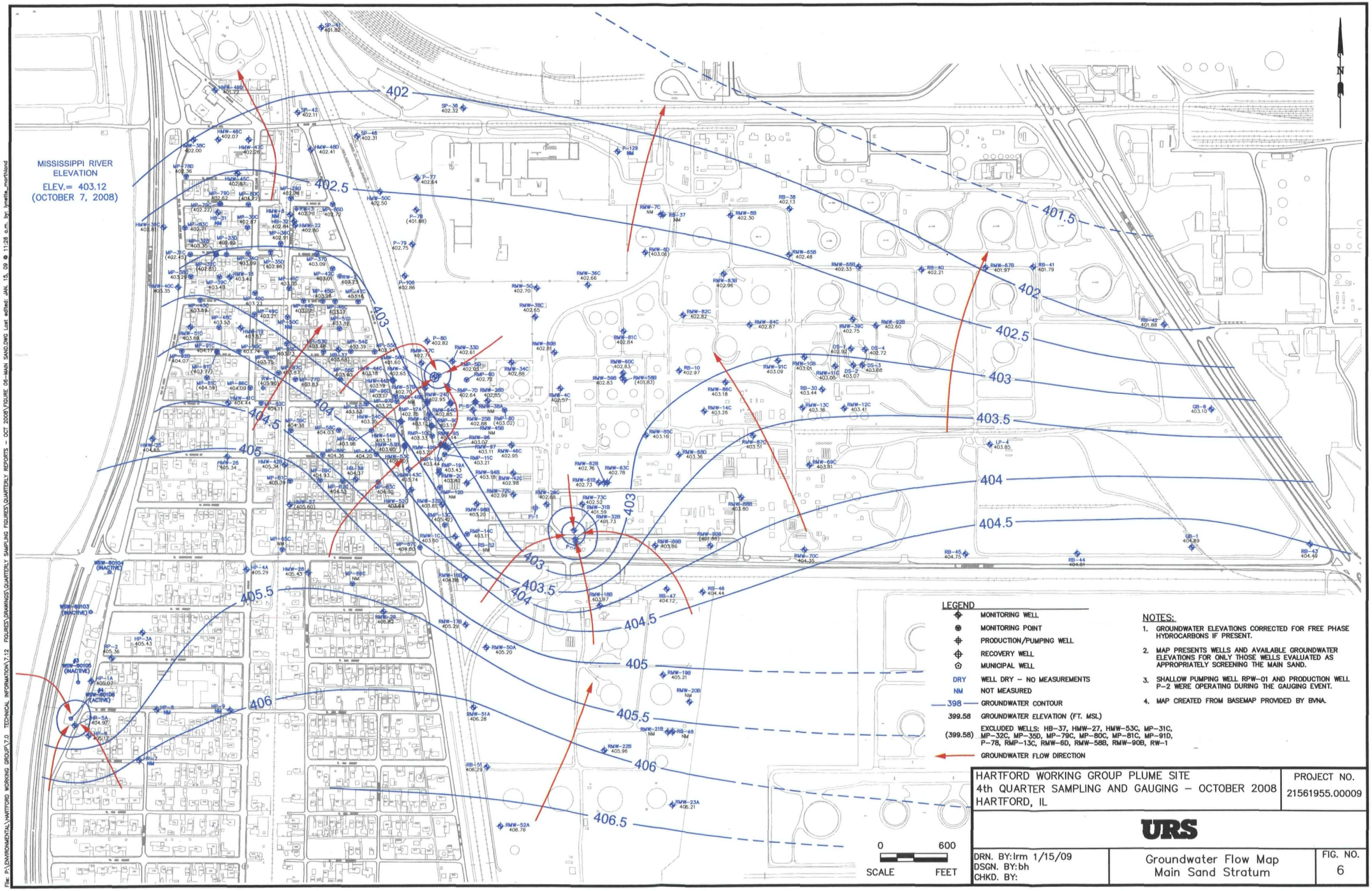
URS

DRN. BY: lrm 1/15/09
DSGN. BY: bh
CHKD. BY:

Groundwater Flow Map
Combined EPA and Shallow
Main Sand Strata

FIG. NO. 5

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 05-COMBINED EPA.DWG Last edited: JAN. 15, 09 @ 11:25 a.m. by: lynette_morthland



HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

URS

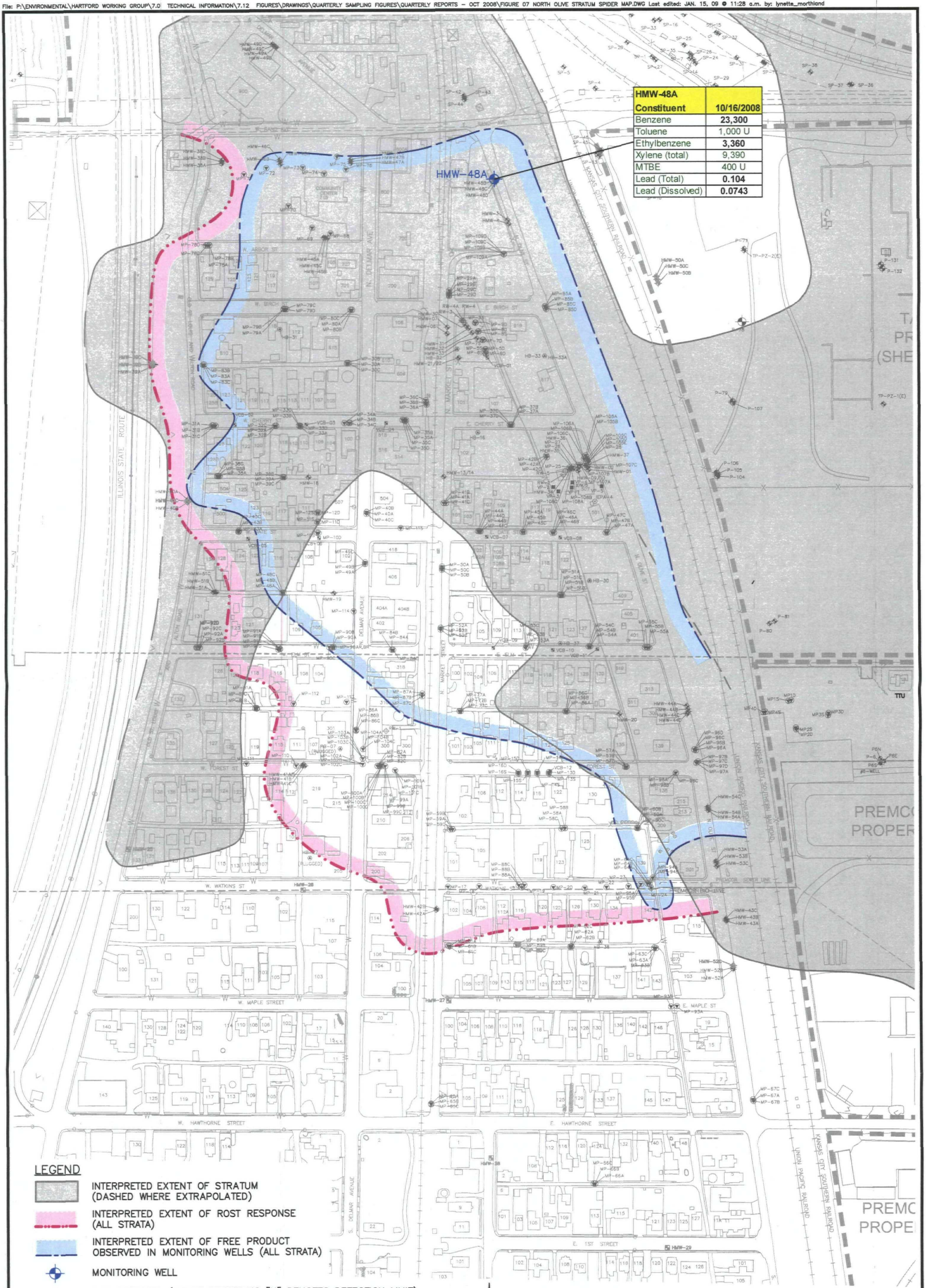
DRN. BY: lrm 1/15/09
DSGN. BY: bh
CHKD. BY:

Groundwater Flow Map
Main Sand Stratum

FIG. NO. 6

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 06-MAIN SAND.DWG Last edited: JAN. 15, 09 @ 11:26 a.m. by: lynette_northland

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 07 NORTH OLIVE STRATUM SPIDER MAP.DWG Last edited: JAN. 15, 09 @ 11:28 a.m. by: lynette_morthland



HMW-48A Constituent	10/16/2008
Benzene	**23,300**
Toluene	1,000 U
Ethylbenzene	**3,360**
Xylene (total)	9,390
MTBE	400 U
Lead (Total)	**0.104**
Lead (Dissolved)	**0.0743**

LEGEND

- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA)
- INTERPRETED EXTENT OF FREE PRODUCT OBSERVED IN MONITORING WELLS (ALL STRATA)
- MONITORING WELL
- U — NOT DETECTED (VALUE PRECEDING "U" DENOTES DETECTION LIMIT)
- J — ESTIMATED VALUE

NOTE:

1. CONCENTRATIONS IN BLACK INDICATE THE RESULT EXCEEDS RESPECTIVE TACO CLASS I COMPARISON VALUES.
2. RESULTS FOR BTEX and MTBE CONSTITUENTS IN ug/L. RESULTS FOR LEAD IN mg/L.
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200
SCALE FEET

N

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

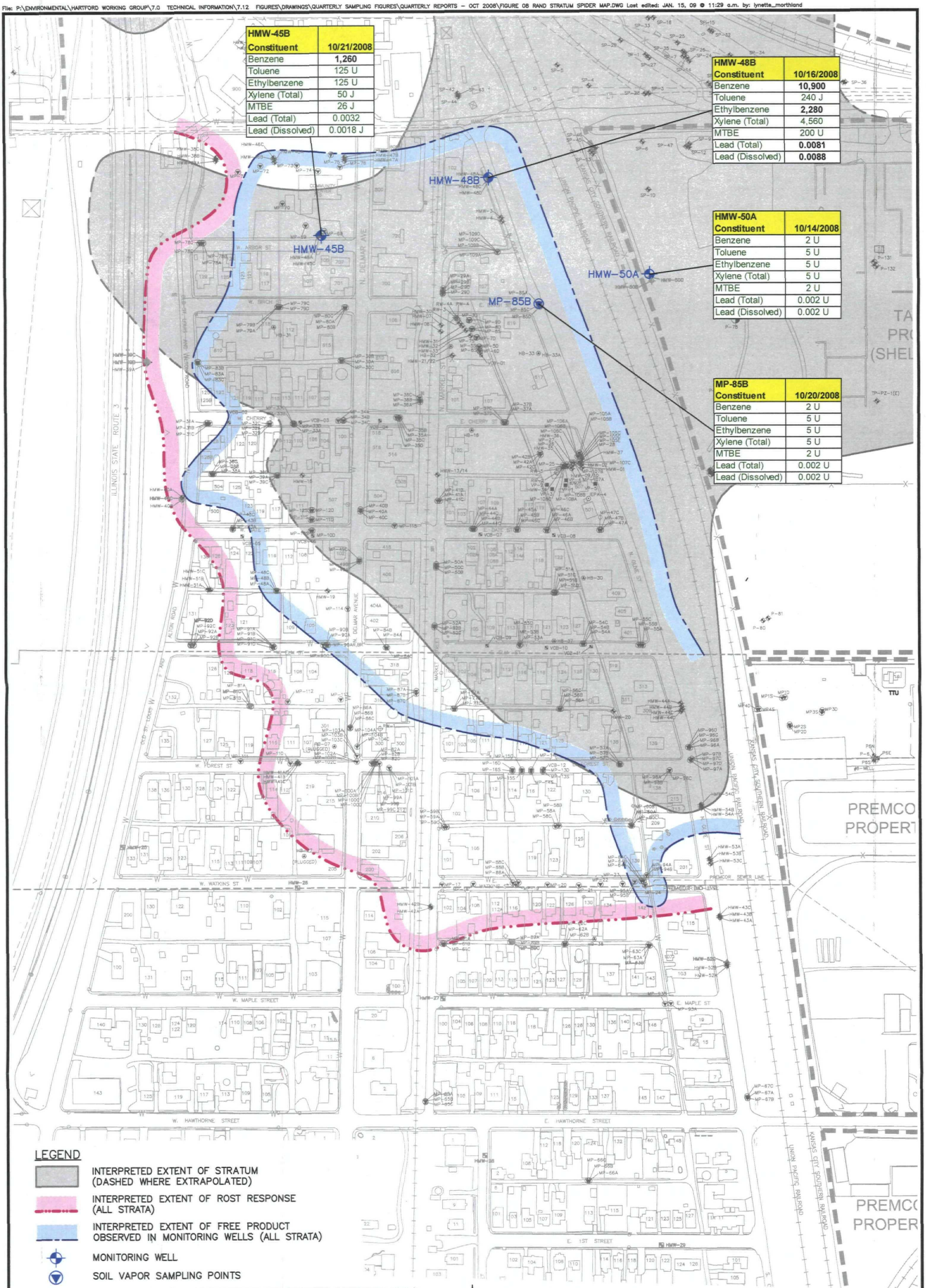
URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Groundwater Analytical Results
North Olive Stratum

FIG. NO. 7

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 08 RAND STRATUM SPIDER MAP.DWG Last edited: JAN. 15, 09 @ 11:29 a.m. by: lynette_morthland



HMW-45B Constituent	10/21/2008
Benzene	**1,260**
Toluene	125 U
Ethylbenzene	125 U
Xylene (Total)	50 J
MTBE	26 J
Lead (Total)	0.0032
Lead (Dissolved)	0.0018 J

HMW-48B Constituent	10/16/2008
Benzene	**10,900**
Toluene	240 J
Ethylbenzene	**2,280**
Xylene (Total)	4,560
MTBE	200 U
Lead (Total)	**0.0081**
Lead (Dissolved)	**0.0088**

HMW-50A Constituent	10/14/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (Total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-85B Constituent	10/20/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (Total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

LEGEND

- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA)
- INTERPRETED EXTENT OF FREE PRODUCT OBSERVED IN MONITORING WELLS (ALL STRATA)
- MONITORING WELL
- SOIL VAPOR SAMPLING POINTS
- U — NOT DETECTED (VALUE PRECEDING "U" DENOTES DETECTION LIMIT)
- J — ESTIMATED VALUE

NOTE:

1. CONCENTRATIONS IN BLACK INDICATE THE RESULT EXCEEDS RESPECTIVE TACO CLASS I COMPARISON VALUES.
2. RESULTS FOR BTEX and MTBE CONSTITUENTS IN ug/L. RESULTS FOR LEAD IN mg/L.
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200
SCALE FEET

N

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

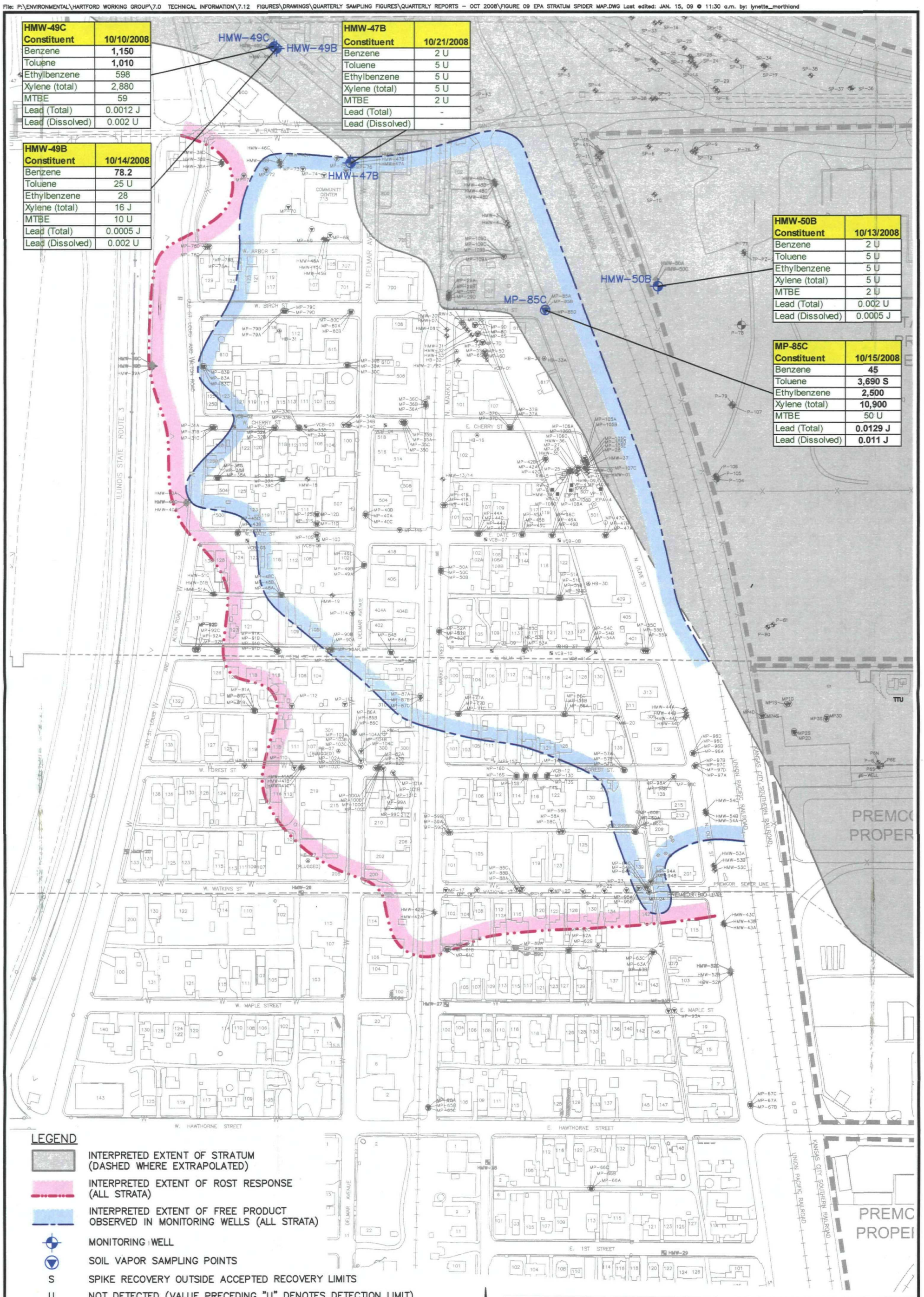
URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Groundwater Analytical Results
Rand Stratum

FIG. NO. 8

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 09 EPA STRATUM SPIDER MAP.DWG Last edited: JAN. 15, 09 @ 11:30 a.m. by: lynette_morthland



HMW-49C Constituent	10/10/2008
Benzene	1,150
Toluene	1,010
Ethylbenzene	598
Xylene (total)	2,880
MTBE	59
Lead (Total)	0.0012 J
Lead (Dissolved)	0.002 U

HMW-47B Constituent	10/21/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	-
Lead (Dissolved)	-

HMW-49B Constituent	10/14/2008
Benzene	78.2
Toluene	25 U
Ethylbenzene	28
Xylene (total)	16 J
MTBE	10 U
Lead (Total)	0.0005 J
Lead (Dissolved)	0.002 U

HMW-50B Constituent	10/13/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.0005 J

MP-85C Constituent	10/15/2008
Benzene	45
Toluene	3,690 S
Ethylbenzene	2,500
Xylene (total)	10,900
MTBE	50 U
Lead (Total)	0.0129 J
Lead (Dissolved)	0.011 J

LEGEND

- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA)
- INTERPRETED EXTENT OF FREE PRODUCT OBSERVED IN MONITORING WELLS (ALL STRATA)
- MONITORING WELL
- SOIL VAPOR SAMPLING POINTS
- S — SPIKE RECOVERY OUTSIDE ACCEPTED RECOVERY LIMITS
- U — NOT DETECTED (VALUE PRECEDING "U" DENOTES DETECTION LIMIT)
- J — ESTIMATED VALUE

NOTE:

1. CONCENTRATIONS IN BLACK INDICATE THE RESULT EXCEEDS RESPECTIVE TACO CLASS I COMPARISON VALUES.
2. RESULTS FOR BTEX and MTBE CONSTITUENTS IN ug/L. RESULTS FOR LEAD IN mg/L.
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200
SCALE FEET

N

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

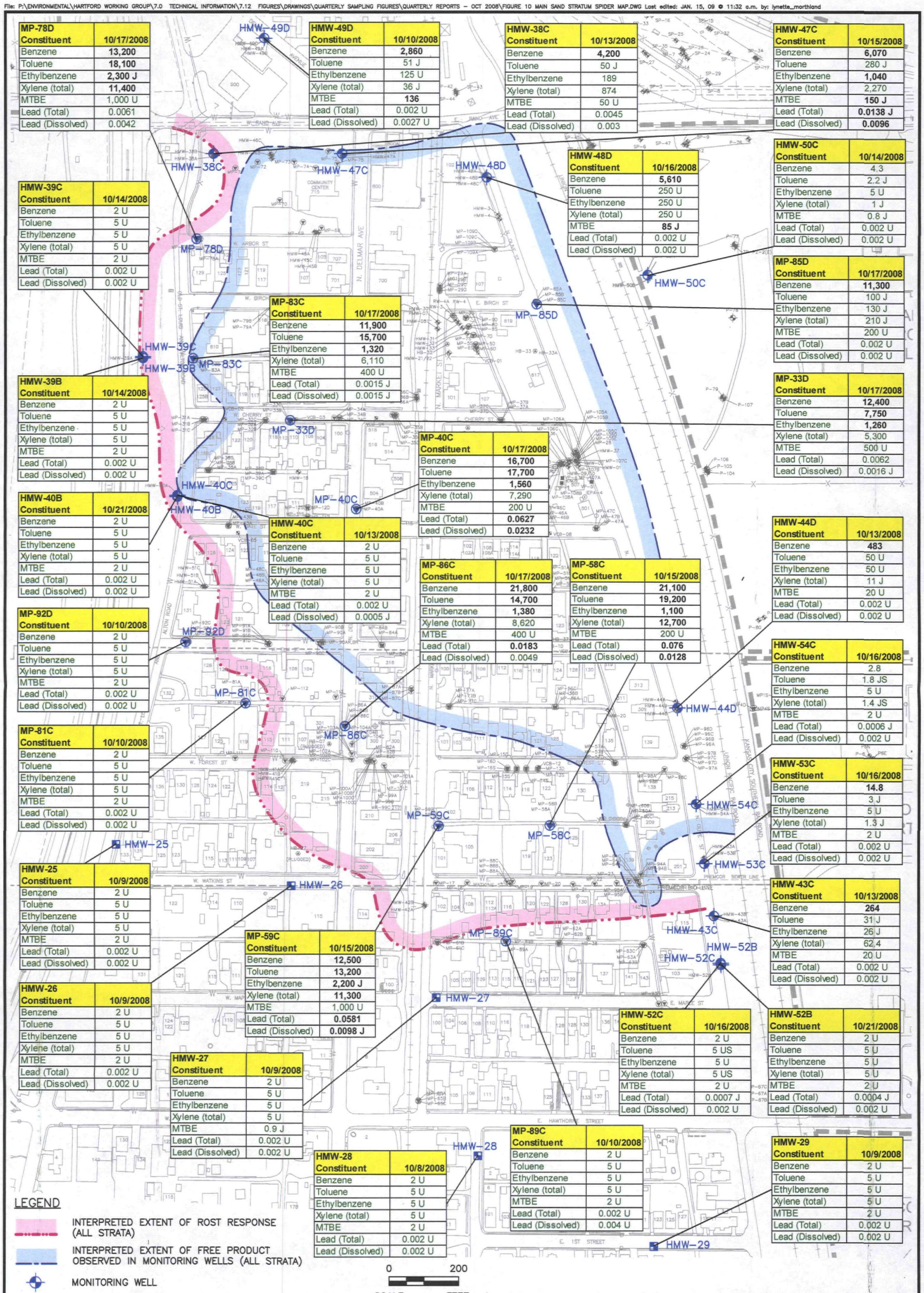
URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Groundwater Analytical Results
EPA Stratum

FIG. NO. 9

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE 10 MAIN SAND STRATUM SPIDER MAP.DWG Last edited: JAN. 15, 09 @ 11:32 a.m. by: lynette_morthland



MP-78D Constituent	10/17/2008
Benzene	13,200
Toluene	18,100
Ethylbenzene	2,300 J
Xylene (total)	11,400
MTBE	1,000 U
Lead (Total)	0.0061
Lead (Dissolved)	0.0042

HMW-49D Constituent	10/10/2008
Benzene	2,860
Toluene	51 J
Ethylbenzene	125 U
Xylene (total)	36 J
MTBE	136
Lead (Total)	0.002 U
Lead (Dissolved)	0.0027 U

HMW-38C Constituent	10/13/2008
Benzene	4,200
Toluene	50 J
Ethylbenzene	189
Xylene (total)	874
MTBE	50 U
Lead (Total)	0.0045
Lead (Dissolved)	0.003

HMW-47C Constituent	10/15/2008
Benzene	6,070
Toluene	280 J
Ethylbenzene	1,040
Xylene (total)	2,270
MTBE	150 J
Lead (Total)	0.0138 J
Lead (Dissolved)	0.0096

HMW-48D Constituent	10/16/2008
Benzene	5,610
Toluene	250 U
Ethylbenzene	250 U
Xylene (total)	250 U
MTBE	85 J
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-50C Constituent	10/14/2008
Benzene	4.3
Toluene	2.2 J
Ethylbenzene	5 U
Xylene (total)	1 J
MTBE	0.8 J
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-39C Constituent	10/14/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-85D Constituent	10/17/2008
Benzene	11,300
Toluene	100 J
Ethylbenzene	130 J
Xylene (total)	210 J
MTBE	200 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-83C Constituent	10/17/2008
Benzene	11,900
Toluene	15,700
Ethylbenzene	1,320
Xylene (total)	6,110
MTBE	400 U
Lead (Total)	0.0015 J
Lead (Dissolved)	0.0015 J

HMW-39B Constituent	10/14/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-33D Constituent	10/17/2008
Benzene	12,400
Toluene	7,750
Ethylbenzene	1,260
Xylene (total)	5,300
MTBE	500 U
Lead (Total)	0.0062
Lead (Dissolved)	0.0016 J

MP-40C Constituent	10/17/2008
Benzene	16,700
Toluene	17,700
Ethylbenzene	1,560
Xylene (total)	7,290
MTBE	200 U
Lead (Total)	0.0627
Lead (Dissolved)	0.0232

HMW-40B Constituent	10/21/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-40C Constituent	10/13/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.0005 J

MP-86C Constituent	10/17/2008
Benzene	21,800
Toluene	14,700
Ethylbenzene	1,380
Xylene (total)	8,620
MTBE	400 U
Lead (Total)	0.0183
Lead (Dissolved)	0.0049

MP-58C Constituent	10/15/2008
Benzene	21,100
Toluene	19,200
Ethylbenzene	1,100
Xylene (total)	12,700
MTBE	200 U
Lead (Total)	0.076
Lead (Dissolved)	0.0128

HMW-44D Constituent	10/13/2008
Benzene	483
Toluene	50 U
Ethylbenzene	50 U
Xylene (total)	11 J
MTBE	20 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-92D Constituent	10/10/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-54C Constituent	10/16/2008
Benzene	2.8
Toluene	1.8 JS
Ethylbenzene	5 U
Xylene (total)	1.4 JS
MTBE	2 U
Lead (Total)	0.0006 J
Lead (Dissolved)	0.002 U

MP-81C Constituent	10/10/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-53C Constituent	10/16/2008
Benzene	14.8
Toluene	3 J
Ethylbenzene	5 U
Xylene (total)	1.3 J
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-25 Constituent	10/9/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-43C Constituent	10/13/2008
Benzene	264
Toluene	31 J
Ethylbenzene	26 J
Xylene (total)	62.4
MTBE	20 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-59C Constituent	10/15/2008
Benzene	12,500
Toluene	13,200
Ethylbenzene	2,200 J
Xylene (total)	11,300
MTBE	1,000 U
Lead (Total)	0.0581
Lead (Dissolved)	0.0098 J

HMW-26 Constituent	10/9/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-52C Constituent	10/16/2008
Benzene	2 U
Toluene	5 US
Ethylbenzene	5 U
Xylene (total)	5 US
MTBE	2 U
Lead (Total)	0.0007 J
Lead (Dissolved)	0.002 U

HMW-52B Constituent	10/21/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.0004 J
Lead (Dissolved)	0.002 U

HMW-27 Constituent	10/9/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	0.9 J
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

MP-89C Constituent	10/10/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.004 U

HMW-28 Constituent	10/8/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

HMW-29 Constituent	10/9/2008
Benzene	2 U
Toluene	5 U
Ethylbenzene	5 U
Xylene (total)	5 U
MTBE	2 U
Lead (Total)	0.002 U
Lead (Dissolved)	0.002 U

LEGEND

- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA)
- INTERPRETED EXTENT OF FREE PRODUCT OBSERVED IN MONITORING WELLS (ALL STRATA)
- MONITORING WELL
- SENTINEL MONITORING WELL
- SOIL VAPOR SAMPLING POINTS
- U — NOT DETECTED (VALUE PRECEDING "U" DENOTES DETECTION LIMIT)
- J — ESTIMATED VALUE
- S — SPIKE RECOVERY OUTSIDE ACCEPTED RECOVERY LIMITS

NOTE:

1. CONCENTRATIONS IN BLACK INDICATE THE RESULT EXCEEDS RESPECTIVE TACO CLASS I COMPARISON VALUES.
2. RESULTS FOR BTEX and MTBE CONSTITUENTS IN ug/L. RESULTS FOR LEAD IN mg/L.
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Groundwater Analytical Results
Main Sand Stratum

FIG. NO. 10

APPENDIX A

Well Integrity Survey

Appendix A
October 2008 Well Integrity Survey
The Hartford Area Hydrocarbon Plume Site

1190505040 -- Madison County -- ILR000128249
The Hartford Working Group / Hartford, IL

		Field Staff		Location/Accessibility			Protective Cover			Concrete Pad			Flush Mount							Security				Surface Drainage		
Well	Date	Field Staff 1	Field Staff 2	Location Note	Well Inaccessible	Reason Inaccessible	Cover Not Applicable	Cover Damaged	Cover Note	Pad Not Applicable	Pad Cracked	Pad Note	Flush Mount Not Applicable	Flush Mount - Bolts Problem	Flush Mount - Ears Damaged	Flush Mount - Ears Stripped	Flush Mount - Ring Damaged	Flush Mount - Seal Problem	Flush Mount Note	Security - Lock Problem	Security - Cap Missing	Security - Cap Damaged	Security Note	Ground - Drainage Problem	Ground - Standing Water	Ground Note
HB-016	07-Oct-08	McNurlen, Nathan C	Wiesner, Sarah	Side yard of I02 N. Market.			X						X													
HB-030	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	In fenced backyard						X			X													
HB-032	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HB-033	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X						X						
HB-037	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	In grass along western edge of 123 E. Elm									X													
HB-038	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah					X	No lid	X			X													
HMW-001	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
HMW-002	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X			X									No well lid							
HMW-003	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HMW-004	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HMW-007	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)		X	Could Not Locate																				
HMW-008	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)		X	Could Not Locate																				
HMW-009	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
HMW-010	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
HMW-013	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
HMW-014	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																			
HMW-018	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X								Need 9/16" socket							
HMW-019	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																	X			Cap not tightly secured. Need to have lock undone			
HMW-020	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X			X																
HMW-021	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah	In same well as 22										X											X	
HMW-022	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)	In tall weeds										X				X								
HMW-025	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
HMW-026	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
HMW-027	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
HMW-028	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)															X								
HMW-029	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HMW-030	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
HMW-031	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
HMW-032	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
HMW-033	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
HMW-034	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X												
HMW-035	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
HMW-036	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X									X		X						X		
HMW-037	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
HMW-038A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)															X								
HMW-038B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HMW-038C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HMW-039A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)				X																			
HMW-039B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)				X											X		X						
HMW-039C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)				X											X								
HMW-040A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X						X						
HMW-040B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																	X						
HMW-040C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
HMW-041A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
HMW-041B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
HMW-041C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X									X		X		X				X		
HMW-042A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
HMW-042B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
HMW-043A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X	X					X				X		
HMW-043B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
HMW-043C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
HMW-044A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X		X				X		
HMW-044B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
HMW-044C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	In vault			X													X						
HMW-044D	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X												
HMW-045A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
HMW-045B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)															X								
HMW-045C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)												X											
HMW-046A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
HMW-046B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							

Appendix A
October 2008 Well Integrity Survey
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR000128249
The Hartford Working Group / Hartford, IL

		Field Staff		Location/Accessibility			Protective Cover			Concrete Pad			Flush Mount							Security				Surface Drainage		
Well	Date	Field Staff 1	Field Staff 2	Location Note	Well Inaccessible	Reason Inaccessible	Cover Not Applicable	Cover Damaged	Cover Note	Pad Not Applicable	Pad Cracked	Pad Note	Flush Mount Not Applicable	Flush Mount - Bolts Problem	Flush Mount - Ears Damaged	Flush Mount - Ears Stripped	Flush Mount - Ring Damaged	Flush Mount - Seal Problem	Flush Mount Note	Security - Lock Problem	Security - Cap Missing	Security - Cap Damaged	Security Note	Ground - Drainage Problem	Ground - Standing Water	Ground Note
HMW-046C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)												X					X						
HMW-047A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
HMW-047B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
HMW-047C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
HMW-048A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
HMW-048B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
HMW-048C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
HMW-048D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
HMW-049A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
HMW-049B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
HMW-049C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X	X											
HMW-049D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
HMW-051A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
HMW-051B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
HMW-051C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X												
HMW-052A	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah	Not able to gauge because of car	X	Covered by Vehicle																				
HMW-052B	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah											X				X		X				X	X	
HMW-052C	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah											X				X		X				X	X	
HMW-053A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
HMW-053B	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
HMW-053C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
HMW-054A	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
HMW-054B	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
HMW-054C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
HP-001A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																			
HP-001B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X												
HP-001C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
HP-002	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																			
HP-003A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																			
HP-003B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X									X								X		
HP-003C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X									X								X		
HP-004A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X		
HP-004B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
HP-004C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
HP-005A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																			
HP-005B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																			
HP-005C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																			
HP-006	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X		
HP-007	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah		X	Covered by Debris																				
HP-008	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	Well appears to have been destroyed by road construction. Saw part of broken well casing in street.	X	Covered by Debris																				
HP-009	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	Well buried under road construction. Could not locate	X	Could Not Locate																				
IEPA-004	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	In yard between 507 and 501 N. Olive			X			X			X							X						
MP-005D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
MP-005S	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-006D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)		X	Could Not Locate																				
MP-006S	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)		X	Could Not Locate																				
MP-007D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)		X	Covered by Trailer																				
MP-007S	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)		X	Covered by Trailer																				
MP-008D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
MP-008S	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
MP-009D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
MP-009S	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X								
MP-010D	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-010S	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X							X		X				X				X		
MP-011D	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-011S	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X						
MP-012D	08-Oct-08	Mumper, Jennifer R	Other Field Staff	Behind firehouse			X													X						

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Well	Date	Field Staff 1	Field Staff 2	Location Note	Well Inaccessible	Reason Inaccessible	Cover Not Applicable	Cover Damaged	Cover Note	Pad Not Applicable	Pad Cracked	Pad Note	Flush Mount Not Applicable	Flush Mount Bolts Problem	Flush Mount Ears Damaged	Flush Mount Ears Stripped	Flush Mount Ring Damaged	Flush Mount Seal Problem	Flush Mount Note	Security Lock Problem	Security Cap Missing	Security Cap Damaged	Security Note	Ground Drainage Problem	Ground Standing Water	Ground Note
MP-012S	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X						
MP-013D	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X						X						
MP-013S	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X						X						
MP-014D	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
MP-014S	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X		
MP-015D	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-015S	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
MP-016D	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	In front of driveway			X													X						
MP-016S	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
MP-025	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-026	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-027	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-028	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-029A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-029B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-029C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)															X		X						
MP-029D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)												X	X		X		X						
MP-030A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
MP-030B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
MP-030C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X		X						
MP-031A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																	X						
MP-031B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																	X						
MP-031C	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X							X		X								X	X	
MP-032A	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-032B	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-032C	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-033A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X									X						
MP-033B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J													X										
MP-033C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J													X										
MP-033D	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X	X				Bolt crooked							
MP-034A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X	Crumbling/spalling								X						
MP-034B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X	Spalling		X					Ears blocked with debris	X						
MP-034C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X	Spalling								X						
MP-035A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J													X				X					X	
MP-035B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J									Spalling		X						X						
MP-035C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X						X						
MP-035D	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J													X			Gasket loose	X						
MP-036A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X	X					X						
MP-036B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X												
MP-036C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X						X						
MP-037A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-037B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-037C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-037D	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X								X							X		X		
MP-038A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-038B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X	X					X						
MP-038C	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X							X										X	X	
MP-039A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-039B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																	X						
MP-039C	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X							X		X				X				X	X	
MP-040A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X												
MP-040B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X												
MP-040C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X												
MP-041A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-041B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-041C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-042A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-042B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-042C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-043A	08-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-043B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-043C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X		X										

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Well	Date	Field Staff 1	Field Staff 2	Location Note	Well Inaccessible	Reason Inaccessible	Cover Not Applicable	Cover Damaged	Cover Note	Pad Not Applicable	Pad Cracked	Pad Note	Flush Mount Not Applicable	Flush Mount Bolts Problem	Flush Mount - Ears Damaged	Flush Mount - Ears Stripped	Flush Mount - Ring Damaged	Flush Mount - Seal Problem	Flush Mount Note	Security - Lock Problem	Security - Cap Missing	Security - Cap Damaged	Security Note	Ground - Drainage Problem	Ground - Standing Water	Ground Note
MP-044A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-044B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-044C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-044D	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-045A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-045B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-045C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X		X		X						X		
MP-046A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-046B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-046C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-047A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-047B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-047C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X		X		X						X		
MP-048A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-048B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-048C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X			X												
MP-049A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X						X						
MP-049B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X						X						
MP-049C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J											X						X						
MP-051A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X								X									X		
MP-051B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-051C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-051D	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X		X		X						X		
MP-052A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-052B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-052C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	W. side of road			X							X				X						X		
MP-053A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X	X	
MP-053B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X	X	
MP-053C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X	X	
MP-054A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-054B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-054C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-055A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X	X									X		
MP-055B	07-Oct-08	McNurlen, Nathan C	Wiesner, Sarah				X							X	X					X				X		
MP-055C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X								X			X		X				X		
MP-056A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-056B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-056C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-057A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X											X		X				X	X	
MP-057B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X											X		X				X	X	
MP-057C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X											X		X				X	X	
MP-058A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-058B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-058C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	Off to side of alley			X							X				X		X				X	X	
MP-059A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-059B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-059C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	Off to side of alley			X									X				X				X	X	
MP-060A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-060B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-060C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
MP-061A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-061B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-061C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
MP-062A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X		
MP-062B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X		
MP-062C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
MP-063A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
MP-063B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
MP-063C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X				X				X	X	
MP-064A	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-064B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-064C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X						X				X	X	
MP-065A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah		X	Covered by Debris																				

Appendix A
October 2008 Well Integrity Survey
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR000128249
The Hartford Working Group / Hartford, IL

		Field Staff		Location/Accessibility			Protective Cover			Concrete Pad			Flush Mount							Security				Surface Drainage		
Well	Date	Field Staff 1	Field Staff 2	Location Note	Well Inaccessible	Reason Inaccessible	Cover Not Applicable	Cover Damaged	Cover Note	Pad Not Applicable	Pad Cracked	Pad Note	Flush Mount Not Applicable	Flush Mount - Bolts Problem	Flush Mount - Ears Damaged	Flush Mount - Ears Stripped	Flush Mount - Ring Damaged	Flush Mount - Seal Problem	Flush Mount Note	Security - Lock Problem	Security - Cap Missing	Security - Cap Damaged	Security Note	Ground - Drainage Problem	Ground - Standing Water	Ground Note
MP-065B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah		X	Covered by Debris																				
MP-065C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah		X	Covered by Debris																				
MP-066A	07-Oct-08	Fritsch, Eric K																								
MP-067A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
MP-067B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
MP-067C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
MP-068	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X						X						
MP-069	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-070	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-071	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-072	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-073	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-074	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)													X				X						
MP-075	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-076	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-077A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-077B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-077C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X										X		
MP-078A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-078B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-078C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																	X						
MP-078D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)															X		X						
MP-079A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-079B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-079C	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah				X								X					X				X		
MP-079D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																		X					
MP-080A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X	X			X								
MP-080B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X	X			X								
MP-080C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X	X			X		X						
MP-081A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X									X										
MP-081B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X									X		X								
MP-081C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-082A	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok			X	X		X		X						ok
MP-082B	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah				X			X				X	X	X				X				X		
MP-082C	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok						X		X						ok
MP-083A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-083B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
MP-083C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X				X		X						
MP-084A	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah											X						X				X	X	
MP-084B	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X				X		X						
MP-084C	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X	X	X		X		X						ok
MP-085A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
MP-085B	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X												
MP-085C	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X						X						
MP-085D	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)													X										
MP-086A	07-Oct-08	McNurlen, Nathan C	Wiesner, Sarah				X							X				X		X				X		
MP-086B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X							X				X						X		
MP-086C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-087A	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok							ok	X						ok
MP-087B	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok							ok	X						ok
MP-087C	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X		X		X		X						ok
MP-088A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	In middle of road			X													X				X	X	
MP-088B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah	In middle of road			X													X				X	X	
MP-088C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-089A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-089B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-089C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X																	X	X	
MP-090BR	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J	This is 90br. Well says 90b			X											X		X						ok
MP-090C	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok						X		X						
MP-091B	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J									ok						X		X						
MP-091C	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J													X										
MP-091D	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J											X												
MP-092C	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah																	X				X		

Appendix A
October 2008 Well Integrity Survey
The Hartford Area Hydrocarbon Plume Site

1190505040 – Madison County – ILR000128249
The Hartford Working Group / Hartford, IL

		Field Staff		Location/Accessibility			Protective Cover			Concrete Pad			Flush Mount							Security				Surface Drainage		
Well	Date	Field Staff 1	Field Staff 2	Location Note	Well Inaccessible	Reason Inaccessible	Cover Not Applicable	Cover Damaged	Cover Note	Pad Not Applicable	Pad Cracked	Pad Note	Flush Mount Not Applicable	Flush Mount - Bolts Problem	Flush Mount - Ears Damaged	Flush Mount - Ears Stripped	Flush Mount - Ring Damaged	Flush Mount - Seal Problem	Flush Mount Note	Security - Lock Problem	Security - Cap Missing	Security - Cap Damaged	Security Note	Ground - Drainage Problem	Ground - Standing Water	Ground Note
MP-092D	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-093A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X									X				X				X	X	
MP-093B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X									X				X				X		
MP-094A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-094B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-095A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-095B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-096A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X						X				X	X	
MP-096B	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X											X		X				X	X	
MP-096C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X				X	X	
MP-096D	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-097A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X										X			X				X	X	
MP-097B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
MP-097C	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
MP-097D	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X													X						
MP-098A	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X							X		X			Lid damaged					X	X	
MP-098B	07-Oct-08	Mumper, Jennifer R	Wiesner, Sarah				X										X			X				X	X	
MP-098C	07-Oct-08	Mumper, Jennifer R	Other Field Staff				X													X				X	X	
MP-099A	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X						X						ok
MP-099B	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X		X				X						ok
MP-099C	07-Oct-08	Owings, Kurt M	telzleni-Schwent, J				X					ok		X		X				X						ok
MP-100A	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X						X						ok
MP-100B	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X						X						ok
MP-100C	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X						X						ok
MP-100D	07-Oct-08	Owings, Kurt M	Stelzleni-Schwent, J				X					ok		X						X						ok
MP-101A	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah													X				X				X	X	
MP-101B	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah													X				X				X	X	
MP-101C	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah													X				X				X	X	
MP-102A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X			X												
MP-102B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-102C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J								X			X						X						
MP-103A	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah													X				X				X		
MP-103B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-103C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-104A	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																	X						
MP-104B	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-104C	07-Oct-08	Wolfe, Shan M	Stelzleni-Schwent, J																							
MP-105A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X			X						X										
MP-105B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-105C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-105D	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X			X								X						X		
MP-105E	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X			X																
MP-106A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-106B	07-Oct-08	McNurlen, Nathan C	Wiesner, Sarah				X						X					X						X	X	
MP-106C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X						X		
MP-107A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-107B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-107C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X																	X		
MP-108A	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
MP-108B	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
MP-108C	07-Oct-08	McNurlen, Nathan C	Cooling, Nate				X											X								
RW-001	08-Oct-08	McNurlen, Nathan C	Wiesner, Sarah				X			X			X													
RW-002	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	In fenced area						X			X													
RW-003	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
RW-004	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)											X						X						
RW-004A	07-Oct-08	Reeker, Frederick A	Keck, Rodney (TDH)																							
RW-005	07-Oct-08	McNurlen, Nathan C	Cooling, Nate	In fenced area			X							X				X						X	X	

APPENDIX B

D. Discussion and Calculation

Appendix B: D_o Discussion and Calculation

The following information was provided on behalf of Mr. Andrew Kirkman, of The RETEC Group, Inc., on November 7, 2005.

The fluid characteristics that influence LNAPL distribution and recoverability from the subsurface include the following:

- LNAPL Density
- LNAPL Viscosity
- LNAPL and Water Interfacial tensions

In addition, the soil type can have a large influence on LNAPL distribution and recoverability from the subsurface. Soil characteristics that effect the distribution and presence of LNAPL in the subsurface include:

- Porosity
- Intrinsic permeability
- Pore size distribution
- Soil grain shape

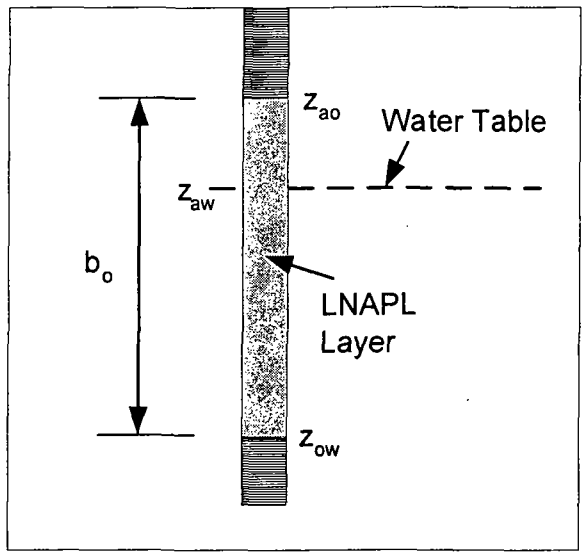
Accounting for these parameters is necessary in order to accurately assess the distribution of LNAPL in the formation and estimate the true amount of LNAPL in the subsurface. Mapping of apparent LNAPL thicknesses measured in monitoring wells at a site with varying soil and LNAPL type is not an accurate depiction of LNAPL extent or magnitude. In order to provide an estimate of the actual LNAPL in the subsurface, the term "LNAPL specific thickness" is proposed to estimate the true amount of LNAPL in the formation.

Because of the variance in soil and LNAPL physical characteristics, the same LNAPL thickness measured at two locations does not always represent the same distribution of LNAPL in the formation or the recoverability of LNAPL. For instance, one foot of LNAPL measured in a well installed in clay will have a much smaller specific thickness than if it were installed in sand. The same is true in terms of saturation. The pore spaces in sand are more interconnected and generally larger in the sand. The clay, however, has smaller and less interconnected pores and a higher pressure is required to saturate those to the same saturation.

The following schematic (Charbeneau et al., 1999) shows a monitoring well with an LNAPL layer located between the air-NAPL interface z_{ao} and the NAPL-water interface z_{ow}. The total monitoring well LNAPL

thickness is b_o. The elevation of the water table, z_{aw}, provides the datum for fluid levels. While the water table is not measured in a monitoring well because of the LNAPL layer, its elevation is easily determined from the elevations z_{ao} and z_{ow}, and the LNAPL specific gravity.

Figure 1



D_o is defined as the specific thickness of LNAPL, which is representative of the amount of LNAPL in a formation. For example, if you had a core of soil separated into its respective media (i.e., air, water, LNAPL, and soil), D_o is a normalized volume of LNAPL (feet^3/feet^2) per unit surface area, but is expressed as a thickness (in units of feet). At equilibrium, due to capillary forces in soil, the measured LNAPL thickness in a monitoring well, b_o, is always greater than D_o.

The relationship between measured monitoring well LNAPL thickness, b_o, and the specific LNAPL volume, D_o (the volume of LNAPL per unit surface area) may be calculated from the following equation:

$$D_o(b_o) = \int_{z_{ow}}^{z_{max}} n S_o(z)\, dz$$

Where:

Z_{max} = height of oil

Z_{ow} = height of the oil/water interface

S_o = saturation of oil

n = soil porosity

Source: D_o Discussion and Calculation provided by BVNA

The function $D_o(b_o)$ may be approximated piecewise by a linear function of the form:

$$D_o = \beta (b_o - \chi)$$

The most accurate method to estimate LNAPL specific thickness is to collect soil core data, analyze Dean Stark LNAPL saturations and integrate LNAPL saturation over discrete depth intervals to calculate D_o (Adamski, et al, 2003). If LNAPL saturation and soil core data are available, D_o is calculated as follows:

$$D_o = \text{LNAPL \%} * \text{ porosity} * \text{soil core interval (ft.)}$$

Where:

LNAPL % = *oil saturation (in % of pore volume)*

porosity = site-specific total porosity (in %)

soil core interval = interval of LNAPL impacted core (in feet)

Collection of soil cores from varying soil types across a site and discrete sampling and analyses of LNAPL saturations accurately depicts the true amount of LNAPL in each formation and eliminates the need for correction factors based on buoyancy or LNAPL density. Correction factors based on soil type and LNAPL type will provide accurate estimations of LNAPL specific thickness across a site.

References

Adamski, M., V. Kremesec, R. Kolhatkar, C. Pearson, and B. Rowan, 2001. "LNAPL Saturation, Distribution, and Recovery in Fine Grained Soils," Proceedings of the Petroleum Hydrocarbons and Organic Chemicals in Ground Water Conference and Exposition, pp.178–192. November 14–16, 2001.

Charbeneau, R.J., R.T. Johns, L.W. Lake, and M.J. McAdams, 1999. "Free-Product Recovery of Petroleum Hydrocarbon Liquid." American Petroleum Institute, Publication No. 4682. Ground Water Monitoring & Remediation, 20(3), Summer, pp. 147-158, 2000. June 1999.

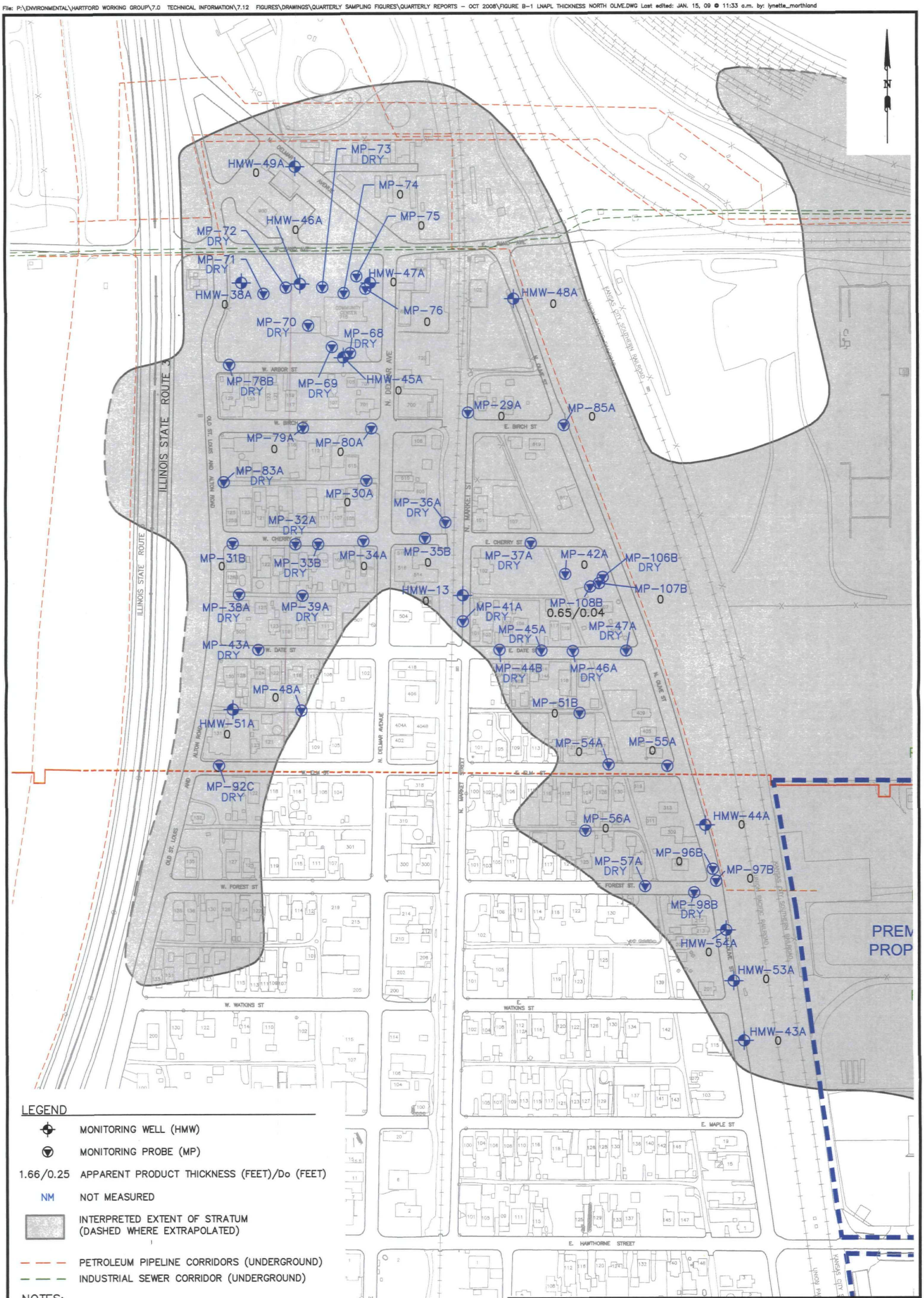
APPENDIX B

D_o Discussion and Calculation

B-1

LNAPL Specific Thickness (D_O)
October 7-8, 2008
North Olive Stratum

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE B-1 LNAPL THICKNESS NORTH OLIVE.DWG Last edited: JAN. 15, 09 @ 11:33 a.m. by: lynette_morthland



LEGEND

- MONITORING WELL (HMW)
- MONITORING PROBE (MP)
- 1.66/0.25 APPARENT PRODUCT THICKNESS (FEET)/Do (FEET)
- NM NOT MEASURED
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- PETROLEUM PIPELINE CORRIDORS (UNDERGROUND)
- INDUSTRIAL SEWER CORRIDOR (UNDERGROUND)

NOTES:

1. Do IS A NORMALIZED VOLUME OF LNAPL (FT3/FT2) PER UNIT SURFACE AREA, BUT IS EXPRESSED AS A THICKNESS (IN UNITS OF FEET).
2. A "0" AT A MONITORING LOCATION INDICATES THERE WAS NO LNAPL GAUGED AT THE LOCATION AND, THEREFORE, Do ALSO EQUALS "0".
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

URS

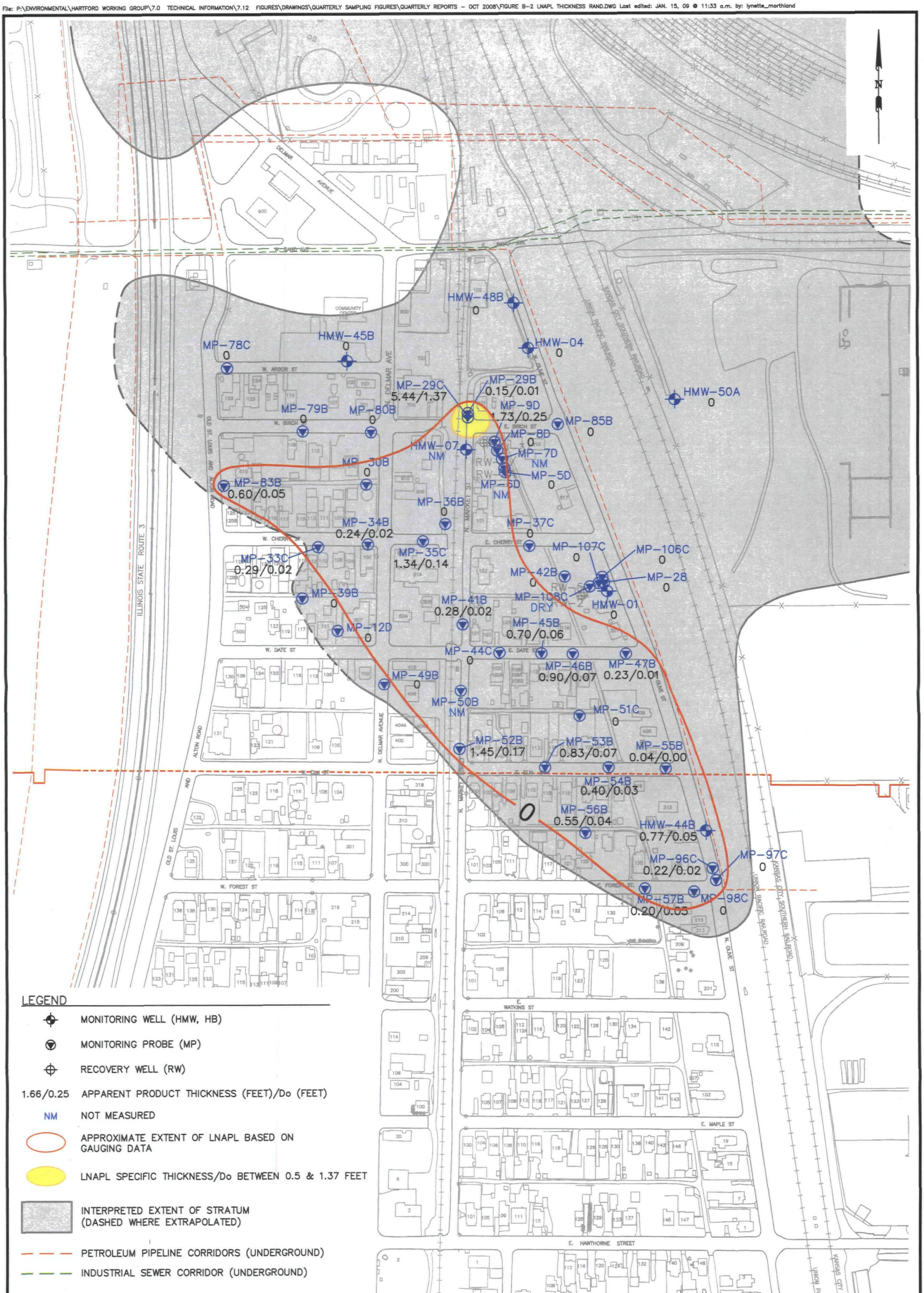
DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

LNAPL Apparent/Specific Thickness North Olive Stratum

FIG. NO. B-1

B-2
LNAPL Specific Thickness (D_O)
October 7-8, 2008
Rand Stratum

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE B-2 LNAPL THICKNESS RAND.DWG Last edited: JAN. 15, 09 @ 11:33 a.m. by: lynette_morthland



LEGEND

- MONITORING WELL (HMW, HB)
- MONITORING PROBE (MP)
- RECOVERY WELL (RW)
- 1.66/0.25 APPARENT PRODUCT THICKNESS (FEET)/Do (FEET)
- NM NOT MEASURED
- APPROXIMATE EXTENT OF LNAPL BASED ON GAUGING DATA
- LNAPL SPECIFIC THICKNESS/Do BETWEEN 0.5 & 1.37 FEET
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- PETROLEUM PIPELINE CORRIDORS (UNDERGROUND)
- INDUSTRIAL SEWER CORRIDOR (UNDERGROUND)

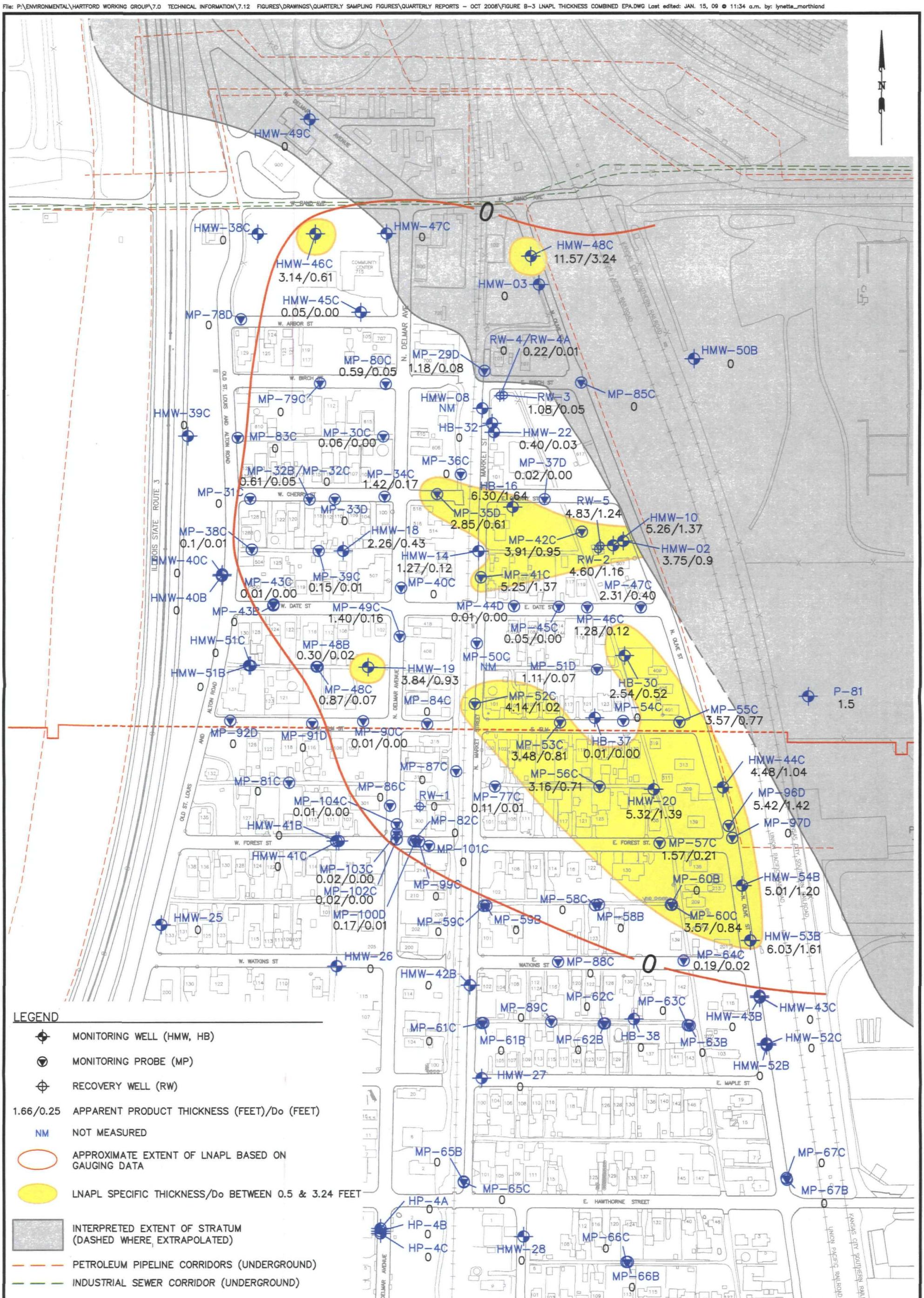
NOTES:

1. Do IS A NORMALIZED VOLUME OF LNAPL (FT3/FT2) PER UNIT SURFACE AREA, BUT IS EXPRESSED AS A THICKNESS (IN UNITS OF FEET).
2. A "0" AT A MONITORING LOCATION INDICATES THERE WAS NO LNAPL GAUGED AT THE LOCATION AND, THEREFORE, Do ALSO EQUALS "0".
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE 4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008 HARTFORD, IL	PROJECT NO. 21561955.00009
URS	
DRN. BY:lrm 1/15/09 DSGN. BY:bh CHKD. BY:	LNAPL Apparent/Specific Thickness Rand Stratum
	FIG. NO. B-2

B-3
LNAPL Specific Thickness (D_O)
October 7-8, 2008
Combined EPA and Shallow Main Sand Strata

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE B-3 LNAPL THICKNESS COMBINED EPA.DWG Last edited: JAN. 15, 09 @ 11:34 a.m. by: lynette_morthland



LEGEND

- MONITORING WELL (HMW, HB)
- MONITORING PROBE (MP)
- RECOVERY WELL (RW)
- 1.66/0.25 APPARENT PRODUCT THICKNESS (FEET)/Do (FEET)
- NM NOT MEASURED
- APPROXIMATE EXTENT OF LNAPL BASED ON GAUGING DATA
- LNAPL SPECIFIC THICKNESS/Do BETWEEN 0.5 & 3.24 FEET
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- PETROLEUM PIPELINE CORRIDORS (UNDERGROUND)
- INDUSTRIAL SEWER CORRIDOR (UNDERGROUND)

NOTES:

1. Do IS A NORMALIZED VOLUME OF LNAPL (FT3/FT2) PER UNIT SURFACE AREA, BUT IS EXPRESSED AS A THICKNESS (IN UNITS OF FEET).
2. A "0" AT A MONITORING LOCATION INDICATES THERE WAS NO LNAPL GAUGED AT THE LOCATION AND, THEREFORE, Do ALSO EQUALS "0".
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200
SCALE FEET

HARTFORD WORKING GROUP PLUME SITE 4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008 HARTFORD, IL	PROJECT NO. 21561955.00009
URS	
DRN. BY:lrm 1/15/09 DSGN. BY:bh CHKD. BY:	LNAPL Apparent/Specific Thickness Combined EPA Stratum and Shallow Main Sand
	FIG. NO. B-3

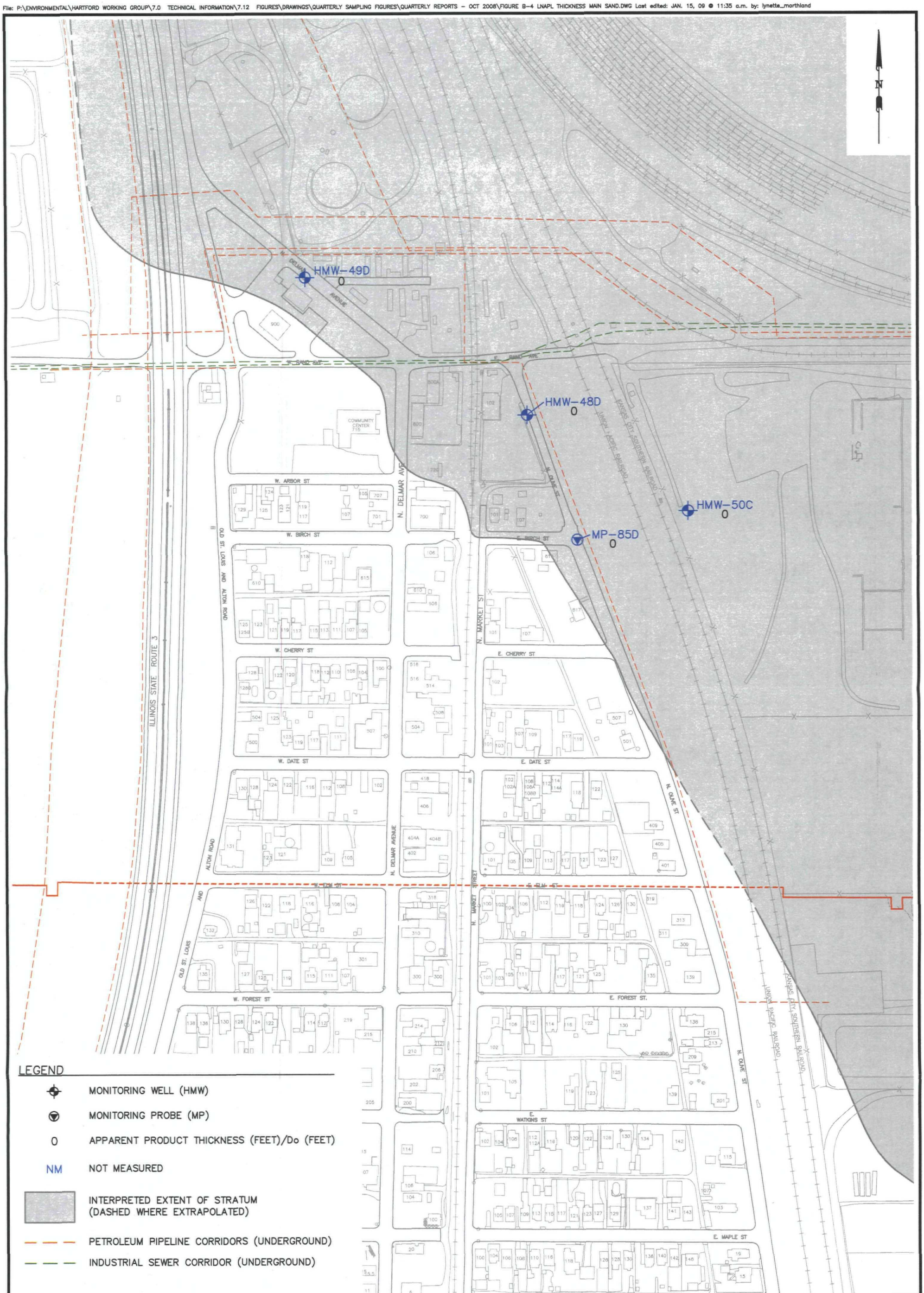
B-4

LNAPL Specific Thickness (D_O)

October 7-8, 2008

Main Sand Below the D Clay

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS - OCT 2008\FIGURE B-4 LNAPL THICKNESS MAIN SAND.DWG Last edited: JAN. 15, 09 @ 11:35 a.m. by: lynette_morthland



LEGEND

- MONITORING WELL (HMW)
- MONITORING PROBE (MP)
- 0 — APPARENT PRODUCT THICKNESS (FEET)/Do (FEET)
- NM — NOT MEASURED
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- PETROLEUM PIPELINE CORRIDORS (UNDERGROUND)
- INDUSTRIAL SEWER CORRIDOR (UNDERGROUND)

NOTES:

1. Do IS A NORMALIZED VOLUME OF LNAPL (FT3/FT2) PER UNIT SURFACE AREA, BUT IS EXPRESSED AS A THICKNESS (IN UNITS OF FEET).
2. A "0" AT A MONITORING LOCATION INDICATES THERE WAS NO LNAPL GAUGED AT THE LOCATION AND, THEREFORE, Do ALSO EQUALS "0".
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200
SCALE FEET

HARTFORD WORKING GROUP PLUME SITE 4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008 HARTFORD, IL	PROJECT NO. 21561955.00009
URS	
DRN. BY:lrm 1/15/08 DSGN. BY:bh CHKD. BY:	LNAPL Apparent/Specific Thickness Main Sand Below The D Clay
	FIG. NO. B-4

APPENDIX C

URS Low Flow Sampling SOP

1. Objective

This document defines the standard operating procedure (SOP) and necessary equipment for collection of groundwater samples in monitoring wells, extraction wells, or piezometers using low-flow techniques. The term "Low Flow" refers to the velocity that the groundwater is removed from the soil formation immediately adjacent to the well screen.

In this technique, in order to withdraw water from within the well screen and to lessen drawdown, a pump that minimizes disturbance to the groundwater is operated at a low flow rate. The well is only purged within the screened interval until specific parameters have stabilized and as according to the site-specific work plan. Therefore, the groundwater samples collected are representative of the water bearing formation and hydraulically isolated from the water in the casing. The need to purge three well volumes, as required in traditional techniques, is not necessary with low flow purging and sampling. The low flow procedure described in this SOP is not necessarily applicable for every site or for wells screened in materials with very low permeability.

SOPs providing additional related guidance are listed below:

- SOP No. 4 – Decontamination
- SOP No. 8 – Field Reporting and Documentation.
- SOP No. 10 – Groundwater Level Measurements
- SOP No. 20 – Monitoring Well Development and Purging
- SOP No. 24 – Sample Classification, Packaging and Shipping
- SOP No. 25 – Sample Containers, Preservation, and Holding Times
- SOP No. 26 – Sample Control and Custody Procedures.

2. Equipment

Equipment potentially used during well purging and sampling:

- Well installation forms and boring logs for well being sampled
- Well keys
- Disposable latex or nitrile gloves
- Assorted tools (socket set, screwdriver, etc.)
- New synthetic rope

- Pump and required accessories (described in more detail in following section)
- Electronic water level indicator with 0.01-foot increments
- Graduated cylinder
- Temperature meter
- pH meter (with automatic temperature compensation)
- Conductivity meter
- Turbidity meter
- Dissolved oxygen (DO) meter
- Oxidation reduction potential (ORP) meter
- Flow-through cell
- Calibration fluids
- Paper towels or Kimwipes
- Calculator
- Bound field logbook (logbook)
- Waterproof pen and permanent marker
- Plastic buckets
- 55-gallon drums or truck-mounted tank
- Plastic sheeting
- Appropriate decontamination equipment (see SOP No. 4)
- Cooler with ice
- Sample containers and labels
- Groundwater sampling form
- Chain-of-Custody form
- Appropriate health and safety equipment (e.g., photoionization detector (PID)).

3. Sampling Procedure

This section provides the step-by-step procedure for collecting groundwater samples in the field. Observations made during groundwater purging and sampling should be recorded in a logbook in accordance with procedures described in SOP No. 8.

A. Any equipment used in the sampling procedure that could contact groundwater should be properly decontaminated before each use (see SOP No.4).

B. Equipment should be calibrated based on the manufacturers' instructions. The frequency of calibration should be specified in the site-specific Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP) or work plan. According to "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures" (Unites States Environmental Protection Agency (USEPA), 1996), pH calibration should be performed with at least two buffers that bracket the expected range of values. Dissolved oxygen calibration must be corrected for local barometric pressure readings and elevation.

C. Before well purging begins, the following steps should be performed at each well:

- Inspect the well and surrounding site for security, damage, and evidence of tampering. If damage or tampering is evident, contact the project manager for guidance.
- Place clean plastic sheeting around the well (as necessary)
- Measure ambient volatile organic compounds (VOCs) background levels in the immediate vicinity of the well (i.e., using a PID or a flame ionization detector (FID) per the Health and Safety Plan (HASP).
- Remove the well cap and immediately measure VOCs at the rim of the well and record the readings in the logbook or on the groundwater sampling form. Give the water in the well adequate time to reach equilibrium.

D. After the well has reached equilibrium, the groundwater elevation should be measured to the nearest 1/100-foot. The total well depth and screened interval should be obtained from the well logs. Measuring the total depth prior to sampling should be avoided to prevent resuspension of settled solids in the well casings and to minimize the necessary purge time for turbidity equilibration. The total depth of the well should be confirmed after sampling has been completed. A detailed description of monitoring well gauging activities is provided in SOP No. 10.

E. Following measurement of the static groundwater elevation, the appropriate equipment will be slowly and carefully placed in the well. If the wells have light or dense non-aqueous-phase liquids (LNAPLs or DNAPLs) care should be taken to place sampling equipment below or above the NAPL.

Selection of the proper pump is important for low-flow sampling activities. USEPA guidance (1996) notes that dedicated sampling devices capable of purging and sampling are preferred over any other type of device. In addition, the pump must be capable of flow rates between 0.1 and 1.0 liter per minute. A variety of portable sampling devices are available, such as bladder pumps, peristaltic pumps, electrical submersible pumps, gas-driven pumps, inertial lift foot-valve samplers (e.g. check-ball systems), and bailers (a list of pump manufacturers and suppliers is included on pg. 8). However, some of this sampling equipment has drawbacks or has been specifically rejected for low-flow sampling. The peristaltic pump can only be used for shallow applications and it can cause degassing of groundwater. Degassing results in the alteration of pH and alkalinity values as well as some loss of volatiles. Also, USEPA guidance asserts that inertial lift foot-valve type samplers and bailers cause too much groundwater disturbance and may invite unacceptable operator variability. Therefore, these sampling devices should be avoided for low-flow sampling activities.

When determining pump intake placement in the well, refer to the attached flowchart (Low Flow Monitoring Well Sampling – Determination of Pump/Tubing Intake). If the screen length allows, the pump intake should be at least two feet from the bottom of the screen. Placing the pump intake near the top of the water column can cause stagnant water from the casing to be purged, but placing the pump intake near to the bottom of the well can cause mobilization and entrainment of settled solids from the bottom of the well.

F. Tubing should be connected from the pump to a flow-through cell. Then, calculate the volume of water to fill the flow-through cell and tubing. According to American Society for Testing and Materials (ASTM) Standard D 6771 (2002), the frequency of measurements should be equal to the time required to completely evacuate one volume of the cell. This ensures that independent measurements are made.

G. The pump should be started at a low flow rate, approximately 100 mL/min or the lowest flow rate possible.

H. Water level measurements should continue every two minutes until the measurements indicate that significant drawdown is not occurring. According to ASTM standards

(2002), allowable drawdown should never exceed the distance between the top of the well screen and the pump intake. Including a safety factor, also provided by ASTM, drawdown should actually not exceed 25% of this distance. This ensures that water stored in the casing is not purged or sampled. For example, for a 4-foot screen, the pump should be placed at the midpoint of the screen (two feet from the top of the screen to the pump intake). With a safety factor of 25%, this would require drawdown not to exceed six inches. However, based on historical procedure at the Hartford Working Group Plume Site, a more conservative rule that drawdown should not exceed 0.3 feet may also be used. When using the Troll 9500® or similar monitoring equipment to calculate purge volume, a stabilized drawdown value should be used rather than the initial drawdown value.

Once it has been established that significant drawdown is not occurring, the flow rate may be increased to </= 1 L/m (ASTM, 2002) or, if the flow rate remains the same, water level measurements need only to be taken periodically. However, when the flow rate is increased, water level measurements must continue every two minutes.

If drawdown surpasses 0.3 feet while pumping is occurring at the lowest flow rate possible, then the well will be purged dry. The well should be sampled no sooner than twenty-four hours after being purged dry, and only after a sufficient volume (commonly 90%) has recovered, or the water level has recovered sufficiently to collect the anticipated samples (ideally the intake should not be moved during this recovery period). Samples may then be collected even though the indicator field parameters have not stabilized.

I. Parameters should be documented on the groundwater sampling form and in the logbook. The time between parameter measurements is calculated as follows:

$$T = \frac{V}{Q}$$, where

T = time between measurements (minutes)

V = volume of the flow-through cell + volume of the tubing (liters)

Q = purge flow rate (liters per minute)

Sampling should proceed as stated in the FSP or work plan. However, in most cases, purging will continue until specific parameters have stabilized over three consecutive readings, recorded at interval T as calculated in the equation above. **Table 1** provides

guidelines that may be used for parameter stabilization as specified by USEPA, ASTM, and in the Nielsen and Nielsen Technical Guidance on Low-Flow Purging and Sampling and Minimum-Purge Sampling (Nielsen and Nielsen, 2002). These guidelines are to be used in combination with professional judgment.

Table 1. Stabilization Guidelines for Low-Flow Sampling

Parameter	Stabilization Guidelines			
	EPA	ASTM	Nielsen & Nielsen	Site Specific Criteria Used by Hartford Working Group
DO	+/- 10%	+/- 10% or +/-0.2 mg/L, whichever is greatest	+/- 10% or +/-0.2 mg/L, whichever is greatest	+/- 0.3 mg/L
ORP	+/- 10 mV	+/- 20 mV	+/- 20 mV	+/- 10 mV
PH	+/- 0.1 units	+/- 0.2 units	+/- 0.2 units	+/- 0.1 units
Conductivity	+/- 3%	+/- 3%	+/- 3%	+/- 3%
Temperature	Not Specified	Not Specified	+/- 0.2 °C	+/- 3%
Turbidity	+/- 10%	Not Specified	Not Specified	+/- 10 %

J. After the relevant parameters have stabilized, the flow-through cell should be disconnected or bypassed for sampling. If, after a considerable number of readings have been taken, parameters have not stabilized, samplers should refer to the work plan or possibly use alternative sampling methods.

K. The flow rate should be adjusted to less than 0.5 L/min for sampling to minimize aeration during the sampling of volatiles.

L. A new pair of disposable latex or nitrile gloves should be put on immediately before sampling.

M. The constituents should be sampled for in the order given below:

- VOCs – Vials should be filled completely so that the water forms a convex meniscus then capped so that no air space exists in the vial. Turn the vial over and tap it to check for bubbles. If air bubbles are observed in the sample vial, remove the lid and

attempt to fill the vial two more times, (being careful not to dump out any groundwater currently in the vial). If air bubbles are present twice more, discard the sample vial and repeat the procedure with a new vial. If, after three attempts, air bubbles are still in the vial, make a note of this and place the vial in the cooler.

- Gas sensitive parameters (e.g., ferrous iron, methane, alkalinity)
- Semivolatile organic compounds, pesticides, polychlorinated biphenyls, and herbicides
- Petroleum hydrocarbons
- Metals (unfiltered)
- Explosives
- Any filtered analytes (use in-line filters if possible)

O. Place all samples on ice inside a cooler immediately.

P. Each sample should be identified with the Sample ID, location, analysis number, preservatives, date and time of sampling event, and sampler.

Q. The sample time and constituents to be analyzed for should be recorded in the logbook and on the groundwater sampling form.

R. Chain-of-custody procedures should be started.

S. Sample equipment should be decontaminated.

T. The well sampling order should be dependent on expected levels of contamination in each well, if known, and should be determined prior to sampling. Sampling should progress from the least contaminated to the most contaminated well. Quality assurance/quality control (QA/QC) samples should be collected during groundwater sampling as required in the work plan and/or QAPP.

4. List Of Potential Suppliers Who Provide Pumps Suitable for Low-Flow Sampling:

Field Environmental. 1-800-3930-4009. www.fieldenvironmental.com. Pumps: peristaltic, QED bladder pumps, Fultz rotor pump, control boxes, compressors, etc.

QED. 1-800-624-2026. www.micropurge.com. Pumps: bladder pumps, flow cell, compressors, etc.

Fultz Pumps. 1-717-248-2300. www.fultzpumps.com.

5. References

ASTM 2002, Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations, ASTM D6771-02, American Society for Testing and Materials. West Conshohocken, PA.

Nielsen, David and Nielsen, Gillian. Technical Guidance on Low-Flow Purging and Sampling and Minimum-Purge Sampling. Second Edition. NEFS-TG001-02. April 2002.

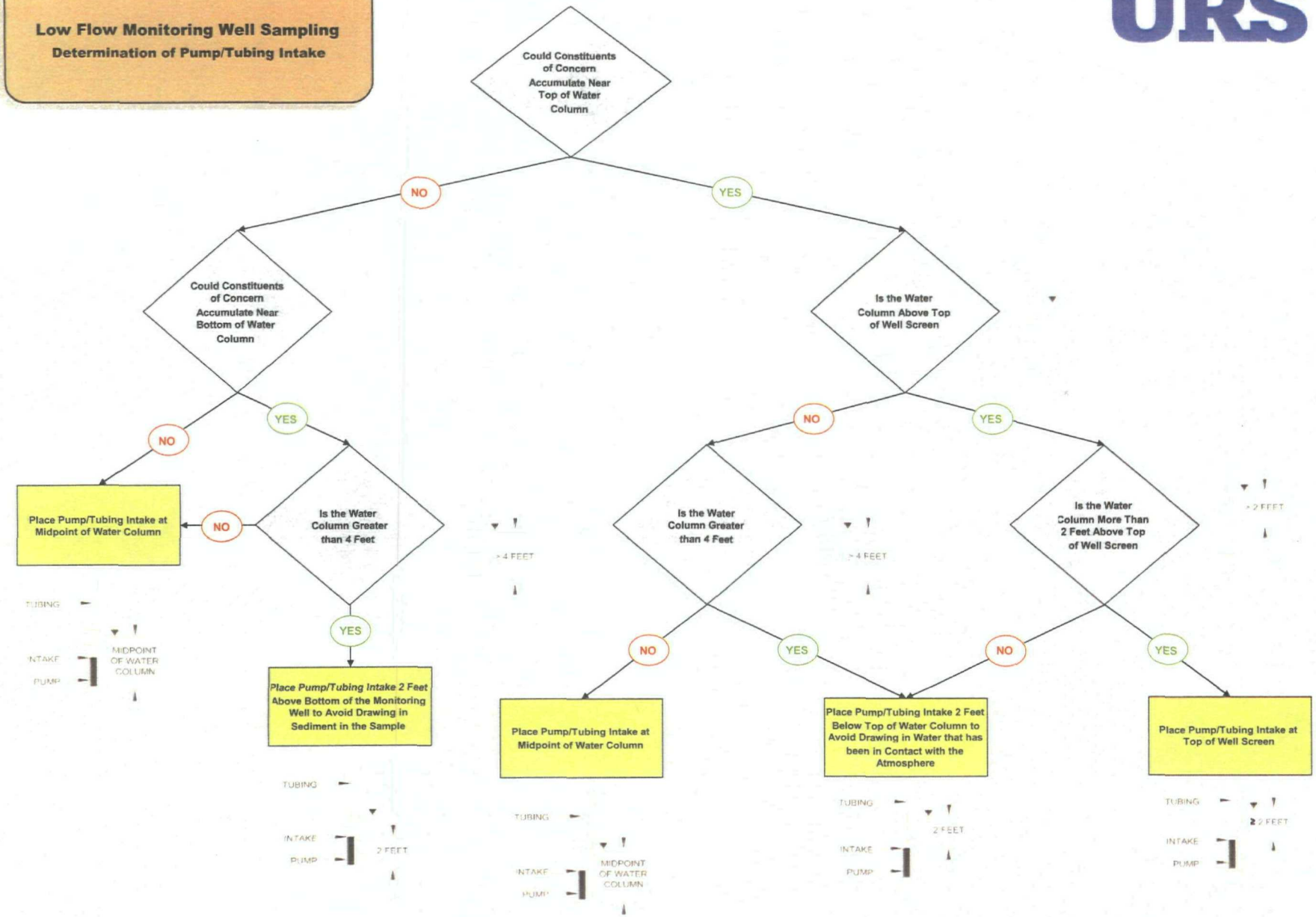
USEPA. 1996. Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures. EPA/540/S-95/504. OSWER, April 1996.

FLOWCHART

Low Flow Monitoring Well Sampling

Determination of Pump/Tubing Intake

URS



Note: If water column is <2 feet, DO NOT Use Low Flow Sampling SOP

APPENDIX D Summary of Indicator Parameter Measurements – October 2008

In-Situ Inc.

Troll 9000
10/09/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	40 [ft]
Pump placement from TOC	25.2 [ft]

Well Information:

Well Id	HMW-25
Well diameter	2 [in]
Well total depth	35.14 [ft]
Depth to top of screen	23.67 [ft]
Screen length	176.4 [in]
Depth to Water	23.12 [ft]

Pumping information:

Final pumping rate	160 [mL/min]
Flowcell volume	295.54 [mL]
Calculated Sample Rate	111 [sec]
Sample rate	111 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	13:21:22	18.04	6.68	1347.97	4.95	3.14	99.88
	13:23:14	17.90	6.68	1357.51	5.53	3.01	100.74
	13:25:06	17.91	6.68	1365.54	3.40	2.89	101.68
	13:26:57	17.76	6.68	1373.69	3.33	2.77	102.45
	13:28:50	17.73	6.68	1388.18	1.98	2.63	103.31
Variance in last 3 readings	13:25:06	0.02	0.00	8.03	-2.13	-0.11	0.94
	13:26:57	-0.16	0.00	8.14	-0.07	-0.12	0.77
	13:28:50	-0.03	0.00	14.50	-1.35	-0.14	0.86

Notes: TURBIDITY DID NOT STABILIZE BUT LAST 3 READINGS WERE ALL UNDER 10

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-25-10-9-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom templ ate' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-25

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	35.14 [ft]
Well Diam:	2 [in]
Screen Length:	176.4 [in]
Screen Depth:	23.67 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	23.12 [ft]
Pump Level (TOC):	25.2 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	111 [sec]
Actual Measurement Interval:	111 [sec]

Start date/time:	10/9/2008	13:19:31
End date/time:	10/9/2008	13:29:57
Total Time:	0:10:26	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.68	0.01	99.88	0.64	3.14	-0.24			1347.97	14.09	4.95	-0.54	18.04	-0.08	13:21:22
3	6.68	0	100.74	0.86	3.01	-0.13			1357.51	9.53	5.53	0.58	17.9	-0.14	13:23:14
2	6.68	0	101.68	0.94	2.89	-0.11			1365.54	8.03	3.4	-2.13	17.91	0.02	13:25:06
1	6.68	0	102.45	0.77	2.77	-0.12			1373.69	8.14	3.33	-0.07	17.76	-0.16	13:26:57
0	6.68	0	103.31	0.86	2.63	-0.14			1388.18	14.5	1.98	-1.35	17.73	-0.03	13:28:50

pH Min:	6.68
pH Max:	6.68
ORP Min:	99.88
ORP Max:	103.31
DO Min:	2.63
DO Max:	3.14
RDO Min:	
RDO Max:	
Cond Min:	1347.97
Cond Max:	1388.18
Turb Min:	1.98
Turb Max:	5.53
Temp Min:	17.73
Temp Max:	18.04

Notes:	TURBIDITY DID NOT STABILIZE BUT LAST 3 READINGS W ERE ALL UNDER 10
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 10:47:29
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-25-10-9-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/9/2008 13:19:31
Test started on:	10/9/2008 13:19:31
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	6

TOTAL DATA SAMPLES	6
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/9/2008	13:19:31	0	64.6	29.696	5.5	2.863	99	6.67	3379	36.2148	1333.89
10/9/2008	13:21:22	111	64.47	29.694	4.9	2.863	100	6.68	3135	33.5581	1347.97
10/9/2008	13:23:14	223	64.22	29.692	5.5	2.837	101	6.68	3006	32.0892	1357.51
10/9/2008	13:25:06	335	64.24	29.691	3.4	2.863	102	6.68	2893	30.8898	1365.54
10/9/2008	13:26:57	446	63.96	29.687	3.3	2.863	102	6.68	2775	29.5444	1373.69
10/9/2008	13:28:50	559	63.91	29.687	2	2.863	103	6.68	2633	28.0148	1388.18

In-Situ Inc.

Troll 9000
10/09/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	35 [ft]
Pump placement from TOC	24.7 [ft]

Well Information:

Well Id	HMW-26
Well diameter	2 [in]
Well total depth	35.59 [ft]
Depth to top of screen	24.61 [ft]
Screen length	176.4 [in]
Depth to Water	20.23 [ft]

Pumping information:

Final pumping rate	120 [mL/min]
Flowcell volume	273.22 [mL]
Calculated Sample Rate	137 [sec]
Sample rate	137 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	10:24:50	19.31	6.59	1320.75	6.23	1.14	-52.90
	10:27:08	18.43	6.59	1285.66	3.97	0.93	-59.31
	10:29:24	18.44	6.60	1257.84	3.43	0.85	-64.87
	10:31:43	18.28	6.60	1251.03	4.02	0.86	-69.92
	10:34:00	18.38	6.60	1251.08	4.10	0.84	-73.39
Variance in last 3 readings	10:29:24	0.01	0.00	-27.81	-0.54	-0.08	-5.56
	10:31:43	-0.16	0.00	-6.81	0.59	0.01	-5.05
	10:34:00	0.09	0.00	0.05	0.08	-0.03	-3.46

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-26-10-9-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom templ ate' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is

Operator Name:	J MUMPER			
Company Name:	URS Corporation			
Project Name:	Hartford Groundwater Sampling - 21561955.00009			
Site Name:	HWG			
Well ID:	HMW-26			

pH Sensor:	Installed	Target Value	0.1	[pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10	[mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3	[mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1	[µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1	[NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	35 [ft]
Well Depth:	35.59 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.61 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	20.23 [ft]
Pump Level (TOC):	24.7 [ft]

Final Pumping Rate:	120 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (156.2 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	273.22 [mL]
Actual Total Volume:	273.22 [mL]
Calculated Measurement Interval:	137 [sec]
Actual Measurement Interval:	137 [sec]

Start date/time:	10/9/2008	10:24:50
End date/time:	10/9/2008	10:35:23
Total Time:	0:10:33	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.59	6.59	-52.9	-52.9	1.14	1.14			1320.75	1320.75	6.23	6.23	19.31	19.31	10:24:50
3	6.59	0	-59.31	-6.42	0.93	-0.21			1285.66	-35.1	3.97	-2.26	18.43	-0.88	10:27:08
2	6.6	0	-64.87	-5.56	0.85	-0.08			1257.84	-27.81	3.43	-0.54	18.44	0.01	10:29:24
1	6.6	0	-69.92	-5.05	0.86	0.01			1251.03	-6.81	4.02	0.59	18.28	-0.16	10:31:43
0	6.6	0	-73.39	-3.46	0.84	-0.03			1251.08	0.05	4.1	0.08	18.38	0.09	10:34:00

pH Min:	6.59
pH Max:	6.6
ORP Min:	-73.39
ORP Max:	-52.9
DO Min:	0.84
DO Max:	1.14
RDO Min:	
RDO Max:	
Cond Min:	1251.03
Cond Max:	1320.75
Turb Min:	3.43
Turb Max:	6.23
Temp Min:	18.28
Temp Max:	19.31

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 10:49:55
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-26-10-9-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/9/2008 10:24:50
Test started on:	10/9/2008 10:24:50
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	5	

TOTAL DATA SAMPLES	5
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/9/2008	10:24:50	0	66.75	29.706	6.2	2.863	-53	6.59	1138	12.4905	1320.75
10/9/2008	10:27:08	138	65.17	29.707	4	2.863	-59	6.59	932	10.0441	1285.66
10/9/2008	10:29:24	274	65.19	29.706	3.4	2.863	-65	6.6	853	9.2021	1257.84
10/9/2008	10:31:43	413	64.91	29.704	4	2.863	-70	6.6	865	9.2977	1251.03
10/9/2008	10:34:00	550	65.08	29.706	4.1	2.863	-73	6.6	835	8.9939	1251.08

In-Situ Inc.

Troll 9000
10/09/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	32 [ft]
Pump placement from TOC	27.2 [ft]

Well Information:

Well Id	HMW-27
Well diameter	2 [in]
Well total depth	35.03 [ft]
Depth to top of screen	24.62 [ft]
Screen length	176.4 [in]
Depth to Water	25.11 [ft]

Pumping information:

Final pumping rate	120 [mL/min]
Flowcell volume	259.83 [mL]
Calculated Sample Rate	130 [sec]
Sample rate	130 [sec]
Stabilized drawdown	1 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	15:23:56	20.58	6.52	1135.09	12.24	0.95	88.57
	15:26:06	20.38	6.52	1134.03	13.84	0.91	84.03
	15:28:16	20.69	6.51	1132.69	11.39	0.85	80.31
	15:30:27	20.36	6.51	1130.22	13.51	0.82	77.66
	15:32:38	20.36	6.52	1127.50	13.80	0.78	75.35
Variance in last 3 readings	15:28:16	0.31	0.00	-1.34	-2.45	-0.05	-3.72
	15:30:27	-0.33	0.00	-2.46	2.12	-0.03	-2.65
	15:32:38	0.01	0.00	-2.73	0.30	-0.04	-2.31

Notes: PURGED FOR ONE HOUR. T URBIDITY DID NOT STABILIZE.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-27-10-9-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom templ ate' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is located.

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-27

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	32 [ft]
Well Depth:	35.03 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.62 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	25.11 [ft]
Pump Level (TOC):	27.2 [ft]

Final Pumping Rate:	120 [mL/min]
Stable Draw Down:	1 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (142.8 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	259.83 [mL]
Actual Total Volume:	259.83 [mL]
Calculated Measurement Interval:	130 [sec]
Actual Measurement Interval:	130 [sec]

Start date/time:	10/9/2008	14:33:45
End date/time:	10/9/2008	15:33:37
Total Time:	0:59:52	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.52	0	88.57	-6.2	0.95	-0.05			1135.09	7.04	12.24	1.31	20.58	0.07	15:23:56
3	6.52	0	84.03	-4.54	0.91	-0.04			1134.03	-1.06	13.84	1.6	20.38	-0.21	15:26:06
2	6.51	0	80.31	-3.72	0.85	-0.05			1132.69	-1.34	11.39	-2.45	20.69	0.31	15:28:16
1	6.51	0	77.66	-2.65	0.82	-0.03			1130.22	-2.46	13.51	2.12	20.36	-0.33	15:30:27
0	6.52	0	75.35	-2.31	0.78	-0.04			1127.5	-2.73	13.8	0.3	20.36	0.01	15:32:38

pH Min:	6.51
pH Max:	6.52
ORP Min:	75.35
ORP Max:	88.57
DO Min:	0.78
DO Max:	0.95
RDO Min:	
RDO Max:	
Cond Min:	1127.5
Cond Max:	1135.09
Turb Min:	11.39
Turb Max:	13.84
Temp Min:	20.36
Temp Max:	20.69

Notes:	PURGED FOR ONE HOUR. TURBIDITY DID NOT STABILIZE.
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 10:51:01
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-27-10-9-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/9/2008 14:33:45
Test started on:	10/9/2008 14:33:45
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	28

TOTAL DATA SAMPLES	28
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/9/2008	14:33:45	0	69.83	29.692	12.5	2.889	117	6.51	5798	65.8126	1142.96
10/9/2008	14:35:55	130	69.02	29.691	13	2.889	117	6.52	5355	60.2457	1137.34
10/9/2008	14:38:05	260	69.41	29.691	13.2	2.863	117	6.53	4926	55.6639	1136.54
10/9/2008	14:40:17	392	69.4	29.691	17	2.837	117	6.52	4610	52.0803	1141.12
10/9/2008	14:42:27	522	69	29.691	14.7	2.837	117	6.53	4370	49.1599	1134.42
10/9/2008	14:44:38	653	69.16	29.689	14.7	2.889	118	6.52	4097	46.1694	1128.9
10/9/2008	14:46:49	784	69.14	29.687	18.6	2.863	118	6.52	3854	43.4214	1128.12
10/9/2008	14:49:00	915	69.07	29.687	16.9	2.863	118	6.52	3636	40.9325	1127.33
10/9/2008	14:51:11	1046	68.86	29.681	18.3	2.837	118	6.52	3447	38.7268	1121.02
10/9/2008	14:53:21	1176	68.44	29.679	20	2.889	119	6.52	3276	36.6436	1112.29
10/9/2008	14:55:32	1307	68.19	29.677	19.8	2.863	119	6.52	3081	34.3662	1111.16
10/9/2008	14:57:44	1439	67.9	29.675	22.2	2.863	119	6.52	2930	32.5816	1106.82
10/9/2008	14:59:54	1569	67.41	29.67	26.3	2.837	119	6.52	2779	30.7424	1100.11
10/9/2008	15:02:04	1699	67.46	29.667	30.4	2.837	118	6.52	2051	22.7048	1108.51
10/9/2008	15:04:17	1832	67.41	29.665	17	2.863	118	6.53	1513	16.7361	1109.2
10/9/2008	15:06:27	1962	67.59	29.666	15.1	2.837	118	6.52	1111	12.3185	1111.02
10/9/2008	15:08:38	2093	67.96	29.663	19.7	2.863	118	6.52	1044	11.6224	1114.78
10/9/2008	15:10:48	2223	67.75	29.665	35.6	2.863	117	6.52	1027	11.4036	1117.49
10/9/2008	15:12:59	2354	67.39	29.664	42.4	2.863	115	6.52	934	10.3312	1114.49
10/9/2008	15:15:11	2486	67.99	29.665	15.4	2.863	111	6.52	767	8.5446	1113.94
10/9/2008	15:17:23	2618	68.4	29.665	19.8	2.863	107	6.52	822	9.1932	1118.85
10/9/2008	15:19:33	2748	68.1	29.665	12.5	2.863	101	6.52	1074	11.9776	1120.55
10/9/2008	15:21:44	2879	68.92	29.664	10.9	2.863	95	6.52	999	11.2403	1128.05
10/9/2008	15:23:56	3011	69.04	29.666	12.2	2.863	89	6.52	950	10.702	1135.09
10/9/2008	15:26:06	3141	68.68	29.662	13.8	2.889	84	6.52	908	10.1915	1134.03
10/9/2008	15:28:16	3271	69.24	29.661	11.4	2.863	80	6.51	854	9.6441	1132.69
10/9/2008	15:30:27	3402	68.64	29.664	13.5	2.889	78	6.51	824	9.2396	1130.22
10/9/2008	15:32:38	3533	68.66	29.664	13.8	2.889	75	6.52	781	8.7573	1127.5

In-Situ Inc.

Troll 9000
10/08/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	32 [ft]
Pump placement from TOC	27.75 [ft]

Well Information:

Well Id	HMW-28
Well diameter	2 [in]
Well total depth	36.02 [ft]
Depth to top of screen	24.67 [ft]
Screen length	176.4 [in]
Depth to Water	25.64 [ft]

Pumping information:

Final pumping rate	154 [mL/min]
Flowcell volume	259.83 [mL]
Calculated Sample Rate	102 [sec]
Sample rate	102 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
	14:24:45	18.02	6.61	958.07	2.16	3.82	206.46
	14:26:27	17.87	6.61	960.63	1.96	3.74	203.21
	14:28:10	17.92	6.61	961.80	1.82	3.64	200.38
	14:29:52	17.83	6.61	960.41	2.00	3.58	197.82
Variance in last 3 readings	14:26:27	-0.15	0.00	2.56	-0.20	-0.09	-3.25
	14:28:10	0.05	0.00	1.18	-0.15	-0.10	-2.82
	14:29:52	-0.09	0.00	-1.40	0.18	-0.06	-2.57

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-28-10-8-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom templ ate' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-28

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	32 [ft]
Well Depth:	36.02 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.67 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	25.64 [ft]
Pump Level (TOC):	27.75 [ft]

Final Pumping Rate:	154 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (142.8 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	259.83 [mL]
Actual Total Volume:	259.83 [mL]
Calculated Measurement Interval:	102 [sec]
Actual Measurement Interval:	102 [sec]

Start date/time:	10/8/2008	14:24:45
End date/time:	10/8/2008	14:30:55
Total Time:	0:06:10	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	0	0	0	0	0	0			0	0	0	0	0	0	0
3	6.61	6.61	206.46	206.46	3.82	3.82			958.07	958.07	2.16	2.16	18.02	18.02	14:24:45
2	6.61	0	203.21	-3.25	3.74	-0.09			960.63	2.56	1.96	-0.2	17.87	-0.15	14:26:27
1	6.61	0	200.38	-2.82	3.64	-0.1			961.8	1.18	1.82	-0.15	17.92	0.05	14:28:10
0	6.61	0	197.82	-2.57	3.58	-0.06			960.41	-1.4	2	0.18	17.83	-0.09	14:29:52

pH Min:	0
pH Max:	6.61
ORP Min:	0
ORP Max:	206.46
DO Min:	0
DO Max:	3.82
RDO Min:	
RDO Max:	
Cond Min:	0
Cond Max:	961.8
Turb Min:	0
Turb Max:	2.16
Temp Min:	0
Temp Max:	18.02

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	10:52:15
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-28-10-8-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/8/2008	14:24:45
Test started on:	10/8/2008	14:24:45
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	4	

TOTAL DATA SAMPLES	4
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/8/2008	14:24:45	0	64.44	29.549	2.2	2.863	206	6.61	3823	41.0574	958.07
10/8/2008	14:26:27	102	64.17	29.548	2	2.863	203	6.61	3738	40.0182	960.63
10/8/2008	14:28:10	205	64.25	29.547	1.8	2.863	200	6.61	3638	38.9942	961.8
10/8/2008	14:29:52	307	64.09	29.544	2	2.863	198	6.61	3577	38.2661	960.41

In-Situ Inc.

Troll 9000
10/09/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	31 [ft]
Pump placement from TOC	26 [ft]

Well Information:

Well Id	HMW-29
Well diameter	2 [in]
Well total depth	34.55 [ft]
Depth to top of screen	24.86 [ft]
Screen length	176.4 [in]
Depth to Water	23.8 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	255.37 [mL]
Calculated Sample Rate	110 [sec]
Sample rate	110 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	8:43:56	15.73	6.68	1015.93	28.80	0.49	115.58
	8:45:47	15.75	6.68	1017.27	31.85	0.49	112.93
	8:47:38	15.74	6.68	1016.80	26.68	0.50	108.99
	8:49:29	15.75	6.68	1016.12	26.94	0.51	105.23
	8:51:20	15.77	6.67	1017.46	26.06	0.53	101.34
Variance in last 3 readings	8:47:38	-0.01	0.00	-0.46	-5.17	0.01	-3.93
	8:49:29	0.01	0.00	-0.69	0.26	0.01	-3.76
	8:51:20	0.02	0.00	1.34	-0.89	0.02	-3.89

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-29-10-9-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-29

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	31 [ft]
Well Depth:	34.55 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.86 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	23.8 [ft]
Pump Level (TOC):	26 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (138.4 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	255.37 [mL]
Actual Total Volume:	255.37 [mL]
Calculated Measurement Interval:	110 [sec]
Actual Measurement Interval:	110 [sec]

Start date/time:	10/9/2008	8:27:21
End date/time:	10/9/2008	8:52:12
Total Time:	0:24:51	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.68	0	115.58	-2.4	0.49	0			1015.93	0.21	28.8	-4.97	15.73	-0.02	8:43:56
3	6.68	0	112.93	-2.65	0.49	0			1017.27	1.34	31.85	3.05	15.75	0.02	8:45:47
2	6.68	0	108.99	-3.93	0.5	0.01			1016.8	-0.46	26.68	-5.17	15.74	-0.01	8:47:38
1	6.68	0	105.23	-3.76	0.51	0.01			1016.12	-0.69	26.94	0.26	15.75	0.01	8:49:29
0	6.67	0	101.34	-3.89	0.53	0.02			1017.46	1.34	26.06	-0.89	15.77	0.02	8:51:20

pH Min:	6.67
pH Max:	6.68
ORP Min:	101.34
ORP Max:	115.58
DO Min:	0.49
DO Max:	0.53
RDO Min:	
RDO Max:	
Cond Min:	1015.93
Cond Max:	1017.46
Turb Min:	26.06
Turb Max:	31.85
Temp Min:	15.73
Temp Max:	15.77

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	10:53:32
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-29-10-9-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/9/2008	8:27:21
Test started on:	10/9/2008	8:27:21
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	14	

TOTAL DATA SAMPLES	14
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/9/2008	8:27:21	0	60.57	29.67	20.1	2.837	147	6.67	853	8.7273	1001.57
10/9/2008	8:29:12	111	60.46	29.671	19.5	2.863	145	6.67	744	7.6005	1004.15
10/9/2008	8:31:02	221	60.45	29.67	24.1	2.889	142	6.67	675	6.8949	1008.75
10/9/2008	8:32:53	332	60.44	29.671	27	2.837	138	6.68	619	6.3205	1010.49
10/9/2008	8:34:44	443	60.42	29.671	27.6	2.837	134	6.68	572	5.8355	1013.36
10/9/2008	8:36:35	554	60.38	29.672	32.3	2.863	130	6.68	537	5.4839	1014.22
10/9/2008	8:38:24	663	60.35	29.671	26.6	2.837	126	6.68	507	5.1747	1015.09
10/9/2008	8:40:15	774	60.33	29.672	29	2.863	122	6.67	486	4.9529	1014.85
10/9/2008	8:42:06	885	60.34	29.673	33.8	2.837	118	6.68	485	4.9473	1015.72
10/9/2008	8:43:56	995	60.31	29.672	28.8	2.863	116	6.68	485	4.9465	1015.93
10/9/2008	8:45:47	1106	60.35	29.675	31.8	2.863	113	6.68	489	4.9836	1017.27
10/9/2008	8:47:38	1217	60.33	29.674	26.7	2.863	109	6.68	501	5.1142	1016.8
10/9/2008	8:49:29	1328	60.35	29.676	26.9	2.863	105	6.68	514	5.2407	1016.12
10/9/2008	8:51:20	1439	60.38	29.677	26.1	2.863	101	6.67	535	5.4545	1017.46

In-Situ Inc.

Troll 9000
10/13/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hanford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	45 [ft]
Pump placement from TOC	32 [ft]

Well Information:

Well Id	HMW-38C
Well diameter	2 [in]
Well total depth	42.2 [ft]
Depth to top of screen	32 [ft]
Screen length	116.4 [in]
Depth to Water	29.26 [ft]

Pumping information:

Final pumping rate	156 [mL/min]
Flowcell volume	317.85 [mL]
Calculated Sample Rate	123 [sec]
Sample rate	123 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	14:28:06	19.59	6.51	1529.08	28.52	0.25	-103.53
	14:30:10	19.46	6.51	1529.41	33.03	0.22	-104.35
	14:32:14	19.43	6.51	1529.86	61.42	0.21	-104.99
	14:34:18	19.44	6.51	1529.93	60.04	0.22	-105.88
	14:36:21	19.39	6.51	1530.17	63.32	0.20	-106.61
Variance in last 3 readings	14:32:14	-0.03	0.00	0.45	28.39	-0.01	-0.64
	14:34:18	0.01	0.00	0.07	-1.38	0.00	-0.90
	14:36:21	-0.05	0.00	0.24	3.28	-0.01	-0.73

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-38C-10-13-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-38C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	45 [ft]
Well Depth:	42.2 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	32 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.26 [ft]
Pump Level (TOC):	32 [ft]

Final Pumping Rate:	156 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (200.9 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	317.85 [mL]
Actual Total Volume:	317.85 [mL]
Calculated Measurement Interval:	123 [sec]
Actual Measurement Interval:	123 [sec]

Start date/time:	10/13/2008	14:03:19
End date/time:	10/13/2008	14:38:05
Total Time:	0:34:46	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.51	0	-103.53	-0.85	0.25	0			1529.08	6.25	28.52	-59.47	19.59	-0.03	14:28:06
3	6.51	0	-104.35	-0.81	0.22	-0.03			1529.41	0.33	33.03	4.51	19.46	-0.14	14:30:10
2	6.51	0	-104.99	-0.64	0.21	-0.01			1529.86	0.45	61.42	28.39	19.43	-0.03	14:32:14
1	6.51	0	-105.88	-0.9	0.22	0			1529.93	0.07	60.04	-1.38	19.44	0.01	14:34:18
0	6.51	0	-106.61	-0.73	0.2	-0.01			1530.17	0.24	63.32	3.28	19.39	-0.05	14:36:21

pH Min:	6.51
pH Max:	6.51
ORP Min:	-106.61
ORP Max:	-103.53
DO Min:	0.2
DO Max:	0.25
RDO Min:	
RDO Max:	
Cond Min:	1529.08
Cond Max:	1530.17
Turb Min:	28.52
Turb Max:	63.32
Temp Min:	19.39
Temp Max:	19.59

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:02:56
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-38C-10-13-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/13/2008 14:03:19
Test started on:	10/13/2008 14:03:19
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	17

TOTAL DATA SAMPLES	17
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/13/2008	14:03:19	0	68.66	29.822	28.6	2.421	-68	6.55	1036	11.5594	1183.5
10/13/2008	14:05:23	124	68.07	29.819	23.3	2.421	-75	6.54	626	6.9451	1201.08
10/13/2008	14:07:26	247	67.81	29.817	20.2	2.473	-80	6.53	482	5.3256	1227.98
10/13/2008	14:09:30	371	67.69	29.813	13.7	2.473	-84	6.52	408	4.5054	1259.89
10/13/2008	14:11:34	495	67.5	29.814	12	2.473	-88	6.52	364	4.0108	1290.62
10/13/2008	14:13:38	619	67.5	29.812	14.9	2.499	-92	6.51	334	3.6816	1319.09
10/13/2008	14:15:42	743	67.52	29.81	14.5	2.525	-95	6.51	307	3.3881	1340.99
10/13/2008	14:17:46	867	67.6	29.808	18.1	2.525	-98	6.51	293	3.2357	1348.43
10/13/2008	14:19:50	991	67.37	29.807	19.2	2.551	-99	6.51	295	3.2466	1349.58
10/13/2008	14:21:54	1115	67.25	29.804	21.2	2.551	-100	6.51	276	3.0337	1357.92
10/13/2008	14:23:58	1239	67.35	29.805	72.6	2.343	-102	6.51	258	2.8448	1365.16
10/13/2008	14:26:02	1363	67.32	29.804	88	2.421	-103	6.51	252	2.7716	1366.35
10/13/2008	14:28:06	1487	67.27	29.802	28.5	2.395	-104	6.51	252	2.7717	1371.22
10/13/2008	14:30:10	1611	67.02	29.803	33	2.421	-104	6.51	224	2.4537	1367.51
10/13/2008	14:32:14	1735	66.97	29.801	61.4	2.395	-105	6.51	214	2.3429	1367.06
10/13/2008	14:34:18	1859	66.99	29.799	60	2.291	-106	6.51	216	2.3742	1367.42
10/13/2008	14:36:21	1982	66.9	29.798	63.3	2.317	-107	6.51	203	2.2273	1366.15

In-Situ Inc.

Troll 9000
10/14/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	30 [ft]
Pump placement from TOC	24.86 [ft]

Well Information:

Well Id	HMW-39B
Well diameter	2 [in]
Well total depth	30 [ft]
Depth to top of screen	22.3 [ft]
Screen length	84 [in]
Depth to Water	22.86 [ft]

Pumping information:

Final pumping rate	80 [mL/min]
Flowcell volume	250.9 [mL]
Calculated Sample Rate	189 [sec]
Sample rate	189 [sec]
Stabilized drawdown	0.25 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:00:29	17.36	6.98	913.12	23.22	1.72	160.66
	9:03:41	17.42	6.98	917.49	15.36	1.66	158.52
	9:06:50	17.60	6.99	921.42	11.53	1.59	157.50
	9:10:00	17.83	7.01	926.13	10.69	1.54	156.64
	9:13:12	17.90	7.01	929.39	6.59	1.54	154.85
Variance in last 3 readings	9:06:50	0.18	0.01	3.93	-3.83	-0.07	-1.03
	9:10:00	0.23	0.01	4.71	-0.84	-0.05	-0.86
	9:13:12	0.07	0.01	3.25	-4.10	0.00	-1.80

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-39B-10-14-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom templ ate' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-39B

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	30 [ft]
Well Depth:	30 [ft]
Well Diam:	2 [in]
Screen Len:	84 [in]
Screen Depth:	22.3 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	22.86 [ft]
Pump Level (TOC):	24.86 [ft]

Final Pumping Rate:	80 [mL/min]
Stable Draw Down:	0.25 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (133.9 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	250.9 [mL]
Actual Total Volume:	250.9 [mL]
Calculated Measurement Interval:	189 [sec]
Actual Measurement Interval:	189 [sec]

Start date/time:	10/14/2008	8:54:10
End date/time:	10/14/2008	9:14:25
Total Time:	0:20:15	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.98	0.04	160.66	-2.78	1.72	-0.05			913.12	-0.02	23.22	-2.01	17.36	-0.01	9:00:29
3	6.98	0.01	158.52	-2.14	1.66	-0.05			917.49	4.37	15.36	-7.86	17.42	0.07	9:03:41
2	6.99	0.01	157.5	-1.03	1.59	-0.07			921.42	3.93	11.53	-3.83	17.6	0.18	9:06:50
1	7.01	0.01	156.64	-0.86	1.54	-0.05			926.13	4.71	10.69	-0.84	17.83	0.23	9:10:00
0	7.01	0.01	154.85	-1.8	1.54	0			929.39	3.25	6.59	-4.1	17.9	0.07	9:13:12

pH Min:	6.98
pH Max:	7.01
ORP Min:	154.85
ORP Max:	160.66
DO Min:	1.54
DO Max:	1.72
RDO Min:	
RDO Max:	
Cond Min:	913.12
Cond Max:	929.39
Turb Min:	6.59
Turb Max:	23.22
Temp Min:	17.36
Temp Max:	17.9

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	10:54:49
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-39B-10-14-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/14/2008	8:54:10
Test started on:	10/14/2008	8:54:10
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	7	

TOTAL DATA SAMPLES	7
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/14/2008	8:54:10	0	63.54	29.828	35	2.655	170	6.82	1797	18.9182	915.35
10/14/2008	8:57:19	189	63.25	29.83	25.2	2.603	163	6.93	1769	18.5608	913.14
10/14/2008	9:00:29	379	63.24	29.829	23.2	2.655	161	6.98	1717	18.0127	913.12
10/14/2008	9:03:41	571	63.36	29.829	15.4	2.655	159	6.98	1663	17.4671	917.49
10/14/2008	9:06:50	760	63.68	29.831	11.5	2.629	157	6.99	1591	16.7697	921.42
10/14/2008	9:10:00	950	64.09	29.832	10.7	2.655	157	7.01	1537	16.2801	926.13
10/14/2008	9:13:12	1142	64.21	29.832	6.6	2.655	155	7.01	1536	16.2877	929.39

In-Situ Inc.

Troll 9000
10/14/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	39 [ft]
Pump placement from TOC	31.73 [ft]

Well Information:

Well Id	HMW-39C
Well diameter	2 [in]
Well total depth	42 [ft]
Depth to top of screen	31.73 [ft]
Screen length	116.4 [in]
Depth to Water	24.71 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	291.07 [mL]
Calculated Sample Rate	125 [sec]
Sample rate	125 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	11:49:26	16.32	7.10	1321.77	12.72	0.20	-111.94
	11:51:32	16.40	7.10	1327.05	10.82	0.19	-113.01
	11:53:36	16.44	7.10	1330.03	10.67	0.19	-113.87
	11:55:42	16.37	7.10	1333.34	13.10	0.18	-114.73
	11:57:48	16.44	7.10	1335.85	9.63	0.17	-115.58
Variance in last 3 readings	11:53:36	0.04	0.00	2.97	-0.15	0.00	-0.86
	11:55:42	-0.07	0.00	3.31	2.44	-0.01	-0.86
	11:57:48	0.07	0.00	2.51	-3.47	-0.01	-0.86

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-39C-10-14-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-39C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	39 [ft]
Well Depth:	42 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	31.73 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	24.71 [ft]
Pump Level (TOC):	31.73 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (174.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	291.07 [mL]
Actual Total Volume:	291.07 [mL]
Calculated Measurement Interval:	125 [sec]
Actual Measurement Interval:	125 [sec]

Start date/time:	10/14/2008	11:26:22
End date/time:	10/14/2008	11:59:14
Total Time:	0:32:52	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	7.1	0	-111.94	-1.24	0.2	-0.01			1321.77	2.12	12.72	0.47	16.32	0.02	11:49:26
3	7.1	0	-113.01	-1.07	0.19	-0.01			1327.05	5.28	10.82	-1.9	16.4	0.09	11:51:32
2	7.1	0	-113.87	-0.86	0.19	0			1330.03	2.97	10.67	-0.15	16.44	0.04	11:53:36
1	7.1	0	-114.73	-0.86	0.18	-0.01			1333.34	3.31	13.1	2.44	16.37	-0.07	11:55:42
0	7.1	0	-115.58	-0.86	0.17	-0.01			1335.85	2.51	9.63	-3.47	16.44	0.07	11:57:48

pH Min:	7.1
pH Max:	7.1
ORP Min:	-115.58
ORP Max:	-111.94
DO Min:	0.17
DO Max:	0.2
RDO Min:	
RDO Max:	
Cond Min:	1321.77
Cond Max:	1335.85
Turb Min:	9.63
Turb Max:	13.1
Temp Min:	16.32
Temp Max:	16.44

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:03:50
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-39C-10-14-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/14/2008	11:26:22
Test started on:	10/14/2008	11:26:22
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	16	

TOTAL DATA SAMPLES	16
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/14/2008	11:26:22	0	61.38	29.83	28.9	2.681	-48	6.98	1306	13.4239	1268.76
10/14/2008	11:28:28	126	61.3	29.829	27.6	2.655	-75	7.06	651	6.6909	1293.26
10/14/2008	11:30:34	252	61.16	29.827	24.5	2.681	-87	7.09	394	4.0379	1297.9
10/14/2008	11:32:40	378	61.05	29.824	16.9	2.681	-94	7.1	302	3.0898	1301.11
10/14/2008	11:34:45	503	61.14	29.825	17.9	2.681	-98	7.1	268	2.7488	1305.35
10/14/2008	11:36:51	629	61.14	29.823	19.1	2.681	-102	7.1	254	2.6051	1308.53
10/14/2008	11:38:57	755	61.27	29.822	18.1	2.681	-105	7.11	225	2.3131	1314.02
10/14/2008	11:41:03	881	61.27	29.819	17.8	2.655	-106	7.1	221	2.2653	1315.44
10/14/2008	11:43:09	1007	61.34	29.821	16.1	2.655	-108	7.1	229	2.3576	1319.26
10/14/2008	11:45:14	1132	61.42	29.823	13.5	2.655	-109	7.1	243	2.4974	1321.77
10/14/2008	11:47:20	1258	61.33	29.822	12.2	2.655	-111	7.1	211	2.1694	1319.66
10/14/2008	11:49:26	1384	61.37	29.822	12.7	2.655	-112	7.1	202	2.0735	1321.77
10/14/2008	11:51:32	1510	61.52	29.82	10.8	2.655	-113	7.1	192	1.9736	1327.05
10/14/2008	11:53:36	1634	61.6	29.819	10.7	2.655	-114	7.1	191	1.9723	1330.03
10/14/2008	11:55:42	1760	61.47	29.818	13.1	2.629	-115	7.1	178	1.8371	1333.34
10/14/2008	11:57:48	1886	61.59	29.817	9.6	2.629	-116	7.1	169	1.7403	1335.85

In-Situ Inc.

Troll 9000
10/13/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	37 [ft]
Pump placement from TOC	24.72 [ft]

Well Information:

Well Id	HMW-40C
Well diameter	2 [in]
Well total depth	39 [ft]
Depth to top of screen	23.49 [ft]
Screen length	176.4 [in]
Depth to Water	22.72 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	282.15 [mL]
Calculated Sample Rate	121 [sec]
Sample rate	121 [sec]
Stabilized drawdown	0.03 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
	9:27:36	17.84	6.93	576.45	2.76	1.18	189.21
	9:29:38	17.71	6.91	570.96	2.74	1.03	185.14
	9:31:40	17.71	6.87	570.30	3.71	0.97	182.49
Variance in last 3 readings	9:27:36	17.84	6.93	576.45	2.76	1.18	189.21
	9:29:38	-0.12	-0.02	-5.49	-0.02	-0.14	-4.06
	9:31:40	-0.01	-0.03	-0.66	0.96	-0.06	-2.65

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-40C-10-13-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-40C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	37 [ft]
Well Depth:	39 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	23.49 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	22.72 [ft]
Pump Level (TOC):	24.72 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.03 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (165.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	282.15 [mL]
Actual Total Volume:	282.15 [mL]
Calculated Measurement Interval:	121 [sec]
Actual Measurement Interval:	121 [sec]

Start date/time:	10/13/2008	9:27:36
End date/time:	10/13/2008	9:33:34
Total Time:	0:05:58	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	0	0	0	0	0	0			0	0	0	0	0	0	0
3	0	0	0	0	0	0			0	0	0	0	0	0	0
2	6.93	6.93	189.21	189.21	1.18	1.18			576.45	576.45	2.76	2.76	17.84	17.84	9:27:36
1	6.91	-0.02	185.14	-4.06	1.03	-0.14			570.96	-5.49	2.74	-0.02	17.71	-0.12	9:29:38
0	6.87	-0.03	182.49	-2.65	0.97	-0.06			570.3	-0.66	3.71	0.96	17.71	-0.01	9:31:40

pH Min:	0
pH Max:	6.93
ORP Min:	0
ORP Max:	189.21
DO Min:	0
DO Max:	1.18
RDO Min:	
RDO Max:	
Cond Min:	0
Cond Max:	576.45
Turb Min:	0
Turb Max:	3.71
Temp Min:	0
Temp Max:	17.84

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:04:47
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-40C-10-13-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/13/2008	9:27:36
Test started on:	10/13/2008	9:27:36
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	3	

TOTAL DATA SAMPLES	3
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/13/2008	9:27:36	0	64.1	29.82	2.8	2.681	189	6.93	1176	12.4425	576.45
10/13/2008	9:29:38	122	63.88	29.819	2.7	2.655	185	6.91	1032	10.8925	570.96
10/13/2008	9:31:40	244	63.87	29.818	3.7	2.655	182	6.87	969	10.2274	570.3

In-Situ Inc.

Troll 9000
10/13/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	45 [ft]
Pump placement from TOC	30.77 [ft]

Well Information:

Well Id	HMW-43C
Well diameter	2 [in]
Well total depth	41 [ft]
Depth to top of screen	30.77 [ft]
Screen length	116.4 [in]
Depth to Water	26.2 [ft]

Pumping information:

Final pumping rate	160 [mL/min]
Flowcell volume	317.85 [mL]
Calculated Sample Rate	120 [sec]
Sample rate	120 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	11:48:23	19.41	6.75	1032.42	7.85	0.22	-112.26
	11:50:24	19.42	6.75	1032.45	8.66	0.20	-112.78
	11:52:25	19.46	6.75	1033.14	10.97	0.16	-112.65
	11:54:26	19.51	6.75	1033.06	12.60	0.14	-113.16
	11:56:27	19.36	6.75	1033.39	15.90	0.13	-113.81
Variance in last 3 readings	11:52:25	0.04	0.00	0.69	2.31	-0.04	0.13
	11:54:26	0.05	0.00	-0.08	1.63	-0.02	-0.51
	11:56:27	-0.15	0.00	0.34	3.30	-0.01	-0.64

Notes: turb did not stabilize during the 1 hour purge time, began sampling at 1 hr.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-43C-10-13-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom templ ate' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-43C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	45 [ft]
Well Depth:	41 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	30.77 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	26.2 [ft]
Pump Level (TOC):	30.77 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (200.9 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	317.85 [mL]
Actual Total Volume:	317.85 [mL]
Calculated Measurement Interval:	120 [sec]
Actual Measurement Interval:	120 [sec]

Start date/time:	10/13/2008	10:56:03
End date/time:	10/13/2008	11:56:53
Total Time:	1:00:50	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.75	0	-112.26	-0.77	0.22	0.07			1032.42	0.69	7.85	1.92	19.41	0.01	11:48:23
3	6.75	0	-112.78	-0.51	0.2	-0.02			1032.45	0.03	8.66	0.81	19.42	0.01	11:50:24
2	6.75	0	-112.65	0.13	0.16	-0.04			1033.14	0.69	10.97	2.31	19.46	0.04	11:52:25
1	6.75	0	-113.16	-0.51	0.14	-0.02			1033.06	-0.08	12.6	1.63	19.51	0.05	11:54:26
0	6.75	0	-113.81	-0.64	0.13	-0.01			1033.39	0.34	15.9	3.3	19.36	-0.15	11:56:27

pH Min:	6.75
pH Max:	6.75
ORP Min:	-113.81
ORP Max:	-112.26
DO Min:	0.13
DO Max:	0.22
RDO Min:	
RDO Max:	
Cond Min:	1032.42
Cond Max:	1033.39
Turb Min:	7.85
Turb Max:	15.9
Temp Min:	19.36
Temp Max:	19.51

Notes:	turb did not stabilize during the 1 hour purge time, began sampling at 1 hr.
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:05:36
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-43C-10-13-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/13/2008 10:56:03
Test started on:	10/13/2008 10:56:03
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	31

TOTAL DATA SAMPLES	31
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/13/2008	10:56:03	0	67.46	29.868	59.6	1.874	-71	6.49	576	6.3135	397.45
10/13/2008	10:58:03	120	66.89	29.865	77	2.499	-96	6.58	87322	952.4987	657.14
10/13/2008	11:00:04	241	66.76	29.865	81.8	2.603	-100	6.63	26378	287.3994	760.85
10/13/2008	11:02:06	363	66.6	29.865	84.7	2.733	-102	6.68	5244	57.054	837.85
10/13/2008	11:04:06	483	66.75	29.862	80.7	2.707	-102	6.7	1710	18.6454	873.86
10/13/2008	11:06:06	603	66.7	29.86	74	2.733	-104	6.71	892	9.7151	898.11
10/13/2008	11:08:07	724	66.67	29.86	68.6	2.733	-104	6.71	594	6.4669	912.56
10/13/2008	11:10:08	845	66.52	29.858	62	2.759	-105	6.72	451	4.9072	921.52
10/13/2008	11:12:09	966	66.4	29.859	58	2.759	-103	6.72	375	4.0724	926.71
10/13/2008	11:14:10	1087	66.32	29.858	53.3	2.733	-103	6.73	322	3.489	929.9
10/13/2008	11:16:12	1209	66.18	29.859	6.6	2.395	-103	6.73	289	3.1283	909.11
10/13/2008	11:18:11	1328	66.31	29.859	5.6	2.447	-103	6.73	274	2.972	912.89
10/13/2008	11:20:12	1449	65.9	29.858	7.2	2.473	-103	6.73	250	2.6964	911.44
10/13/2008	11:22:14	1571	66.03	29.858	8.9	2.499	-103	6.74	231	2.5027	915.42
10/13/2008	11:24:14	1691	65.99	29.857	8.6	2.499	-104	6.74	218	2.3535	917.42
10/13/2008	11:26:15	1812	66.13	29.857	7.7	2.525	-105	6.74	210	2.2706	920.9
10/13/2008	11:28:15	1932	66.03	29.858	10.6	2.551	-105	6.74	200	2.1622	922.74
10/13/2008	11:30:17	2054	66.11	29.858	16.6	2.473	-106	6.74	189	2.0475	922.92
10/13/2008	11:32:17	2174	66.26	29.856	17.5	2.525	-107	6.74	188	2.0424	926.27
10/13/2008	11:34:18	2295	66.54	29.856	20.4	2.551	-108	6.74	180	1.9593	931.73
10/13/2008	11:36:20	2417	66.63	29.855	18.7	2.499	-108	6.74	176	1.9203	918.14
10/13/2008	11:38:19	2536	66.68	29.856	23.3	2.499	-109	6.74	173	1.8837	918.52
10/13/2008	11:40:20	2657	66.57	29.856	26.4	2.473	-109	6.75	164	1.7803	917.25
10/13/2008	11:42:21	2778	66.6	29.853	53.1	2.447	-110	6.75	150	1.6359	918.36
10/13/2008	11:44:23	2900	66.79	29.853	79.5	2.499	-111	6.75	143	1.56	921.14
10/13/2008	11:46:23	3020	66.93	29.853	5.9	2.551	-111	6.75	143	1.5579	921.51
10/13/2008	11:48:23	3140	66.94	29.85	7.8	2.525	-112	6.75	216	2.3597	922.26
10/13/2008	11:50:24	3261	66.96	29.853	8.7	2.525	-113	6.75	196	2.1423	922.45
10/13/2008	11:52:25	3382	67.02	29.853	11	2.551	-113	6.75	159	1.7426	923.76
10/13/2008	11:54:26	3503	67.12	29.854	12.6	2.577	-113	6.75	139	1.5257	924.71
10/13/2008	11:56:27	3624	66.85	29.853	15.9	2.603	-114	6.75	134	1.4644	922.13

In-Situ Inc.

Troll 9000
10/13/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	51 [ft]
Pump placement from TOC	45 [ft]

Well Information:

Well Id	HMW-44D
Well diameter	2 [in]
Well total depth	50 [ft]
Depth to top of screen	45 [ft]
Screen length	60 [in]
Depth to Water	27.53 [ft]

Pumping information:

Final pumping rate	135 [mL/min]
Flowcell volume	344.64 [mL]
Calculated Sample Rate	154 [sec]
Sample rate	154 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:11:51	20.16	6.39	1121.57	18.47	0.40	-98.37
	9:14:26	20.03	6.34	1116.25	6.57	0.35	-95.33
	9:17:01	19.88	6.29	1114.10	9.59	0.33	-91.06
	9:19:37	19.90	6.29	1113.02	10.12	0.31	-91.40
	9:22:12	19.76	6.27	1114.09	9.59	0.31	-90.71
Variance in last 3 readings	9:17:01	-0.15	-0.05	-2.15	3.03	-0.02	4.28
	9:19:37	0.03	0.00	-1.08	0.53	-0.01	-0.34
	9:22:12	-0.15	-0.02	1.07	-0.53	0.00	0.68

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-44D-10-13-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-44D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	51 [ft]
Well Depth:	50 [ft]
Well Diam:	2 [in]
Screen Len:	60 [in]
Screen Depth:	45 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	27.53 [ft]
Pump Level (TOC):	45 [ft]

Final Pumping Rate:	135 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (227.6 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	344.64 [mL]
Actual Total Volume:	344.64 [mL]
Calculated Measurement Interval:	154 [sec]
Actual Measurement Interval:	154 [sec]

Start date/time:	10/13/2008	8:56:20
End date/time:	10/13/2008	9:22:57
Total Time:	0:26:37	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.39	-0.02	-98.37	0.6	0.4	-0.03			1121.57	0.88	18.47	2.59	20.16	0.15	9:11:51
3	6.34	-0.05	-95.33	3.04	0.35	-0.05			1116.25	-5.32	6.57	-11.9	20.03	-0.13	9:14:26
2	6.29	-0.05	-91.06	4.28	0.33	-0.02			1114.1	-2.15	9.59	3.03	19.88	-0.15	9:17:01
1	6.29	0	-91.4	-0.34	0.31	-0.01			1113.02	-1.08	10.12	0.53	19.9	0.03	9:19:37
0	6.27	-0.02	-90.71	0.68	0.31	0			1114.09	1.07	9.59	-0.53	19.76	-0.15	9:22:12

pH Min:	6.27
pH Max:	6.39
ORP Min:	-98.37
ORP Max:	-90.71
DO Min:	0.31
DO Max:	0.4
RDO Min:	
RDO Max:	
Cond Min:	1113.02
Cond Max:	1121.57
Turb Min:	6.57
Turb Max:	18.47
Temp Min:	19.76
Temp Max:	20.16

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:06:29
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-44D-10-13-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/13/2008	8:56:20
Test started on:	10/13/2008	8:56:20
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	11	

TOTAL DATA SAMPLES	11
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/13/2008	8:56:20	0	68.71	29.866	14	2.759	-110	6.64	633	7.0555	1016.93
10/13/2008	8:58:55	155	68.36	29.869	12.2	2.733	-109	6.59	539	5.9805	1016.77
10/13/2008	9:01:30	310	68.41	29.868	9.2	2.759	-104	6.51	497	5.5243	1016.37
10/13/2008	9:04:05	465	68.37	29.866	10.4	2.785	-102	6.48	473	5.252	1015.5
10/13/2008	9:06:40	620	68.25	29.867	13.5	2.785	-100	6.44	459	5.0912	1018.68
10/13/2008	9:09:16	776	68.01	29.867	15.9	2.785	-99	6.41	437	4.8319	1013.75
10/13/2008	9:11:51	931	68.28	29.865	18.5	2.759	-98	6.39	405	4.4883	1017.79
10/13/2008	9:14:26	1086	68.05	29.865	6.6	2.707	-95	6.34	350	3.87	1010.2
10/13/2008	9:17:01	1241	67.78	29.865	9.6	2.681	-91	6.29	327	3.6066	1005.14
10/13/2008	9:19:37	1397	67.83	29.864	10.1	2.733	-91	6.29	314	3.4609	1004.7
10/13/2008	9:22:12	1552	67.56	29.862	9.6	2.733	-91	6.27	313	3.4411	1002.49

In-Situ Inc.

Troll 9000
10/15/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	46.5 [ft]
Pump placement from TOC	34.3 [ft]

Well Information:

Well Id	HMW-47C
Well diameter	2 [in]
Well total depth	44.5 [ft]
Depth to top of screen	34.3 [ft]
Screen length	116.4 [in]
Depth to Water	29.5 [ft]

Pumping information:

Final pumping rate	150 [mL/min]
Flowcell volume	324.55 [mL]
Calculated Sample Rate	130 [sec]
Sample rate	130 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	12:07:55	18.26	6.05	1381.80	49.87	0.02	-30.75
	12:10:06	18.38	6.03	1374.95	58.69	0.02	-29.00
	12:12:16	18.28	5.97	1392.00	64.88	0.02	-25.28
	12:14:28	18.37	6.01	1387.51	58.65	0.01	-27.33
	12:16:39	18.52	6.00	1383.10	60.50	0.01	-26.90
Variance in last 3 readings	12:12:16	-0.10	-0.05	17.05	6.18	0.00	3.72
	12:14:28	0.09	0.04	-4.49	-6.23	0.00	-2.05
	12:16:39	0.15	-0.01	-4.41	1.85	0.00	0.43

Notes: *turb greater than 10*

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-47C-10-15-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-47C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	46.5 [ft]
Well Depth:	44.5 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	34.3 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.5 [ft]
Pump Level (TOC):	34.3 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (207.6 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	324.55 [mL]
Actual Total Volume:	324.55 [mL]
Calculated Measurement Interval:	130 [sec]
Actual Measurement Interval:	130 [sec]

Start date/time:	10/15/2008	11:37:23
End date/time:	10/15/2008	12:18:41
Total Time:	0:41:18	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.05	0.04	-30.75	-4.96	0.02	-0.01			1381.8	7.2	49.87	-3.84	18.26	0	12:07:55
3	6.03	-0.02	-29	1.75	0.02	0			1374.95	-6.85	58.69	8.83	18.38	0.13	12:10:06
2	5.97	-0.05	-25.28	3.72	0.02	0			1392	17.05	64.88	6.18	18.28	-0.1	12:12:16
1	6.01	0.04	-27.33	-2.05	0.01	0			1387.51	-4.49	58.65	-6.23	18.37	0.09	12:14:28
0	6	-0.01	-26.9	0.43	0.01	0			1383.1	-4.41	60.5	1.85	18.52	0.15	12:16:39

pH Min:	5.97
pH Max:	6.05
ORP Min:	-30.75
ORP Max:	-25.28
DO Min:	0.01
DO Max:	0.02
RDO Min:	
RDO Max:	
Cond Min:	1374.95
Cond Max:	1392
Turb Min:	49.87
Turb Max:	64.88
Temp Min:	18.26
Temp Max:	18.52

Notes:	turb greater than 10
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:07:11
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-47C-10-15-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47760
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/15/2008 11:37:23
Test started on:	10/15/2008 11:37:23
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	19	

TOTAL DATA SAMPLES	19
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/15/2008	11:37:23	0	65.2	29.603	75	2.629	-24	6.04	473	5.1225	1459.11
10/15/2008	11:39:34	131	64.96	29.601	79.1	2.655	-13	5.95	315	3.4014	1443.94
10/15/2008	11:41:44	261	65.17	29.6	66	2.655	-19	6	226	2.4516	1436.24
10/15/2008	11:43:56	393	65	29.599	62.5	2.629	-24	6.03	174	1.8773	1437.63
10/15/2008	11:46:07	524	65.01	29.597	61.4	2.655	-19	5.98	124	1.34	1428.56
10/15/2008	11:48:17	654	65.11	29.599	53.8	2.655	-21	6	95	1.0247	1416.05
10/15/2008	11:50:28	785	65.16	29.599	55.1	2.655	-24	6.02	74	0.801	1419.44
10/15/2008	11:52:39	916	65.3	29.599	63.5	2.655	-25	6.02	57	0.6212	1404.31
10/15/2008	11:54:49	1046	65.3	29.598	68.4	2.629	-25	6.01	45	0.4879	1410.18
10/15/2008	11:57:01	1178	65.03	29.597	75.4	2.655	-24	6	41	0.4452	1401.63
10/15/2008	11:59:12	1309	65.05	29.597	63.5	2.707	-23	5.99	49	0.534	1399.39
10/15/2008	12:01:22	1439	64.91	29.598	53.9	2.681	-26	6.02	45	0.4905	1380.74
10/15/2008	12:03:34	1571	64.97	29.598	48	2.681	-30	6.05	41	0.4451	1383.23
10/15/2008	12:05:45	1702	64.86	29.596	53.7	2.707	-26	6.01	33	0.356	1374.6
10/15/2008	12:07:55	1832	64.86	29.594	49.9	2.707	-31	6.05	25	0.2663	1381.8
10/15/2008	12:10:06	1963	65.09	29.594	58.7	2.707	-29	6.03	20	0.2207	1374.95
10/15/2008	12:12:16	2093	64.91	29.593	64.9	2.707	-25	5.97	16	0.1769	1392
10/15/2008	12:14:28	2225	65.07	29.594	58.6	2.707	-27	6.01	12	0.132	1387.51
10/15/2008	12:16:39	2356	65.33	29.593	60.5	2.681	-27	6	8	0.0882	1383.1

In-Situ Inc.

Troll 9000
10/16/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	17 [ft]
Pump placement from TOC	12.08 [ft]

Well Information:

Well Id	HMW-48A
Well diameter	2 [in]
Well total depth	15 [ft]
Depth to top of screen	5.7 [ft]
Screen length	104.4 [in]
Depth to Water	10.08 [ft]

Pumping information:

Final pumping rate	130 [mL/min]
Flowcell volume	192.88 [mL]
Calculated Sample Rate	90 [sec]
Sample rate	90 [sec]
Stabilized drawdown	0.1 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	12:41:46	19.45	6.43	1869.06	9.09	1.35	-65.19
	12:43:17	19.79	6.42	1871.08	6.51	1.01	-65.75
	12:44:47	19.56	6.43	1882.36	4.77	1.18	-66.48
	12:46:18	19.38	6.43	1881.72	4.84	1.31	-66.86
	12:47:49	19.26	6.43	1880.37	4.44	1.14	-67.29
Variance in last 3 readings	12:44:47	-0.23	0.00	11.28	-1.74	0.18	-0.73
	12:46:18	-0.19	0.00	-0.64	0.07	0.13	-0.39
	12:47:49	-0.12	0.00	-1.35	-0.40	-0.18	-0.43

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-48A-10-16-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-48A

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	17 [ft]
Well Depth:	15 [ft]
Well Diam:	2 [in]
Screen Len:	104.4 [in]
Screen Depth:	5.7 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	10.08 [ft]
Pump Level (TOC):	12.08 [ft]

Final Pumping Rate:	130 [mL/min]
Stable Draw Down:	0.1 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (75.9 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	192.88 [mL]
Actual Total Volume:	192.88 [mL]
Calculated Measurement Interval:	90 [sec]
Actual Measurement Interval:	90 [sec]

Start date/time:	10/16/2008	12:37:15
End date/time:	10/16/2008	12:48:42
Total Time:	0:11:27	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.43	0	-65.19	-0.68	1.35	0.09			1869.06	1.52	9.09	-2.14	19.45	0.35	12:41:46
3	6.42	0	-65.75	-0.56	1.01	-0.34			1871.08	2.02	6.51	-2.58	19.79	0.34	12:43:17
2	6.43	0	-66.48	-0.73	1.18	0.18			1882.36	11.28	4.77	-1.74	19.56	-0.23	12:44:47
1	6.43	0	-66.86	-0.39	1.31	0.13			1881.72	-0.64	4.84	0.07	19.38	-0.19	12:46:18
0	6.43	0	-67.29	-0.43	1.14	-0.18			1880.37	-1.35	4.44	-0.4	19.26	-0.12	12:47:49

pH Min:	6.42
pH Max:	6.43
ORP Min:	-67.29
ORP Max:	-65.19
DO Min:	1.01
DO Max:	1.35
RDO Min:	
RDO Max:	
Cond Min:	1869.06
Cond Max:	1882.36
Turb Min:	4.44
Turb Max:	9.09
Temp Min:	19.26
Temp Max:	19.79

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:08:00
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-48A-10-16-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/16/2008	12:37:15
Test started on:	10/16/2008	12:37:15
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	8	

TOTAL DATA SAMPLES	8
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/16/2008	12:37:15	0	66.06	29.88	16.8	3.098	-63	6.43	1199	12.9951	1649.3
10/16/2008	12:38:46	91	66.24	29.879	13.7	3.072	-64	6.43	1303	14.1553	1652.13
10/16/2008	12:40:16	181	66.39	29.877	11.2	3.098	-65	6.43	1261	13.7169	1657.35
10/16/2008	12:41:46	271	67.01	29.879	9.1	3.098	-65	6.43	1349	14.7779	1671.03
10/16/2008	12:43:17	362	67.63	29.878	6.5	3.098	-66	6.42	1006	11.0948	1685
10/16/2008	12:44:47	452	67.22	29.879	4.8	3.098	-66	6.43	1185	13.0096	1686.92
10/16/2008	12:46:18	543	66.88	29.876	4.8	3.098	-67	6.43	1313	14.3709	1679.68
10/16/2008	12:47:49	634	66.67	29.877	4.4	3.098	-67	6.43	1137	12.4147	1674.26

In-Situ Inc.

Troll 9000
10/16/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	33 [ft]
Pump placement from TOC	20.26 [ft]

Well Information:

Well Id	HMW-48B
Well diameter	2 [in]
Well total depth	29.5 [ft]
Depth to top of screen	20.26 [ft]
Screen length	104.4 [in]
Depth to Water	10.33 [ft]

Pumping information:

Final pumping rate	98 [mL/min]
Flowcell volume	264.29 [mL]
Calculated Sample Rate	162 [sec]
Sample rate	162 [sec]
Stabilized drawdown	0.57 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	14:27:45	19.84	6.56	1429.68	18.61	0.22	-116.14
	14:30:28	20.20	6.55	1437.19	20.24	0.21	-116.40
	14:33:12	20.37	6.55	1442.76	16.49	0.21	-116.70
	14:35:55	20.14	6.55	1439.27	14.98	0.21	-117.05
	14:38:39	19.65	6.55	1445.53	15.09	0.21	-116.54
Variance in last 3 readings	14:33:12	0.17	0.00	5.57	-3.75	0.00	-0.30
	14:35:55	-0.23	0.00	-3.49	-1.51	0.00	-0.35
	14:38:39	-0.49	0.00	6.26	0.11	-0.01	0.51

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-48B-10-16-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-48B

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	33 [ft]
Well Depth:	29.5 [ft]
Well Diam:	2 [in]
Screen Len:	104.4 [in]
Screen Depth:	20.26 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	10.33 [ft]
Pump Level (TOC):	20.26 [ft]

Final Pumping Rate:	98 [mL/min]
Stable Draw Down:	0.57 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (147.3 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	264.29 [mL]
Actual Total Volume:	264.29 [mL]
Calculated Measurement Interval:	162 [sec]
Actual Measurement Interval:	162 [sec]

Start date/time:	10/16/2008	13:47:42
End date/time:	10/16/2008	14:39:41
Total Time:	0:51:59	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.56	-0.01	-116.14	-0.6	0.22	0			1429.68	-3.78	18.61	-5.82	19.84	0.58	14:27:45
3	6.55	0	-116.4	-0.26	0.21	-0.01			1437.19	7.51	20.24	1.63	20.2	0.35	14:30:28
2	6.55	0	-116.7	-0.3	0.21	0			1442.76	5.57	16.49	-3.75	20.37	0.17	14:33:12
1	6.55	0	-117.05	-0.35	0.21	0			1439.27	-3.49	14.98	-1.51	20.14	-0.23	14:35:55
0	6.55	0	-116.54	0.51	0.21	-0.01			1445.53	6.26	15.09	0.11	19.65	-0.49	14:38:39

pH Min:	6.55
pH Max:	6.56
ORP Min:	-117.05
ORP Max:	-116.14
DO Min:	0.21
DO Max:	0.22
RDO Min:	
RDO Max:	
Cond Min:	1429.68
Cond Max:	1445.53
Turb Min:	14.98
Turb Max:	20.24
Temp Min:	19.65
Temp Max:	20.37

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:08:44
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-48B-10-16-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/16/2008 13:47:42
Test started on:	10/16/2008 13:47:42
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	20	

TOTAL DATA SAMPLES	20
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/16/2008	13:47:42	0	68.56	29.868	65	3.124	-107	6.55	354	3.9439	1276.31
10/16/2008	13:50:25	163	69.17	29.867	52.9	3.124	-109	6.55	331	3.7145	1296.51
10/16/2008	13:53:08	326	67.64	29.866	54.6	3.098	-109	6.55	336	3.7023	1272.07
10/16/2008	13:55:51	489	66.37	29.866	53.6	3.098	-109	6.55	330	3.584	1246.4
10/16/2008	13:57:49	607	67.82	29.864	44.2	3.072	-110	6.55	297	3.2745	1272.41
10/16/2008	14:00:32	770	69.25	29.865	37.4	3.124	-112	6.55	275	3.0888	1298.52
10/16/2008	14:03:16	934	67.73	29.86	32.6	3.098	-112	6.55	283	3.1247	1284.58
10/16/2008	14:05:59	1097	65.82	29.857	29	3.124	-111	6.55	287	3.0979	1258.73
10/16/2008	14:08:42	1260	65.06	29.855	28.7	3.072	-112	6.55	272	2.9116	1249.78
10/16/2008	14:11:25	1423	65.8	29.858	24.2	3.124	-112	6.55	241	2.6002	1256.74
10/16/2008	14:14:09	1587	65.22	29.852	25.6	3.098	-113	6.56	254	2.7299	1257.35
10/16/2008	14:16:52	1750	64.15	29.849	28.5	3.098	-113	6.56	241	2.5508	1232.8
10/16/2008	14:19:35	1913	63.81	29.845	29.8	3.098	-113	6.56	234	2.4764	1226.46
10/16/2008	14:22:18	2076	65.04	29.845	22.9	3.098	-114	6.56	221	2.3657	1240.79
10/16/2008	14:25:02	2240	66.67	29.843	24.4	3.124	-116	6.56	226	2.4671	1276.34
10/16/2008	14:27:45	2403	67.72	29.842	18.6	3.072	-116	6.56	223	2.4642	1288.89
10/16/2008	14:30:28	2566	68.36	29.844	20.2	3.098	-116	6.55	214	2.3795	1305.38
10/16/2008	14:33:12	2730	68.66	29.848	16.5	3.098	-117	6.55	213	2.3781	1315.15
10/16/2008	14:35:55	2893	68.25	29.846	15	3.098	-117	6.55	215	2.3824	1305.7
10/16/2008	14:38:39	3057	67.37	29.844	15.1	3.072	-117	6.55	209	2.2959	1297.76

In-Situ Inc.

Troll 9000
10/16/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	48 [ft]
Pump placement from TOC	42.64 [ft]

Well Information:

Well Id	HMW-48D
Well diameter	2 [in]
Well total depth	53 [ft]
Depth to top of screen	42.64 [ft]
Screen length	116.4 [in]
Depth to Water	27.86 [ft]

Pumping information:

Final pumping rate	156 [mL/min]
Flowcell volume	331.25 [mL]
Calculated Sample Rate	128 [sec]
Sample rate	128 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	10:11:59	15.50	6.47	1230.27	3.89	0.19	-96.06
	10:14:08	15.56	6.47	1230.66	10.29	0.18	-96.45
	10:16:17	15.56	6.47	1227.01	18.11	0.17	-96.62
	10:18:25	15.53	6.47	1226.71	55.23	0.17	-96.83
	10:20:35	15.68	6.47	1228.61	147.88	0.24	-97.09
Variance in last 3 readings	10:16:17	0.00	0.00	-3.66	7.82	-0.01	-0.17
	10:18:25	-0.02	0.00	-0.30	37.11	-0.01	-0.21
	10:20:35	0.15	0.00	1.90	92.65	0.08	-0.26

Notes: turb did not stabize in an hr; began sampling

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-48D-10-16-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-48D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	48 [ft]
Well Depth:	53 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	42.64 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	27.86 [ft]
Pump Level (TOC):	42.64 [ft]

Final Pumping Rate:	156 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (214.2 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	331.25 [mL]
Actual Total Volume:	331.25 [mL]
Calculated Measurement Interval:	128 [sec]
Actual Measurement Interval:	128 [sec]

Start date/time:	10/16/2008	9:20:26
End date/time:	10/16/2008	10:21:36
Total Time:	1:01:10	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.47	0	-96.06	-0.09	0.19	0			1230.27	-0.2	3.89	-5.43	15.5	0.01	10:11:59
3	6.47	0	-96.45	-0.39	0.18	-0.01			1230.66	0.4	10.29	6.41	15.56	0.05	10:14:08
2	6.47	0	-96.62	-0.17	0.17	-0.01			1227.01	-3.66	18.11	7.82	15.56	0	10:16:17
1	6.47	0	-96.83	-0.21	0.17	-0.01			1226.71	-0.3	55.23	37.11	15.53	-0.02	10:18:25
0	6.47	0	-97.09	-0.26	0.24	0.08			1228.61	1.9	147.88	92.65	15.68	0.15	10:20:35

pH Min:	6.47
pH Max:	6.47
ORP Min:	-97.09
ORP Max:	-96.06
DO Min:	0.17
DO Max:	0.24
RDO Min:	
RDO Max:	
Cond Min:	1226.71
Cond Max:	1230.66
Turb Min:	3.89
Turb Max:	147.88
Temp Min:	15.5
Temp Max:	15.68

Notes:	turb did not stabize in an hr; began sampling
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:09:29
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-48D-10-16-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/16/2008 9:20:26
Test started on:	10/16/2008 9:20:26
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	29	

TOTAL DATA SAMPLES	29
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/16/2008	9:20:26	0	60.09	29.885	16.6	3.098	-82	6.5	1092	11.0262	1014.39
10/16/2008	9:22:35	129	59.95	29.882	15.9	3.098	-88	6.51	571	5.7534	1008.81
10/16/2008	9:24:44	258	60.08	29.881	17.2	3.098	-90	6.49	408	4.1241	1005.01
10/16/2008	9:26:52	386	59.82	29.878	14.7	3.124	-91	6.49	346	3.4855	997.57
10/16/2008	9:29:02	516	59.96	29.876	30	3.098	-91	6.48	324	3.2621	999.22
10/16/2008	9:31:10	644	59.69	29.875	29.7	3.098	-92	6.48	337	3.3875	1001.54
10/16/2008	9:33:18	772	59.73	29.874	14.7	3.098	-92	6.48	348	3.4967	1001.93
10/16/2008	9:35:28	902	59.64	29.87	28	3.098	-92	6.48	364	3.6593	999.1
10/16/2008	9:37:37	1031	59.63	29.87	40.8	3.098	-93	6.48	360	3.62	996.73
10/16/2008	9:39:46	1160	59.66	29.865	14.6	3.124	-93	6.48	361	3.6238	1001.28
10/16/2008	9:41:55	1289	59.67	29.865	9.7	3.098	-93	6.48	345	3.4657	1000.22
10/16/2008	9:44:03	1417	59.64	29.86	10.2	3.124	-94	6.48	337	3.3911	999.16
10/16/2008	9:46:13	1547	59.7	29.861	16.3	3.124	-94	6.48	313	3.1475	1001.76
10/16/2008	9:48:22	1676	59.6	29.859	7.9	3.098	-94	6.48	298	2.9945	1002.21
10/16/2008	9:50:31	1805	59.66	29.86	10.2	3.124	-94	6.47	294	2.9597	1003.12
10/16/2008	9:52:40	1934	59.67	29.86	11.1	3.124	-94	6.47	267	2.6875	1004.05
10/16/2008	9:54:48	2062	59.76	29.86	24.4	3.098	-95	6.47	251	2.5245	1003.62
10/16/2008	9:56:57	2191	59.75	29.859	32.7	3.124	-95	6.47	235	2.3681	1003.64
10/16/2008	9:59:06	2320	59.69	29.863	36.3	3.098	-95	6.47	228	2.2975	1002.6
10/16/2008	10:01:14	2448	59.77	29.864	32.1	3.098	-95	6.47	220	2.219	1005.23
10/16/2008	10:03:24	2578	59.82	29.865	8.1	3.124	-95	6.47	217	2.1845	1006.37
10/16/2008	10:05:33	2707	59.88	29.866	10.4	3.098	-96	6.47	209	2.1088	1004.44
10/16/2008	10:07:42	2836	59.89	29.863	14.6	3.124	-96	6.47	202	2.0314	1007.29
10/16/2008	10:09:50	2964	59.89	29.866	9.3	3.098	-96	6.47	190	1.915	1007.1
10/16/2008	10:11:59	3093	59.91	29.865	3.9	3.098	-96	6.47	187	1.8825	1007.14
10/16/2008	10:14:08	3222	60	29.863	10.3	3.098	-96	6.47	179	1.8088	1008.72
10/16/2008	10:16:17	3351	60	29.866	18.1	3.098	-97	6.47	172	1.7391	1005.71
10/16/2008	10:18:25	3479	59.96	29.868	55.2	3.124	-97	6.47	166	1.6708	1004.89
10/16/2008	10:20:35	3609	60.23	29.862	147.9	3.098	-97	6.47	244	2.4733	1009.99

In-Situ Inc.

Troll 9000
10/14/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	25 [ft]
Pump placement from TOC	22.84 [ft]

Well Information:

Well Id	*HMW-49B*
Well diameter	2 [in]
Well total depth	24.1 [ft]
Depth to top of screen	22.84 [ft]
Screen length	8.4 [in]
Depth to Water	20.96 [ft]

Pumping information:

Final pumping rate	*34 [mL/min]*
Flowcell volume	228.59 [mL]
Calculated Sample Rate	404 [sec]
Sample rate	404 [sec]
Stabilized drawdown	0.89 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:49:12	19.77	6.20	1981.11	100.59	0.77	-80.45
	9:55:59	19.91	6.23	2106.34	75.23	0.74	-86.01
	10:02:47	20.45	6.25	2181.52	60.77	0.70	-89.47
	10:09:33	20.55	6.27	2275.83	45.39	0.70	-92.00
	10:16:21	20.54	6.28	2336.18	32.79	0.69	-93.92
Variance in last 3 readings	10:02:47	0.53	0.02	75.17	-14.46	-0.04	-3.46
	10:09:33	0.10	0.02	94.32	-15.39	0.00	-2.52
	10:16:21	-0.01	0.01	60.34	-12.59	-0.01	-1.93

Notes: purged for 1 hour; turbidity and conductivity did not stabilize.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-49B-10-14-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-49B

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	25 [ft]
Well Depth:	24.1 [ft]
Well Diam:	2 [in]
Screen Len:	8.4 [in]
Screen Depth:	22.84 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	20.96 [ft]
Pump Level (TOC):	22.84 [ft]

Final Pumping Rate:	34 [mL/min]
Stable Draw Down:	0.89 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (111.6 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	228.59 [mL]
Actual Total Volume:	228.59 [mL]
Calculated Measurement Interval:	404 [sec]
Actual Measurement Interval:	404 [sec]

Start date/time:	10/14/2008	9:15:19
End date/time:	10/14/2008	10:17:37
Total Time:	1:02:18	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.2	0.04	-80.45	-6.37	0.77	-0.04			1981.11	164.2	100.59	-73.23	19.77	-0.1	9:49:12
3	6.23	0.03	-86.01	-5.56	0.74	-0.03			2106.34	125.23	75.23	-25.35	19.91	0.14	9:55:59
2	6.25	0.02	-89.47	-3.46	0.7	-0.04			2181.52	75.17	60.77	-14.46	20.45	0.53	10:02:47
1	6.27	0.02	-92	-2.52	0.7	0			2275.83	94.32	45.39	-15.39	20.55	0.1	10:09:33
0	6.28	0.01	-93.92	-1.93	0.69	-0.01			2336.18	60.34	32.79	-12.59	20.54	-0.01	10:16:21

pH Min:	6.2
pH Max:	6.28
ORP Min:	-93.92
ORP Max:	-80.45
DO Min:	0.69
DO Max:	0.77
RDO Min:	
RDO Max:	
Cond Min:	1981.11
Cond Max:	2336.18
Turb Min:	32.79
Turb Max:	100.59
Temp Min:	19.77
Temp Max:	20.55

Notes:	*purged for 1 hour; turbidity and conductivity did not stabilize.*
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:10:14
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-49B-10-14-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/14/2008 9:15:19
Test started on:	10/14/2008 9:15:19
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points: 0.0	Seconds.
Time between default storages: 0.0	*Seconds.*
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	10

TOTAL DATA SAMPLES	10
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/14/2008	9:15:19	0	66.61	29.855	629.8	2.473	-25	5.91	1393	15.1687	904.8
10/14/2008	9:22:06	407	67.7	29.856	454.2	2.291	-42	6.02	1138	12.5558	1189.42
10/14/2008	9:28:51	812	68.16	29.857	353.7	1.484	-56	6.08	939	10.4147	1384.03
10/14/2008	9:35:38	1219	68.34	29.858	258.1	1.692	-66	6.12	799	8.8893	1508.36
10/14/2008	9:42:25	1626	67.77	29.858	173.8	1.796	-74	6.17	810	8.9545	1638.98
10/14/2008	9:49:12	2033	67.59	29.861	100.6	1.77	-80	6.2	771	8.5152	1783.27
10/14/2008	9:55:59	2440	67.85	29.86	75.2	1.848	-86	6.23	743	8.2232	1901.76
10/14/2008	10:02:47	2848	68.81	29.861	60.8	2.317	-89	6.25	700	7.8343	1991.81
10/14/2008	10:09:33	3254	68.99	29.862	45.4	2.499	-92	6.27	697	7.8199	2082.44
10/14/2008	10:16:21	3662	68.98	29.863	32.8	2.473	-94	6.28	688	7.7239	2137.3

In-Situ Inc.

Troll 9000
10/10/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	32 [ft]
Pump placement from TOC	29.6 [ft]

Well Information:

Well Id	HMW-49C
Well diameter	2 [in]
Well total depth	39.5 [ft]
Depth to top of screen	29.59 [ft]
Screen length	111.6 [in]
Depth to Water	26.78 [ft]

Pumping information:

Final pumping rate	32 [mL/min]
Flowcell volume	259.83 [mL]
Calculated Sample Rate	488 [sec]
Sample rate	488 [sec]
Stabilized drawdown	2 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	12:27:11	28.87	6.13	631.13	108.97	0.64	-27.44
	12:35:22	29.23	6.13	640.50	69.24	0.65	-27.27
	12:43:35	29.43	6.13	643.19	80.72	0.65	-26.93
	12:51:46	29.33	6.13	650.02	89.64	0.66	-26.80
	12:59:56	30.05	6.14	657.59	227.78	0.63	-26.89
Variance in last 3 readings	12:43:35	0.20	0.00	2.69	11.48	0.00	0.34
	12:51:46	-0.10	0.00	6.83	8.92	0.01	0.13
	12:59:56	0.72	0.00	7.57	138.14	-0.03	-0.09

Notes: PURGED FOR ONE HOUR. TURBIDITY DID NOT STABI IZE.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-49C-10-10-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-49C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	32 [ft]
Well Depth:	39.5 [ft]
Well Diam:	2 [in]
Screen Len:	111.6 [in]
Screen Depth:	29.59 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	26.78 [ft]
Pump Level (TOC):	29.6 [ft]

Final Pumping Rate:	32 [mL/min]
Stable Draw Down:	2 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (142.8 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	259.83 [mL]
Actual Total Volume:	259.83 [mL]
Calculated Measurement Interval:	488 [sec]
Actual Measurement Interval:	488 [sec]

Start date/time:	10/10/2008	11:46:16
End date/time:	*10/10/2008*	*13:00:56*
Total Time:	1:14:40	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.13	0	-27.44	0.04	0.64	0			631.13	11.04	108.97	39.87	28.87	0.82	12:27:11
3	6.13	0	-27.27	0.17	0.65	0.01			640.5	9.36	69.24	-39.73	29.23	0.36	12:35:22
2	6.13	0	-26.93	0.34	0.65	0			643.19	2.69	80.72	11.48	29.43	0.2	12:43:35
1	6.13	0	-26.8	0.13	0.66	0.01			650.02	6.83	89.64	8.92	29.33	-0.1	12:51:46
0	6.14	0	-26.89	-0.09	0.63	-0.03			657.59	7.57	227.78	138.14	30.05	0.72	12:59:56

pH Min:	6.13
pH Max:	6.14
ORP Min:	-27.44
ORP Max:	-26.8
DO Min:	0.63
DO Max:	0.66
RDO Min:	
RDO Max:	
Cond Min:	631.13
Cond Max:	657.59
Turb Min:	69.24
Turb Max:	227.78
Temp Min:	28.87
Temp Max:	30.05

Notes:	PURGED FOR ONE HOUR. TURBIDITY DID NOT STABI IZE.
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 10:56:07
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-49C-10-10-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/10/2008 11:46:16
Test started on:	10/10/2008 11:46:16
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	10

TOTAL DATA SAMPLES	10
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/10/2008	11:46:16	0	79.11	29.752	17.2	2.863	-25	6.16	774	9.6454	593.46
10/10/2008	11:54:26	490	78.96	29.75	22.8	2.837	-25	6.14	732	9.1089	594.88
10/10/2008	12:02:37	981	80.15	29.749	30.5	2.863	-26	6.14	673	8.4771	608.65
10/10/2008	12:10:48	1472	81.42	29.746	54.5	2.837	-27	6.13	638	8.1379	611.53
10/10/2008	12:19:00	1964	82.51	29.747	69.1	2.863	-27	6.13	644	8.2979	620.09
10/10/2008	12:27:11	2455	83.97	29.748	109	2.863	-27	6.13	645	8.4258	631.13
10/10/2008	12:35:22	2946	84.62	29.743	69.2	2.837	-27	6.13	654	8.6051	640.5
10/10/2008	12:43:35	3439	84.98	29.739	80.7	2.837	-27	6.13	655	8.6446	643.19
10/10/2008	12:51:46	3930	84.8	29.737	89.6	2.811	-27	6.13	660	8.7002	650.02
10/10/2008	12:59:56	4420	86.1	29.738	227.8	2.863	-27	6.14	633	8.4487	657.59

In-Situ Inc.

Troll 9000
10/10/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	46 [ft]
Pump placement from TOC	40.8 [ft]

Well Information:

Well Id	HMW-49D
Well diameter	2 [in]
Well total depth	51 [ft]
Depth to top of screen	40.72 [ft]
Screen length	115.2 [in]
Depth to Water	28.93 [ft]

Pumping information:

Final pumping rate	150 [mL/min]
Flowcell volume	322.32 [mL]
Calculated Sample Rate	129 [sec]
Sample rate	129 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:55:46	18.40	6.44	1072.46	8.39	0.25	-140.03
	9:57:57	18.41	6.44	1076.05	8.94	0.24	-139.95
	10:00:06	18.47	6.43	1073.10	14.77	0.25	-140.21
	10:02:17	18.50	6.43	1073.92	25.71	0.24	-140.38
	10:04:26	18.57	6.43	1076.50	115.15	0.26	-140.77
Variance in last 3 readings	10:00:06	0.06	0.00	-2.95	5.83	0.00	-0.26
	10:02:17	0.03	0.00	0.82	10.93	-0.01	-0.17
	10:04:26	0.07	0.00	2.58	89.45	0.02	-0.39

Notes: PURGED FOR ONE HOUR. TURBIDITY DID NOT STABILZE.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-49D-10-10-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-49D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	46 [ft]
Well Depth:	51 [ft]
Well Diam:	2 [in]
Screen Len:	115.2 [in]
Screen Depth:	40.72 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	28.93 [ft]
Pump Level (TOC):	40.8 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (205.3 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	322.32 [mL]
Actual Total Volume:	322.32 [mL]
Calculated Measurement Interval:	129 [sec]
Actual Measurement Interval:	129 [sec]

Start date/time:	10/10/2008	9:03:51
End date/time:	10/10/2008	10:05:09
Total Time:	1:01:18	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.44	0	-140.03	-0.43	0.25	-0.04			1072.46	-0.2	8.39	-156.71	18.4	0.06	9:55:46
3	6.44	0	-139.95	0.08	0.24	-0.01			1076.05	3.58	8.94	0.55	18.41	0.02	9:57:57
2	6.43	0	-140.21	-0.26	0.25	0			1073.1	-2.95	14.77	5.83	18.47	0.06	10:00:06
1	6.43	0	-140.38	-0.17	0.24	-0.01			1073.92	0.82	25.71	10.93	18.5	0.03	10:02:17
0	6.43	0	-140.77	-0.39	0.26	0.02			1076.5	2.58	115.15	89.45	18.57	0.07	10:04:26

pH Min:	6.43
pH Max:	6.44
ORP Min:	-140.77
ORP Max:	-139.95
DO Min:	0.24
DO Max:	0.26
RDO Min:	
RDO Max:	
Cond Min:	1072.46
Cond Max:	1076.5
Turb Min:	8.39
Turb Max:	115.15
Temp Min:	18.4
Temp Max:	18.57

Notes:	PURGED FOR ONE HOUR. TURBIDITY DID NOT STABILZE.
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 10:57:26
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-49D-10-10-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/10/2008 9:03:51
Test started on:	10/10/2008 9:03:51
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	29

TOTAL DATA SAMPLES	29
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/10/2008	9:03:51	0	64.15	29.728	1.8	2.837	-154	6.6	483	5.1297	743.66
10/10/2008	9:06:01	130	64.15	29.729	2	2.837	-148	6.51	428	4.5455	825.46
10/10/2008	9:08:10	259	64.16	29.729	2.2	2.863	-147	6.49	394	4.194	846.17
10/10/2008	9:10:20	389	64.15	29.729	2.6	2.863	-141	6.45	391	4.1575	936.17
10/10/2008	9:12:30	519	64.1	29.729	17.4	2.837	-139	6.44	435	4.6304	982.29
10/10/2008	9:14:40	649	64.13	29.725	36.6	2.811	-137	6.44	443	4.7076	1009.32
10/10/2008	9:16:49	778	64.19	29.729	78.1	2.837	-142	6.46	453	4.8188	970.45
10/10/2008	9:19:00	909	64.19	29.729	73	2.811	-139	6.44	457	4.8604	1028.35
10/10/2008	9:21:09	1038	64.15	29.727	71.4	2.863	-139	6.45	443	4.7105	1036.96
10/10/2008	9:23:19	1168	64.25	29.729	137.8	2.837	-146	6.45	431	4.5864	967.82
10/10/2008	9:25:29	1298	64.29	29.728	6.7	2.837	-142	6.45	412	4.3922	1016.54
10/10/2008	9:27:39	1428	64.31	29.729	4.1	2.837	-140	6.44	380	4.0473	1039.61
10/10/2008	9:29:48	1557	64.32	29.73	5.4	2.837	-140	6.44	377	4.0204	1047.28
10/10/2008	9:31:58	1687	64.46	29.727	5.1	2.863	-139	6.44	377	4.026	1053.38
10/10/2008	9:34:08	1817	64.43	29.726	9.1	2.837	-139	6.44	383	4.0855	1054.94
10/10/2008	9:36:18	1947	64.5	29.724	18	2.837	-139	6.44	336	3.5937	1055.53
10/10/2008	9:38:27	2076	64.49	29.728	12.8	2.837	-139	6.44	323	3.4536	1058.05
10/10/2008	9:40:38	2207	64.56	29.729	23.7	2.863	-139	6.44	288	3.0759	1060.82
10/10/2008	9:42:47	2336	64.72	29.733	28.8	2.863	-140	6.44	277	2.9648	1061.39
10/10/2008	9:44:58	2467	64.77	29.733	27	2.837	-140	6.44	278	2.9761	1064.18
10/10/2008	9:47:07	2596	64.89	29.733	64.7	2.837	-140	6.44	396	4.2523	1066.74
10/10/2008	9:49:18	2727	64.8	29.733	61.8	2.837	-140	6.44	269	2.885	1067.81
10/10/2008	9:51:27	2856	64.97	29.734	92.4	2.889	-140	6.44	297	3.1923	1069.11
10/10/2008	9:53:38	2987	65	29.736	165.1	2.863	-140	6.43	291	3.1214	1072.66
10/10/2008	9:55:46	3115	65.11	29.738	8.4	2.837	-140	6.44	251	2.7024	1072.46
10/10/2008	9:57:57	3246	65.14	29.739	8.9	2.863	-140	6.44	241	2.5961	1076.05
10/10/2008	10:00:06	3375	65.25	29.739	14.8	2.863	-140	6.43	245	2.6412	1073.1
10/10/2008	10:02:17	3506	65.29	29.741	25.7	2.837	-140	6.43	239	2.5734	1073.92
10/10/2008	10:04:26	3635	65.43	29.741	115.2	2.837	-141	6.43	263	2.8426	1076.5

In-Situ Inc.

Troll 9000
10/14/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00 09
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	33 [ft]
Pump placement from TOC	20.14 [ft]

Well Information:

Well Id	HMW-50A
Well diameter	2 [in]
Well total depth	29.88 [ft]
Depth to top of screen	20.14 [ft]
Screen length	111.6 [in]
Depth to Water	12.46 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	264.29 [mL]
Calculated Sample Rate	114 [sec]
Sample rate	114 [sec]
Stabilized drawdown	0.12 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	15:26:29	18.02	6.68	1056.88	19.79	0.35	127.05
	15:28:24	18.28	6.68	1063.69	21.39	0.34	127.27
	15:30:18	18.46	6.68	1067.97	25.50	0.35	128.17
	15:32:14	18.39	6.68	1068.99	21.93	0.35	129.45
	15:34:08	18.71	6.68	1076.03	24.27	0.34	128.98
Variance in last 3 readings	15:30:18	0.18	0.00	4.28	4.11	0.01	0.90
	15:32:14	-0.06	0.00	1.02	-3.57	0.00	1.28
	15:34:08	0.31	0.00	7.04	2.34	-0.01	-0.47

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.0009-HWG-HMW-50A-10-14-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.0009
Site Name:	HWG
Well ID:	HMW-50A

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	33 [ft]
Well Depth:	29.88 [ft]
Well Diam:	2 [in]
Screen Len:	111.6 [in]
Screen Depth:	20.14 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	12.46 [ft]
Pump Level (TOC):	20.14 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.12 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (147.3 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	264.29 [mL]
Actual Total Volume:	264.29 [mL]
Calculated Measurement Interval:	114 [sec]
Actual Measurement Interval:	114 [sec]

Start date/time:	10/14/2008	14:35:52
End date/time:	10/14/2008	15:35:05
Total Time:	0:59:13	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.68	0	127.05	0.39	0.35	0			1056.88	-1.67	19.79	-4.03	18.02	0.03	15:26:29
3	6.68	0	127.27	0.22	0.34	-0.01			1063.69	6.82	21.39	1.6	18.28	0.25	15:28:24
2	6.68	0	128.17	0.9	0.35	0.01			1067.97	4.28	25.5	4.11	18.46	0.18	15:30:18
1	6.68	0	129.45	1.28	0.35	0			1068.99	1.02	21.93	-3.57	18.39	-0.06	15:32:14
0	6.68	0	128.98	-0.47	0.34	-0.01			1076.03	7.04	24.27	2.34	18.71	0.31	15:34:08

pH Min:	6.68
pH Max:	6.68
ORP Min:	127.05
ORP Max:	129.45
DO Min:	0.34
DO Max:	0.35
RDO Min:	
RDO Max:	
Cond Min:	1056.88
Cond Max:	1076.03
Turb Min:	19.79
Turb Max:	25.5
Temp Min:	18.02
Temp Max:	18.71

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:23:38
Report from file:	...\Hartford Groundwater Sampling - 21561955.0009-HWG-HMW-50A-10-14-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/14/2008	14:35:52
Test started on:	10/14/2008	14:35:52
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points: 0.0	Seconds.	
Time between default storages: 0.0	Seconds.	
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Fahrenheit	
Number of data samples:	30	

TOTAL DATA SAMPLES	30
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/14/2008	14:35:52	0	64.81	29.753	125.1	2.603	112	6.71	1693	18.1297	999.89
10/14/2008	14:40:36	284	64.77	29.75	144.3	2.629	114	6.7	1132	12.1258	1042.56
10/14/2008	14:42:32	400	64.77	29.749	137.1	2.629	115	6.7	1011	10.8309	1052.11
10/14/2008	14:44:25	513	64.78	29.749	143.9	2.655	116	6.69	1032	11.0512	1054.36
10/14/2008	14:46:21	629	64.53	29.75	124.1	2.655	116	6.69	905	9.6699	1056.94
10/14/2008	14:48:15	743	64.73	29.748	106.7	2.681	117	6.69	821	8.7868	1059.88
10/14/2008	14:50:09	857	64.76	29.747	100.2	2.629	118	6.69	770	8.2472	1065.46
10/14/2008	14:52:04	972	64.68	29.747	75.7	2.681	118	6.69	714	7.6349	1064.8
10/14/2008	14:53:59	1087	64.7	29.746	79	2.629	119	6.69	646	6.9172	1067.78
10/14/2008	14:55:53	1201	64.89	29.747	68.4	2.681	120	6.68	597	6.4026	1072.1
10/14/2008	14:57:48	1316	64.68	29.746	64.3	2.681	121	6.68	576	6.1606	1068.78
10/14/2008	14:59:43	1431	64.81	29.745	63.8	2.681	121	6.68	536	5.744	1073.11
10/14/2008	15:01:37	1545	64.91	29.746	52.4	2.655	121	6.68	509	5.4655	1073.11
10/14/2008	15:03:33	1661	65.5	29.745	47.3	2.655	122	6.68	488	5.2743	1080.54
10/14/2008	15:05:27	1775	65.55	29.744	37.3	2.655	123	6.68	476	5.1415	1082.95
10/14/2008	15:07:23	1891	66.07	29.744	36.3	2.655	123	6.68	457	4.963	1087.43
10/14/2008	15:09:17	2005	66.47	29.741	36.1	2.681	123	6.68	440	4.8024	1093.71
10/14/2008	15:11:12	2120	66.47	29.739	32	2.681	124	6.68	425	4.6373	1092.41
10/14/2008	15:13:06	2234	66.3	29.738	30.1	2.681	124	6.68	416	4.5301	1091.8
10/14/2008	15:15:02	2350	65.72	29.737	30.9	2.655	124	6.68	407	4.4108	1083.27
10/14/2008	15:16:56	2464	65.38	29.734	27.1	2.681	125	6.68	391	4.2231	1074.52
10/14/2008	15:18:50	2578	64.94	29.733	26.6	2.655	125	6.68	376	4.0371	1068.52
10/14/2008	15:20:45	2693	64.4	29.732	22.9	2.655	126	6.68	369	3.9408	1058.63
10/14/2008	15:22:40	2808	64.56	29.732	22.8	2.655	126	6.68	355	3.7898	1060.54
10/14/2008	15:24:34	2922	64.38	29.731	23.8	2.681	127	6.68	348	3.7086	1058.55
10/14/2008	15:26:29	3037	64.44	29.733	19.8	2.681	127	6.68	347	3.6994	1056.88
10/14/2008	15:28:24	3152	64.9	29.734	21.4	2.681	127	6.68	337	3.6188	1063.69
10/14/2008	15:30:18	3266	65.22	29.736	25.5	2.681	128	6.68	346	3.7276	1067.97
10/14/2008	15:32:14	3382	65.11	29.733	21.9	2.681	129	6.68	348	3.7386	1068.99
10/14/2008	15:34:08	3496	65.67	29.734	24.3	2.681	129	6.68	342	3.701	1076.03

In-Situ Inc.

Troll 9000
10/13/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	44 [ft]
Pump placement from TOC	38.27 [ft]

Well Information:

Well Id	HMW-50B
Well diameter	2 [in]
Well total depth	42.82 [ft]
Depth to top of screen	38.27 [ft]
Screen length	55.2 [in]
Depth to Water	27.66 [ft]

Pumping information:

Final pumping rate	100 [mL/min]
Flowcell volume	313.39 [mL]
Calculated Sample Rate	189 [sec]
Sample rate	189 [sec]
Stabilized drawdown	0.44 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	14:06:25	17.83	7.38	777.83	1.35	0.45	-144.73
	14:09:36	17.56	7.37	784.48	0.61	0.32	-150.84
	14:12:46	18.18	7.36	802.20	0.75	0.30	-154.39
	14:15:57	18.37	7.35	818.62	0.05	0.29	-156.40
	14:19:07	18.13	7.34	821.13	-0.17	0.29	-158.28
Variance in last 3 readings	14:12:46	0.61	-0.01	17.72	0.14	-0.02	-3.55
	14:15:57	0.20	-0.01	16.42	-0.70	-0.01	-2.01
	14:19:07	-0.24	-0.01	2.51	-0.22	0.00	-1.88

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-50B-10-13-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-50B

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	44 [ft]
Well Depth:	42.82 [ft]
Well Diam:	2 [in]
Screen Len:	55.2 [in]
Screen Depth:	38.27 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	27.66 [ft]
Pump Level (TOC):	38.27 [ft]

Final Pumping Rate:	100 [mL/min]
Stable Draw Down:	0.44 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (196.4 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	313.39 [mL]
Actual Total Volume:	313.39 [mL]
Calculated Measurement Interval:	189 [sec]
Actual Measurement Interval:	189 [sec]

Start date/time:	10/13/2008	14:04:04
End date/time:	10/13/2008	14:20:46
Total Time:	0:16:42	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	7.38	0	-144.73	-3.51	0.45	-0.1			777.83	2.42	1.35	0.81	17.83	-0.16	14:06:25
3	7.37	-0.01	-150.84	-6.11	0.32	-0.13			784.48	6.65	0.61	-0.74	17.56	-0.27	14:09:36
2	7.36	-0.01	-154.39	-3.55	0.3	-0.02			802.2	17.72	0.75	0.14	18.18	0.61	14:12:46
1	7.35	-0.01	-156.4	-2.01	0.29	-0.01			818.62	16.42	0.05	-0.7	18.37	0.2	14:15:57
0	7.34	-0.01	-158.28	-1.88	0.29	0			821.13	2.51	-0.17	-0.22	18.13	-0.24	14:19:07

pH Min:	7.34
pH Max:	7.38
ORP Min:	-158.28
ORP Max:	-144.73
DO Min:	0.29
DO Max:	0.45
RDO Min:	
RDO Max:	
Cond Min:	777.83
Cond Max:	821.13
Turb Min:	-0.17
Turb Max:	1.35
Temp Min:	17.56
Temp Max:	18.37

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:12:10
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-50B-10-13-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/13/2008	14:04:04
Test started on:	10/13/2008	14:04:04
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	7	

TOTAL DATA SAMPLES	7
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/13/2008	14:04:04	0	64.48	29.767	1.1	2.681	-137	7.38	657	6.999	772.14
10/13/2008	14:05:10	66	64.39	29.767	0.5	2.681	-141	7.38	546	5.8167	775.4
10/13/2008	14:06:25	141	64.1	29.765	1.4	2.681	-145	7.38	446	4.7374	777.83
10/13/2008	14:09:36	332	63.61	29.765	0.6	2.681	-151	7.37	321	3.388	784.48
10/13/2008	14:12:46	522	64.72	29.764	0.7	2.681	-154	7.36	298	3.1837	802.2
10/13/2008	14:15:57	713	65.07	29.763	0	2.681	-156	7.35	286	3.0737	818.62
10/13/2008	14:19:07	903	64.63	29.761	-0.2	2.629	-158	7.34	286	3.0552	821.13

In-Situ Inc.

Troll 9000
10/14/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	60 [ft]
Pump placement from TOC	47.88 [ft]

Well Information:

Well Id	HMW-50C
Well diameter	2 [in]
Well total depth	59.5 [ft]
Depth to top of screen	47.88 [ft]
Screen length	115.2 [in]
Depth to Water	32.65 [ft]

Pumping information:

Final pumping rate	144 [mL/min]
Flowcell volume	384.81 [mL]
Calculated Sample Rate	161 [sec]
Sample rate	161 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	15:34:20	18.23	6.90	2689.24	6.57	0.50	-120.12
	15:37:02	17.98	6.90	2694.67	9.61	0.49	-120.16
	15:39:44	17.75	6.90	2686.24	13.36	0.47	-120.03
	15:42:27	17.91	6.89	2688.74	19.79	0.45	-120.38
	15:45:08	17.96	6.90	2691.33	22.63	0.44	-120.80
Variance in last 3 readings	15:39:44	-0.22	0.00	-8.43	3.74	-0.02	0.13
	15:42:27	0.16	0.00	2.50	6.43	-0.02	-0.34
	15:45:08	0.05	0.00	2.59	2.85	-0.01	-0.43

Notes: Purged for 1 hour. Turbidity did not stabalize.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-50C-10-14-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-50C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	60 [ft]
Well Depth:	59.5 [ft]
Well Diam:	2 [in]
Screen Len:	115.2 [in]
Screen Depth:	47.88 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	32.65 [ft]
Pump Level (TOC):	47.88 [ft]

Final Pumping Rate:	144 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (267.8 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	384.81 [mL]
Actual Total Volume:	384.81 [mL]
Calculated Measurement Interval:	161 [sec]
Actual Measurement Interval:	161 [sec]

Start date/time:	10/14/2008	14:45:43
End date/time:	10/14/2008	15:45:37
Total Time:	0:59:54	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.9	0	-120.12	-0.43	0.5	-0.01			2689.24	-3.03	6.57	-48.59	18.23	0.17	15:34:20
3	6.9	0	-120.16	-0.04	0.49	-0.01			2694.67	5.43	9.61	3.04	17.98	-0.25	15:37:02
2	6.9	0	-120.03	0.13	0.47	-0.02			2686.24	-8.43	13.36	3.74	17.75	-0.22	15:39:44
1	6.89	0	-120.38	-0.34	0.45	-0.02			2688.74	2.5	19.79	6.43	17.91	0.16	15:42:27
0	6.9	0	-120.8	-0.43	0.44	-0.01			2691.33	2.59	22.63	2.85	17.96	0.05	15:45:08

pH Min:	6.89
pH Max:	6.9
ORP Min:	-120.8
ORP Max:	-120.03
DO Min:	0.44
DO Max:	0.5
RDO Min:	
RDO Max:	
Cond Min:	2686.24
Cond Max:	2694.67
Turb Min:	6.57
Turb Max:	22.63
Temp Min:	17.75
Temp Max:	18.23

Notes:	Purged for 1 hour. Turbidity did not stabalize.
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:12:58
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-50C-10-14-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/14/2008 14:45:43
Test started on:	10/14/2008 14:45:43
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	23

TOTAL DATA SAMPLES	23
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/14/2008	14:45:43	0	63.68	29.785	49.9	2.447	-114	6.94	74257	788.1776	2285.72
10/14/2008	14:48:25	162	63.54	29.786	70	2.655	-114	6.94	56887	602.8037	2289.14
10/14/2008	14:51:07	324	63.79	29.783	81.3	1.51	-114	6.93	37279	396.2075	2299.42
10/14/2008	14:53:49	486	63.58	29.782	48.9	1.457	-115	6.93	24030	254.7753	2294.86
10/14/2008	14:56:31	648	63.82	29.783	58	1.457	-115	6.92	17989	191.2585	2301.72
10/14/2008	14:59:13	810	63.84	29.784	56.3	1.457	-116	6.92	9104	96.8187	2306.31
10/14/2008	15:01:55	972	63.74	29.782	55	1.457	-116	6.91	3331	35.3865	2308.63
10/14/2008	15:04:37	1134	64.59	29.782	83	1.457	-117	6.91	1471	15.7814	2334.33
10/14/2008	15:07:19	1296	64.88	29.782	27	1.405	-118	6.91	1160	12.482	2345.16
10/14/2008	15:10:02	1459	65.37	29.778	18.6	1.484	-118	6.9	982	10.626	2360.87
10/14/2008	15:12:44	1621	65.26	29.777	32.6	1.457	-119	6.9	855	9.2471	2359.83
10/14/2008	15:15:26	1783	65.16	29.776	26.2	1.457	-119	6.9	759	8.197	2350.29
10/14/2008	15:18:08	1945	64.45	29.775	17.4	1.457	-119	6.9	685	7.342	2338.39
10/14/2008	15:20:50	2107	63.98	29.773	44.7	1.457	-119	6.9	633	6.7403	2324.19
10/14/2008	15:23:32	2269	63.73	29.771	29.3	1.431	-119	6.9	589	6.2562	2315.89
10/14/2008	15:26:14	2431	63.73	29.773	23.6	1.484	-119	6.9	559	5.9356	2315.7
10/14/2008	15:28:56	2593	63.98	29.771	26.7	1.484	-119	6.9	525	5.5903	2319.03
10/14/2008	15:31:38	2755	64.51	29.772	55.2	1.51	-120	6.9	505	5.4165	2335.32
10/14/2008	15:34:20	2917	64.81	29.771	6.6	1.457	-120	6.9	497	5.3506	2341.32
10/14/2008	15:37:02	3079	64.36	29.77	9.6	1.457	-120	6.9	486	5.2051	2333.11
10/14/2008	15:39:44	3241	63.96	29.767	13.4	1.484	-120	6.9	467	4.9706	2314.45
10/14/2008	15:42:27	3404	64.24	29.766	19.8	1.484	-120	6.89	448	4.7859	2324.82
10/14/2008	15:45:08	3565	64.33	29.763	22.6	1.484	-121	6.9	443	4.7366	2329.4

In-Situ Inc.

Troll 9000
10/16/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	susan jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	41 [ft]
Pump placement from TOC	26.75 [ft]

Well Information:

Well Id	HMW-52C
Well diameter	2 [in]
Well total depth	40 [ft]
Depth to top of screen	24.62 [ft]
Screen length	175.2 [in]
Depth to Water	24.75 [ft]

Pumping information:

Final pumping rate	90 [mL/min]
Flowcell volume	300 [mL]
Calculated Sample Rate	200 [sec]
Sample rate	200 [sec]
Stabilized drawdown	0.2 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [mS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	14:30:07	18.24	6.59	1.16	15.87	2.44	-28.35
	14:33:29	18.49	6.59	1.16	13.57	2.27	-30.76
	14:36:51	18.64	6.59	1.17	14.62	2.12	-31.92
	14:40:12	17.88	6.59	1.15	14.82	2.06	-32.78
	14:43:32	18.06	6.59	1.15	13.63	1.89	-33.84
Variance in last 3 readings	14:36:51	0.15	0.00	0.01	1.05	-0.15	-1.16
	14:40:12	-0.76	0.00	-0.02	0.20	-0.06	-0.86
	14:43:32	0.18	0.00	0.01	-1.19	-0.17	-1.06

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-52C-10-16-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	susan jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-52C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [mS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	41 [ft]
Well Depth:	40 [ft]
Well Diam:	2 [in]
Screen Len:	175.2 [in]
Screen Depth:	24.62 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	24.75 [ft]
Pump Level (TOC):	26.75 [ft]

Final Pumping Rate:	90 [mL/min]
Stable Draw Down:	0.2 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (183.0 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	300 [mL]
Actual Total Volume:	300 [mL]
Calculated Measurement Interval:	200 [sec]
Actual Measurement Interval:	200 [sec]

Start date/time:	10/16/2008	13:56:34
End date/time:	10/16/2008	14:44:57
Total Time:	0:48:23	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [mS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.59	0	-28.35	-4.45	2.44	-0.23			1.16	0.02	15.87	-3.86	18.24	0.36	14:30:07
3	6.59	0	-30.76	-2.4	2.27	-0.17			1.16	0.01	13.57	-2.3	18.49	0.24	14:33:29
2	6.59	0	-31.92	-1.16	2.12	-0.15			1.17	0.01	14.62	1.05	18.64	0.15	14:36:51
1	6.59	0	-32.78	-0.86	2.06	-0.06			1.15	-0.02	14.82	0.2	17.88	-0.76	14:40:12
0	6.59	0	-33.84	-1.06	1.89	-0.17			1.15	0.01	13.63	-1.19	18.06	0.18	14:43:32

pH Min:	6.59
pH Max:	6.59
ORP Min:	-33.84
ORP Max:	-28.35
DO Min:	1.89
DO Max:	2.44
RDO Min:	
RDO Max:	
Cond Min:	1.15
Cond Max:	1.17
Turb Min:	13.57
Turb Max:	15.87
Temp Min:	17.88
Temp Max:	18.64

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:14:18
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-52C-10-16-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/16/2008	13:56:34
Test started on:	10/16/2008	13:56:34
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	15	

TOTAL DATA SAMPLES	15
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/16/2008	13:56:34	0	63.39	29.81	76	3.15	30	6.59	4244	44.6558	1096.88
10/16/2008	13:59:54	200	64.74	29.813	63.8	3.176	21	6.59	3945	42.1497	1113.22
10/16/2008	14:03:16	402	65.39	29.81	46.9	3.176	9	6.59	3775	40.6431	1128.18
10/16/2008	14:06:37	603	64.02	29.805	42.4	3.15	0	6.59	3633	38.5098	1111.4
10/16/2008	14:09:58	804	63.37	29.806	32.1	3.15	-8	6.59	3491	36.7348	1109.38
10/16/2008	14:13:21	1007	63.8	29.807	28.3	3.15	-13	6.59	3142	33.2262	1117.22
10/16/2008	14:16:42	1208	63.26	29.802	24.7	3.176	-17	6.59	3078	32.3505	1116.8
10/16/2008	14:20:03	1409	63.02	29.797	21.1	3.176	-20	6.59	2902	30.4231	1114.41
10/16/2008	14:23:24	1610	62.7	29.8	21.8	3.176	-22	6.6	2722	28.4224	1113.19
10/16/2008	14:26:45	1811	64.19	29.798	19.7	3.176	-24	6.59	2674	28.4119	1137.49
10/16/2008	14:30:07	2013	64.84	29.796	15.9	3.176	-28	6.59	2441	26.125	1155.06
10/16/2008	14:33:29	2215	65.28	29.793	13.6	3.176	-31	6.59	2267	24.3927	1163.03
10/16/2008	14:36:51	2417	65.56	29.795	14.6	3.176	-32	6.59	2117	22.8459	1168.08
10/16/2008	14:40:12	2618	64.18	29.79	14.8	3.15	-33	6.59	2060	21.8965	1147.2
10/16/2008	14:43:32	2818	64.51	29.792	13.6	3.176	-34	6.59	1893	20.1954	1154.54

In-Situ Inc.

Troll 9000
10/16/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	susan jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	52 [ft]
Pump placement from TOC	42 [ft]

Well Information:

Well Id	HMW-53C
Well diameter	2 [in]
Well total depth	47 [ft]
Depth to top of screen	42 [ft]
Screen length	60 [in]
Depth to Water	27.1 [ft]

Pumping information:

Final pumping rate	150 [mL/min]
Flowcell volume	349.1 [mL]
Calculated Sample Rate	140 [sec]
Sample rate	140 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [mS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	11:46:34	17.97	5.73	0.88	17.90	0.09	28.61
	11:48:55	17.92	5.74	0.87	13.78	0.06	27.03
	11:51:15	17.95	5.75	0.87	14.33	0.06	25.80
	11:53:36	18.21	5.74	0.88	15.16	0.05	26.19
	11:55:57	18.24	5.75	0.88	12.29	0.05	25.42
Variance in last 3 readings	11:51:15	0.04	0.01	0.00	0.54	0.00	-1.24
	11:53:36	0.25	0.00	0.01	0.83	0.00	0.39
	11:55:57	0.03	0.01	0.00	-2.86	0.00	-0.77

Notes: ntu above ten, but stabilized

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-53C-10-16-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	susan jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-53C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [mS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	52 [ft]
Well Depth:	47 [ft]
Well Diam:	2 [in]
Screen Len:	60 [in]
Screen Depth:	42 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	27.1 [ft]
Pump Level (TOC):	42 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (232.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	349.1 [mL]
Actual Total Volume:	349.1 [mL]
Calculated Measurement Interval:	140 [sec]
Actual Measurement Interval:	140 [sec]

Start date/time:	10/16/2008	11:18:22
End date/time:	10/16/2008	11:56:41
Total Time:	0:38:19	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [mS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	5.73	0	28.61	1.07	0.09	-0.02			0.88	-0.01	17.9	-1.25	17.97	-0.34	11:46:34
3	5.74	0.01	27.03	-1.58	0.06	-0.03			0.87	0	13.78	-4.11	17.92	-0.06	11:48:55
2	5.75	0.01	25.8	-1.24	0.06	0			0.87	0	14.33	0.54	17.95	0.04	11:51:15
1	5.74	0	26.19	0.39	0.05	0			0.88	0.01	15.16	0.83	18.21	0.25	11:53:36
0	5.75	0.01	25.42	-0.77	0.05	0			0.88	0	12.29	-2.86	18.24	0.03	11:55:57

pH Min:	5.73
pH Max:	5.75
ORP Min:	25.42
ORP Max:	28.61
DO Min:	0.05
DO Max:	0.09
RDO Min:	
RDO Max:	
Cond Min:	0.87
Cond Max:	0.88
Turb Min:	12.29
Turb Max:	17.9
Temp Min:	17.92
Temp Max:	18.24

Notes:	ntu above ten, but stabilized
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:15:18
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-53C-10-16-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47760
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/16/2008 11:18:22
Test started on:	10/16/2008 11:18:22
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	17

TOTAL DATA SAMPLES	17
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	s/cm Actual
10/16/2008	11:18:22	0	65.3	29.85	66.5	3.202	35	5.72	255	2.7361	879.72
10/16/2008	11:20:42	140	65.38	29.852	44	3.202	38	5.71	216	2.3211	881.28
10/16/2008	11:23:03	281	65.54	29.854	30.6	3.202	34	5.73	294	3.1582	884.72
10/16/2008	11:25:24	422	64.84	29.848	36.6	3.202	33	5.73	245	2.6121	878.72
10/16/2008	11:27:45	563	64.64	29.846	33.4	3.202	29	5.76	220	2.3439	873.91
10/16/2008	11:30:06	704	65.18	29.85	43.6	3.176	29	5.75	212	2.2678	880.01
10/16/2008	11:32:27	845	64.97	29.846	31.9	3.202	29	5.74	187	2.0035	879.99
10/16/2008	11:34:48	986	65.27	29.848	22.7	3.176	28	5.75	169	1.8108	882.28
10/16/2008	11:37:09	1127	65.02	29.844	22.1	3.202	28	5.75	149	1.5958	879.54
10/16/2008	11:39:31	1269	64.97	29.844	20.7	3.202	27	5.75	133	1.4166	879.76
10/16/2008	11:41:52	1410	65.62	29.848	21.1	3.202	25	5.74	126	1.3549	888.1
10/16/2008	11:44:13	1551	64.97	29.841	19.1	3.202	28	5.74	103	1.1059	882.33
10/16/2008	11:46:34	1692	64.35	29.84	17.9	3.15	29	5.73	88	0.9348	875.91
10/16/2008	11:48:55	1833	64.25	29.841	13.8	3.176	27	5.74	57	0.6084	874.04
10/16/2008	11:51:15	1973	64.31	29.841	14.3	3.202	26	5.75	56	0.5987	873.98
10/16/2008	11:53:36	2114	64.77	29.845	15.2	3.176	26	5.74	55	0.5867	880.32
10/16/2008	11:55:57	2255	64.83	29.844	12.3	3.202	25	5.75	55	0.5832	881.45

In-Situ Inc.

Troll 9000
10/16/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	susan jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561855.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	53 [ft]
Pump placement from TOC	45 [ft]

Well Information:

Well Id	HMW-54C
Well diameter	2 [in]
Well total depth	50 [ft]
Depth to top of screen	45 [ft]
Screen length	60 [in]
Depth to Water	27.25 [ft]

Pumping information:

Final pumping rate	150 [mL/min]
Flowcell volume	353.56 [mL]
Calculated Sample Rate	142 [sec]
Sample rate	142 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:26:04	17.36	5.79	935.53	26.02	0.07	12.82
	9:28:27	17.36	5.81	936.32	23.62	0.07	11.92
	9:30:51	17.35	5.81	936.58	26.54	0.07	11.75
	9:33:13	17.37	5.82	936.07	22.72	0.06	10.94
	9:35:36	17.53	5.81	941.59	20.97	0.07	11.36
Variance in last 3 readings	9:30:51	-0.01	0.00	0.27	2.92	0.00	-0.17
	9:33:13	0.03	0.01	-0.51	-3.82	0.00	-0.81
	9:35:36	0.16	-0.01	5.52	-1.75	0.00	0.43

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-54C-10-16-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	susan jansen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	HMW-54C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	53 [ft]
Well Depth:	50 [ft]
Well Diam:	2 [in]
Screen Len:	60 [in]
Screen Depth:	45 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	27.25 [ft]
Pump Level (TOC):	45 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (236.6 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	353.56 [mL]
Actual Total Volume:	353.56 [mL]
Calculated Measurement Interval:	142 [sec]
Actual Measurement Interval:	142 [sec]

Start date/time:	10/16/2008	8:50:20
End date/time:	10/16/2008	9:39:51
Total Time:	0:49:31	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	5.79	-0.01	12.82	0.34	0.07	-0.01			935.53	0.27	26.02	0.81	17.36	-0.06	9:26:04
3	5.81	0.02	11.92	-0.9	0.07	0			936.32	0.79	23.62	-2.4	17.36	0	9:28:27
2	5.81	0	11.75	-0.17	0.07	0			936.58	0.27	26.54	2.92	17.35	-0.01	9:30:51
1	5.82	0.01	10.94	-0.81	0.06	0			936.07	-0.51	22.72	-3.82	17.37	0.03	9:33:13
0	5.81	-0.01	11.36	0.43	0.07	0			941.59	5.52	20.97	-1.75	17.53	0.16	9:35:36

pH Min:	5.79
pH Max:	5.82
ORP Min:	10.94
ORP Max:	12.82
DO Min:	0.06
DO Max:	0.07
RDO Min:	
RDO Max:	
Cond Min:	935.53
Cond Max:	941.59
Turb Min:	20.97
Turb Max:	26.54
Temp Min:	17.35
Temp Max:	17.53

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:16:09
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-HMW-54C-10-16-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47760
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/16/2008 8:50:20
Test started on:	10/16/2008 8:50:20
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	21

TOTAL DATA SAMPLES	21
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/16/2008	8:50:20	0	63.42	29.844	99.7	2.655	-2	5.78	346	3.6364	920.24
10/16/2008	8:52:43	143	63.47	29.846	91.1	2.655	1	5.79	244	2.5611	925.77
10/16/2008	8:55:06	286	63.39	29.845	91	2.681	1	5.81	186	1.9575	929.32
10/16/2008	8:57:29	429	63.43	29.847	76.8	2.681	2	5.82	155	1.6289	932.14
10/16/2008	8:59:51	571	63.45	29.847	70.4	2.681	3	5.83	133	1.3946	932.9
10/16/2008	9:02:14	714	63.48	29.848	63.7	2.681	4	5.83	119	1.254	932.12
10/16/2008	9:04:39	859	63.21	29.847	55.1	2.681	5	5.8	138	1.4469	931.09
10/16/2008	9:07:01	1001	63.25	29.847	55.2	2.655	7	5.81	147	1.5393	932.9
10/16/2008	9:09:24	1144	63.28	29.846	49.7	2.707	6	5.82	129	1.352	933.67
10/16/2008	9:11:46	1286	63.3	29.846	37.9	2.707	8	5.82	115	1.2115	935.74
10/16/2008	9:14:11	1431	63.25	29.847	42.5	2.655	8	5.82	111	1.1663	934.45
10/16/2008	9:16:32	1572	63.08	29.847	37.8	2.655	10	5.81	103	1.0766	932.64
10/16/2008	9:18:55	1715	63.41	29.848	29.3	2.707	11	5.81	97	1.0236	935.49
10/16/2008	9:21:18	1858	63.62	29.851	31.2	2.681	12	5.8	88	0.9278	937.58
10/16/2008	9:23:42	2002	63.36	29.85	25.2	2.681	12	5.8	85	0.8882	935.26
10/16/2008	9:26:04	2144	63.25	29.85	26	2.681	13	5.79	72	0.7517	935.53
10/16/2008	9:28:27	2287	63.25	29.849	23.6	2.707	12	5.81	67	0.7062	936.32
10/16/2008	9:30:51	2431	63.22	29.851	26.5	2.707	12	5.81	67	0.7075	936.58
10/16/2008	9:33:13	2573	63.27	29.854	22.7	2.681	11	5.82	63	0.6613	936.07
10/16/2008	9:35:36	2716	63.56	29.856	21	2.707	11	5.81	67	0.7085	941.59
10/16/2008	9:37:59	2859	63.44	29.853	18.5	2.707	12	5.81	59	0.6248	939.81

In-Situ Inc.

Troll 9000
10/17/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	47 [ft]
Pump placement from TOC	30.43 [ft]

Well Information:

Well Id	MP-33D
Well diameter	2 [in]
Well total depth	44.5 [ft]
Depth to top of screen	29.22 [ft]
Screen length	176.4 [in]
Depth to Water	28.43 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	326.78 [mL]
Calculated Sample Rate	141 [sec]
Sample rate	141 [sec]
Stabilized drawdown	0.02 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	11:51:37	17.39	6.71	1224.37	53.66	0.19	-99.35
	11:53:58	17.47	6.70	1218.84	47.92	0.19	-99.57
	11:56:20	17.21	6.70	1222.98	59.50	0.18	-99.61
	11:58:44	17.04	6.70	1226.54	52.71	0.18	-99.91
	12:01:05	17.01	6.70	1226.10	53.55	0.18	-100.12
Variance in last 3 readings	11:56:20	-0.25	0.00	4.14	11.57	0.00	-0.04
	11:58:44	-0.17	0.00	3.56	-6.79	0.00	-0.30
	12:01:05	-0.03	0.00	-0.44	0.84	-0.01	-0.21

Notes: purged for an hour, turb. did not stabilized

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-33D-10-17-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-33D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	47 [ft]
Well Depth:	44.5 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	29.22 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	28.43 [ft]
Pump Level (TOC):	30.43 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.02 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (209.8 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	326.78 [mL]
Actual Total Volume:	326.78 [mL]
Calculated Measurement Interval:	141 [sec]
Actual Measurement Interval:	141 [sec]

Start date/time:	10/17/2008	10:59:32
End date/time:	10/17/2008	12:01:45
Total Time:	1:02:13	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.71	0	-99.35	-0.51	0.19	-0.01			1224.37	0.6	53.66	-5.84	17.39	-0.03	11:51:37
3	6.7	0	-99.57	-0.21	0.19	0			1218.84	-5.52	47.92	-5.74	17.47	0.07	11:53:58
2	6.7	0	-99.61	-0.04	0.18	0			1222.98	4.14	59.5	11.57	17.21	-0.25	11:56:20
1	6.7	0	-99.91	-0.3	0.18	0			1226.54	3.56	52.71	-6.79	17.04	-0.17	11:58:44
0	6.7	0	-100.12	-0.21	0.18	-0.01			1226.1	-0.44	53.55	0.84	17.01	-0.03	12:01:05

pH Min:	6.7
pH Max:	6.71
ORP Min:	-100.12
ORP Max:	-99.35
DO Min:	0.18
DO Max:	0.19
RDO Min:	
RDO Max:	
Cond Min:	1218.84
Cond Max:	1226.54
Turb Min:	47.92
Turb Max:	59.5
Temp Min:	17.01
Temp Max:	17.47

Notes:	purged for an hour, turb. did not stabilized
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:17:00
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-33D-10-17-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47714
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/17/2008 10:59:32
Test started on:	10/17/2008 10:59:32
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points: 0.0	Seconds.
Time between default storages: 0.0	Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	27

TOTAL DATA SAMPLES	27
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/17/2008	10:59:32	0	62.19	29.842	83.2	3.072	-61	6.67	1472	15.2618	1066.15
10/17/2008	11:01:53	141	62.5	29.84	69.1	3.046	-71	6.68	843	8.7687	1069.86
10/17/2008	11:04:15	283	62.98	29.844	72.8	3.072	-77	6.69	620	6.4843	1077.86
10/17/2008	11:06:37	425	62.94	29.845	67.2	3.046	-81	6.69	524	5.4749	1072.43
10/17/2008	11:08:59	567	62.65	29.842	89.6	3.046	-83	6.69	465	4.8458	1067.56
10/17/2008	11:11:22	710	62.67	29.844	92.5	3.046	-86	6.69	1269	13.2197	1065.14
10/17/2008	11:13:44	852	62.7	29.845	91.4	3.046	-88	6.69	1275	13.2918	1062.7
10/17/2008	11:16:05	993	62.76	29.845	101.4	3.046	-89	6.69	510	5.3217	1064.19
10/17/2008	11:18:27	1135	63.19	29.845	75	3.046	-91	6.7	336	3.5187	1059.84
10/17/2008	11:20:49	1277	62.85	29.843	83.8	3.046	-92	6.7	291	3.0395	1061.36
10/17/2008	11:23:12	1420	62.39	29.841	66.4	3.046	-93	6.7	265	2.7571	1054.4
10/17/2008	11:25:35	1563	62.63	29.839	63.3	3.046	-93	6.7	252	2.6269	1056.82
10/17/2008	11:27:57	1705	63.1	29.833	61	3.046	-94	6.71	233	2.4447	1054.4
10/17/2008	11:30:18	1846	63.49	29.833	52	3.072	-95	6.7	227	2.3878	1056.56
10/17/2008	11:32:40	1988	63.6	29.835	57.7	3.072	-96	6.7	219	2.3114	1063.16
10/17/2008	11:35:03	2131	63.82	29.835	61.8	3.046	-97	6.7	215	2.2734	1064.69
10/17/2008	11:37:25	2273	63.15	29.839	51.9	3.072	-97	6.7	209	2.1927	1058.64
10/17/2008	11:39:48	2416	63.36	29.84	51.9	3.046	-98	6.7	212	2.2301	1062.57
10/17/2008	11:42:10	2558	63.53	29.837	45.3	3.046	-98	6.7	208	2.1933	1057.53
10/17/2008	11:44:32	2700	63.59	29.835	50.7	3.072	-99	6.7	205	2.1629	1055.9
10/17/2008	11:46:53	2841	63.7	29.835	54.2	3.072	-99	6.71	191	2.011	1052.58
10/17/2008	11:49:15	2983	63.36	29.834	59.5	3.072	-99	6.7	193	2.0294	1046.66
10/17/2008	11:51:37	3125	63.31	29.836	53.7	3.046	-99	6.71	187	1.9604	1046.46
10/17/2008	11:53:58	3266	63.44	29.836	47.9	3.046	-100	6.7	187	1.9649	1043.44
10/17/2008	11:56:20	3408	62.99	29.834	59.5	3.072	-100	6.7	182	1.9053	1041.11
10/17/2008	11:58:44	3552	62.68	29.831	52.7	3.072	-100	6.7	183	1.9074	1040.12
10/17/2008	12:01:05	3693	62.63	29.827	53.5	3.046	-100	6.7	178	1.8535	1039.1

In-Situ Inc.

Troll 9000
10/17/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	52 [ft]
Pump placement from TOC	33.7 [ft]

Well Information:

Well Id	MP-40C
Well diameter	2 [in]
Well total depth	49 [ft]
Depth to top of screen	33.7 [ft]
Screen length	176.4 [in]
Depth to Water	29.09 [ft]

Pumping information:

Final pumping rate	150 [mL/min]
Flowcell volume	349.1 [mL]
Calculated Sample Rate	140 [sec]
Sample rate	140 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	13:37:32	17.70	6.58	1830.31	11.55	0.39	-75.33
	13:39:53	17.63	6.59	1829.34	13.22	0.32	-77.85
	13:42:14	18.20	6.59	1819.87	10.51	0.27	-80.41
	13:44:35	18.83	6.59	1814.08	10.19	0.25	-82.85
	13:46:56	19.02	6.59	1820.69	10.87	0.24	-84.69
Variance in last 3 readings	13:42:14	0.57	0.00	-9.47	-2.71	-0.05	-2.56
	13:44:35	0.64	0.00	-5.79	-0.32	-0.02	-2.44
	13:46:56	0.19	0.00	6.61	0.67	-0.01	-1.84

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-40C-10-17-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-40C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	52 [ft]
Well Depth:	49 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	33.7 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.09 [ft]
Pump Level (TOC):	33.7 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (232.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	349.1 [mL]
Actual Total Volume:	349.1 [mL]
Calculated Measurement Interval:	140 [sec]
Actual Measurement Interval:	140 [sec]

Start date/time:	10/17/2008	13:28:08
End date/time:	10/17/2008	13:47:35
Total Time:	0:19:27	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.58	0	-75.33	-2.86	0.39	-0.09			1830.31	-4.98	11.55	-2.09	17.7	0.09	13:37:32
3	6.59	0	-77.85	-2.52	0.32	-0.07			1829.34	-0.97	13.22	1.67	17.63	-0.07	13:39:53
2	6.59	0	-80.41	-2.56	0.27	-0.05			1819.87	-9.47	10.51	-2.71	18.2	0.57	13:42:14
1	6.59	0	-82.85	-2.44	0.25	-0.02			1814.08	-5.79	10.19	-0.32	18.83	0.64	13:44:35
0	6.59	0	-84.69	-1.84	0.24	-0.01			1820.69	6.61	10.87	0.67	19.02	0.19	13:46:56

pH Min:	6.58
pH Max:	6.59
ORP Min:	-84.69
ORP Max:	-75.33
DO Min:	0.24
DO Max:	0.39
RDO Min:	
RDO Max:	
Cond Min:	1814.08
Cond Max:	1830.31
Turb Min:	10.19
Turb Max:	13.22
Temp Min:	17.63
Temp Max:	19.02

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:17:42
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-40C-10-17-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/17/2008	13:28:08
Test started on:	10/17/2008	13:28:08
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points: 0.0	Seconds.	
Time between default storages: 0.0	Seconds.	
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Fahrenheit	
Number of data samples:	9	

TOTAL DATA SAMPLES	9
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/17/2008	13:28:08	0	65.79	29.818	30.3	3.072	-56	6.57	1482	16.0487	1608.12
10/17/2008	13:30:28	140	65.26	29.815	19	3.072	-64	6.57	886	9.5352	1597.33
10/17/2008	13:32:50	282	64.23	29.813	17.6	3.072	-69	6.58	614	6.5319	1586.51
10/17/2008	13:35:11	423	63.7	29.809	13.6	3.046	-72	6.58	476	5.036	1576.21
10/17/2008	13:37:32	564	63.86	29.807	11.5	3.046	-75	6.58	388	4.1162	1575.01
10/17/2008	13:39:53	705	63.73	29.805	13.2	3.046	-78	6.59	323	3.4132	1571.66
10/17/2008	13:42:14	846	64.75	29.804	10.5	3.072	-80	6.59	272	2.9159	1583.36
10/17/2008	13:44:35	987	65.9	29.805	10.2	3.072	-83	6.59	249	2.7037	1600.35
10/17/2008	13:46:56	1128	66.24	29.808	10.9	3.072	-85	6.59	241	2.6276	1612.85

In-Situ Inc.

Troll 9000
10/15/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Susan Jansen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	39 [ft]
Pump placement from TOC	29.23 [ft]

Well Information:

Well Id	MP-58C
Well diameter	2 [in]
Well total depth	39.5 [ft]
Depth to top of screen	24.1 [ft]
Screen length	176.4 [in]
Depth to Water	27.23 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	291.07 [mL]
Calculated Sample Rate	125 [sec]
Sample rate	125 [sec]
Stabilized drawdown	0.02 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:17:45	19.92	6.39	1547.89	24.39	0.41	-106.85
	9:19:51	19.94	6.41	1547.27	24.96	0.45	-108.99
	9:21:57	20.00	6.35	1554.29	27.13	0.53	-103.77
	9:24:03	20.01	6.32	1557.66	26.95	0.67	-101.04
	9:26:09	20.00	6.36	1548.85	27.02	0.74	-105.36
Variance in last 3 readings	9:21:57	0.05	-0.06	7.02	2.17	0.09	5.22
	9:24:03	0.02	-0.03	3.37	-0.18	0.14	2.73
	9:26:09	-0.01	0.04	-8.80	0.07	0.07	-4.32

Notes: turb greater than 10ntu

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-58C-10-15-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	Susan Jansen
Company Name:	URS Corporation
Project Name.	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-58C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	39 [ft]
Well Depth:	39.5 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.1 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	27.23 [ft]
Pump Level (TOC):	29.23 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.02 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (174.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	291.07 [mL]
Actual Total Volume:	291.07 [mL]
Calculated Measurement Interval:	125 [sec]
Actual Measurement Interval:	125 [sec]

Start date/time:	10/15/2008	8:46:18
End date/time:	10/15/2008	9:27:39
Total Time:	0:41:21	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.39	-0.02	-106.85	0.81	0.41	0			1547.89	3.98	24.39	-1.07	19.92	0.06	9:17:45
3	6.41	0.02	-108.99	-2.14	0.45	0.03			1547.27	-0.62	24.96	0.56	19.94	0.02	9:19:51
2	6.35	-0.06	-103.77	5.22	0.53	0.09			1554.29	7.02	27.13	2.17	20	0.05	9:21:57
1	6.32	-0.03	-101.04	2.73	0.67	0.14			1557.66	3.37	26.95	-0.18	20.01	0.02	9:24:03
0	6.36	0.04	-105.36	-4.32	0.74	0.07			1548.85	-8.8	27.02	0.07	20	-0.01	9:26:09

pH Min:	6.32
pH Max:	6.41
ORP Min:	-108.99
ORP Max:	-101.04
DO Min:	0.41
DO Max:	0.74
RDO Min:	
RDO Max:	
Cond Min:	1547.27
Cond Max:	1557.66
Turb Min:	24.39
Turb Max:	27.13
Temp Min:	19.92
Temp Max:	20.01

Notes:	turb greater than 10ntu
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:18:30
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-58C-10-15-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47760
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/15/2008 8:46:18
Test started on:	10/15/2008 8:46:18
Test stopped on:	N/A N/A

Data gathered using Event testing

Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	20

TOTAL DATA SAMPLES	20
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/15/2008	8:46:18	0	67.25	29.631	30.8	2.629	-108	6.52	785	8.6888	1560.19
10/15/2008	8:48:23	125	67.33	29.631	28.7	2.655	-106	6.51	733	8.1215	1562.78
10/15/2008	8:50:29	251	67.29	29.63	29.8	2.655	-103	6.45	703	7.7868	1562.65
10/15/2008	8:52:35	377	67.35	29.629	27.2	2.655	-101	6.43	644	7.1381	1558.25
10/15/2008	8:54:41	503	67.32	29.628	29.9	2.655	-97	6.39	660	7.3127	1556.8
10/15/2008	8:56:46	628	67.32	29.629	27.6	2.655	-99	6.39	717	7.952	1554.39
10/15/2008	8:58:52	754	67.29	29.63	22.3	2.655	-103	6.43	784	8.683	1547.54
10/15/2008	9:00:58	880	67.32	29.632	27.7	2.655	-98	6.36	748	8.2927	1551.15
10/15/2008	9:03:04	1006	67.4	29.632	26.2	2.655	-99	6.37	885	9.8143	1548.79
10/15/2008	9:05:10	1132	67.39	29.631	24.3	2.655	-104	6.4	1027	11.3925	1545.11
10/15/2008	9:07:16	1258	67.39	29.631	24.6	2.655	-102	6.38	951	10.5425	1545.72
10/15/2008	9:09:22	1384	67.39	29.628	27.1	2.629	-100	6.34	966	10.714	1547.15
10/15/2008	9:11:28	1510	67.48	29.628	23.5	2.655	-104	6.38	913	10.1432	1541.52
10/15/2008	9:13:34	1636	67.6	29.628	23.3	2.655	-106	6.4	865	9.6131	1541.68
10/15/2008	9:15:39	1761	67.75	29.627	25.5	2.629	-108	6.4	417	4.6399	1543.91
10/15/2008	9:17:45	1887	67.86	29.627	24.4	2.655	-107	6.39	412	4.5905	1547.89
10/15/2008	9:19:51	2013	67.9	29.626	25	2.629	-109	6.41	445	4.9695	1547.27
10/15/2008	9:21:57	2139	67.99	29.626	27.1	2.629	-104	6.35	531	5.9318	1554.29
10/15/2008	9:24:03	2265	68.02	29.624	26.9	2.655	-101	6.32	670	7.4887	1557.66
10/15/2008	9:26:09	2391	68	29.624	27	2.655	-105	6.36	743	8.2939	1548.85

In-Situ Inc.

Troll 9000
10/15/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	37 [ft]
Pump placement from TOC	28.57 [ft]

Well Information:

Well Id	MP-59C
Well diameter	2 [in]
Well total depth	37 [ft]
Depth to top of screen	21.44 [ft]
Screen length	176.4 [in]
Depth to Water	26.57 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	282.15 [mL]
Calculated Sample Rate	121 [sec]
Sample rate	121 [sec]
Stabilized drawdown	0.03 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	8:26:59	18.10	6.64	1527.31	39.68	0.53	-112.82
	8:29:00	18.10	6.63	1525.20	27.21	0.47	-112.61
	8:31:02	18.07	6.62	1523.73	25.93	0.45	-112.14
	8:33:04	18.05	6.61	1522.10	28.09	0.46	-111.75
	8:35:06	18.06	6.60	1521.59	26.37	0.48	-111.45
Variance in last 3 readings	8:31:02	-0.02	-0.01	-1.47	-1.29	-0.02	0.47
	8:33:04	-0.02	-0.01	-1.63	2.16	0.01	0.39
	8:35:06	0.00	-0.01	-0.50	-1.72	0.02	0.30

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-59C-10-15-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-59C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	37 [ft]
Well Depth:	37 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	21.44 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	26.57 [ft]
Pump Level (TOC):	28.57 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.03 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (165.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	282.15 [mL]
Actual Total Volume:	282.15 [mL]
Calculated Measurement Interval:	121 [sec]
Actual Measurement Interval:	121 [sec]

Start date/time:	10/15/2008	8:24:58
End date/time:	10/15/2008	8:36:05
Total Time:	0:11:07	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.64	-0.01	-112.82	-1.41	0.53	-0.13			1527.31	3.64	39.68	2.9	18.1	-0.1	8:26:59
3	6.63	-0.01	-112.61	0.21	0.47	-0.06			1525.2	-2.11	27.21	-12.47	18.1	0	8:29:00
2	6.62	-0.01	-112.14	0.47	0.45	-0.02			1523.73	-1.47	25.93	-1.29	18.07	-0.02	8:31:02
1	6.61	-0.01	-111.75	0.39	0.46	0.01			1522.1	-1.63	28.09	2.16	18.05	-0.02	8:33:04
0	6.6	-0.01	-111.45	0.3	0.48	0.02			1521.59	-0.5	26.37	-1.72	18.06	0	8:35:06

pH Min:	6.6
pH Max:	6.64
ORP Min:	-112.82
ORP Max:	-111.45
DO Min:	0.45
DO Max:	0.53
RDO Min:	
RDO Max:	
Cond Min:	1521.59
Cond Max:	1527.31
Turb Min:	25.93
Turb Max:	39.68
Temp Min:	18.05
Temp Max:	18.1

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:19:09
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-59C-10-15-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/15/2008	8:24:58
Test started on:	10/15/2008	8:24:58
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	6	

TOTAL DATA SAMPLES	6
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/15/2008	8:24:58	0	64.76	29.659	36.8	3.176	-111	6.65	663	7.1249	1325.7
10/15/2008	8:26:59	121	64.58	29.658	39.7	3.176	-113	6.64	529	5.6807	1326.03
10/15/2008	8:29:00	242	64.57	29.657	27.2	3.15	-113	6.63	471	5.0496	1324.07
10/15/2008	8:31:02	364	64.53	29.655	25.9	3.15	-112	6.62	451	4.8397	1322.12
10/15/2008	8:33:04	486	64.5	29.655	28.1	3.15	-112	6.61	461	4.9431	1320.18
10/15/2008	8:35:06	608	64.5	29.653	26.4	3.15	-111	6.6	483	5.1837	1319.77

In-Situ Inc.

Troll 9000
10/17/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	40 [ft]
Pump placement from TOC	31.27 [ft]

Well Information:

Well Id	MP-78D
Well diameter	2 [in]
Well total depth	38.2 [ft]
Depth to top of screen	27.96 [ft]
Screen length	115.2 [in]
Depth to Water	29.27 [ft]

Pumping information:

Final pumping rate	146 [mL/min]
Flowcell volume	295.54 [mL]
Calculated Sample Rate	122 [sec]
Sample rate	122 [sec]
Stabilized drawdown	0.02 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	8:56:05	15.58	6.61	1171.78	43.25	0.91	-98.35
	8:58:08	15.53	6.62	1168.88	40.03	0.81	-98.82
	9:00:10	15.44	6.62	1167.81	32.58	0.67	-99.20
	9:02:14	15.51	6.61	1167.04	32.20	0.62	-99.54
	9:04:17	15.56	6.61	1164.33	30.23	0.57	-99.89
Variance in last 3 readings	9:00:10	-0.09	0.00	-1.07	-7.45	-0.14	-0.38
	9:02:14	0.07	0.00	-0.78	-0.38	-0.05	-0.34
	9:04:17	0.06	0.00	-2.71	-1.97	-0.05	-0.34

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-78D-10-17-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-78D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	38.2 [ft]
Well Diam:	2 [in]
Screen Len:	115.2 [in]
Screen Depth:	27.96 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.27 [ft]
Pump Level (TOC):	31.27 [ft]

Final Pumping Rate:	146 [mL/min]
Stable Draw Down:	0.02 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	122 [sec]
Actual Measurement Interval:	122 [sec]

Start date/time:	10/17/2008	8:27:25
End date/time:	10/17/2008	9:05:15
Total Time:	0:37:50	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.61	0	-98.35	-0.47	0.91	0.67			1171.78	-4.16	43.25	-12.84	15.58	0.12	8:56:05
3	6.62	0	-98.82	-0.47	0.81	-0.1			1168.88	-2.9	40.03	-3.21	15.53	-0.05	8:58:08
2	6.62	0	-99.2	-0.38	0.67	-0.14			1167.81	-1.07	32.58	-7.45	15.44	-0.09	9:00:10
1	6.61	0	-99.54	-0.34	0.62	-0.05			1167.04	-0.78	32.2	-0.38	15.51	0.07	9:02:14
0	6.61	0	-99.89	-0.34	0.57	-0.05			1164.33	-2.71	30.23	-1.97	15.56	0.06	9:04:17

pH Min:	6.61
pH Max:	6.62
ORP Min:	-99.89
ORP Max:	-98.35
DO Min:	0.57
DO Max:	0.91
RDO Min:	
RDO Max:	
Cond Min:	1164.33
Cond Max:	1171.78
Turb Min:	30.23
Turb Max:	43.25
Temp Min:	15.44
Temp Max:	15.58

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:19:54
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-78D-10-17-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/17/2008	8:27:25
Test started on:	10/17/2008	8:27:25
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points: 0.0	Seconds.	
Time between default storages: 0.0	Seconds.	
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Fahrenheit	
Number of data samples:	19	

TOTAL DATA SAMPLES	19
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/17/2008	8:27:25	0	59.44	29.864	169.3	3.072	-69	6.55	1017	10.1961	969.84
10/17/2008	8:29:28	123	59.68	29.86	147.8	3.072	-78	6.58	632	6.3592	970.76
10/17/2008	8:31:31	246	59.73	29.854	144.1	3.072	-83	6.59	517	5.2022	972.29
10/17/2008	8:33:33	368	59.79	29.855	135	3.072	-86	6.59	439	4.4242	974.05
10/17/2008	8:35:36	491	59.8	29.854	113.9	3.072	-89	6.6	375	3.7779	973.96
10/17/2008	8:37:39	614	59.91	29.853	84.7	3.046	-91	6.6	381	3.8386	974.92
10/17/2008	8:39:42	737	59.88	29.852	89.7	3.072	-92	6.61	363	3.6611	973.84
10/17/2008	8:41:45	860	59.85	29.851	91.1	3.046	-93	6.61	342	3.4439	972.36
10/17/2008	8:43:48	983	59.69	29.847	75.4	3.046	-94	6.61	388	3.9057	968.85
10/17/2008	8:45:51	1106	59.74	29.846	73.4	3.046	-95	6.61	329	3.3089	968.41
10/17/2008	8:47:54	1229	59.8	29.843	62.7	3.072	-96	6.61	315	3.173	966.15
10/17/2008	8:49:57	1352	59.73	29.843	59.7	3.046	-97	6.61	286	2.8782	964.72
10/17/2008	8:51:59	1474	59.92	29.844	54.6	3.046	-97	6.61	267	2.6972	964.5
10/17/2008	8:54:02	1597	59.81	29.84	56.1	3.072	-98	6.61	243	2.4486	961.48
10/17/2008	8:56:05	1720	60.04	29.839	43.2	3.046	-98	6.61	909	9.1825	960.87
10/17/2008	8:58:08	1843	59.96	29.842	40	3.046	-99	6.62	808	8.1514	957.48
10/17/2008	9:00:10	1965	59.79	29.841	32.6	3.046	-99	6.62	670	6.7534	954.51
10/17/2008	9:02:14	2089	59.92	29.841	32.2	3.046	-100	6.61	618	6.2348	955.49
10/17/2008	9:04:17	2212	60.02	29.841	30.2	3.046	-100	6.61	567	5.7228	954.5

In-Situ Inc.

Troll 9000
10/10/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	39 [ft]
Pump placement from TOC	23.26 [ft]

Well Information:

Well Id	MP-81C
Well diameter	2 [in]
Well total depth	32.8 [ft]
Depth to top of screen	17.15 [ft]
Screen length	177.6 [in]
Depth to Water	21.26 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	291.07 [mL]
Calculated Sample Rate	125 [sec]
Sample rate	125 [sec]
Stabilized drawdown	0.04 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
	13:57:32	19.19	6.66	1471.53	1.93	0.31	127.07
	13:59:38	18.66	6.66	1473.23	1.02	0.30	126.00
	14:01:44	18.20	6.67	1464.21	0.79	0.30	125.28
	14:03:50	18.18	6.66	1471.73	0.46	0.28	124.55
Variance in last 3 readings	13:59:38	-0.53	0.00	1.70	-0.91	-0.01	-1.07
	14:01:44	-0.46	0.00	-9.02	-0.23	0.00	-0.73
	14:03:50	-0.03	0.00	7.52	-0.33	-0.02	-0.73

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-81C-10-10-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-81C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	39 [ft]
Well Depth:	32.8 [ft]
Well Diam:	2 [in]
Screen Len:	177.6 [in]
Screen Depth:	17.15 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	21.26 [ft]
Pump Level (TOC):	23.26 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.04 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (174.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	291.07 [mL]
Actual Total Volume:	291.07 [mL]
Calculated Measurement Interval:	125 [sec]
Actual Measurement Interval:	125 [sec]

Start date/time:	10/10/2008	13:57:32
End date/time:	10/10/2008	14:05:17
Total Time:	0:07:45	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	0	0	0	0	0	0			0	0	0	0	0	0	0
3	6.66	6.66	127.07	127.07	0.31	0.31			1471.53	1471.53	1.93	1.93	19.19	19.19	13:57:32
2	6.66	0	126	-1.07	0.3	-0.01			1473.23	1.7	1.02	-0.91	18.66	-0.53	13:59:38
1	6.67	0	125.28	-0.73	0.3	0			1464.21	-9.02	0.79	-0.23	18.2	-0.46	14:01:44
0	6.66	0	124.55	-0.73	0.28	-0.02			1471.73	7.52	0.46	-0.33	18.18	-0.03	14:03:50

pH Min:	0
pH Max:	6.67
ORP Min:	0
ORP Max:	127.07
DO Min:	0
DO Max:	0.31
RDO Min:	
RDO Max:	
Cond Min:	0
Cond Max:	1473.23
Turb Min:	0
Turb Max:	1.93
Temp Min:	0
Temp Max:	19.19

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:20:38
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-81C-10-10-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/10/2008	13:57:32
Test started on:	10/10/2008	13:57:32
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	4	

TOTAL DATA SAMPLES	4
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/10/2008	13:57:32	0	66.54	29.628	1.9	2.629	127	6.66	308	3.3857	1308.22
10/10/2008	13:59:38	126	65.59	29.623	1	2.681	126	6.66	300	3.261	1294.89
10/10/2008	14:01:44	252	64.77	29.622	0.8	2.681	125	6.67	303	3.2611	1274.12
10/10/2008	14:03:50	378	64.72	29.62	0.5	2.629	125	6.66	281	3.0275	1279.9

In-Situ Inc.

Troll 9000
10/17/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	42 [ft]
Pump placement from TOC	27.5 [ft]

Well Information:

Well Id	MP-83C
Well diameter	2 [in]
Well total depth	42.5 [ft]
Depth to top of screen	22 [ft]
Screen length	234 [in]
Depth to Water	25.49 [ft]

Pumping information:

Final pumping rate	160 [mL/min]
Flowcell volume	304.46 [mL]
Calculated Sample Rate	115 [sec]
Sample rate	115 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [mS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
	11:01:10	15.66	6.64	0.83	5.35	1.13	-64.57
	11:03:06	15.68	6.64	0.83	4.60	0.78	-67.73
	11:05:01	15.76	6.64	0.84	4.17	0.71	-70.12
	11:06:57	15.72	6.64	0.83	4.39	0.59	-72.00
Variance in last 3 readings	11:03:06	0.02	0.00	0.00	-0.75	-0.35	-3.16
	11:05:01	0.08	0.00	0.00	-0.43	-0.07	-2.39
	11:06:57	-0.04	0.00	0.00	0.23	-0.13	-1.88

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-83C-10-17-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-83C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [mS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	42 [ft]
Well Depth:	42.5 [ft]
Well Diam:	2 [in]
Screen Len:	234 [in]
Screen Depth:	22 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	25.49 [ft]
Pump Level (TOC):	27.5 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (187.5 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	304.46 [mL]
Actual Total Volume:	304.46 [mL]
Calculated Measurement Interval:	115 [sec]
Actual Measurement Interval:	115 [sec]

Start date/time:	10/17/2008	11:01:10
End date/time:	10/17/2008	11:07:58
Total Time:	0:06:48	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [mS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	0	0	0	0	0	0			0	0	0	0	0	0	0
3	6.64	6.64	-64.57	-64.57	1.13	1.13			0.83	0.83	5.35	5.35	15.66	15.66	11:01:10
2	6.64	0	-67.73	-3.16	0.78	-0.35			0.83	0	4.6	-0.75	15.68	0.02	11:03:06
1	6.64	0	-70.12	-2.39	0.71	-0.07			0.84	0	4.17	-0.43	15.76	0.08	11:05:01
0	6.64	0	-72	-1.88	0.59	-0.13			0.83	0	4.39	0.23	15.72	-0.04	11:06:57

pH Min:	0
pH Max:	6.64
ORP Min:	-72
ORP Max:	0
DO Min:	0
DO Max:	1.13
RDO Min:	
RDO Max:	
Cond Min:	0
Cond Max:	0.84
Turb Min:	0
Turb Max:	5.35
Temp Min:	0
Temp Max:	15.76

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	10:58:54
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-83C-10-17-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/17/2008	11:01:10
Test started on:	10/17/2008	11:01:10
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points: 0.0	Seconds.	
Time between default storages: 0.0	Seconds.	
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Fahrenheit	
Number of data samples:	4	

TOTAL DATA SAMPLES	4
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/17/2008	11:01:10	0	60.19	29.812	5.3	3.072	-65	6.64	1131	11.4567	833.99
10/17/2008	11:03:06	116	60.22	29.811	4.6	3.098	-68	6.64	784	7.9428	834.18
10/17/2008	11:05:01	231	60.37	29.809	4.2	3.098	-70	6.64	714	7.2477	836.05
10/17/2008	11:06:57	347	60.3	29.807	4.4	3.072	-72	6.64	588	5.9605	834.77

In-Situ Inc.

Troll 9000
10/20/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Nathan McNurlen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	Geotech 1" Bladder Pump
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	26 [ft]
Pump placement from TOC	13.83 [ft]

Well Information:

Well Id	MP-85B
Well diameter	1 [in]
Well total depth	24 [ft]
Depth to top of screen	13.83 [ft]
Screen length	114 [in]
Depth to Water	10.3 [ft]

Pumping information:

Final pumping rate	110 [mL/min]
Flowcell volume	233.05 [mL]
Calculated Sample Rate	128 [sec]
Sample rate	128 [sec]
Stabilized drawdown	0.2 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	14:17:05	21.39	6.73	722.29	3.19	0.45	-116.42
	14:19:13	21.74	6.73	724.45	2.81	0.42	-119.12
	14:21:23	21.95	6.74	728.57	2.68	0.40	-121.86
	14:23:31	22.03	6.73	727.77	2.34	0.39	-123.74
	14:25:39	21.92	6.74	729.62	2.18	0.38	-125.63
Variance in last 3 readings	14:21:23	0.22	0.01	4.11	-0.14	-0.02	-2.74
	14:23:31	0.07	0.00	-0.79	-0.34	-0.01	-1.88
	14:25:39	-0.11	0.00	1.84	-0.16	0.00	-1.88

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-85Ba-10-20-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Nathan McNurlen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-85B

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	Geotech 1" Bladder Pump
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	26 [ft]
Well Depth:	24 [ft]
Well Diam:	1 [in]
Screen Len:	114 [in]
Screen Depth:	13.83 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	10.3 [ft]
Pump Level (TOC):	13.83 [ft]

Final Pumping Rate:	110 [mL/min]
Stable Draw Down:	0.2 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (116.0 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	233.05 [mL]
Actual Total Volume:	233.05 [mL]
Calculated Measurement Interval:	128 [sec]
Actual Measurement Interval:	128 [sec]

Start date/time:	10/20/2008	14:17:05
End date/time:	10/20/2008	14:26:30
Total Time:	0:09:25	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.73	6.73	-116.42	-116.42	0.45	0.45			722.29	722.29	3.19	3.19	21.39	21.39	14:17:05
3	6.73	0	-119.12	-2.7	0.42	-0.03			724.45	2.16	2.81	-0.38	21.74	0.35	14:19:13
2	6.74	0.01	-121.86	-2.74	0.4	-0.02			728.57	4.11	2.68	-0.14	21.95	0.22	14:21:23
1	6.73	0	-123.74	-1.88	0.39	-0.01			727.77	-0.79	2.34	-0.34	22.03	0.07	14:23:31
0	6.74	0	-125.63	-1.88	0.38	0			729.62	1.84	2.18	-0.16	21.92	-0.11	14:25:39

pH Min:	6.73
pH Max:	6.74
ORP Min:	-125.63
ORP Max:	-116.42
DO Min:	0.38
DO Max:	0.45
RDO Min:	
RDO Max:	
Cond Min:	722.29
Cond Max:	729.62
Turb Min:	2.18
Turb Max:	3.19
Temp Min:	21.39
Temp Max:	22.03

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:21:22
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-85Ba-10-20-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/20/2008	14:17:05
Test started on:	10/20/2008	14:17:05
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	5	

TOTAL DATA SAMPLES	5
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/20/2008	14:17:05	0	70.5	29.821	3.2	2.968	-116	6.73	452	5.137	722.29
10/20/2008	14:19:13	128	71.13	29.819	2.8	2.994	-119	6.73	420	4.8108	724.45
10/20/2008	14:21:23	258	71.52	29.818	2.7	2.994	-122	6.74	398	4.5786	728.57
10/20/2008	14:23:31	386	71.65	29.818	2.3	3.02	-124	6.73	385	4.4365	727.77
10/20/2008	14:25:39	514	71.45	29.816	2.2	2.968	-126	6.74	382	4.3897	729.62

In-Situ Inc.

Troll 9000
10/15/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	35 [ft]
Pump placement from TOC	29.31 [ft]

Well Information:

Well Id	MP-85C
Well diameter	2 [in]
Well total depth	36 [ft]
Depth to top of screen	29.31 [ft]
Screen length	70.8 [in]
Depth to Water	25.45 [ft]

Pumping information:

Final pumping rate	130 [mL/min]
Flowcell volume	273.22 [mL]
Calculated Sample Rate	127 [sec]
Sample rate	127 [sec]
Stabilized drawdown	0.25 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	11:28:29	18.62	6.62	871.88	36.29	0.26	-103.48
	11:30:36	18.59	6.62	872.13	19.80	0.25	-103.78
	11:32:45	18.51	6.62	872.21	17.51	0.25	-104.16
	11:34:53	18.62	6.62	872.92	17.48	0.25	-104.68
	11:37:00	18.55	6.62	874.35	17.49	0.25	-105.32
Variance in last 3 readings	11:32:45	-0.07	0.00	0.08	-2.29	0.00	-0.38
	11:34:53	0.11	0.00	0.71	-0.03	0.00	-0.51
	11:37:00	-0.08	0.00	1.42	0.01	0.00	-0.64

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-85C-10-15-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-85C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	35 [ft]
Well Depth:	36 [ft]
Well Diam:	2 [in]
Screen Len:	70.8 [in]
Screen Depth:	29.31 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	25.45 [ft]
Pump Level (TOC):	29.31 [ft]

Final Pumping Rate:	130 [mL/min]
Stable Draw Down:	0.25 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (156.2 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	273.22 [mL]
Actual Total Volume:	273.22 [mL]
Calculated Measurement Interval:	127 [sec]
Actual Measurement Interval:	127 [sec]

Start date/time:	10/15/2008	10:43:44
End date/time:	10/15/2008	11:37:30
Total Time:	0:53:46	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.62	0	-103.48	-0.56	0.26	0			871.88	0.37	36.29	0.38	18.62	-0.03	11:28:29
3	6.62	0	-103.78	-0.3	0.25	-0.01			872.13	0.24	19.8	-16.49	18.59	-0.04	11:30:36
2	6.62	0	-104.16	-0.38	0.25	0			872.21	0.08	17.51	-2.29	18.51	-0.07	11:32:45
1	6.62	0	-104.68	-0.51	0.25	0			872.92	0.71	17.48	-0.03	18.62	0.11	11:34:53
0	6.62	0	-105.32	-0.64	0.25	0			874.35	1.42	17.49	0.01	18.55	-0.08	11:37:00

pH Min:	6.62
pH Max:	6.62
ORP Min:	-105.32
ORP Max:	-103.48
DO Min:	0.25
DO Max:	0.26
RDO Min:	
RDO Max:	
Cond Min:	871.88
Cond Max:	874.35
Turb Min:	17.48
Turb Max:	36.29
Temp Min:	18.51
Temp Max:	18.62

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:22:03
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-85C-10-15-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47714	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/15/2008	10:43:44
Test started on:	10/15/2008	10:43:44
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	26	

TOTAL DATA SAMPLES	26
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/15/2008	10:43:44	0	65.49	29.655	28.5	3.15	-90	6.65	332	3.5974	759.38
10/15/2008	10:45:51	127	65.42	29.652	24.1	3.176	-91	6.64	326	3.528	761.5
10/15/2008	10:48:00	256	65.34	29.649	26.7	3.15	-92	6.64	311	3.3578	762.36
10/15/2008	10:50:08	384	65.31	29.647	32.8	3.15	-93	6.64	298	3.2182	762.35
10/15/2008	10:52:15	511	65.36	29.646	35.7	3.15	-94	6.63	297	3.2111	763.98
10/15/2008	10:54:23	639	65.36	29.643	38.7	3.15	-94	6.63	287	3.1055	764.86
10/15/2008	10:56:30	766	65.35	29.643	46.4	3.15	-96	6.63	290	3.1385	766.12
10/15/2008	10:58:39	895	65.4	29.643	35.6	3.176	-96	6.63	290	3.1347	762.57
10/15/2008	11:00:47	1023	65.57	29.642	36.9	3.15	-97	6.63	289	3.1262	764.47
10/15/2008	11:02:54	1150	65.74	29.641	36.9	3.15	-98	6.63	281	3.0501	766.64
10/15/2008	11:05:03	1279	65.91	29.642	48.7	3.124	-99	6.62	277	3.0111	770.25
10/15/2008	11:07:11	1407	65.99	29.64	57.5	3.15	-99	6.62	277	3.0127	770.92
10/15/2008	11:09:18	1534	65.83	29.638	23	3.176	-100	6.62	279	3.0274	770.03
10/15/2008	11:11:25	1661	65.76	29.639	23	3.15	-100	6.62	279	3.0341	768.76
10/15/2008	11:13:33	1789	65.71	29.636	28.1	3.15	-101	6.62	283	3.0712	769.14
10/15/2008	11:15:42	1918	65.71	29.638	31.9	3.15	-101	6.62	273	2.968	768.63
10/15/2008	11:17:50	2046	65.65	29.638	32.3	3.176	-102	6.62	271	2.9367	769.14
10/15/2008	11:19:57	2173	65.8	29.636	48.2	3.15	-102	6.62	270	2.9284	771.2
10/15/2008	11:22:04	2300	65.74	29.636	31.4	3.15	-103	6.62	267	2.8978	767.73
10/15/2008	11:24:13	2429	65.66	29.634	31.3	3.15	-103	6.62	264	2.8687	767.73
10/15/2008	11:26:21	2557	65.58	29.636	35.9	3.176	-103	6.61	259	2.8052	765.94
10/15/2008	11:28:29	2685	65.52	29.636	36.3	3.15	-103	6.62	259	2.8084	765.69
10/15/2008	11:30:36	2812	65.46	29.638	19.8	3.176	-104	6.62	253	2.7424	765.3
10/15/2008	11:32:45	2941	65.32	29.636	17.5	3.15	-104	6.62	251	2.7141	764.15
10/15/2008	11:34:53	3069	65.52	29.636	17.5	3.15	-105	6.62	250	2.7028	766.57
10/15/2008	11:37:00	3196	65.38	29.635	17.5	3.15	-105	6.62	250	2.7087	766.56

In-Situ Inc.

Troll 9000
10/17/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J. MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	45 [ft]
Pump placement from TOC	39.5 [ft]

Well Information:

Well Id	MP-85D
Well diameter	2 [in]
Well total depth	50 [ft]
Depth to top of screen	39.45 [ft]
Screen length	114 [in]
Depth to Water	26.38 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	317.85 [mL]
Calculated Sample Rate	137 [sec]
Sample rate	137 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [mS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:19:16	16.36	6.60	0.99	9.77	0.02	-107.22
	9:21:35	16.44	6.60	1.00	12.38	0.01	-107.61
	9:23:52	16.44	6.60	1.00	19.01	0.01	-107.87
	9:26:10	16.43	6.60	1.00	7.66	0.00	-107.95
	9:28:27	16.37	6.60	0.99	8.25	0.02	-107.74
Variance in last 3 readings	9:23:52	0.00	0.00	0.00	6.63	0.00	-0.26
	9:26:10	-0.01	0.00	0.00	-11.35	0.00	-0.09
	9:28:27	-0.06	0.00	0.00	0.59	0.02	0.21

Notes: Purged for one hour. Turbidity did not stabilize. Will collect sample at 0932.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-85D-10-17-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	J. MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-85D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [mS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	45 [ft]
Well Depth:	50 [ft]
Well Diam:	2 [in]
Screen Len:	114 [in]
Screen Depth:	39.45 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	26.38 [ft]
Pump Level (TOC):	39.5 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (200.9 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	317.85 [mL]
Actual Total Volume:	317.85 [mL]
Calculated Measurement Interval:	137 [sec]
Actual Measurement Interval:	137 [sec]

Start date/time:	10/17/2008	8:28:42
End date/time:	10/17/2008	9:29:02
Total Time:	1:00:20	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [mS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.6	0	-107.22	-0.13	0.02	0			0.99	0	9.77	0.46	16.36	0	9:19:16
3	6.6	0	-107.61	-0.39	0.01	0			1	0	12.38	2.61	16.44	0.08	9:21:35
2	6.6	0	-107.87	-0.26	0.01	0			1	0	19.01	6.63	16.44	0	9:23:52
1	6.6	0	-107.95	-0.09	0	0			1	0	7.66	-11.35	16.43	-0.01	9:26:10
0	6.6	0	-107.74	0.21	0.02	0.02			0.99	0	8.25	0.59	16.37	-0.06	9:28:27

pH Min:	6.6
pH Max:	6.6
ORP Min:	-107.95
ORP Max:	-107.22
DO Min:	0
DO Max:	0.02
RDO Min:	
RDO Max:	
Cond Min:	0.99
Cond Max:	1
Turb Min:	7.66
Turb Max:	19.01
Temp Min:	16.36
Temp Max:	16.44

Notes:	Purged for one hour. Turbidity did not stabilize. Will collect sample at 0932.
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	11/20/2008 11:00:06
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-85D-10-17-2008.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	47760
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	10/17/2008 8:28:42
Test started on:	10/17/2008 8:28:42
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Fahrenheit
Number of data samples:	27

TOTAL DATA SAMPLES	27
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/17/2008	8:28:42	0	61.27	29.836	8.8	3.098	-85	6.54	8762	89.8153	924.88
10/17/2008	8:30:59	137	61.46	29.835	6.5	3.124	-88	6.54	8075	82.9701	933.95
10/17/2008	8:33:17	275	61.5	29.836	5.2	3.124	-89	6.54	7546	77.5679	939.21
10/17/2008	8:35:36	414	61.49	29.839	4.2	3.124	-90	6.53	7097	72.936	942.92
10/17/2008	8:37:53	551	61.47	29.841	4	3.098	-90	6.53	6738	69.2217	943.99
10/17/2008	8:40:11	689	61.39	29.841	11.2	3.124	-91	6.53	6533	67.0634	945.32
10/17/2008	8:42:28	826	61.5	29.839	9.7	3.124	-91	6.53	6221	63.9396	947.21
10/17/2008	8:44:47	965	61.6	29.836	9.3	3.124	-92	6.53	5792	59.6128	949.37
10/17/2008	8:47:06	1104	61.62	29.835	7.9	3.124	-93	6.54	5335	54.9213	950.73
10/17/2008	8:49:23	1241	61.59	29.834	6.4	3.098	-93	6.54	4913	50.5637	952.91
10/17/2008	8:51:41	1379	61.61	29.834	11.8	3.098	-95	6.55	4560	46.9437	956.21
10/17/2008	8:53:59	1517	61.6	29.831	59.3	3.124	-96	6.56	4248	43.7319	963.14
10/17/2008	8:56:17	1655	61.58	29.832	5.2	3.124	-98	6.57	1079	11.1054	969.61
10/17/2008	8:58:36	1794	61.56	29.832	10.2	3.098	-101	6.58	266	2.7353	977.03
10/17/2008	9:00:53	1931	61.62	29.835	15.9	3.124	-102	6.58	161	1.6575	981.36
10/17/2008	9:03:11	2069	61.6	29.834	24.4	3.124	-104	6.59	107	1.0979	985.16
10/17/2008	9:05:29	2207	61.64	29.83	32.6	3.098	-105	6.59	84	0.8645	988.68
10/17/2008	9:07:47	2345	61.52	29.829	6.5	3.072	-106	6.6	75	0.7737	990.76
10/17/2008	9:10:06	2484	61.58	29.829	8.2	3.098	-106	6.6	52	0.5402	992.25
10/17/2008	9:12:23	2621	61.59	29.831	6.4	3.072	-106	6.6	39	0.4013	994.04
10/17/2008	9:14:41	2759	61.49	29.833	7.5	3.072	-107	6.6	30	0.3099	994.06
10/17/2008	9:16:58	2896	61.45	29.832	9.3	3.098	-107	6.6	21	0.2176	994.36
10/17/2008	9:19:16	3034	61.45	29.833	9.8	3.072	-107	6.6	17	0.172	993.48
10/17/2008	9:21:35	3173	61.59	29.834	12.4	3.098	-108	6.6	12	0.1259	996.47
10/17/2008	9:23:52	3310	61.59	29.833	19	3.072	-108	6.6	8	0.0804	996.48
10/17/2008	9:26:10	3448	61.58	29.833	7.7	3.098	-108	6.6	3	0.035	996.2
10/17/2008	9:28:27	3585	61.47	29.831	8.2	3.098	-108	6.6	22	0.2242	994.12

In-Situ Inc.

Troll 9000
10/17/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	J MUMPER
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955.00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	42 [ft]
Pump placement from TOC	30.5 [ft]

Well Information:

Well Id	MP-86C
Well diameter	2 [in]
Well total depth	40 [ft]
Depth to top of screen	24.59 [ft]
Screen length	174 [in]
Depth to Water	28.45 [ft]

Pumping information:

Final pumping rate	160 [mL/min]
Flowcell volume	304.46 [mL]
Calculated Sample Rate	115 [sec]
Sample rate	115 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [mS/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	13:59:23	19.60	6.79	1.62	8.74	0.16	-142.88
	14:01:19	19.68	6.78	1.62	9.27	0.13	-143.22
	14:03:15	19.60	6.78	1.61	6.51	0.12	-143.17
	14:05:11	19.53	6.78	1.61	6.79	0.10	-143.00
	14:07:07	19.53	6.78	1.60	8.00	0.08	-143.38
Variance in last 3 readings	14:03:15	-0.08	0.00	-0.01	-2.76	-0.02	0.05
	14:05:11	-0.07	0.00	-0.01	0.28	-0.02	0.17
	14:07:07	0.00	0.00	0.00	1.21	-0.02	-0.38

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-86C-10-17-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	J MUMPER
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-86C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [mS/cm]	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	42 [ft]
Well Depth:	40 [ft]
Well Diam:	2 [in]
Screen Len:	174 [in]
Screen Depth:	24.59 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	28.45 [ft]
Pump Level (TOC):	30.5 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (187.5 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	304.46 [mL]
Actual Total Volume:	304.46 [mL]
Calculated Measurement Interval:	115 [sec]
Actual Measurement Interval:	115 [sec]

Start date/time:	10/17/2008	13:45:54
End date/time:	10/17/2008	14:08:12
Total Time:	0:22:18	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [mS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.79	0	-142.88	-0.08	0.16	-0.04			1.62	0	8.74	1.57	19.6	0.01	13:59:23
3	6.78	0	-143.22	-0.34	0.13	-0.02			1.62	0	9.27	0.53	19.68	0.07	14:01:19
2	6.78	0	-143.17	0.05	0.12	-0.02			1.61	-0.01	6.51	-2.76	19.6	-0.08	14:03:15
1	6.78	0	-143	0.17	0.1	-0.02			1.61	-0.01	6.79	0.28	19.53	-0.07	14:05:11
0	6.78	0	-143.38	-0.38	0.08	-0.02			1.6	0	8	1.21	19.53	0	14:07:07

pH Min:	6.78
pH Max:	6.79
ORP Min:	-143.38
ORP Max:	-142.88
DO Min:	0.08
DO Max:	0.16
RDO Min:	
RDO Max:	
Cond Min:	1.6
Cond Max:	1.62
Turb Min:	6.51
Turb Max:	9.27
Temp Min:	19.53
Temp Max:	19.68

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:00:54
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-86C-10-17-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/17/2008	13:45:54
Test started on:	10/17/2008	13:45:54
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	12	

TOTAL DATA SAMPLES	12
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/17/2008	13:45:54	0	67.97	29.753	9.3	3.098	-140	6.79	852	9.4705	1645.87
10/17/2008	13:47:48	114	67.67	29.753	12.4	3.098	-141	6.79	626	6.9429	1643.05
10/17/2008	13:49:44	230	67.94	29.752	12.7	3.072	-142	6.79	585	6.4997	1642.2
10/17/2008	13:51:40	346	67.9	29.751	8.4	3.098	-142	6.79	515	5.7215	1645.02
10/17/2008	13:53:36	462	67.66	29.75	8.2	3.072	-143	6.79	361	3.9991	1638.57
10/17/2008	13:55:32	578	67.37	29.747	7.4	3.072	-143	6.79	247	2.7234	1626.99
10/17/2008	13:57:27	693	67.27	29.744	7.2	3.098	-143	6.79	198	2.1815	1623.15
10/17/2008	13:59:23	809	67.29	29.744	8.7	3.072	-143	6.79	155	1.7148	1620.33
10/17/2008	14:01:19	925	67.42	29.744	9.3	3.072	-143	6.78	132	1.4544	1618.29
10/17/2008	14:03:15	1041	67.27	29.743	6.5	3.098	-143	6.78	117	1.2865	1612.71
10/17/2008	14:05:11	1157	67.15	29.745	6.8	3.072	-143	6.78	98	1.0748	1606.5
10/17/2008	14:07:07	1273	67.16	29.744	8	3.072	-143	6.78	78	0.8602	1602.67

In-Situ Inc.

Troll 9000
10/10/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	sarah wiesner
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	39 [ft]
Pump placement from TOC	26.75 [ft]

Well Information:

Well Id	MP-89C
Well diameter	2 [in]
Well total depth	38 [ft]
Depth to top of screen	23 [ft]
Screen length	180 [in]
Depth to Water	24.75 [ft]

Pumping information:

Final pumping rate	150 [mL/min]
Flowcell volume	291.07 [mL]
Calculated Sample Rate	117 [sec]
Sample rate	117 [sec]
Stabilized drawdown	0 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	11:31:06	18.23	6.69	1175.48	35.78	0.07	39.88
	11:33:04	17.99	6.69	1177.43	43.17	0.07	38.51
	11:35:01	18.02	6.69	1180.21	2.01	0.06	37.18
	11:36:59	18.08	6.69	1183.09	2.32	0.06	35.85
	11:38:57	18.26	6.69	1177.30	2.65	0.06	34.70
Variance in last 3 readings	11:35:01	0.03	0.00	2.78	-41.17	0.00	-1.33
	11:36:59	0.06	0.00	2.88	0.31	0.00	-1.33
	11:38:57	0.18	0.00	-5.79	0.33	0.00	-1.15

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009-HWG-MP-89C-10-10-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	sarah wiesner
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-89C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	39 [ft]
Well Depth:	38 [ft]
Well Diam:	2 [in]
Screen Len:	180 [in]
Screen Depth:	23 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	24.75 [ft]
Pump Level (TOC):	26.75 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (174.1 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	291.07 [mL]
Actual Total Volume:	291.07 [mL]
Calculated Measurement Interval:	117 [sec]
Actual Measurement Interval:	117 [sec]

Start date/time:	10/10/2008	10:44:01
End date/time:	10/10/2008	11:39:49
Total Time:	0:55:48	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.69	0	39.88	-1.8	0.07	0			1175.48	3.1	35.78	2.92	18.23	0	11:31:06
3	6.69	0	38.51	-1.37	0.07	0			1177.43	1.95	43.17	7.39	17.99	-0.24	11:33:04
2	6.69	0	37.18	-1.33	0.06	0			1180.21	2.78	2.01	-41.17	18.02	0.03	11:35:01
1	6.69	0	35.85	-1.33	0.06	0			1183.09	2.88	2.32	0.31	18.08	0.06	11:36:59
0	6.69	0	34.7	-1.15	0.06	0			1177.3	-5.79	2.65	0.33	18.26	0.18	11:38:57

pH Min:	6.69
pH Max:	6.69
ORP Min:	34.7
ORP Max:	39.88
DO Min:	0.06
DO Max:	0.07
RDO Min:	
RDO Max:	
Cond Min:	1175.48
Cond Max:	1183.09
Turb Min:	2.01
Turb Max:	43.17
Temp Min:	17.99
Temp Max:	18.26

Notes:		
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:22:43
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009-HWG-MP-89C-10-10-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/10/2008	10:44:01
Test started on:	10/10/2008	10:44:01
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points: 0.0	Seconds.	
Time between default storages: 0.0	Seconds.	
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Fahrenheit	
Number of data samples:	29	

TOTAL DATA SAMPLES	29
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/10/2008	10:44:01	0	64.5	29.687	30.6	2.681	85	6.76	611	6.5353	985.73
10/10/2008	10:45:59	118	64.23	29.688	34	2.681	81	6.78	389	4.1464	979.56
10/10/2008	10:47:56	235	64.14	29.685	32.6	2.707	79	6.77	346	3.6871	979.83
10/10/2008	10:49:54	353	64.2	29.684	31.3	2.681	78	6.77	345	3.6819	981.5
10/10/2008	10:51:52	471	64.64	29.682	27.9	2.707	78	6.76	332	3.5575	977.31
10/10/2008	10:53:50	589	64.46	29.68	21.4	2.707	78	6.75	325	3.476	980.92
10/10/2008	10:55:47	706	64.41	29.679	13.8	2.681	78	6.75	299	3.1996	985.11
10/10/2008	10:57:44	823	64.26	29.679	13.8	2.707	79	6.74	261	2.7878	983.68
10/10/2008	10:59:43	942	64.21	29.676	12.3	2.707	80	6.74	218	2.3227	986.48
10/10/2008	11:01:41	1060	64.73	29.676	11.8	2.707	79	6.74	188	2.0214	985.9
10/10/2008	11:03:38	1177	64.51	29.676	11.9	2.681	79	6.73	168	1.7975	990.71
10/10/2008	11:05:36	1295	64.18	29.674	13.9	2.707	78	6.73	161	1.7157	992.14
10/10/2008	11:07:34	1413	63.9	29.673	15.2	2.681	77	6.72	145	1.5374	995.3
10/10/2008	11:09:31	1530	63.96	29.671	19.6	2.707	75	6.72	131	1.395	1000.5
10/10/2008	11:11:29	1648	64.2	29.671	21.7	2.681	71	6.72	121	1.2957	1003.41
10/10/2008	11:13:26	1765	64.17	29.671	25.7	2.707	67	6.72	117	1.2505	1006.94
10/10/2008	11:15:25	1884	64.14	29.67	19.5	2.603	63	6.71	109	1.158	1004.01
10/10/2008	11:17:22	2001	64.26	29.67	30.9	2.655	59	6.71	104	1.109	1007.53
10/10/2008	11:19:20	2119	64.54	29.671	30.9	2.681	55	6.71	99	1.0568	1009.6
10/10/2008	11:21:18	2237	64.73	29.671	32.8	2.681	52	6.7	94	1.0076	1014.37
10/10/2008	11:23:15	2354	64.55	29.669	29.5	2.655	49	6.7	86	0.9189	1014.67
10/10/2008	11:25:13	2472	64.39	29.67	33.7	2.655	46	6.7	86	0.9217	1014.97
10/10/2008	11:27:11	2590	64.66	29.67	36.9	2.681	44	6.7	81	0.8708	1020.68
10/10/2008	11:29:08	2707	64.81	29.67	32.9	2.681	42	6.69	77	0.8222	1020.68
10/10/2008	11:31:06	2825	64.81	29.669	35.8	2.707	40	6.69	72	0.7764	1023.42
10/10/2008	11:33:04	2943	64.38	29.67	43.2	2.681	39	6.69	69	0.7361	1019.78
10/10/2008	11:35:01	3060	64.43	29.669	2	2.577	37	6.69	64	0.6891	1022.81
10/10/2008	11:36:59	3178	64.55	29.667	2.3	2.603	36	6.69	60	0.6401	1026.76
10/10/2008	11:38:57	3296	64.87	29.666	2.6	2.629	35	6.69	59	0.6349	1025.83

In-Situ Inc.

Troll 9000
10/10/08

Low-Flow System
ISI Low-Flow Log

Project Information:

Operator Name	Nathan MCNurlen
Company Name	URS Corporation
Project Name	Hartford Groundwater Sampling - 21561955 00009
Site Name	HWG

Pump Information:

Pump Model/Type	QED Sample Pro
Tubing Type	Polyethylene
Tubing Diameter	0.17 [in]
Tubing Length	38 [ft]
Pump placement from TOC	26.4 [ft]

Well Information:

Well Id	MP-92D
Well diameter	2 [in]
Well total depth	37.8 [ft]
Depth to top of screen	22.7 [ft]
Screen length	174 [in]
Depth to Water	24.4 [ft]

Pumping information:

Final pumping rate	140 [mL/min]
Flowcell volume	286.61 [mL]
Calculated Sample Rate	123 [sec]
Sample rate	123 [sec]
Stabilized drawdown	0.05 [in]

Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [µS/cm @25C]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	9:03:44	16.49	6.64	1185.41	6.77	0.19	-4.28
	9:05:48	16.51	6.64	1225.44	6.01	0.19	-11.29
	9:07:51	16.57	6.64	1253.41	4.64	0.21	-15.40
	9:09:55	16.62	6.65	1259.40	4.69	0.22	-17.45
	9:11:59	16.66	6.65	1263.21	3.92	0.22	-19.24
Variance in last 3 readings	9:07:51	0.06	0.00	27.97	-1.38	0.02	-4.10
	9:09:55	0.05	0.00	5.99	0.05	0.01	-2.05
	9:11:59	0.04	0.00	3.81	-0.77	0.00	-1.80

Notes:

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561955.00009 -HWG-MP-92D-10-10-2008.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet thats based on a custom template' in Excel help. An example template, InSituLowFlow.xlt, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Nathan MCNurlen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561955.00009
Site Name:	HWG
Well ID:	MP-92D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Pecent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Pecent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Pecent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm @25C	Target Pecent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Pecent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	38 [ft]
Well Depth:	37.8 [ft]
Well Diam:	2 [in]
Screen Len:	174 [in]
Screen Depth:	22.7 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	24.4 [ft]
Pump Level (TOC):	26.4 [ft]

Final Pumping Rate:	140 [mL/min]
Stable Draw Down:	0.05 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (169.6 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	286.61 [mL]
Actual Total Volume:	286.61 [mL]
Calculated Measurement Interval:	123 [sec]
Actual Measurement Interval:	123 [sec]

Start date/time:	10/10/2008	9:01:41
End date/time:	10/10/2008	9:13:00
Total Time:	0:11:19	

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [µS/cm @	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.64	0.01	-4.28	-10.13	0.19	-0.02			1185.41	35.43	6.77	-5.7	16.49	0.03	9:03:44
3	6.64	0	-11.29	-7.01	0.19	0			1225.44	40.03	6.01	-0.75	16.51	0.02	9:05:48
2	6.64	0	-15.4	-4.1	0.21	0.02			1253.41	27.97	4.64	-1.38	16.57	0.06	9:07:51
1	6.65	0	-17.45	-2.05	0.22	0.01			1259.4	5.99	4.69	0.05	16.62	0.05	9:09:55
0	6.65	0	-19.24	-1.8	0.22	0			1263.21	3.81	3.92	-0.77	16.66	0.04	9:11:59

pH Min:	6.64
pH Max:	6.65
ORP Min:	-19.24
ORP Max:	-4.28
DO Min:	0.19
DO Max:	0.22
RDO Min:	
RDO Max:	
Cond Min:	1185.41
Cond Max:	1263.21
Turb Min:	3.92
Turb Max:	6.77
Temp Min:	16.49
Temp Max:	16.66

Notes:

Device Record:

In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	11/20/2008	11:01:59
Report from file:	...\Hartford Groundwater Sampling - 21561955.00009 -HWG-MP-92D-10-10-2008.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	47760	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	10/10/2008	9:01:41
Test started on:	10/10/2008	9:01:41
Test stopped on:	N/A	N/A

Data gathered using Event testing

Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0	Fahrenheit
Number of data samples:	6	

TOTAL DATA SAMPLES	6
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Fahrenheit	Inches Hg	FNU	Volts	millivolts	pH	micrograms/L	%Saturation	microSiemens/cm Actual Conductivity
10/10/2008	9:01:41	0	61.64	29.693	12.5	2.681	6	6.63	212	2.1922	962.52
10/10/2008	9:03:44	123	61.68	29.692	6.8	2.655	-4	6.64	188	1.944	992.76
10/10/2008	9:05:48	247	61.72	29.692	6	2.681	-11	6.64	192	1.99	1026.8
10/10/2008	9:07:51	370	61.82	29.691	4.6	2.655	-15	6.64	210	2.1805	1051.58
10/10/2008	9:09:55	494	61.91	29.692	4.7	2.707	-17	6.65	219	2.2742	1057.72
10/10/2008	9:11:59	618	61.99	29.693	3.9	2.707	-19	6.65	219	2.2716	1061.96

APPENDIX E Four Quarters of Groundwater Analytical Results

APPENDIX E Four Quarters of Groundwater Analytical Results

E-1
BTEX and MTBE

Table E-1
Four Quarters of Groundwater Analytical Results - BTEX and MTBE - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent				
		Benzene	Toluene	Ethylbenzene	Xylene (total)	Methyl tert-butyl ether (MTBE)
TACO Comparison Value		5 ug/l	1,000 ug/l	700 ug/l	10,000 ug/l	70 ug/l
HMW-025	01/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-025	04/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-025	07/10/2008	2 U	5 U	5 U	5 U	2 U
HMW-025	10/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-026	01/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-026	04/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-026	07/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-026	10/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-027	01/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-027	04/15/2008	2 U	5 U	5 U	5 U	1.8 J
HMW-027	07/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-027	10/09/2008	2 U	5 U	5 U	5 U	0.9 J
HMW-028	01/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-028	04/15/2008	2 U	5 U	5 U	5 U	2 U
HMW-028	07/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-028	10/08/2008	2 U	5 U	5 U	5 U	2 U
HMW-029	01/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-029	04/16/2008	2 U	5 U	5 U	5 US	2 U
HMW-029	07/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-029	10/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-038C[1]	10/13/2008	4,200	50 J	189	874	50 U
HMW-038C	10/13/2008	4,090	50 J	180	819	50 U
HMW-039A	04/23/2008	2 U	5 U	5 U	5 U	2 U
HMW-039A	07/15/2008	2 U	5 U	5 U	5 U	2 U
HMW-039B	01/15/2008	2 U	5 U	5 U	5 U	2 U
HMW-039B	04/23/2008	2 U	5 U	5 U	5 U	2 U
HMW-039B	07/15/2008	2 U	5 U	5 U	5 U	2 U
HMW-039B	10/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-039C	01/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-039C	04/23/2008	2 U	5 U	5 U	5 U	2 U
HMW-039C	07/15/2008	2 U	5 U	5 U	5 U	2 U
HMW-039C	10/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-040B	04/17/2008	2 U	5 U	5 U	5 U	2 U
HMW-040B	07/16/2008	2 U	5 U	5 U	5 U	2 U
HMW-040B	10/21/2008	2 U	5 U	5 U	5 U	2 U
HMW-040C	01/11/2008	2 U	5 U	5 U	5 U	2 U
HMW-040C	04/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-040C	07/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-040C	10/13/2008	2 U	5 U	5 U	5 U	2 U
HMW-043C	10/13/2008	264	31 J	26 J	62.4	20 U
HMW-044D	10/13/2008	483	50 U	50 U	11 J	20 U
HMW-045B	10/21/2008	1,260	125 U	125 U	50 J	26 J
HMW-047B	10/21/2008	2 U	5 U	5 U	5 U	2 U
HMW-047C	10/15/2008	6,070	280 J	1,040	2,270	150 J
HMW-048A	10/16/2008	23,300	1,000 U	3,360	9,390	400 U

Table E-1
Four Quarters of Groundwater Analytical Results - BTEX and MTBE - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent				
		Benzene	Toluene	Ethylbenzene	Xylene (total)	Methyl tert-butyl ether (MTBE)
TACO Comparison Value		5 ug/l	1,000 ug/l	700 ug/l	10,000 ug/l	70 ug/l
HMW-048B	10/16/2008	10,900	240 J	2,280	4,560	200 U
HMW-048D	10/16/2008	5,610	250 U	250 U	250 U	85 J
HMW-049B	04/17/2008	112	50 U	460	144	20 U
HMW-049B	07/16/2008	168	25 U	493	164	10 U
HMW-049B	10/14/2008	78.2	25 U	28	16 J	10 U
HMW-049B[1]	04/17/2008	106	50 U	446	135	20 U
HMW-049B[1]	07/16/2008	163	25 U	477	162	10 U
HMW-049C	01/10/2008	596	1,060	1,660	5,920	157
HMW-049C	04/16/2008	364	110 J	400	2,000	290
HMW-049C	10/10/2008	1,150	1,010	598	2,880	59
HMW-049D	01/10/2008	718	28 J	13 J	12 J	113
HMW-049D	04/15/2008	490	6.4	2.6 J	7.6	191
HMW-049D	07/11/2008	1,400	125 U	28 J	34 J	75.5
HMW-049D[1]	10/10/2008	2,860	51 J	125 U	34 J	136
HMW-049D	10/10/2008	2,750	48 J	125 U	36 J	132
HMW-049D[1]	01/10/2008	703	26 J	12 J	14 J	104
HMW-049D[1]	04/15/2008	486	6.3	2.6 J	7.6	193
HMW-049D[1]	07/11/2008	1,290	125 U	31 J	36 J	74.5
HMW-050A	01/10/2008	2 U	5 U	5 U	5 U	2 U
HMW-050A	04/11/2008	2 U	5 U	5 U	5 U	2 U
HMW-050A	07/10/2008	2 U	5 U	5 U	5 U	2 U
HMW-050A	10/14/2008	2 U	5 U	5 U	5 U	2 U
HMW-050B	01/11/2008	2 U	5 U	5 U	5 U	2 U
HMW-050B	04/11/2008	2 U	5 U	5 U	5 U	2 U
HMW-050B	07/10/2008	2 U	5 U	5 U	5 U	2 U
HMW-050B	10/13/2008	2 U	5 U	5 U	5 U	2 U
HMW-050C	01/11/2008	103	7	5 U	6	69.9
HMW-050C	04/14/2008	136	8.9	5 U	7.6	65.4
HMW-050C	07/10/2008	71.9	8.4	5 U	10.3	19
HMW-050C	10/14/2008	4.3	2.2 J	5 U	1 J	0.8 J
HMW-050C[1]	01/11/2008	96.2	6.7	5 U	5.9	67.2
HMW-050C[1]	04/14/2008	133	8.7	5 U	7.8	64.9
HMW-050C[1]	07/10/2008	73.8	8.4	5 U	10.8	19.3
HMW-052A	07/11/2008	2 U	5 U	5 U	5 U	2 U
HMW-052B	07/11/2008	2 U	5 U	5 U	5 U	2 U
HMW-052B	10/21/2008	2 U	5 U	5 U	5 U	2 U
HMW-052C	01/10/2008	2 U	5 U	5 U	5 U	2 U
HMW-052C	04/09/2008	2 U	5 U	5 U	5 U	2 U
HMW-052C	07/10/2008	2 U	5 U	5 U	5 U	2 U
HMW-052C	10/16/2008	2 U	5 US	5 U	5 US	2 U
HMW-053C	10/16/2008	14.8	3 J	5 U	1.3 J	2 U
HMW-054C	10/16/2008	2.8	1.8 JS	5 U	1.4 JS	2 U
MP-033D	10/17/2008	12,400	7,750	1,260	5,300	500 U
MP-040C	10/17/2008	16,700	17,700	1,560	7,290	200 U
MP-058C[1]	10/15/2008	21,100	19,200	1,040	12,600	200 U

Table E-1
Four Quarters of Groundwater Analytical Results - BTEX and MTBE - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent				
		Benzene	Toluene	Ethylbenzene	Xylene (total)	Methyl tert-butyl ether (MTBE)
TACO Comparison Value		5 ug/l	1,000 ug/l	700 ug/l	10,000 ug/l	70 ug/l
MP-058C	10/15/2008	21,100	19,200	1,100	12,700	200 U
MP-059C[1]	10/15/2008	12,500	13,200	2,140	11,300	200 U
MP-059C	10/15/2008	12,300	12,700	2,200 J	10,600	1,000 U
MP-078D	10/17/2008	13,200	18,100	2,300 J	11,400	1,000 U
MP-081B	07/17/2008	2 U	5 U	5 U	5 U	2 U
MP-081C	01/09/2008	2 U	5 U	5 U	5 U	2 U
MP-081C	04/09/2008	2 U	5 U	5 U	5 U	2 U
MP-081C	07/16/2008	2 U	5 U	5 U	5 U	2 U
MP-081C	10/10/2008	2 U	5 U	5 U	5 U	2 U
MP-083C	10/17/2008	11,900	15,700	1,320	6,110	400 U
MP-085B	10/20/2008	2 U	5 U	5 U	5 U	2 U
MP-085C	10/15/2008	45	3,690 S	2,500	10,900	50 U
MP-085D	10/17/2008	11,300	100 J	130 J	210 J	200 U
MP-086C	10/17/2008	21,800	14,700	1,380	8,620	400 U
MP-089C	01/11/2008	2 U	5 U	5 U	5 U	2 U
MP-089C	04/09/2008	2 U	5 U	5 U	5 U	2 U
MP-089C	07/15/2008	2 U	5 U	5 U	5 U	2 U
MP-089C	10/10/2008	2 U	5 U	5 U	5 U	2 U
MP-092C	07/17/2008	2 U	5 U	5 U	5 U	2 U
MP-092D	01/10/2008	2 U	5 U	5 U	5 U	2 U
MP-092D	04/11/2008	2 U	5 U	5 U	5 U	2 U
MP-092D	07/14/2008	2 U	5 U	5 U	5 US	2 U
MP-092D	10/10/2008	2 U	5 U	5 U	5 U	2 U

Notes:

= Exceeds Screening Criteria

1 = Duplicate Sample

U = Not Detected (value preceding "U" is reporting limit)

J = Estimated value

S = Spike recovery outside acceptable recovery limits

B = Analyte detected in associated method blank

NA = Not analyzed

R = RPD outside acceptable recovery limits

E = Value above quantitation range

H = Holding time exceeded

Q = QC criteria failed or noncompliant CCV

All units are in ug/L-micrograms per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO), last amended February 15, 2007. TACO values used for comparison purposes only.

E-2

Metals (Total and Dissolved)

Table E-2
Four Quarters of Groundwater Analytical Results - Metals - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent																													
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)	Lead	Lead (Dissolved)	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.006 mg/l	0.006 mg/l	0.05 mg/l	0.05 mg/l	2 mg/l	2 mg/l	0.004 mg/l	0.004 mg/l	0.005 mg/l	0.005 mg/l	0.1 mg/l	0.1 mg/l	1 mg/l	1 mg/l	5 mg/l	5 mg/l	0.0075 mg/l	0.0075 mg/l	0.002 mg/l	0.002 mg/l	0.1 mg/l	0.1 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.049 mg/l	0.049 mg/l	5 mg/l	5 mg/l
HMW-025	01/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.254	0.233	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.214	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0134	0.0105	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.012
HMW-025	04/14/2008	0.0022 J	0.005 U	0.003 U	0.003 U	0.388	0.375	0.001 U	0.001 U	0.0005 J	0.0004 J	0.01 U	0.0042 J	0.0065 J	0.0071 J	0.011 J	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0145	0.0133	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0071 J
HMW-025	07/10/2008	0.005 U	0.005 U	0.003 UJ	0.003 U	0.282	0.263	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0037 J	0.01 U	0.02 U	0.02 U	0.002 UJ	0.002 U	0.0002 U	0.0002 U	0.0114	0.0095 J	0.006 U	0.006 U	0.01 U	0.01 U	0.004 J	0.0067 J	0.01 U	0.01 U
HMW-025	10/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.317	0.307	0.001 U	0.001 U	0.0003 J	0.0003 J	0.01 U	0.01 U	0.0022 J	0.01 U	0.0394	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0053 J	0.0047 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0036 J	0.003 J
HMW-026	01/09/2008	0.005 U	0.005 U	0.0043	0.0041	0.141	0.123	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	18.9	21.2	0.002 U	0.0006 J	0.0002 U	0.0002 U	0.0039 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0031 J
HMW-026	04/14/2008	0.005 U	0.005 U	0.0025 J	0.0028 J	0.141	0.132	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.006 J	0.0053 J	26.9	25.4	0.002 U	0.002 U	0.0001 J	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-026	07/09/2008	0.005 U	0.005 U	0.0018 J	0.0027 J	0.134	0.126	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0035 J	0.003 J	25.8 S	22.7 S	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0046 J	0.01 U	0.01 U
HMW-026	10/09/2008	0.005 U	0.005 U	0.0015 J	0.0017 J	0.13	0.13	0.001 U	0.001 U	0.0003 J	0.0003 J	0.01 U	0.01 U	0.0068 J	0.0056 J	19.1	20	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0031 J	0.003 J
HMW-027	01/09/2008	0.0025 J	0.005 U	0.003 U	0.003 U	0.102	0.0912	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0067 J	0.0073 J	0.314	0.0225	0.002 U	0.0006 J	0.0002 U	0.0002 U	0.0154	0.0138	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0029 J
HMW-027	04/15/2008	0.005 U	0.005 U	0.0019 J	0.0011 J	0.199	0.189	0.001 U	0.001 U	0.0004 J	0.0003 J	0.01 U	0.01 U	0.0083 J	0.0103	3.32	1.98	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0074 J	0.0088 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0023 J
HMW-027	07/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.0851	0.0875	0.001 U	0.001 U	0.0007 J	0.002 U	0.01 U	0.01 U	0.0079 J	0.0087 J	0.423	0.015 J	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0199	0.0204	0.006 U	0.006 U	0.01 U	0.0036 J	0.01 U	0.0066 J	0.004 J	0.0038 J
HMW-027	10/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.128	0.119	0.001 U	0.001 U	0.0006 J	0.0003 J	0.01 U	0.01 U	0.0095 J	0.0084 J	0.449	0.0597	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0162	0.0154	0.006 U	0.006 U	0.0034 J	0.01 U	0.01 U	0.01 U	0.0061 J	0.0033 J
HMW-028	01/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.0968	0.0876	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0086 J	0.0037 J	0.144	0.02 U	0.002 U	0.0005 J	0.0002 U	0.0002 U	0.0204	0.017	0.0284	0.0189	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0057 J
HMW-028	04/15/2008	0.005 U	0.005 U	0.0008 J	0.003 U	0.0926	0.0948	0.001 U	0.001 U	0.0004 J	0.0009 J	0.01 U	0.01 U	0.0135	0.0142	0.018 J	0.012 J	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0182	0.0179	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0039 J	0.003 J
HMW-028	07/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.0845	0.079	0.001 U	0.001 U	0.0006 J	0.002 U	0.0046 J	0.01 U	0.016	0.0081 J	0.0953	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0164	0.0158	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0073 J	0.0032 J	0.0068 J
HMW-028	10/08/2008	0.005 U	0.005 U	0.0008 J	0.0007 J	0.0993	0.0912	0.001 U	0.001 U	0.0004 J	0.0003 J	0.01 U	0.01 U	0.0067 J	0.01 U	0.0533	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.013	0.0119	0.0051 J	0.011 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0095 J
HMW-029	01/09/2008	0.005 U	0.005 U	0.0013 J	0.001 J	0.143	0.135	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0025 J	0.0025 J	6.09	6.43	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0083 J	0.0055 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-029	04/16/2008	0.005 U	0.005 U	0.0027 J	0.002 J	0.145	0.129	0.001 U	0.001 U	0.0003 J	0.0004 J	0.01 U	0.01 U	0.0036 J	0.0034 J	7.44	5.91	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0035 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-029	07/09/2008	0.005 U	0.005 U	0.002 J	0.0016 J	0.126	0.116	0.001 U	0.001 U	0.0004 J	0.002 U	0.0047 J	0.01 U	0.0028 J	0.0038 J	6.97	5.68	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0045 J	0.005 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0031 J	0.0025 J
HMW-029	10/09/2008	0.005 U	0.005 U	0.0009 J	0.003 U	0.115	0.105	0.001 U	0.001 U	0.0006 J	0.0006 J	0.01 U	0.01 U	0.0074 J	0.0053 J	0.979	0.131	0.002 U	0.002 U	0.0002 U	0.0002 U	0.012	0.0106	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0122	0.0098 J
HMW-038C[1]	10/13/2008	0.005 U	0.005 U	0.0863	0.0855	0.305	0.269	0.001 U	0.001 U	0.0007 J	0.0003 J	0.01 U	0.01 U	0.0172 U	0.0136 U	30.7	29.6	0.0045	0.003	0.0002 U	0.0002 U	0.0078 J	0.004 J	0.0037 J	0.0037 J	0.0033 J	0.0033 J	0.0072 J	0.0112	0.0397	0.01 U
HMW-038C	10/13/2008	0.005 U	0.005 U	0.0863	0.0877	0.27	0.274	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.016 U	0.011 U	29.7	32.8 S	0.0042	0.0029	0.0002 U	0.0002 U	0.0084 J	0.01 U	0.0046 J	0.0038 J	0.01 U	0.01 U	0.0073 J	0.0138	0.0581	0.01 U
HMW-039A	04/23/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.355	0.359	0.001 U	0.001 U	0.002 U	0.002 U	0.0044 J	0.01 U	0.01 U	0.01 U	0.079 U	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-039A	07/15/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.21	0.188	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	0.614	0.0495	0.001 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0033 J	0.01 U	0.0104	0.0078 J
HMW-039B	01/15/2008	0.005 U	0.005 U	0.003 U	0.003 US	0.311	0.32	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.572	0.02 U	0.0007 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0381	0.0126
HMW-039B	04/23/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.444	0.435	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0208 U	0.02 U	0.002 U	0.0004 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.0053 J	0.0047 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0275	0.0207
HMW-039B	07/15/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.371	0.322	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.003 J	0.0782	0.016 J	0.0005 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.145	0.112
HMW-039B	10/14/2008	0.005 U	0.005 U	0.001 J	0.003 U	0.198	0.188	0.001 U	0.001 U	0.0003 J	0.0005 J	0.01 U	0.01 U	0.0022 J	0.01 U	0.0422	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0123 U	0.0118
HMW-039C	01/14/2008	0.005 U	0.005 U	0.003 U	0.0008 J	0.448	0.428	0.001 U	0.001 U	0.0003 J	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	6.02	5.52	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.0034 J	0.01 U	0.01 U	0.0339	0.0195
HMW-039C	04/23/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.3	0.27	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	4.43	2.47	0.002 U	0.0006 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0643	0.038
HMW-039C	07/15/2008	0.005 US	0.005 U	0.003 U	0.003 U	0.493	0.467	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.004 J	0.01 U	5.64	4.04	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0134	0.0041 J
HMW-039C	10/14/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.508	0.486	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0022 J	0.0026 J	5.26	4.88	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0026 J
HMW-040B	04/17/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.308	0.28	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0744	0.02 U	0.002 U	0.002 U	0.0002 U	6e-005 J	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.007 J	0.0059 J
HMW-040B	07/16/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.354	0.328	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0295	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0052 J	0.0052 J	0.0039 J	0.0063	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-040B	10/21/2008	0.005 US	0.005 U	0.0009 J	0.0009 J	0.406	0.387	0.001 U	0.001 U	0.002 U	0.002 U	0.0042 J	0.01 U	0.0022 J	0.0024 J	0.12	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0079 J	0.0059 J	0.0077	0.0077	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0029 J
HMW-040C	01/11/2008	0.005 U	0.005 U	0.014	0.0035	0.513	0.51	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0051 J	0.0039 J	3.41	0.248	0.002 U	0.002 U	0.0002 U	0.0002 U	0.007 J	0.0053 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0046 J
HMW-040C	04/14/2008	0.005 U	0.005 U	0.004	0.0028 J	0.411	0.372	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.0067 J	0.01 U	0.0024 J	1.15	0.413	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0085 J	0.0081 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.2	0.171
HMW-040C	07/09/2008	0.005 US	0.005 U	0.0016 J	0.003 U	0.247	0.238	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.366	0.0303	0.002 US	0.002 U	0.0002 U	0.0002 U	0.0044 J	0.0052 J	0.006 U	0.006 U	0.01 U	0.0037 J	0.01 U	0.0071 J	0.0711	0.0793
HMW-040C	10/13/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.283	0.265	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.116	0.02 U	0.002 U	0.0005 J	0.0002 U	0.0002 U	0.0047 J	0.01 U	0.006 U	0.0064	0.01 U	0.01 U	0.01 U	0.01 U	0.0152	0.0083 J
HMW-043C	10/13/2008	0.005 U	0.005 U	0.0146	0.014	0.166	0.142	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0106 U	0.01 U	8.47 S	8.53	0.002 U	0.002 U	0.0002 U	0.0002 U	0.007 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.009 J	0.0245	0.0074 J
HMW-044D	10/13/2008	0.005 US	0.005 U	0.0011 J	0.003 U	0.507	0.527	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	8.67	9.34	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 UJ	0.006 U	0.01 U	0.01 U	0.01 U	0.0088 J	0.0184	0.0045 J
HMW-045B	10/21/2008	0.005 U	0.005 U	0.0906	0.0334	0.394	0.367	0.001 U	0.001 U	0.002 U	0.0003 J	0.0047 J	0.01 U	0.0362	0.0179	24.2	8.49	0.0032	0.0018 J	0.0002 U	0.0002 U	0.0223	0.0131	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0109 U	0.0049 J
HMW-047C	10/15/2008	0.005 U	0.005 U	0.0057	0.0042 U	0.501	0.489	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0073 J	0.008 J	27.2	26.4	0.0138 J	0.0096	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0112 U	0.01 U
HMW-048A	10/16/2008	0.002 J	0.0022 J	0.176	0.17	0.726	0.702	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0097 J	0.01	33.3 S	32.6	0.104	0.0743	0.0002 U	0.0002 U	0.0113	0.01	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-048B	10/16/2008	0.005 U	0.005 U	0.0869	0.114 S	0.601	0.635	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0082 J	0.0089 J	42	41.6	0.0081	0.0088	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0151	0.01 U
HMW-048D	10/16/2008	0.005 UJ	0.005 U	0.0011 J	0.003 U	0.127	0.359	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0053 J	0.0061 J	34.3	27.5 S	0.002 U	0.002 U	0.00013 J	0.0002 U	0.01 U	0.0035 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-049B	04/17/2008	0.005 U	0.005 U	0.0102	0.0106	0.669	0.616	0.001 U	0.001 U	0.0006 J	0.0004 J	0.01 U	0.01 U	0.0111	0.0105	26.7	24.1 S	0.0008 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 UJ	0.006 U	0.01 U	0.01 U	0.0051 J	0.01 U	0.0453	0.0032 J
HMW-049B	07/14/2008	0.005 U	0.005 U	0.0208	0.0159	0.706	0.662	0.001 U	0.001 U	0.0013 J	0.002 U	0.0044 J	0.0062 J	0.0118	0.0114	29.4	24.6	0.0014 J	0.0006 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0032 J	0.01 U	0.049	0.0233
HMW-049B	10/14/2008	0.005 US	0.005 U	0.0139 J	0.0094	0.644	0.618	0.001 U	0.001 U	0.0007 J	0.002 U	0.01 U	0.01 U	0.0117	0.0121	32.1	29.7	0.0005 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 UJ	0.006 U	0.01 U	0.01 U	0.0042 J	0.01 U	0.0237	0.0025 J
HMW-049B[1]	04/17/2008	0.005 U	0.005 U	0.0103	0.0101	0.678	0.609	0.001 U	0.001 U	0.0007 J	0.0006 J	0.01 U	0.01 U	0.0113	0.011	27.1	23.6	0.0008 J	0.0005 J	0.0002 U	7e-005 J	0.0036 J	0.01 U	0.006 U	0.006 US	0.01 U	0.01 U	0.0048 J	0.01 U	0.0578	0.0045 J
HMW-049B[1]	07/14/2008	0.005 U	0.005 U	0.017	0.0158	0.726	0.639	0.001 U	0.001 U	0.0009 J	0.002 U	0.01 U	0.01 U	0.0121	0.011	28	24.1	0.0011 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.0045 J	0.006 U	0.006 U	0.0056 J	0.0032 J	0.01 U	0.01 U	0.033	0.0241

Table E-2
Four Quarters of Groundwater Analytical Results - Metals - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent																													
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)	Lead	Lead (Dissolved)	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.006 mg/l	0.006 mg/l	0.05 mg/l	0.05 mg/l	2 mg/l	2 mg/l	0.004 mg/l	0.004 mg/l	0.005 mg/l	0.005 mg/l	0.1 mg/l	0.1 mg/l	1 mg/l	1 mg/l	5 mg/l	5 mg/l	0.0075 mg/l	0.0075 mg/l	0.002 mg/l	0.002 mg/l	0.1 mg/l	0.1 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.049 mg/l	0.049 mg/l	5 mg/l	5 mg/l
HMW-049C	01/10/2008	0.0024 J	0.005 U	0.0068	0.0066	0.243	0.221	0.001 U	0.001 U	0.0005 J	0.002 UJ	0.01 U	0.01 UJ	0.0052 J	0.0058 J	15.5	13.1 J	0.0073	0.01	0.0002 U	0.0002 U	0.0094 J	0.0098 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	1.17	0.941
HMW-049C	04/16/2008	0.005 U	0.005 U	0.0029 J	0.0033	0.399	0.361	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.005 J	0.0034 J	13.5	9.64	0.0045	0.0041	0.0002 U	0.0002 U	0.0052 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.259	0.224
HMW-049C	10/10/2008	0.005 U	0.005 U	0.0045	0.0035	0.325	0.3	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.0056 J	0.006 J	9.72 S	9.03	0.0012 J	0.002 U	0.0002 U	0.0002 U	0.0105	0.0176	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0803	0.283
HMW-049D	01/10/2008	0.005 U	0.005 U	0.0009 J	0.0011 J	0.299	0.274	0.001 U	0.001 U	0.0009 J	0.002 UJ	0.01 U	0.01 UJ	0.01 U	0.0033 J	27.4	23.3 J	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0034 J	0.0056 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0082 J	0.0031 J
HMW-049D	04/15/2008	0.005 U	0.005 U	0.0016 J	0.0016 J	0.338	0.343	0.001 U	0.001 U	0.0003 J	0.0003 J	0.01 U	0.01 U	0.008 J	0.0084 J	41.4	40.1	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0184	0.0027 J
HMW-049D	07/11/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.36	0.338	0.001 U	0.001 U	0.002 U	0.002 U	0.006 J	0.0052 J	0.0065 J	0.01 U	40.7 B	38.9 S	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0035 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-049D[1]	10/10/2008	0.005 U	0.005 U	0.0022 J	0.0017 J	0.375	0.367	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0073 J	0.0075 J	36.6	36.1	0.002 U	0.0027 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0074 J	0.0051 J
HMW-049D	10/10/2008	0.005 U	0.005 U	0.0022 J	0.0015 J	0.371	0.365	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0065 J	0.0072 J	36.4	35.9	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0054 J	0.0037 J
HMW-049D[1]	01/10/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.306	0.279	0.001 U	0.001 U	0.0007 J	0.002 U	0.01 U	0.0069 J	0.01 U	0.0027 J	28.5	23.9	0.0006 J	0.002 U	0.0002 U	0.0002 U	0.0043 J	0.0045 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0051 J	0.0029 J
HMW-049D[1]	04/15/2008	0.005 U	0.005 U	0.0011 J	0.001 J	0.354	0.338	0.001 U	0.001 U	0.0003 J	0.0005 J	0.01 U	0.01 U	0.0074 J	0.0088 J	43.4	38.6	0.0004 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0156	0.0031 J
HMW-049D[1]	07/11/2008	0.005 U	0.005 US	0.003 U	0.003 U	0.356	0.321	0.001 U	0.001 U	0.002 U	0.002 U	0.0071 J	0.0069 J	0.0066 J	0.0069 J	40.7 B	36.5	0.0004 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.0047 J	0.006 U	0.006 U	0.0034 J	0.0038 J	0.01 U	0.01 U	0.0119	0.0031 J
HMW-050A	01/10/2008	0.0018 J	0.005 U	0.001 J	0.003 U	0.0447	0.038	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0728	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0041 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0035 J	0.01 U	0.0045 J	0.01 U
HMW-050A	04/11/2008	0.005 U	0.005 U	0.0014 J	0.003 U	0.045	0.0405	0.001 U	0.001 U	0.0003 J	0.0003 J	0.0156	0.0156	0.01 U	0.0026 J	0.242 U	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.0054 J	0.0065	0.01 U	0.01 U	0.0033 J	0.01 U	0.01 U	0.01 U
HMW-050A	07/10/2008	0.005 U	0.005 U	0.003 UJ	0.003 U	0.0408	0.0385	0.001 U	0.001 U	0.002 U	0.0003 J	0.0103	0.0104	0.007 J	0.0084 J	0.0236	0.02 U	0.002 UJ	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.0048 J	0.0054 J	0.01 U	0.01 U	0.0054 J	0.0074 J	0.01 U	0.01 U
HMW-050A	10/14/2008	0.005 U	0.005 U	0.0013 J	0.003 U	0.05	0.0426	0.001 U	0.001 U	0.0003 J	0.002 U	0.004 J	0.005 J	0.01 U	0.01 U	0.552	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.004 J	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0061 J
HMW-050B	01/11/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.138	0.154	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	2.23	2.41	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0113 U	0.0122
HMW-050B	04/11/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.163	0.162	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.0024 J	0.0034 J	2.11 B	2.04	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.0021 J	0.01 U
HMW-050B	07/10/2008	0.005 US	0.005 U	0.003 U	0.003 U	0.143	0.137	0.001 U	0.001 U	0.0006 J	0.0003 J	0.0059 J	0.0045 J	0.003 J	0.0032 J	2.12	1.82	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.0032 J	0.01 U	0.01 U	0.0055 J	0.01 U	0.01 U
HMW-050B	10/13/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.128	0.126	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	1.47	1.47	0.002 U	0.0005 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0089 J	0.01 U	0.01 U
HMW-050C	01/11/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.239	0.285	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0036 J	0.01 U	3.61	2.33	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-050C	04/14/2008	0.005 U	0.0019 J	0.003 U	0.003 U	0.336	0.294	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0073 J	0.0066 J	9.11	8.24	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-050C	07/10/2008	0.005 U	0.005 U	0.003 UJ	0.003 U	0.252	0.232	0.001 U	0.001 U	0.002 U	0.0004 J	0.0046 J	0.0057 J	0.0045 J	0.01 U	8.42	7.42	0.002 UJ	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0042 J	0.0077 J	0.01 U	0.01 U
HMW-050C	10/14/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.242	0.227	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0072 J	0.0067 J	12.1	9.52	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 J
HMW-050C[1]	01/11/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.267	0.286	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0024 J	0.01 U	3.57	2.26	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.0032 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0196
HMW-050C[1]	04/14/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.333	0.296	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0063 J	0.0054 J	8.82	8.35	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-050C[1]	07/10/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.258	0.229	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.007 J	0.0049 J	0.0044 J	8.5	7.41	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.0046 J	0.0045 J	0.0086 J	0.01 U	0.01 U
HMW-052A	07/11/2008	0.005 US	0.005 U	0.003 U	0.003 U	0.187	0.187	0.001 U	0.001 U	0.002 U	0.0005 J	0.007 J	0.0067 J	0.0027 J	0.01 U	0.205	0.0419	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0049 J	0.0048 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0141 U	0.01 U
HMW-052B	07/11/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.0874	0.0813	0.001 U	0.001 U	0.002 U	0.001 J	0.0049 J	0.0044 J	0.0044 J	0.01 U	0.489 B	0.184	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0051 J	0.0037 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0758	0.0566
HMW-052B	10/21/2008	0.005 U	0.005 U	0.0007 J	0.0008 J	0.104	0.0984	0.001 U	0.001 U	0.0003 J	0.0004 J	0.01 U	0.01 U	0.0027 J	0.0033 J	0.273	0.197	0.0004 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0143 U	0.0133
HMW-052C	01/10/2008	0.0037 J	0.005 U	0.0019 J	0.0017 J	0.405	0.348	0.001 U	0.001 U	0.0008 J	0.002 U	0.01 U	0.01 U	0.01 U	0.0022 J	16.9	12.4	0.0013 J	0.002 U	0.0002 U	0.0002 U	0.0034 J	0.01 U	0.006 U	0.006 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.0165	0.0032 J
HMW-052C	04/09/2008	0.005 U	0.005 U	0.0021 J	0.0021 J	0.339	0.319	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.0031 J	0.0036 J	16.8	16.8	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 J
HMW-052C	07/10/2008	0.005 U	0.005 U	0.0011 J	0.0009 J	0.194	0.181	0.001 U	0.001 U	0.002 U	0.0004 J	0.0044 J	0.0078 J	0.0052 J	0.0056 J	4.83	4.27	0.002 U	0.002 U	0.0002 U	0.0002 U	0.004 J	0.0054 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0046 J	0.0044 J	0.0551	0.0492 U
HMW-052C	10/16/2008	0.005 U	0.005 U	0.003 U	0.001 J	0.258	0.271	0.001 U	0.001 U	0.0007 J	0.002 U	0.0049 J	0.01 U	0.0059 J	0.0052 J	7.57	7.32	0.0007 J	0.002 U	0.0002 U	0.0002 U	0.006 J	0.0045 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0343	0.0229
HMW-053C	10/16/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.346	0.347	0.001 U	0.001 U	0.002 U	0.002 U	0.0053 J	0.01 U	0.0041 J	0.0036 J	4.61	4.11	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
HMW-054C	10/16/2008	0.005 U	0.005 U	0.0007 J	0.003 U	0.453	0.466	0.001 U	0.001 U	0.002 U	0.002 U	0.0067 J	0.01 U	0.0044 J	0.004 J	6.08	5.36	0.0006 J	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-033D	10/17/2008	0.005 U	0.005 U	0.0055 J	0.0051	0.419	0.422	0.001 U	0.001 U	0.0003 J	0.002 U	0.006 J	0.01 U	0.0055 J	0.0032 J	18.5	16.4	0.0062	0.0016 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.004 J	0.01 U	0.0148	0.003 J
MP-040C	10/17/2008	0.005 U	0.005 U	0.0115	0.0079	0.594	0.618	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.0068 J	0.0073 J	15	13.5	0.0627	0.0232	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0023 J
MP-058C[1]	10/15/2008	0.0036 J	0.0025 J	0.243	0.152	0.961	0.944	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0146	0.0119	50.5	49.4	0.0744	0.0126	0.0002 U	0.0002 U	0.0097 J	0.0048 J	0.0067	0.006 U	0.01 U	0.01 U	0.0119	0.0065 J	0.0083 J	0.0068 J
MP-058C	10/15/2008	0.0035 J	0.0024 J	0.242 J	0.216	0.95	0.949	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.0131	0.0139	50	49.7	0.076	0.0128	0.0002 U	0.0002 U	0.0086 J	0.0085 J	0.012 U	0.006 U	0.01 U	0.01 U	0.0108	0.0062 J	0.01 U	0.01 U
MP-059C[1]	10/15/2008	0.0036 J	0.005 U	0.053	0.0408	0.729	0.448 J	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.0099 J	0.0114	50.9	51.1	0.0576	0.0094	0.0002 U	0.0002 U	0.0039 J	0.0036 J	0.012 J	0.006 U	0.01 U	0.01 U	0.0048 J	0.0046 J	0.0061 J	0.0054 J
MP-059C	10/15/2008	0.0036 J	0.0021 J	0.0491 J	0.0334	0.728	0.725 J	0.001 U	0.001 U	0.0011 J	0.002 U	0.01 U	0.01 U	0.0128	0.0111	50.8 S	50.6 S	0.0581	0.0098 J	0.0002 U	0.0002 U	0.0035 J	0.01 U	0.0121	0.006	0.01 U	0.01 U	0.0052 J	0.01 U	0.01 U	0.01 U
MP-078D	10/17/2008	0.005 U	0.005 U	0.0204	0.026	0.347	0.348	0.001 U	0.001 U	0.002 U	0.002 U	0.0056 J	0.01 U	0.0045 J	0.0058 J	21.5	19.9	0.0061	0.0042	0.0002 U	0.0002 U	0.0037 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0027 J
MP-081B	07/17/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.12	0.106	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0727	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0081 J	0.0064 J	0.006 U	0.006 UJ	0.01 U	0.01 U	0.01 U	0.01 U	0.0032 J	0.01 U
MP-081C	01/09/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.0704	0.0641	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0141	0.0099 J	0.0788	0.016 J	0.002 U	0.002 U	0.0002 U	0.0002 U	0.027	0.0225	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.006 J
MP-081C	04/09/2008	0.0025 J	0.0025 J	0.003 U	0.003 U	0.069	0.0656	0.001 U	0.001 U	0.0006 J	0.002 U	0.01 U	0.01 U	0.0094 J	0.0094 J	0.011 J	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0228	0.0217	0.006 UJ	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-081C	07/16/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.0686	0.0593	0.001 U	0.001 U	0.002 U	0.0008 J	0.01 U	0.01 U	0.01	0.0099 J	2.05	1.96	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0225	0.0212	0.006 UJ	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0096 J	0.0081 J
MP-081C	10/10/2008	0.005 US	0.005 U	0.003 U	0.003 U	0.0651	0.0625	0.001 U	0.001 U	0.0003 J	0.0004 J	0.01 U	0.01 U	0.0067 J	0.0073 J	0.0096 J	0.0098 J	0.002 U	0.002 U	6e-005 J	8e-005 J	0.0204	0.0188	0.0077	0.0053 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0056 J	0.0085 J
MP-083C	10/17/2008	0.005 U	0.005 U`	0.0014 J	0.0025 J	0.338	0.378	0.001 U	0.001 U	0.002 U	0.002 U	0.0062 J	0.01 U	0.0025 J	0.01 U	12.3	9.87	0.0015 J	0.0015 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0022 J
MP-085B	10/20/2008	0.005 U	0.005 U	0.0716	0.0641	0.16	0.152	0.001 U	0.001 U	0.002 U	0.002 U	0.004 J	0.01 U	0.0044 J	0.0044 J	4.84	4.57	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-085C	10/15/2008	0.005 U	0.005 U	0.0034 J	0.0042 U	0.387	0.375	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0036 J	0.0031 J	16.8	16.4	0.0129 J	0.011 J	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0197 U	0.01 U
MP-085D	10/17/2008	0.005 U	0.005 U	0.001 J	0.0009 J	0.492	0.498	0.001 U	0.001 U	0.0005 J	0.002 U	0.0055 J	0.01 U	0.0061 J	0.0055 J	28.4	27.2	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0348	0.0024 J

Table E-2
Four Quarters of Groundwater Analytical Results - Metals - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent																													
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)	Lead	Lead (Dissolved)	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.006 mg/l	0.006 mg/l	0.05 mg/l	0.05 mg/l	2 mg/l	2 mg/l	0.004 mg/l	0.004 mg/l	0.005 mg/l	0.005 mg/l	0.1 mg/l	0.1 mg/l	1 mg/l	1 mg/l	5 mg/l	5 mg/l	0.0075 mg/l	0.0075 mg/l	0.002 mg/l	0.002 mg/l	0.1 mg/l	0.1 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.05 mg/l	0.049 mg/l	0.049 mg/l	5 mg/l	5 mg/l
MP-086C	10/17/2008	0.005 U	0.005 U	0.028	0.0277	0.919	0.9	0.001 U	0.001 U	0.0006 J	0.002 U	0.01 U	0.01 U	0.007 J	0.0055 J	51 S	49.4	0.0183	0.0049	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0026 J
MP-089C	01/11/2008	0.005 U	0.005 U	0.0022 J	0.003 U	0.0614	0.0636	0.001 U	0.001 U	0.0009 J	0.0008 J	0.01 U	0.01 U	0.0224	0.0191	14.4	12.6	0.002 U	0.002 U	0.0002 U	0.0002 U	0.031	0.0233	0.0154	0.009	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.008 J
MP-089C	04/09/2008	0.005 U	0.005 U	0.0321	0.0339	0.122	0.111	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0082 J	0.007 J	25	23.5	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0084 J	0.0081 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-089C	07/15/2008	0.005 U	0.005 U	0.0242	0.0014 J	0.127	0.0754	0.001 U	0.001 U	0.0004 J	0.0007 J	0.0086 J	0.0073 J	0.0123	0.0149	9.87	2.15	0.0022	0.002 U	0.0002 U	0.0002 U	0.0261	0.0249	0.0232	0.0123	0.01 U	0.01 U	0.0061 J	0.01 U	0.0172	0.0037 J
MP-089C	10/10/2008	0.005 U	0.005 U	0.0016 J	0.0007 J	0.0576	0.0563	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.0093 J	0.0095 J	1.17	1.03	0.002 U	0.004 U	0.0002 U	6e-005 J	0.017	0.0161	0.0089	0.037	0.01 U	0.01 U	0.01 U	0.01 U	0.0026 J	0.0041 J
MP-092C	07/17/2008	0.005 U	0.005 U	0.003 U	0.003 U	0.134	0.134	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	0.137	0.02 U	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0054 J	0.0034 J	0.0073 J	0.0086	0.01 U	0.01 U	0.01 U	0.01 U	0.051	0.0465
MP-092D	01/10/2008	0.005 U	0.005 U	0.0041	0.0035	0.191	0.166	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.0022 J	0.0029 J	5.27	4.9	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0039 J	0.004 J	0.006 UJ	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0021 J	0.01 U
MP-092D	04/11/2008	0.005 U	0.005 U	0.0025 J	0.0022 J	0.239	0.231	0.001 U	0.001 U	0.002 U	0.0004 J	0.01 U	0.01 U	0.0037 J	0.0047 J	4.17 B	3.87	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.0038 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MP-092D	07/14/2008	0.005 U	0.005 U	0.0057	0.006	0.39	0.353	0.001 U	0.001 U	0.0003 J	0.0003 J	0.0067 J	0.0064 J	0.0074 J	0.0064 J	7.14	5.84 S	0.0006 J	0.002 U	0.0002 U	0.0002 U	0.0033 J	0.0037 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0038 J	0.0021 J
MP-092D	10/10/2008	0.005 U	0.005 U	0.0047	0.0035	0.576	0.565	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0062 J	0.0064 J	5.47	5.44	0.002 U	0.002 U	0.0002 U	0.0002 U	0.004 J	0.0036 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.004 J	0.0025 J

Notes:

1 = Duplicate Sample

U = Not Detected (value preceding "U" is reporting limit)

J = Estimated value

All units are in mg/L-milligrams per liter

B = Analyte detected in associated method blank

Q = QC criteria failed or noncompliant CCV

NA = Not analyzed

H = Holding time exceeded

E = Value above quantitation range

= Exceeds Screening Criteria

R = RPD outside acceptable recovery limits

S = Spike recovery outside acceptable recovery limits

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO), last amended February 15, 2007. TACO values used for comparison purposes only.

E-3

General Chemistry and Natural Attenuation Parameters

Table E-3
Four Quarters of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO3)	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO3)	Nitrate	Nitrate + Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		mg/l	mg/l	mg/l	200 mg/l	0.2 mg/l	mg/l	10 mg/l	mg/l	mg/l	mg/l	mg/l	400 mg/l	mg/l	mg/l	mg/l	mg/l
HMW-025	01/09/2008	464	0.1 U	33 J	59	0.007 U	460	0.05 U	0.05 U	0.01 U	0.059 J	0.03 J	50 U	0.04 J	574	1.7	6 U
HMW-025	04/14/2008	468	0.1 U	22 J	276	0.007 U	700	0.05 U	0.05 U	0.01 U	0.06 UJ	0.058 J	50 U	0.05 UJ	1,330	0.6 J	6 U
HMW-025	07/10/2008	550	0.1 U	26 J	133	0.007 U	500	0.11	0.11	0.01 U	0.072 U	0.068 U	57	0.05 U	848	1.7	6 U
HMW-025	10/09/2008	458	0.10U	30 J	322	0.007 UJ	560	0.07	0.07	0.01 U	0.068 U	0.068 U	50 U	0.05 U	1,040	NA	6 U
HMW-026	01/09/2008	594	0.26	50 U	74	0.007 U	720	0.028 J	0.028 J	0.01 U	0.371	0.352	180	0.07	940	2.8	43
HMW-026	04/14/2008	626	0.3	50 U	48 J	0.007 U	840	0.015 J	0.015 J	0.01 U	0.235	0.214	297 J	0.05 U	1,140	2.3	19
HMW-026	07/09/2008	612	0.28	50 U	39	0.007 U	800	0.05 U	0.011 J	0.01	0.241	0.26	284 J	0.04 J	1,090	2.2	37
HMW-026	10/09/2008	608	0.26	50 U	34	0.007 UJ	720	0.011 J	0.011 J	0.01 U	0.269	0.301	182	0.05 U	960	NA	36
HMW-027	01/09/2008	622	0.1 U	50 U	11	0.007 U	740	0.399	0.399	0.01 U	0.098	0.068 U	145	0.07	824	4.1	6 U
HMW-027	04/15/2008	618	0.06 J	50 U	54	0.007 U	740	0.05 U	0.05 U	0.01 U	0.027 U	0.027 U	116	0.05 U	934	3	7
HMW-027	07/09/2008	600	0.1 U	50 U	13	0.007 U	660	1.39	1.42	0.02	0.079	0.079	113	0.08	778	3.5	6 U
HMW-027	10/09/2008	614	0.10U	21 J	21	0.007 UJ	680	0.352	0.365	0.01	0.068 U	0.068 U	111	0.05 U	782	NA	6 U
HMW-028	01/09/2008	526	0.1 U	50 U	24	0.007 U	580	1.15	1.18	0.03	0.089	0.078	122	0.08	724	4.4	6 U
HMW-028	04/15/2008	464	0.1 U	50 U	17	0.007 U	600	0.015 J	0.015 J	0.01 U	0.027 U	0.027 U	167	0.05 U	716	2.8	6 U
HMW-028	07/09/2008	436	0.1 U	50 U	22	0.007 U	600	0.068	0.079	0.01	0.08	0.078	161	0.02 J	712	3.1	6 U
HMW-028	10/08/2008	476	0.10U	50 U	21	0.007 U	560	0.585	0.585	0.01 U	0.068 UJ	0.068 UJ	144	0.05 U	704	NA	6 U
HMW-029	01/09/2008	516	0.09 J	50 U	33	0.007 U	700	0.029 J	0.029 J	0.01 U	0.075	0.086	248	0.07	900	1.8	15
HMW-029	04/16/2008	496	0.1 U	50 U	13	0.007 U	500	0.05 U	0.05 U	0.01 U	0.061 U	0.033 U	89	0.05 U	644	1.4	14
HMW-029	07/09/2008	492	0.1 U	50 U	12	0.007 U	580	2.01	2.02	0.01	0.113	0.08	125	0.16 S	674	1.4	12
HMW-029	10/09/2008	514	0.10UJ	50 U	25	0.007 UJ	640	0.132	0.143	0.01	0.068 U	0.068 U	179	0.05 U	832	NA	6 U
HMW-038C[1]	10/13/2008	692	0.87	92	103	0.007 UJ	760	0.018 J	0.018 J	0.01 U	0.464	0.442	50 U	0.25	880	NA	65
HMW-038C	10/13/2008	692	0.83	87	98	0.007 UJ	740	0.016 J	0.016 J	0.01 U	0.466	0.423	50 U	0.26	854	NA	59
HMW-039A	04/23/2008	232	0.1 U	50 U	428	0.007 U	520	1.18	1.18	0.01 U	0.027 U	0.03 U	50 U	0.05 U	1,230	1 U	6 U
HMW-039A	07/15/2008	346	0.1 U	50 U	158	0.007 U	240	0.31	NA	0.01 U	0.165 U	0.147 U	50 U	0.04 J	658	1.7	10
HMW-039B	01/15/2008	260	0.1 U	50 U	394 J	0.007 U	360	0.323	0.323	0.01 U	0.035 J	0.068 U	50 US	0.04 J	934	1.1	29
HMW-039B	04/23/2008	234	0.1 U	50 U	448	0.007 U	540	0.93	0.94	0.01	0.091 U	0.027 U	50 U	0.05 U	1,270	1 U	6 U
HMW-039B	07/15/2008	218	0.1 U	29 J	450	0.007 U	400	0.353 S	0.371	0.02	0.068 U	0.071 U	50 U	0.02 J	1,110	0.8 J	6 U
HMW-039B	10/14/2008	230	0.10U	50 U	153	0.007 U	220	0.458	0.458	0.01 U	0.064 J	0.084 U	50 U	0.05 U	632	NA	6 U
HMW-039C	01/14/2008	254	0.43	50 U	236	0.007 U	360	0.05 U	0.05 U	0.01 U	0.342	0.277	50 U	0.02 J	664	1.2	12
HMW-039C	04/23/2008	195	0.29	50 U	256	0.007 U	240	0.05 U	0.05 U	0.01 U	0.417	0.168 U	50 U	0.05 U	636	1.5 U	7
HMW-039C	07/15/2008	264	0.42	50 U	324	0.007 U	300	0.031 J	NA	0.01 U	0.401	0.276	50 U	0.02 J	836	1.1	14
HMW-039C	10/14/2008	260	0.48	23 J	381	0.007 U	320	0.05 U	0.05 U	0.01 U	0.287	0.262 U	50 U	0.05 U	878	NA	12
HMW-040B	04/17/2008	262	0.1 U	50 U	26	0.007 U	280	2.81	2.81	0.01 U	0.052	0.027 U	50 U	0.18 J	346	2.8	6 U
HMW-040B	07/16/2008	326	0.1 U	50 U	22	0.007 U	380	8.11	8.12	0.01	0.034 J	0.061 J	50 US	0.05 U	472	1.8	6 U
HMW-040B	10/21/2008	428	0.10U	50 U	11	0.007 U	460	10.1	10.1	0.01 U	0.068 UJ	0.076 U	56 J	0.02 JH	582	NA	6 U
HMW-040C	01/11/2008	346	0.1 U	50 U	49	0.007 U	380	0.05 U	0.05 U	0.01 U	0.068 U	0.068 U	50 U	0.02 J	444	1.6	7
HMW-040C	04/14/2008	344	0.1 U	50 U	41	0.007 U	380	0.155	0.155	0.01 U	0.027 U	0.027 U	50 U	0.05 UJ	472	1.6	6 U
HMW-040C	07/09/2008	240	0.1 U	50 U	33	0.007 U	260	1.54	1.56	0.01	0.068 U	0.02 J	11 U	0.21 J	326	1.5	6 U
HMW-040C	10/13/2008	286	0.10U	50 U	12	0.007 UJ	300	6.68	6.68	0.01 U	0.087 U	0.083 U	50 U	0.05 U	374	NA	6 U
HMW-043C	10/13/2008	428	0.22	50 U	31	0.007 U	500	0.017 J	0.017 J	0.01 U	0.158	0.136	117	0.06	632	NA	12
HMW-044D	10/13/2008	540	0.27J	35 J	41	0.007 U	600	0.023 J	0.023 J	0.01 U	0.348	0.362	59 J	0.12	652	NA	12
HMW-045B	10/21/2008	652	0.10U	56	153	0.007 U	740	0.011 J	0.011 J	0.01 U	0.144 U	0.068 U	50 U	0.04 J	908	NA	9

Table E-3
Four Quarters of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO3)	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO3)	Nitrate	Nitrate + Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		mg/l	mg/l	mg/l	200 mg/l	0.2 mg/l	mg/l	10 mg/l	mg/l	mg/l	mg/l	mg/l	400 mg/l	mg/l	mg/l	mg/l	mg/l
HMW-047C	10/15/2008	600	0.05U	113	215	0.007 U	700	0.05 U	0.05 U	0.01 U	1.16	1.12	50 U	0.06	952	NA	37
HMW-048A	10/16/2008	326	0.16	226	449	0.007 U	680	1.34	1.34	0.01 U	0.351	0.37	50 U	0.07	1,290	NA	53
HMW-048B	10/16/2008	626	0.10U	96	109	0.007 U	660	0.051	0.051	0.01 U	1.2	1.08	50 U	0.06	794	NA	82
HMW-048D	10/16/2008	610	0.27	44 J	44	0.007 U	620	0.031 J	0.031 J	0.01 U	0.788	0.66	50 U	0.06	682	NA	60
HMW-049B	04/17/2008	836	0.07 J	48 J	347	0.007 U	1,000	0.02 J	0.02 J	0.01 U	1.37	1.33	50 U	0.23 J	1,470	2.8	51
HMW-049B	07/14/2008	844	0.07 J	52	396	0.007 U	1,120	0.023 J	0.023 J	0.01 U	1.23	1.07	56	0.1 S	1,540	2.5	59
HMW-049B	10/14/2008	760	0.18UJ	56	354	0.007 U	960	0.05	0.05	0.01 U	1.21	1.21	50 U	0.15	1,370	NA	128
HMW-049B[1]	04/17/2008	836	0.06 J	52	322 S	0.007 US	1,020	0.012 J	0.012 J	0.01 U	1.35	1.28	50 US	0.45 S	1,490	1.4	60
HMW-049B[1]	07/14/2008	834	0.06 J	52	439	0.007 US	1,120	0.042 J	0.042 J	0.01 U	1.26	1.19	60	0.09 S	1,570	2.3	76
HMW-049C	01/10/2008	378	0.08 J	44 J	39	0.007 U	320	0.011 J	0.011 J	0.01 U	0.562	0.578	50 U	0.08	454	9.6	28
HMW-049C	04/16/2008	476	0.37 U	25 J	41	0.007 U	440	0.06 U	0.06 U	0.01 U	0.416 U	0.312	50 U	0.05 U	562	7.4	15
HMW-049C	10/10/2008	380	0.34	42 J	14	0.007 U	340	0.023 J	0.023 J	0.01 UJ	0.358	0.272	63 J	0.01 J	430	NA	23
HMW-049D	01/10/2008	508	0.2	50 U	36	0.007 U	480	0.05 U	0.05 U	0.01 U	0.659	0.633	50 U	0.14	572	5.7	47
HMW-049D	04/15/2008	600	0.19	50 U	38	0.007 U	560	0.02 J	0.02 J	0.01 U	0.578	0.568	50 U	0.03 J	674	5.3	31
HMW-049D	07/11/2008	572	0.22 U	24 J	73	0.007 U	640	0.05 U	0.05 U	0.01 U	0.605	0.657	5 U	0.05 U	690	4.6	35
HMW-049D[1]	10/10/2008	570	0.20	42 J	59	0.007 U	580	0.051	0.051	0.01 UJ	0.646	0.653	88	0.05 U	696	NA	60
HMW-049D	10/10/2008	568	0.19	47 J	59	0.007 U	633	0.042 J	0.042 J	0.01 UJ	0.63	0.641	79	0.03 J	680	NA	61
HMW-049D[1]	01/10/2008	502	0.23	50 U	36	0.007 U	500	0.05 U	0.05 U	0.01 U	0.687	0.627	50 U	0.12	572	5.8	49
HMW-049D[1]	04/15/2008	594	0.17	50 U	37 S	0.007 US	580	0.01 J	0.01 J	0.01 U	0.636	0.579	50 U	0.02 J	668	5.2	24
HMW-049D[1]	07/11/2008	570	0.21	50 U	73 S	0.007 US	640	0.015 J	0.015 J	0.01 U	0.653	0.634	3 J	0.05	684	4.4	29
HMW-050A	01/10/2008	476	0.1 U	50 U	14	0.007 U	720	2.3	2.3	0.01 U	0.195	0.202	690	0.05	960	2.6	6 U
HMW-050A	04/11/2008	406	0.06 J	50 U	6	0.007 U	540	3.42	3.42	0.01 U	0.177	0.176	228	0.01 J	772	3	6 U
HMW-050A	07/10/2008	410	0.1 U	24 J	5	0.007 U	580	3.68	3.68	0.01 U	0.188	0.177 U	236	0.05 U	784	3.1	6 U
HMW-050A	10/14/2008	436	0.10U	50 U	3	0.007 U	620	4.77	4.77	0.01 U	0.222	0.196 U	271 J	0.01 J	848	NA	11
HMW-050B	01/11/2008	252	1.25	81	53	0.007 U	400	0.05 U	0.05 U	0.01 U	0.848	0.816	254	0.93	706	3.1	6
HMW-050B	04/11/2008	286	1.75	50 U	23	0.007 U	480	0.017 J	0.017 J	0.01 U	0.82	0.79	301	0.15	756	2.2	6 U
HMW-050B	07/10/2008	286	1.61	50 U	31	0.007 U	440	0.018 J	0.018 J	0.01 U	0.85	0.894	251	0.26 U	698	2.5	8
HMW-050B	10/13/2008	338	1.56	50 U	16	0.007 UJ	420	0.017 J	0.017 J	0.01 U	0.857	0.985	172	0.29	606	NA	6 U
HMW-050C	01/11/2008	624	0.69	50 U	397	0.007 U	840	0.05 U	0.05 U	0.01 U	0.792	0.771	50 U	0.69 J	1,310	2.1	7
HMW-050C	04/14/2008	506	0.86	38 J	390	0.007 U	860	0.011 J	0.011 J	0.01 U	0.635	0.628	141	0.07 J	1,500	1.5	29
HMW-050C	07/10/2008	464	0.83	40 J	49	0.007 U	740	0.05 U	0.05 U	0.01 U	0.677	0.647	164	0.09 U	1,210	1.6	29
HMW-050C	10/14/2008	384	0.82	40 J	510	0.007 U	900	0.05 U	0.05 U	0.01 U	0.517	0.468	500 U	0.11	1,690	NA	29
HMW-050C[1]	01/11/2008	626	0.7	27 J	438 S	0.007 U	820	0.05 U	0.05 US	0.01 U	0.784	0.762	50 US	1.5	1,360	2.1	14
HMW-050C[1]	04/14/2008	500	0.86	33 J	396	0.007 U	840	0.05 U	0.05 U	0.01 U	0.658	0.638	138	0.06	1,450	1.4	34
HMW-050C[1]	07/10/2008	480	0.84	45 J	55	0.007 U	700	0.05 U	0.05 U	0.01 U	0.69	0.616	141	0.08	1,130	1.5	27
HMW-052A	07/11/2008	454	0.1 U	50 U	76	0.197	580	4.15	4.17	0.02	0.068 U	0.068 U	77	0.05 U	776	1.6	12
HMW-052B	07/11/2008	608	0.1 U	50 U	21	0.427	540	0.05 U	0.057	0.01	0.097 U	0.068 U	195	0.07 U	944	2.9	5 J
HMW-052B	10/21/2008	544	0.10U	50 U	16	0.559	600	0.03 J	0.03 J	0.01 U	0.068 U	0.068 U	158	0.04 JH	798	NA	502
HMW-052C	01/10/2008	610	0.19	50 U	40 J	0.431	740	0.07	0.07	0.01 U	0.236	0.211	143	0.12 J	884	2.2	62
HMW-052C	04/09/2008	596	0.21	50 U	72	0.158	720	0.05 U	0.05 U	0.01 U	0.183	0.162	106	0.03 J	824	2.5	26
HMW-052C	07/10/2008	626	0.12	50 U	40 S	0.315	660	0.013 J	0.013 J	0.01 U	0.156	0.068 U	153	0.05 U	896	2.3	12
HMW-052C	10/16/2008	610	0.08J	50 U	35	0.407	660	0.012 J	0.012 J	0.01 U	0.075 U	0.065 J	126	0.05 U	838	NA	21

Table E-3
Four Quarters of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters - 2008

1190500002 -- Madison County -- ILD041889023
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO3)	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO3)	Nitrate	Nitrate + Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		mg/l	mg/l	mg/l	200 mg/l	0.2 mg/l	mg/l	10 mg/l	mg/l	mg/l	mg/l	mg/l	400 mg/l	mg/l	mg/l	mg/l	mg/l
HMW-053C	10/16/2008	520	0.21	50 U	30	0.007 U	540	0.05 U	0.05 U	0.01 U	0.286	0.292	50 U	0.14	604	NA	6
HMW-054C	10/16/2008	540	0.20	50 U	36	0.007 U	580	0.05 U	0.05 U	0.01 U	0.292	0.295	53	0.16	672	NA	13
MP-033D	10/17/2008	626	0.07J	113	45	0.007 U	600	0.05 U	0.05 U	0.01 U	0.359	0.276	50 U	0.07	702	NA	65
MP-040C	10/17/2008	604	0.10J	127	297	0.007 U	820	0.05 U	0.05 U	0.01 U	0.277	0.256	50 U	0.43	1,150	NA	38
MP-058C[1]	10/15/2008	914	1.42	394	38	0.007 U	880	0.014 J	0.014 J	0.01 U	0.458	0.333	50 U	0.29	1,050	NA	112
MP-058C	10/15/2008	920	1.55	410	40	0.007 U	880	0.05 U	0.05 U	0.01 U	0.49	0.344	50 U	0.29	1,060	NA	104
MP-059C[1]	10/15/2008	816	0.54	313	29	0.007 U	840	0.035 J	0.035 J	0.01 U	0.45	0.203	50 U	0.35	908	NA	109
MP-059C	10/15/2008	838	0.78J	248	36	0.007 UJ	780	0.089	0.089	0.01 U	0.408	0.197 U	54	0.35	922	NA	84
MP-078D	10/17/2008	538	0.10U	134	61	0.007 UJ	560	0.05 U	0.05 U	0.01 U	0.461	0.46	50 U	0.14	660	NA	61
MP-081B	07/17/2008	570	0.1 U	50 U	54	0.007 U	780	0.349	0.349	0.01 U	0.068	0.068 U	260	0.05 U	1,150	2.7	6 UJ
MP-081C	01/09/2008	618	0.18	50 U	31	0.007 UJ	740	0.024 J	0.024 J	0.01 U	0.042 J	0.04 J	174	0.5	884	2.5	6 U
MP-081C	04/09/2008	622	0.2	50 U	32	0.007 U	840	0.086	0.086	0.01 U	0.053	0.038	252	0.03 J	1,010	2.2	6 U
MP-081C	07/16/2008	572	0.29	50 U	60	0.007 U	820	0.05 U	0.012 J	0.01	0.054 J	0.068 U	286 J	0.05 U	1,140	2.1	12
MP-081C	10/10/2008	596	0.11	50 U	36	0.007 U	740	1.09	1.09	0.01 UJ	0.068 U	0.068 U	228	0.05 U	1,070	NA	6 U
MP-083C	10/17/2008	430	0.06J	132	87	0.007 U	440	0.05 U	0.05 U	0.01 U	0.23 U	0.204	50 U	0.07	588	NA	19
MP-085B	10/20/2008	342	0.10U	23 J	48	0.007 U	260	0.011 J	0.011 J	0.01 U	1.66	1.6	50 U	0.5	458	NA	16
MP-085C	10/15/2008	470	0.75	87	8	0.007 U	440	0.094	0.094	0.01 U	0.77	0.79	50 U	0.12	480	NA	31
MP-085D	10/17/2008	590	0.39	54	46	0.007 U	580	0.05 U	0.05 U	0.01 U	0.658	0.658	50 U	0.06	664	NA	45
MP-086C	10/17/2008	868	0.14	269	79	0.007 U	840	0.017 J	0.017 J	0.01 U	0.684	0.62	50 U	0.28	1,040	NA	99
MP-089C	01/11/2008	450	0.2 U	50 U	26	0.007 U	640	0.461	0.461	0.01 U	0.098 U	0.068 U	255	0.02 J	838	2.2	22
MP-089C	04/09/2008	638	0.3	22 J	48 J	0.007 US	880	0.05 U	0.05 U	0.01 U	0.07	0.074	239	0.02 J	1,050	4	17
MP-089C	07/15/2008	448	0.1 U	50 U	19	0.007 U	840	0.559	0.559	0.01 U	0.301	0.068 U	486	0.14 J	1,200	2.1	92
MP-089C	10/10/2008	434	0.10U	50 U	13	0.007 U	600	1.13	1.18	0.01 UJ	0.068 U	0.068 U	252	0.05 U	860	NA	6 U
MP-092C	07/17/2008	512	0.1 U	50 U	123	0.007 U	820	0.654	0.654	0.01 U	0.068 U	0.068 U	233 J	0.05 U	1,190	1.2	6 UJ
MP-092D	01/10/2008	596	0.06 J	50 U	47	0.007 U	640	0.015 J	0.015 J	0.01 U	0.049 J	0.061 J	92	0.1	766	1.8 R	9
MP-092D	04/11/2008	480	0.1 U	50 U	19	0.007 U	460	0.05 U	0.05 U	0.01 U	0.048	0.046	50 US	0.05 U	540	1.3	6 U
MP-092D	07/14/2008	518	0.11	50 U	27	0.007 U	500	0.016 J	0.016 J	0.01 U	0.126 U	0.08 U	50 US	0.04 J	576	2.6	32
MP-092D	10/10/2008	674	0.14J	26 J	32	0.007 UJ	620	0.025 J	0.025 J	0.01 UJ	0.068 U	0.068 U	60	0.05 U	758	NA	15

Notes:

1 = Duplicate Sample

U = Not Detected (value preceding "U" is reporting limit)

J = Estimated value

All units are in mg/L-milligrams per liter

B = Analyte detected in associated method blank

Q = QC criteria failed or noncompliant CCV

NA = Not analyzed

H = Holding time exceeded

E = Value above quantitation range

= Exceeds Screening Criteria

R = RPD outside acceptable recovery limits

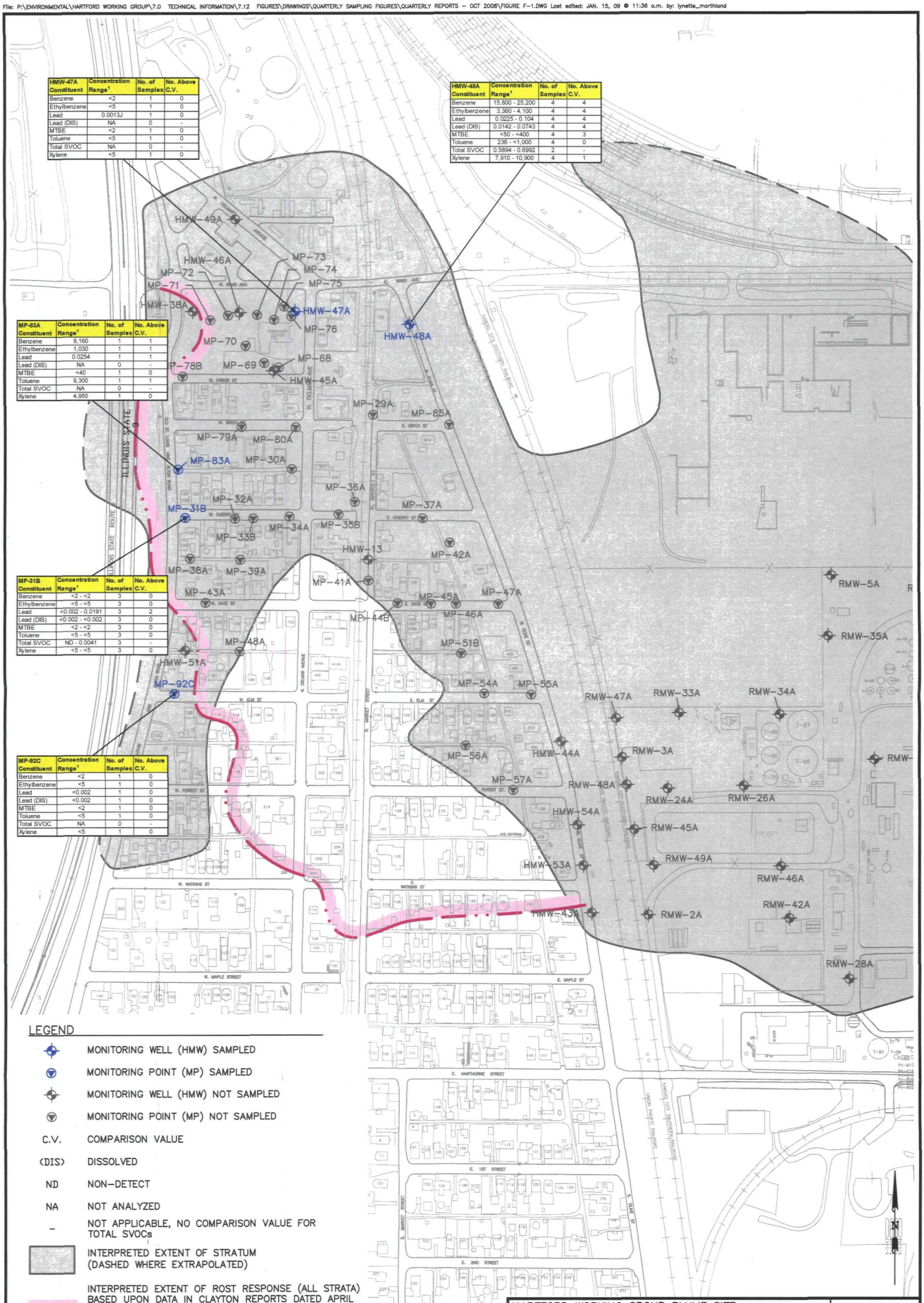
S = Spike recovery outside acceptable recovery limits

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO), last amended February 15, 2007. TACO values used for comparison purposes only.

HISTORICAL SUMMARY FIGURES OF GROUNDWATER

APPENDIXF ANALYTICAL RESULTS-DECEMBER 2003 THROUGH October 2008

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE F-1.DWG Last edited: JAN. 15, 09 @ 11:36 a.m. by: lynette_morthland



HMW-47A Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	<2	1	0
Ethylbenzene	<5	1	0
Lead	0.0013J	1	0
Lead (DIS)	NA	0	-
MTBE	<2	1	0
Toluene	<5	1	0
Total SVOC	NA	0	-
Xylene	<5	1	0

HMW-48A Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	15,800 - 25,200	4	4
Ethylbenzene	3,360 - 4,100	4	4
Lead	0.0225 - 0.104	4	4
Lead (DIS)	0.0142 - 0.0743	4	4
MTBE	<50 - <400	4	3
Toluene	236 - <1,000	4	0
Total SVOC	0.5894 - 0.6992	2	-
Xylene	7,910 - 10,900	4	1

MP-83A Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	9,160	1	1
Ethylbenzene	1,030	1	1
Lead	0.0254	1	1
Lead (DIS)	NA	0	-
MTBE	<40	1	0
Toluene	9,300	1	1
Total SVOC	NA	0	-
Xylene	4,950	1	0

MP-31B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	<2 - <2	3	0
Ethylbenzene	<5 - <5	3	0
Lead	<0.002 - 0.0191	3	2
Lead (DIS)	<0.002 - <0.002	3	0
MTBE	<2 - <2	3	0
Toluene	<5 - <5	3	0
Total SVOC	ND - 0.0041	3	-
Xylene	<5 - <5	3	0

MP-92C Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	<2	1	0
Ethylbenzene	<5	1	0
Lead	<0.002	1	0
Lead (DIS)	<0.002	1	0
MTBE	<2	1	0
Toluene	<5	1	0
Total SVOC	NA	0	-
Xylene	<5	1	0

LEGEND

- MONITORING WELL (HMW) SAMPLED
- MONITORING POINT (MP) SAMPLED
- MONITORING WELL (HMW) NOT SAMPLED
- MONITORING POINT (MP) NOT SAMPLED
- C.V. — COMPARISON VALUE
- (DIS) — DISSOLVED
- ND — NON-DETECT
- NA — NOT ANALYZED
- – — NOT APPLICABLE, NO COMPARISON VALUE FOR TOTAL SVOCs
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA) BASED UPON DATA IN CLAYTON REPORTS DATED APRIL 8, 2004, JANUARY 4, 2006 AND JANUARY 23, 2006. ROST IS A SCREENING TECHNIQUE FOR PRESENCE OF LNAPL.

NOTES:

1. RESULTS FOR BENZENE, MTBE, AND TOTAL BETX IN ug/L. RESULTS FOR TOTAL SVOC, LEAD, AND LEAD (DIS) IN mg/L.
2. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

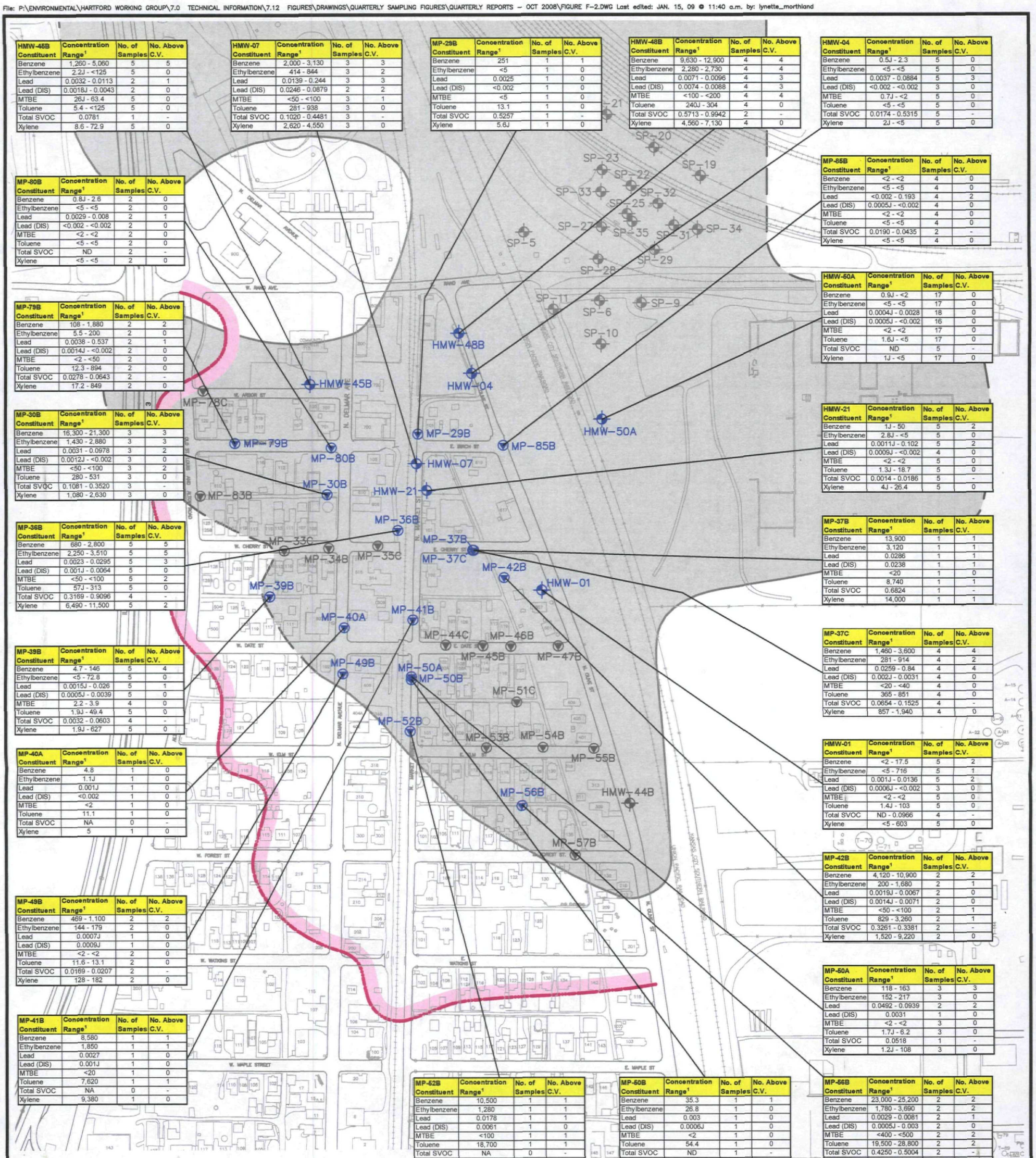
URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Summary of Groundwater Analytical Results Dec. 2003 – Oct. 2008 North Olive Stratum

FIG. NO. F-1

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE F-2.DWG Last edited: JAN. 15, 09 @ 11:40 a.m. by: lynette_morthland



HMW-45B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	1,260 - 5,060	5	5
Ethylbenzene	2.2J - <125	5	0
Lead	0.0032 - 0.0113	2	1
Lead (DIS)	0.0018J - 0.0043	2	0
MTBE	26J - 63.4	5	0
Toluene	5.4 - <125	5	0
Total SVOC	0.0781	1	-
Xylene	8.6 - 72.9	5	0

HMW-07 Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	2,000 - 3,130	3	3
Ethylbenzene	414 - 844	3	2
Lead	0.0139 - 0.244	3	3
Lead (DIS)	0.0246 - 0.0879	2	2
MTBE	<50 - <100	3	1
Toluene	281 - 938	3	0
Total SVOC	0.1020 - 0.4481	3	-
Xylene	2,620 - 4,550	3	0

MP-29B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	251	1	1
Ethylbenzene	<5	1	0
Lead	0.0025	1	0
Lead (DIS)	<0.002	1	0
MTBE	<5	1	0
Toluene	13.1	1	0
Total SVOC	0.5257	1	-
Xylene	5.6J	1	0

HMW-48B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	9,630 - 12,900	4	4
Ethylbenzene	2,280 - 2,730	4	4
Lead	0.0071 - 0.0096	4	3
Lead (DIS)	0.0074 - 0.0088	4	3
MTBE	<100 - <200	4	4
Toluene	240J - 304	4	0
Total SVOC	0.5713 - 0.9942	2	-
Xylene	4,560 - 7,130	4	0

HMW-04 Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	0.5J - 2.3	5	0
Ethylbenzene	<5 - <5	5	0
Lead	0.0037 - 0.0884	5	3
Lead (DIS)	<0.002 - <0.002	3	0
MTBE	0.7J - <2	5	0
Toluene	<5 - <5	5	0
Total SVOC	0.0174 - 0.5315	5	-
Xylene	2J - <5	5	0

MP-80B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	0.8J - 2.6	2	0
Ethylbenzene	<5 - <5	2	0
Lead	0.0029 - 0.008	2	1
Lead (DIS)	<0.002 - <0.002	2	0
MTBE	<2 - <2	2	0
Toluene	<5 - <5	2	0
Total SVOC	ND	2	-
Xylene	<5 - <5	2	0

MP-85B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	<2 - <2	4	0
Ethylbenzene	<5 - <5	4	0
Lead	<0.002 - 0.193	4	2
Lead (DIS)	0.0005J - <0.002	4	0
MTBE	<2 - <2	4	0
Toluene	<5 - <5	4	0
Total SVOC	0.0190 - 0.0435	2	-
Xylene	<5 - <5	4	0

MP-79B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	108 - 1,880	2	2
Ethylbenzene	5.5 - 200	2	0
Lead	0.0038 - 0.537	2	1
Lead (DIS)	0.0014J - <0.002	2	0
MTBE	<2 - <50	2	0
Toluene	12.3 - 894	2	0
Total SVOC	0.0278 - 0.0643	2	-
Xylene	17.2 - 849	2	0

HMW-50A Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	0.9J - <2	17	0
Ethylbenzene	<5 - <5	17	0
Lead	0.0004J - 0.0028	18	0
Lead (DIS)	0.0005J - <0.002	16	0
MTBE	<2 - <2	17	0
Toluene	1.6J - <5	17	0
Total SVOC	ND	5	-
Xylene	1J - <5	17	0

MP-30B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	16,300 - 21,300	3	3
Ethylbenzene	1,430 - 2,880	3	3
Lead	0.0031 - 0.0978	3	2
Lead (DIS)	0.0012J - <0.002	3	0
MTBE	<50 - <100	3	2
Toluene	280 - 531	3	0
Total SVOC	0.1081 - 0.3520	3	-
Xylene	1,080 - 2,630	3	0

HMW-21 Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	1J - 50	5	2
Ethylbenzene	2.8J - <5	5	0
Lead	0.0011J - 0.102	5	2
Lead (DIS)	0.0009J - <0.002	4	0
MTBE	<2 - <2	5	0
Toluene	1.3J - 18.7	5	0
Total SVOC	0.0014 - 0.0186	5	-
Xylene	4J - 26.4	5	0

MP-36B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	680 - 2,800	5	5
Ethylbenzene	2,250 - 3,510	5	5
Lead	0.0023 - 0.0295	5	3
Lead (DIS)	0.001J - 0.0064	5	0
MTBE	<50 - <100	5	2
Toluene	57J - 313	5	0
Total SVOC	0.3169 - 0.9096	4	-
Xylene	6,490 - 11,500	5	2

MP-37B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	13,900	1	1
Ethylbenzene	3,120	1	1
Lead	0.0286	1	1
Lead (DIS)	0.0238	1	1
MTBE	<20	1	0
Toluene	8,740	1	1
Total SVOC	0.6824	1	-
Xylene	14,000	1	1

MP-39B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	4.7 - 146	5	4
Ethylbenzene	<5 - 72.8	5	0
Lead	0.0015J - 0.026	5	1
Lead (DIS)	0.0005J - 0.0039	5	0
MTBE	2.2 - 3.9	4	0
Toluene	1.9J - 49.4	5	0
Total SVOC	0.0032 - 0.0603	4	-
Xylene	1.9J - 627	5	0

MP-37C Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	1,460 - 3,600	4	4
Ethylbenzene	281 - 914	4	2
Lead	0.0259 - 0.84	4	4
Lead (DIS)	0.002J - 0.0031	4	0
MTBE	<20 - <40	4	0
Toluene	365 - 851	4	0
Total SVOC	0.0654 - 0.1525	4	-
Xylene	857 - 1,940	4	0

MP-40A Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	4.8	1	0
Ethylbenzene	1.1J	1	0
Lead	0.001J	1	0
Lead (DIS)	<0.002	1	0
MTBE	<2	1	0
Toluene	11.1	1	0
Total SVOC	NA	0	-
Xylene	5	1	0

HMW-01 Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	<2 - 17.5	5	2
Ethylbenzene	<5 - 716	5	1
Lead	0.001J - 0.0136	5	2
Lead (DIS)	0.0006J - <0.002	3	0
MTBE	<2 - <2	5	0
Toluene	1.4J - 103	5	0
Total SVOC	ND - 0.0966	4	-
Xylene	<5 - 603	5	0

MP-42B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	4,120 - 10,900	2	2
Ethylbenzene	200 - 1,680	2	1
Lead	0.0019J - 0.0067	2	0
Lead (DIS)	0.0014J - 0.0071	2	0
MTBE	<50 - <100	2	1
Toluene	829 - 3,260	2	1
Total SVOC	0.3261 - 0.3381	2	-
Xylene	1,520 - 9,220	2	0

MP-49B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	469 - 1,100	2	2
Ethylbenzene	144 - 179	2	0
Lead	0.0007J	1	0
Lead (DIS)	0.0009J	1	0
MTBE	<2 - <2	2	0
Toluene	11.6 - 13.1	2	0
Total SVOC	0.0169 - 0.0207	2	-
Xylene	128 - 182	2	0

MP-50A Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	118 - 163	3	3
Ethylbenzene	152 - 217	3	0
Lead	0.0492 - 0.0939	2	2
Lead (DIS)	0.0031	1	0
MTBE	<2 - <2	3	0
Toluene	1.7J - 6.2	3	0
Total SVOC	0.0518	1	-
Xylene	1.2J - 108	3	0

MP-41B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	8,580	1	1
Ethylbenzene	1,850	1	1
Lead	0.0027	1	0
Lead (DIS)	0.001J	1	0
MTBE	<20	1	0
Toluene	7,620	1	1
Total SVOC	NA	0	-
Xylene	9,380	1	0

MP-52B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	10,500	1	1
Ethylbenzene	1,280	1	1
Lead	0.0178	1	1
Lead (DIS)	0.0061	1	0
MTBE	<100	1	1
Toluene	18,700	1	1
Total SVOC	NA	0	-
Xylene	6,260	1	0

MP-50B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	35.3	1	1
Ethylbenzene	26.8	1	0
Lead	0.003	1	0
Lead (DIS)	0.0006J	1	0
MTBE	<2	1	0
Toluene	54.4	1	0
Total SVOC	ND	1	-
Xylene	77.1	1	0

MP-56B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	23,000 - 25,200	2	2
Ethylbenzene	1,780 - 3,690	2	2
Lead	0.0029 - 0.0081	2	1
Lead (DIS)	0.0005J - 0.003	2	0
MTBE	<400 - <500	2	2
Toluene	19,500 - 28,800	2	2
Total SVOC	0.4250 - 0.5004	2	-
Xylene	7,620 - 17,700	2	1

LEGEND

- MONITORING WELL (HMW) SAMPLED
- MONITORING POINT (MP) SAMPLED
- MONITORING WELL (HMW) NOT SAMPLED
- MONITORING POINT (MP) NOT SAMPLED
- C.V. — COMPARISON VALUE
- (DIS) — DISSOLVED
- ND — NON-DETECT
- NA — NOT ANALYZED
- – — NOT APPLICABLE, NO COMPARISON VALUE FOR TOTAL SVOCs
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA) BASED UPON DATA IN CLAYTON REPORTS DATED APRIL 8, 2004, JANUARY 4, 2006 AND JANUARY 23, 2006. ROST IS A SCREENING TECHNIQUE FOR PRESENCE OF LNAPL.

NOTES:

1. RESULTS FOR BENZENE, MTBE, AND TOTAL BENZENE IN ug/L. RESULTS FOR TOTAL SVOC, LEAD, AND LEAD (DIS) IN mg/L.
2. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

PROJECT NO. 21561955.00009

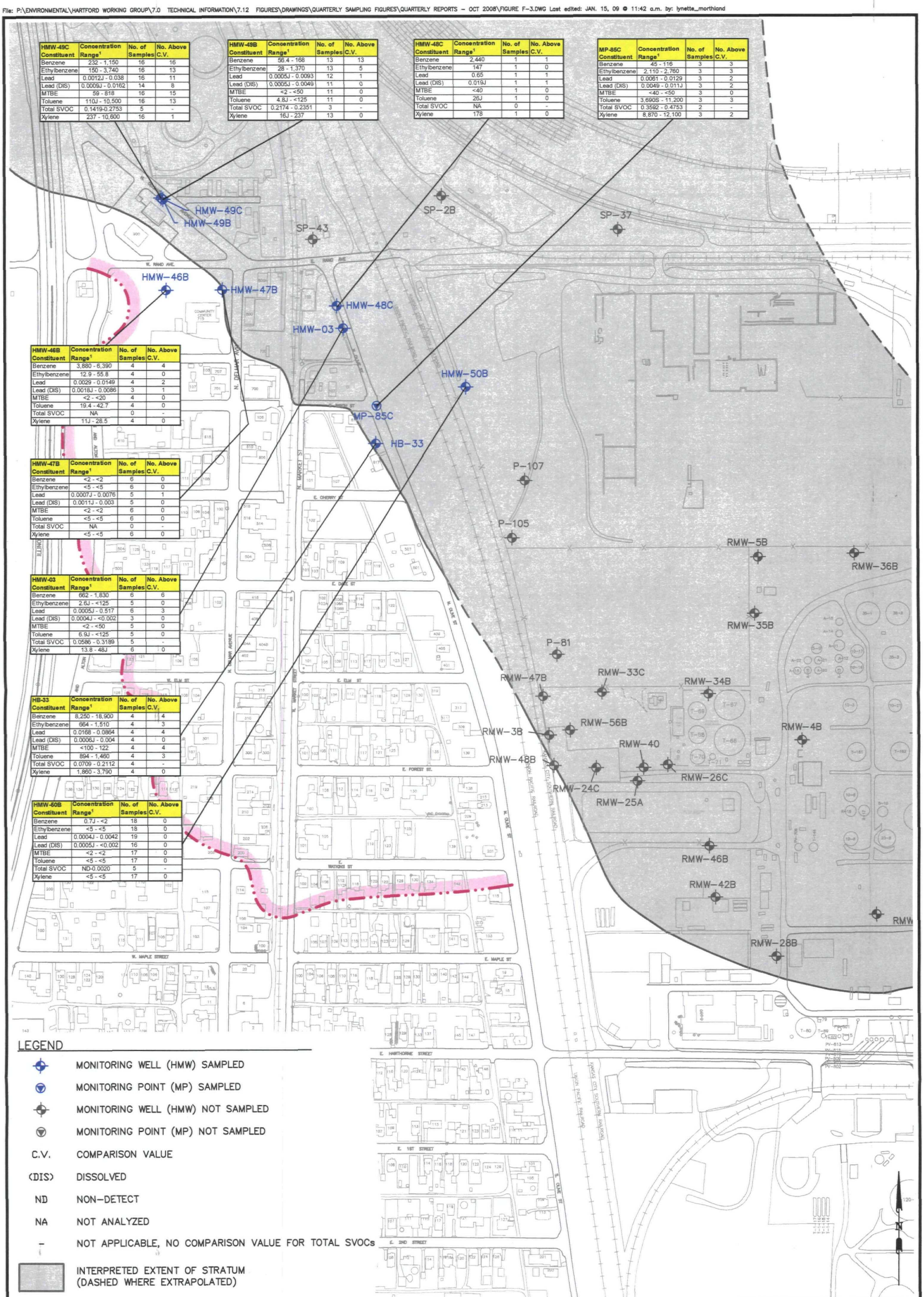
URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Summary of Groundwater Analytical Results Dec. 2003 – Oct. 2008 Rand Stratum

FIG. NO. F-2

File: P:\ENVIRONMENTAL\HARTFORD WORKING GROUP\7.0 TECHNICAL INFORMATION\7.12 FIGURES\DRAWINGS\QUARTERLY SAMPLING FIGURES\QUARTERLY REPORTS – OCT 2008\FIGURE F-3.DWG Last edited: JAN. 15, 09 @ 11:42 a.m. by: lynette_morthland



HMW-49C Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	232 - 1,150	16	16
Ethylbenzene	150 - 3,740	16	13
Lead	0.0012J - 0.038	16	11
Lead (DIS)	0.0009J - 0.0162	14	8
MTBE	59 - 818	16	15
Toluene	110J - 10,500	16	13
Total SVOC	0.1419-0.2753	5	-
Xylene	237 - 10,600	16	1

HMW-49B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	56.4 - 168	13	13
Ethylbenzene	28 - 1,370	13	5
Lead	0.0005J - 0.0093	12	1
Lead (DIS)	0.0005J - 0.0049	11	0
MTBE	<2 - <50	11	0
Toluene	4.8J - <125	11	0
Total SVOC	0.2174 - 0.2351	3	-
Xylene	16J - 237	13	0

HMW-48C Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	2,440	1	1
Ethylbenzene	147	1	0
Lead	0.65	1	1
Lead (DIS)	0.019J	1	1
MTBE	<40	1	0
Toluene	26J	1	0
Total SVOC	NA	0	-
Xylene	178	1	0

MP-85C Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	45 - 116	3	3
Ethylbenzene	2,110 - 2,760	3	3
Lead	0.0061 - 0.0129	3	2
Lead (DIS)	0.0049 - 0.011J	3	2
MTBE	<40 - <50	3	0
Toluene	3,690S - 11,200	3	3
Total SVOC	0.3592 - 0.4753	2	-
Xylene	8,870 - 12,100	3	2

HMW-46B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	3,880 - 6,390	4	4
Ethylbenzene	12.9 - 55.8	4	0
Lead	0.0029 - 0.0149	4	2
Lead (DIS)	0.0018J - 0.0086	3	1
MTBE	<2 - <20	4	0
Toluene	19.4 - 42.7	4	0
Total SVOC	NA	0	-
Xylene	11J - 28.5	4	0

HMW-47B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	<2 - <2	6	0
Ethylbenzene	<5 - <5	6	0
Lead	0.0007J - 0.0076	5	1
Lead (DIS)	0.0011J - 0.003	5	0
MTBE	<2 - <2	6	0
Toluene	<5 - <5	6	0
Total SVOC	NA	0	-
Xylene	<5 - <5	6	0

HMW-03 Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	662 - 1,830	6	6
Ethylbenzene	2.6J - <125	5	0
Lead	0.0005J - 0.517	6	3
Lead (DIS)	0.0004J - <0.002	3	0
MTBE	<2 - <50	5	0
Toluene	6.9J - <125	5	0
Total SVOC	0.0586 - 0.3189	5	-
Xylene	13.8 - 48J	6	0

HB-33 Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	8,250 - 18,900	4	4
Ethylbenzene	664 - 1,510	4	3
Lead	0.0168 - 0.0864	4	4
Lead (DIS)	0.0006J - 0.004	4	0
MTBE	<100 - 122	4	4
Toluene	894 - 1,460	4	3
Total SVOC	0.0709 - 0.2112	4	-
Xylene	1,860 - 3,790	4	0

HMW-50B Constituent	Concentration Range[1]	No. of Samples	No. Above C.V.
Benzene	0.7J - <2	18	0
Ethylbenzene	<5 - <5	18	0
Lead	0.0004J - 0.0042	19	0
Lead (DIS)	0.0005J - <0.002	16	0
MTBE	<2 - <2	17	0
Toluene	<5 - <5	17	0
Total SVOC	ND-0.0020	5	-
Xylene	<5 - <5	17	0

LEGEND

- MONITORING WELL (HMW) SAMPLED
- MONITORING POINT (MP) SAMPLED
- MONITORING WELL (HMW) NOT SAMPLED
- MONITORING POINT (MP) NOT SAMPLED
- C.V. — COMPARISON VALUE
- (DIS) — DISSOLVED
- ND — NON-DETECT
- NA — NOT ANALYZED
- – — NOT APPLICABLE, NO COMPARISON VALUE FOR TOTAL SVOCs
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)
- INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA) BASED UPON DATA IN CLAYTON REPORTS DATED APRIL 8, 2004, JANUARY 4, 2006 AND JANUARY 23, 2006. ROST IS A SCREENING TECHNIQUE FOR PRESENCE OF LNAPL.

NOTES:

1. RESULTS FOR BENZENE, MTBE, AND TOTAL BENZENE IN ug/L. RESULTS FOR TOTAL SVOC, LEAD, AND LEAD (DIS) IN mg/L.
2. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

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SCALE FEET

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2008
HARTFORD, IL

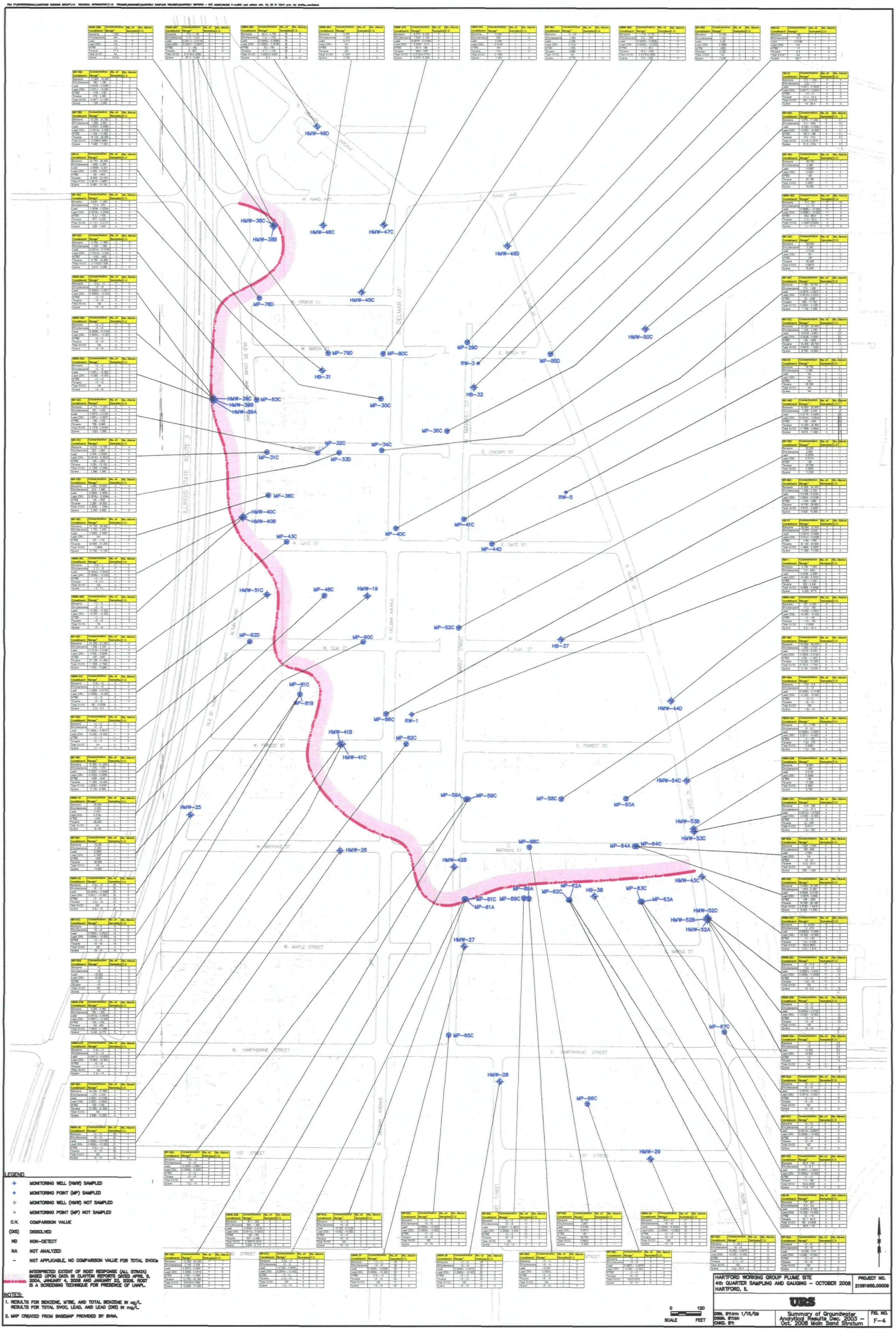
PROJECT NO. 21561955.00009

URS

DRN. BY:lrm 1/15/09
DSGN. BY:bh
CHKD. BY:

Summary of Groundwater Analytical Results Dec. 2003 – Oct. 2008 EPA Stratum

FIG. NO. F-3



LEGEND

- MONITORING WELL (HMW) SAMPLED
- MONITORING POINT (MP) SAMPLED
- MONITORING WELL (HMW) NOT SAMPLED
- MONITORING POINT (MP) NOT SAMPLED

C.V. COMPARISON VALUE

(DIS) DISSOLVED

ND NON-DETECT

NA NOT ANALYZED

\- NOT APPLICABLE, NO COMPARISON VALUE FOR TOTAL SVOCs

INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA) BASED UPON DATA IN CLAYTON REPORTS DATED APRIL 5, 2004, JANUARY 4, 2006 AND JANUARY 23, 2006. ROST IS A SCREENING TECHNIQUE FOR PRESENCE OF LNAPL.

NOTES:

1. RESULTS FOR BENZENE, MTBE, AND TOTAL BENZENE IN ug/L. RESULTS FOR TOTAL SVOC, LEAD, AND LEAD (DIS) IN mg/L.
2. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE
4th QUARTER SAMPLING AND GAUGING – OCTOBER 2006
HARTFORD, IL

PROJECT NO. 21561955.00009

URS

DRN. SMkrm 1/15/09
DSGN. SMbh
CHKD. SM

Summary of Groundwater Analytical Results Dec. 2003 – Oct. 2006 Main Sand Stratum

FIG. NO. F-4