REPORT




# OCCURRENCE OF OIL AT EAST STREET AREA 2/ USEPA AREA 4 - FALL 1995

General Electric Company

Pittsfield, Massachusetts

January 1996

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

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GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

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BLASLAND, BOUCK & LEE, INC.
6723 TOWPATH ROAD, BOX 66
SYRACUSE, NEW YORK 13214-0066

OCCURRENCE OF OIL AT EAST STREET AREA 2/
USEPA AREA 4 - FALL 1995

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APPENDICES

## SECTION 1 - INTRODUCTION

This document presents a summary of activities and discussion of results of recent oil monitoring conducted at the General Electric Company's (GE's) Pittsfield, Massachusetts facility. Specifically, this document presents the Fall 1995 results associated with the on-going semi-annual monitoring program for the area designated as East Street Area 2/USEPA Area 4. These activities were performed on GE's behalf by Blasland, Bouck & Lee, Inc., for the purpose of defining the extent and thickness of floating oil in designated monitoring wells of this area, as well as associated groundwater flow patterns.

## SECTION 2 - METHODS AND PROTOCOLS

On October 16 through 18, 1995, monitoring wells in East Street Area 2/USEPA Area 4 that had previously been selected for inclusion in the semi-annual oil monitoring program were bailed using methods and protocols described in the May 1994 "Sampling and Analysis Plan/Data Collection and Analysis Quality Assurance Plan" (SAP/DCAQAP) (Blasland, Bouck & Lee, May 1994). In order to obtain oil thickness data unaffected by prior occurrences, these wells were bailed one week prior to measurement to remove oil that may have previously accumulated in them.

On October 23 through 26, 1995 groundwater level and oil thickness measurements were obtained using an oil/water interface probe following methods and protocols described in the SAP/DCAQAP. In general, all wells monitored in October 1994 were also monitored in October 1995. The exceptions include wells M and HH (former Tank Farm Area) which were found to be obstructed or dry. In addition, well 10 (south of East Street) was found dry during the Fall 1994 monitoring event, but this well was monitored during the Fall 1995 event.

# SECTION 3 - RESULTS OF THE FALL 1995 MONITORING EVENT

## 3.1 Water-Level Data

The October (Fall) 1995 water table, illustrated on Figure 1, is shown to be generally consistent with the Fall 1994 configuration (Blasland, Bouck & Lee, Inc., February 1995). Table 1 presents the well-specific water table measurements associated with the Fall 1995 monitoring event. Four distinct groundwater depression areas are shown in the vicinity of recovery caissons 64V and 64S, and at pumping wells RW-1(X) and RW-2(X), as these systems contain groundwater depression pumps used for active oil recovery. Groundwater from these four systems is pumped to the Building 64G groundwater treatment facility. After treatment, the majority of the water is discharged to the Housatonic River through NPDES permitted outfall 005. A portion of the treated water is discharged to the groundwater recharge pond in order to maintain a groundwater mound at this location, as part of the groundwater management strategy for this site. Since April 1988, the elevation of the groundwater recharge pond has been controlled via an "Electrogauge" bubbler system device. Between April 1988 and October 1990, the elevation of the recharge pond was held at an elevation of approximately 985 feet above mean sea level (MSL). In October 1990, the elevation of the recharge pond was reduced to 984 feet above MSL to maintain the required freeboard. In September 1994, the elevation of the pond was reduced again to 983 feet above MSL to decrease the size of the ground water mound. This mounding effect acts as a hydraulic barrier, reducing the possibility that oil would migrate south around the western edge of the slurry wall.

The corrected water table elevations (density corrected for the presence of oil) north of East Street averaged about 8 inches lower in October 1995 than

in October 1994. South of East Street, the average corrected water table elevations were 8 inches higher than those measured in October 1994.

In addition, the Fall 1995 corrected water table elevations were compared to the top of well screen elevations associated with each monitoring well included in this program. Water table elevations were found to be above the top of the well screen in well 13 (north of railroad tracks) and well P3 (south of East Street). Well 13 is not used for defining the plume boundary, and well P3 is located near the Recharge Pond, and its elevated water level is likely due to the pond's influence.

Corrected water table elevations were calculated from observed water level elevations (measuring point elevation minus depth to water level) plus the observed thickness of oil multiplied by its specific density (estimated at 0.93).

As a further note, the water level from well O-R was not incorporated into the groundwater contour map on Figure 1 because it is anomalously high compared to surrounding wells. This well, which was completed in a below-grade curb box, is located in an area that receives surface water drainage. This may cause the elevated readings or, alternatively, the well may be screened in perched groundwater. Either way, the groundwater elevation at this well does not appear to be representative of surrounding groundwater conditions. The measuring point elevation of this well was resurveyed on May 4, 1995 along with nearby wells UU-R, M, ES2-9, and ES2-10 to confirm associated groundwater elevations.

## 3.2 Oil Occurrence

Figure 2 illustrates the extent and thickness of oil in the wells of East Street Area 2/USEPA Area 4 monitored during October 1995, while Table 1 presents the well-specific oil thickness data associated with this monitoring event. For the purposes of discussion, the East Street Area 2/USEPA Area 4 Site is divided into three areas designated as follows: (1) the area north of the railroad tracks, north of East Street; (2) the former tank farm area, north of East Street; and (3) the area south of East Street. A summary of Fall 1995 oil occurrence at each of these areas is provided below.

### 3.2.1 North of the Railroad Tracks

The Fall 1995 configuration of the oil plume north of the railroad tracks is generally similar to that of the Fall 1994 monitoring event. However, oil was observed in well 16 at a thickness of 0.03 feet in October 1994, but 1.5 feet of oil was present in this well in October 1995. Also, 1.51 feet of oil was found in well 23 in October 1994, but 0.76 feet was present in this well in October 1995.

### 3.2.2 Former Tank Farm Area

The Fall 1995 oil plume configuration in this area is somewhat different when compared to that of the Fall 1994 monitoring event. This is primarily related to oil being observed in wells GG (0.17 feet) and N-R (0.16 feet) in October 1995, as opposed to no oil being found in these wells in October 1994. Also, oil was not observed in well KK in October 1995, whereas 0.02 feet of oil was observed in this well in October 1994. In addition, October 1995 oil thickness data detected in wells J, K, U, CC, NN, PP, and QQ showed an average decrease of 0.75 feet from the October 1994 data collected at these wells.

### 3.2.3 South of East Street

Observed oil thicknesses are generally similar to data collected during prior Fall monitoring events. However, upon comparison of the Fall 1995 and Fall 1994 oil thickness data for this area, several observations were made. Specifically, observations at wells 28, P3, and P4 indicated oil present at thicknesses of 0.15, 0.02, and 0.03 feet, respectively, in October 1995, but no oil was present in these wells in October 1994. In October 1994, observations at wells 5A, 9R, and 58 indicated the presence of 0.15, 0.42, and 0.09 feet of oil, respectively, while no oil was observed in these wells in October 1995. In addition, October 1995 oil thickness data detected in wells 2, 8, 13, 14, 15R, 22, 48, 55, 56 and 57 showed an average decrease of 0.54 feet from the October 1994 data collected at these wells. These changes in oil thickness and plume shape may be attributable to the differences in water table elevations observed between the monitoring events and/or small differences in oil occurrence at the fringes of the plume.

Several isolated occurrences of oil have been observed during recent monitoring events south of East Street. The isolated areas are at wells 50 and 8, and several wells south of Building 64. Although oil was not found in well 50 since the Spring 1994 monitoring event, it should be noted that well 50 is currently monitored on a weekly basis and any oil is removed if it is observed at a thickness of greater than 0.25 feet. As described in the MCP Supplemental Phase II Scope of Work and RCRA Facility Investigation for East Street Area 2/USEPA Area 4, additional monitoring wells will be installed south of East Street (although the precise locations are not known at this time) to further delineate the extent of these isolated oil occurrences and to evaluate potential recovery.

## 3.3 Oil Recovery

Table 2 presents a summary of oil and groundwater recovery volumes associated with the six oil recovery systems [64S, 64V, 64R, 64X, RW-1(X), and RW-2(X)] operating in East Street Area 2/USEPA Area 4 between July 1995 and December 1995. The recovery systems critical for plume containment (64S, 64V, RW-1(X) and RW-2(X)) are continuously active, whereas non-critical caissons 64X and 64R are pumped intermittently. As shown in Table 2, a total of 36,276 gallons of oil were collected, and a total of approximately 26,700,000 gallons of groundwater were pumped and treated at the 64G groundwater treatment facility during this period. For comparative purposes, between January and June 1995, a total of 17,202 gallons of oil were recovered at the site. The increase in oil recovered in the second half of 1995 is primarily attributable to the increased recovery of oil in well 40R. A total of 21,358 gallons of oil were recovered from well 40R between July 1995 and December 1995.

Table 3 presents a summary of downtime associated with the active oil recovery operations for July through December 1995. An overall average downtime recorded for these systems was 3.2 percent.

# SECTION 4 - RIVERBANK STM EVALUATION

## 4.1 General

This section presents an overview of the Short-Term Measure (STM) that is being implemented along the north bank of the Housatonic River in East Street Area 2/USEPA Area 4 and a discussion of the effectiveness of the oil-recovery and bank-seep prevention efforts conducted between July and December 1995.

The riverbank STM area, depicted on Figure 3, encompasses the area southeast of the recharge pond in the vicinity of the 64-X oil/water separator. A number of wells and piezometers are monitored in the riverbank area on a weekly basis, along with visual observations of the riverbank and absorbent booms adjacent to the riverbank by GE Environmental and Facilities personnel. Additionally, maintenance inspections and repairs (if needed) are made on the absorbent boom system between three and five times per week.

Groundwater elevations and oil thickness data (if oil was present) were obtained from the riverbank wells and piezometers on a weekly basis between July and December 1995. A summary table of these data is presented in Appendix A. The weekly monitoring of these wells and well points also includes the bailing of oil from well points WP-1 through WP-5 when the oil thickness observed is greater than 0.25 feet. Between July and December 1995, no oil was found in WP-2, WP-4, or WP-5. During this timeframe, oil was found in WP-1 (thicknesses between 0.01 and 0.40 feet) and WP-3 (thicknesses between 0.01 and 0.38 feet). A total of 0.24 gallons of oil were removed from these two well points during this timeframe. In addition, 0.73 gallons of oil were removed from piezometers PZ-1S and PZ-6S between July 1995 and December 1995.

## 4.2 Recovery Wells

Recovery wells RW-1(X) and RW-2(X) are the focus of the groundwater depression and gradient control efforts in the riverbank STM area. Well RW-1(X) was pumped at a maximum rate of approximately 30 to 35 gallons per minute (gpm) during this monitoring period. It has separate groundwater-depression and oil-removal pumps; the oil pump was installed in November 1993 in response to an increase of accumulated oil within the well. Well RW-2(X) was installed during the last week of October 1993 and began pumping water on November 12, 1993. The depression level in the well was set at about 17.5 feet below the top-of-casing (although this setting was lowered in July 1994), and the maximum pumping rate is approximately 10 to 15 gpm. An oil-removal pump has not been installed in RW-2(X), since oil has not yet accumulated in the well. In addition to these recovery wells, the 64X(W) caisson is also pumped during low water-table conditions to remove any oil which migrates into the subsurface collection trench located between the 64X(W) and 64X(S) caissons. A total of 1,241 gallons of oil were removed from RW-1(X) and the 64X system between July and December 1995.

Figures 4 through 9 illustrate the groundwater contours in the vicinity of the RW-1(X) and RW-2(X) pumping wells for the months of July through December 1995. As illustrated in the figures, the cones of depression at wells RW-1(X) and RW-2(X) are typically about 4 to 6 feet in depth, and the combined hydraulic influence of these two recovery wells extends for approximately 200 feet along the riverbank.

## 4.3 Summary of Riverbank Inspections

Twenty-one riverbank inspections were performed by GE personnel between July and December 1995 in the riverbank STM area. The boomed area along the riverbank is divided into two general zones to facilitate spatial observations

of any observed seeps as illustrated on Figure 3. Zone one is generally under the pumping influence of RW-1(X), while zone two is under the influence of RW-2(X). The results of these inspections are summarized below:

- On two occasions, active oil seeps from the riverbank were observed along Zone 2 downstream of well point WP-5; and
- On two occasions near WP-5, sheens were observed close to the riverbank, but it could not be determined whether an oil seep was occurring in these instances.

In all cases, the sheens resulting from the bank seeps were contained by the boom system.

4.4 STM Assessment

Since the commencement of pumping at well RW-2(X), a significant decrease in riverbank seep occurrences has been observed in Zone 2. While seeps were observed in Zone 2 on two occasions during the second half of 1995, a significant decrease in both the number and extent of seeps in this zone has been observed by GE personnel in comparison to inspections performed prior to the installation and start-up of well RW-2(X).

As demonstrated by Figures 4 through 9, pumping of RW-1(X) and RW-2(X) has been successful in consistently developing overlapping cones of influence which extend 200 feet along the riverbank. The pumping has also locally reversed the groundwater flow direction along the riverbank so that flow is primarily toward the recovery wells rather than the river. The appearance of occasional seeps along the riverbank may be attributable to the physical contact of river water and riverbank soil, regardless of groundwater gradient. Alternatively, the occasional seeps may be caused by short-lived instances of groundwater flow towards the river resulting from relatively rapid decreases in river stage in comparison to ground water level. However, the frequency of

occasional seeps has significanltly diminished as compared to previous reporting events.

# SECTION 5 - FINDINGS AND CONCLUSIONS

1. The average Fall 1995 corrected water table elevations north of East Street and south of East Street were about 8 inches lower and 8 inches higher, respectively, than those recorded in Fall 1994.

2. General site groundwater flow patterns are similar to those monitored in the Fall 1994 event.

3. Slight variations have been noted in the Fall 1995 oil plume configuration which appears to be primarily due to the natural fluctuation in the groundwater depth.

4. A total of 36,276 gallons of oil were recovered at the site and approximately 26,700,000 gallons of groundwater were treated at the 64G groundwater treatment facility between July and December 1995. The volume of oil recovered is approximately 20,800 gallons more than the oil recovered between July and December 1994. Most of this increase is a result of added recovery at monitoring well 40R.

5. Groundwater pumping from recovery wells RW-1(X) and RW-2(X) produces two overlapping cones of influence that provide hydraulic control near the riverbank and locally reverse the natural groundwater gradients. These riverbank STM activities have apparently been effective in controlling and reducing the bankseeps of oil into the boomed area of the Housatonic River. The operation of well RW-1(X) has mitigated the seeps in Zone one, while the operation of well RW-2(X) has substantially mitigated the seeps in Zone 2.

6. Based on a review of GE records and verbal reports, GE routinely performed monitoring, maintenance, and trouble-shooting activities in compliance with the Massachusetts Department of Environmental Protection's requirements. GE inspected and operated the oil-recovery systems in East Street Area 2/USEPA Area 4 and routinely determined if the systems were operating properly. Repairs were completed as soon as possible, with subcontractors providing assistance when necessary.

# References

# REFERENCES

Blasland, Bouck & Lee, Inc., Sampling and Analysis Plan/Data Collection and Analysis Quality Assurance Plan (Syracuse, NY: May 1994).

Blasland, Bouck & Lee, Inc., Occurrence of Oil at East Street Area 2/USEPA Area 4 - Fall 1994 (Syracuse, NY: February 1995).

Blasland, Bouck & Lee, Inc., MCP Supplemental Phase II Scope of Work and Proposal for RCRA Facility Investigation East Street Area 2/USEPA Area 4 (Syracuse, NY: August 1994).

# Tables

TABLE 1

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF WATER TABLE AND OIL THICKNESS DATA - FALL 1995

| WELL ID | MEASURING POINT ELEVATION (feet above mean sea level) | DEPTH TO WATER (feet) | DEPTH TO OIL (feet) | OIL THICKNESS (feet) | FALL 1995 CORRECTED WATER TABLE ELEVATION (feet above mea sea level) | FALL 1994 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | CHANGE IN WATER TABLE ELEVATION (feet) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| NORTH OF RAILROAD TRACKS | | | | | | | | |
| 1 | 1023.22 | ---- | ---- | ---- | ---- | ---- | ---- | Cover could not be removed |
| 2 | 1015.56 | 10.43 | ---- | ---- | 1005.13 | 1003.89 | 1.24 | Well cap is missing |
| 4 | 1010.15 | ---- | ---- | ---- | ---- | ---- | ---- | Well was not found |
| 5 | 1009.23 | 24.82 | ---- | ---- | 984.41 | 984.54 | -0.13 | Well cap is missing |
| 6 | 1010.83 | 33.34 | ---- | ---- | 977.49 | 978.24 | -0.75 | |
| 9 | 1011.01 | 29.63 | ---- | ---- | 981.38 | 982.41 | -1.03 | |
| 11 | 1010.85 | 35.01 | 34.71 | 0.30 | 976.12 | 977.68 | -1.56 | Well cap is missing |
| 13* | 1019.50 | 13.53 | ---- | ---- | 1005.97 | 1004.93 | 1.04 | |
| 14 | 1010.53 | 29.77 | 24.57 | 5.20 | 985.60 | 985.22 | 0.38 | |
| 16 | 1010.65 | 36.02 | 34.52 | 1.50 | 976.03 | 977.35 | -1.33 | |
| 17 | 1010.49 | 34.65 | 34.59 | 0.06 | 975.90 | 977.45 | -1.55 | |
| 19 | 1010.68 | 35.03 | 34.43 | 0.60 | 976.21 | 977.73 | -1.52 | Well cap is missing |
| 20 | 1010.66 | 31.27 | ---- | ---- | 979.39 | 980.14 | -0.75 | |
| 21 | 1010.81 | 31.89 | ---- | ---- | 978.92 | 979.11 | -0.19 | |
| 22 | 1010.64 | 34.66 | ---- | ---- | 975.98 | 977.33 | -1.35 | |
| 23 | 1011.13 | 36.69 | 35.93 | 0.76 | 975.15 | 977.71 | -2.56 | |
| 24 | 1010.50 | 34.27 | 34.20 | 0.07 | 976.30 | 978.07 | -1.77 | |
| 27 | 1010.40 | 26.82 | ---- | ---- | 983.58 | 984.95 | -1.37 | Curb box and well cover missing |
| 31 | 1012.08 | 13.07 | ---- | ---- | 999.01 | 998.16 | 0.85 | Substitute for Well # C2 - Curb box cover missing |
| C2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | Obstructed - filled with sand |

TABLE 1

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF WATER TABLE AND OIL THICKNESS DATA - FALL 1995

| WELL ID | MEASURING POINT ELEVATION (feet above mean sea level) | DEPTH TO WATER (feet) | DEPTH TO OIL (feet) | OIL THICKNESS (feet) | FALL 1995 CORRECTED WATER TABLE ELEVATION (feet above mea sea level) | FALL 1994 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | CHANGE IN WATER TABLE ELEVATION (feet) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| FORMER TANK FARM AREA | | | | | | | | |
| I | 997.79 | --- | --- | --- | --- | --- | --- | Well is paved over |
| J | 997.64 | 22.45 | 22.10 | 0.35 | 975.52 | 976.33 | -0.81 | |
| K | 995.82 | 22.70 | 20.21 | 2.49 | 975.44 | 976.63 | -1.19 | |
| M | 993.14 | --- | --- | --- | --- | 975.81 | --- | Curb box and PVC pipe bent - well obstructed at 7.44' |
| R | 1002.88 | 27.53 | 27.46 | 0.07 | 975.42 | 976.26 | -0.84 | |
| U | 998.89 | 23.85 | 23.73 | 0.12 | 975.15 | 976.09 | -0.94 | Well casing filled with sediment |
| Y | 1002.86 | 27.51 | --- | --- | 975.35 | 976.36 | -1.01 | |
| CC | 998.84 | 23.00 | 22.98 | 0.02 | 975.86 | 977.25 | -1.39 | |
| EE | 1004.27 | 26.88 | --- | --- | 977.39 | 977.97 | -0.58 | |
| FF | 1005.70 | 26.40 | --- | --- | 979.30 | 979.54 | -0.24 | |
| GG | 1007.40 | 26.52 | 26.35 | 0.17 | 981.04 | 980.99 | 0.05 | |
| HH | 1006.93 | --- | --- | --- | --- | 977.18 | --- | Well cap is missing - well found to be dry at 30.84' |
| II | 1007.26 | 31.33 | --- | --- | 975.93 | 977.12 | -1.19 | |
| JJ | 1006.38 | 30.68 | --- | --- | 975.70 | 976.85 | -1.15 | |
| KK | 1006.61 | 31.01 | --- | --- | 975.60 | 976.67 | -1.07 | No well casing |
| LL | 996.25 | 15.80 | --- | --- | 980.45 | 981.05 | -0.60 | |
| MM | 994.00 | 13.96 | --- | --- | 980.04 | 980.04 | 0.00 | Well cap is missing |
| NN | 994.27 | 18.29 | 18.22 | 0.07 | 976.05 | 976.49 | -0.44 | Well casing is broken - filled with sediment |
| OO | 995.65 | 19.60 | --- | --- | 976.05 | 976.71 | -0.66 | Well cap is missing |
| PP | 995.77 | 20.27 | 19.97 | 0.30 | 975.78 | 976.68 | -0.90 | |
| QQ | 996.16 | 22.50 | 20.40 | 2.10 | 975.61 | 976.70 | -1.09 | |
| UU-R | 998.60 | 20.32 | --- | --- | 978.28 | 974.38 | 3.90 | |
| N-R | 1008.24 | 32.86 | 32.70 | 0.16 | 975.53 | 976.65 | -1.12 | |
| O-R | 1000.42 | 19.14 | --- | --- | 981.28 | 983.05 | -1.77 | well casing is filled with sediment |

TABLE 1

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF WATER TABLE AND OIL THICKNESS DATA - FALL 1995

| WELL ID | MEASURING POINT ELEVATION (feet above mean sea level) | DEPTH TO WATER (feet) | DEPTH TO OIL (feet) | OIL THICKNESS (feet) | FALL 1995 CORRECTED WATER TABLE ELEVATION (feet above mea sea level) | FALL 1994 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | CHANGE IN WATER TABLE ELEVATION (feet) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| SOUTH OF EAST STREET | | | | | | | | |
| 1R | 992.72 | 13.16 | --- | --- | 979.56 | 974.49 | 5.07 | |
| 2 | 994.09 | 22.21 | 20.41 | 1.80 | 973.55 | 973.97 | -0.42 | Well cap is missing |
| 5A | 994.05 | 21.14 | --- | --- | 972.91 | 973.22 | -0.31 | |
| 6 | 991.18 | 16.95 | --- | --- | 974.23 | 973.90 | 0.33 | |
| 8 | 985.35 | 11.90 | 11.65 | 0.25 | 973.68 | 973.37 | 0.31 | |
| 9R | 986.88 | 13.15 | --- | --- | 973.73 | 972.86 | 0.87 | |
| 10 | 987.95 | 14.57 | --- | --- | 973.38 | --- | --- | Well cap is missing |
| 11R | 988.86 | 14.67 | --- | --- | 974.19 | 972.53 | 1.66 | |
| 12 | 990.37 | --- | --- | --- | --- | --- | --- | Obstructed - filled with sand |
| 13 | 990.88 | 17.84 | 17.43 | 0.41 | 973.42 | 972.42 | 1.00 | Steel plug used for well cap |
| 14 | 991.61 | 18.92 | 18.11 | 0.81 | 973.44 | 972.82 | 0.62 | PVC cap connection loose |
| 15R | 989.23 | 16.20 | 15.56 | 0.64 | 973.63 | 972.57 | 1.06 | |
| 16R | 987.10 | 11.70 | --- | --- | 975.40 | 974.22 | 1.18 | Curb box is missing |
| 17R | 984.89 | 11.20 | --- | --- | 973.69 | 972.70 | 0.99 | PVC riser and cap are broken |
| 18 | 983.33 | --- | --- | --- | --- | --- | --- | Well was not found |
| 19 | 983.59 | 10.10 | --- | --- | 973.49 | 971.78 | 1.71 | Steel plug used for well cap |
| 21 | 983.82 | 10.24 | --- | --- | 973.58 | 972.16 | 1.42 | |
| 22 | 994.69 | 19.87 | 19.74 | 0.13 | 974.94 | 975.36 | -0.42 | |
| 25 | 992.48 | 18.35 | --- | --- | 974.13 | 975.90 | -1.77 | |
| 26 | 993.59 | 14.56 | --- | --- | 979.03 | 979.62 | -0.59 | |
| 27 | 993.80 | 15.98 | --- | --- | 977.82 | 978.91 | -1.09 | Well cap is missing |
| 28 | 991.86 | 19.92 | 19.77 | 0.15 | 972.08 | 974.80 | -2.72 | |
| 29 | 991.59 | 19.87 | 19.12 | 0.75 | 972.42 | 972.14 | 0.28 | |
| 30 | 989.34 | --- | --- | --- | --- | --- | --- | Well was not found |

TABLE 1

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF WATER TABLE AND OIL THICKNESS DATA - FALL 1995

| WELL ID | MEASURING POINT ELEVATION (feet above mean sea level) | DEPTH TO WATER (feet) | DEPTH TO OIL (feet) | OIL THICKNESS (feet) | FALL 1995 CORRECTED WATER TABLE ELEVATION (feet above mea sea level) | FALL 1994 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | CHANGE IN WATER TABLE ELEVATION (feet) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| SOUTH OF EAST STREET | | | | | | | | |
| 31 | 990.60 | 14.97 | --- | --- | 975.63 | 975.24 | 0.39 | |
| 32 | 990.81 | 12.56 | --- | --- | 978.25 | 976.92 | 1.33 | Well cap is missing |
| 34 | 982.54 | 8.71 | --- | --- | 973.83 | 973.53 | 0.30 | |
| 35 | 982.81 | 9.22 | --- | --- | 973.59 | 973.55 | 0.04 | |
| 36 | 983.02 | 8.98 | --- | --- | 974.04 | 973.11 | 0.93 | |
| 37 | 980.37 | 6.39 | --- | --- | 973.98 | 973.30 | 0.68 | |
| 38 | 980.77 | 5.57 | --- | --- | 975.20 | 974.05 | 1.15 | |
| 39 | 983.89 | 9.17 | --- | --- | 974.72 | 974.45 | 0.27 | |
| 40R | 991.60 | --- | --- | --- | --- | --- | --- | Autoskimmer in well - no measurements obtained |
| 42 | 988.33 | 13.93 | --- | --- | 974.40 | 973.40 | 1.00 | |
| 43 | 989.67 | 14.96 | --- | --- | 974.71 | 973.80 | 0.91 | |
| 44 | 988.33 | 13.89 | --- | --- | 974.44 | 973.90 | 0.54 | Well cap is missing |
| 48 | 992.39 | 22.00 | 19.50 | 2.50 | 972.72 | 971.99 | 0.73 | |
| 49R | 988.71 | 15.58 | --- | --- | 973.13 | 972.14 | 0.99 | |
| 49RR | 989.80 | 17.20 | --- | --- | 972.60 | 972.06 | 0.54 | Well cap is missing |
| 50 | 985.79 | 11.59 | --- | --- | 974.20 | 974.10 | 0.10 | Rubber plug used for well cap |
| 51 | 985.38 | 11.70 | --- | --- | 973.68 | 972.57 | 1.11 | Steel lockable cap - no lock |
| 52 | 985.18 | 11.57 | --- | --- | 973.61 | 972.29 | 1.32 | Steel lockable cap - no lock |
| 53 | 986.90 | 13.25 | --- | --- | 973.65 | 971.99 | 1.66 | |
| 54 | 985.78 | 12.59 | --- | --- | 973.19 | 971.56 | 1.63 | |
| 55 | 989.45 | 17.50 | 16.30 | 1.20 | 973.07 | 971.90 | 1.17 | |
| 56 | 987.28 | 17.08 | 16.60 | 0.48 | 970.65 | 970.02 | 0.63 | |
| 57 | 989.80 | 15.60 | 14.92 | 0.68 | 974.83 | 974.89 | -0.06 | Well cap is missing |
| 58 | 985.79 | 12.61 | --- | --- | 973.18 | 971.75 | 1.43 | |

TABLE 1

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF WATER TABLE AND OIL THICKNESS DATA - FALL 1995

| WELL ID | MEASURING POINT ELEVATION (feet above mean sea level) | DEPTH TO WATER (feet) | DEPTH TO OIL (feet) | OIL THICKNESS (feet) | FALL 1995 CORRECTED WATER TABLE ELEVATION (feet above mea sea level) | FALL 1994 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | CHANGE IN WATER TABLE ELEVATION (feet) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| SOUTH OF EAST STREET | | | | | | | | |
| 59 | 986.32 | 15.46 | ----- | ----- | 970.86 | 970.03 | 0.83 | |
| 60 | 996.15 | 23.06 | ----- | ----- | 973.09 | 973.47 | -0.38 | |
| 61 | 992.31 | 19.65 | ----- | ----- | 972.66 | 972.57 | 0.09 | |
| 62 | 979.11 | 5.35 | ----- | ----- | 973.76 | 971.82 | 1.94 | |
| 63 | 986.48 | 12.81 | ----- | ----- | 973.67 | 971.46 | 2.21 | |
| 64 | 985.00 | 11.09 | ----- | ----- | 973.91 | 971.82 | 2.09 | |
| 65 | 992.50 | 15.68 | ----- | ----- | 976.82 | 976.34 | 0.48 | |
| 66 | 990.70 | 17.75 | ----- | ----- | 972.95 | 972.30 | 0.65 | |
| P1 | 988.75 | ----- | ----- | ----- | ----- | ----- | ----- | Well casing and cement is loose - well found to be dry at 12.15' |
| P2 | 988.22 | ----- | ----- | ----- | ----- | 988.22 | ----- | Well cap is missing - well found to be dry at 13.63' |
| P3* | 989.25 | 5.29 | 5.27 | 0.02 | 983.98 | 984.10 | -0.12 | |
| P3D | 988.54 | 12.98 | ----- | ----- | 975.56 | 976.10 | -0.54 | |
| P4 | 987.16 | 4.45 | 4.42 | 0.03 | 982.74 | 982.89 | -0.15 | Sand drain has mostly eroded |
| P5 | 985.64 | 5.22 | ----- | ----- | 980.42 | 982.10 | -1.68 | Well cap is missing |
| P6 | 985.71 | 9.47 | ----- | ----- | 976.24 | 975.89 | 0.35 | |
| P7 | 989.10 | ----- | ----- | ----- | ----- | ----- | ----- | Well found to be dry at 13.93' |
| ES2-2A | 979.54 | 4.95 | ----- | ----- | 974.59 | 971.73 | 2.86 | |
| ES2-4 | 983.84 | 9.75 | ----- | ----- | 974.09 | 972.15 | 1.94 | |
| ES2-5 | 990.65 | 16.73 | ----- | ----- | 973.92 | 972.76 | 1.16 | |
| ES2-8 | 994.87 | 21.45 | ----- | ----- | 973.42 | 972.47 | 0.95 | |
| ES2-9 | 991.33 | 14.17 | ----- | ----- | 977.16 | 977.29 | -0.13 | |
| ES2-10 | 991.60 | 14.84 | ----- | ----- | 976.76 | 976.42 | 0.34 | |
| ES2-11 | 985.05 | 11.82 | ----- | ----- | 973.23 | 972.83 | 0.40 | |
| ES2-12 | 984.41 | 10.50 | ----- | ----- | 973.91 | 972.03 | 1.88 | Curb box was found filled with sediment |

TABLE 1

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF WATER TABLE AND OIL THICKNESS DATA - FALL 1995

| WELL ID | MEASURING POINT ELEVATION (feet above mean sea level) | DEPTH TO WATER (feet) | DEPTH TO OIL (feet) | OIL THICKNESS (feet) | FALL 1995 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | FALL 1994 CORRECTED WATER TABLE ELEVATION (feet above mean sea level) | CHANGE IN WATER TABLE ELEVATION (feet) | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| RECOVERY CAISSONS | | | | | | | | |
| 64R | 993.37 | 16.35 | — | — | 977.02 | 977.20 | -0.18 | |
| 64S | 984.48 | 11.79 | 11.59 | 0.20 | 972.88 | 972.82 | 0.06 | |
| 64S2 | — | 7.25 | — | — | — | — | — | |
| 64V | 987.29 | 23.16 | 23.01 | 0.15 | 964.27 | 964.95 | -0.68 | Scavenger pump in operation when monitored |
| 64X (N) | 984.83 | 11.25 | 11.23 | 0.02 | 973.60 | 971.52 | 2.08 | |
| 64X (S) | 981.56 | 8.40 | 8.38 | 0.02 | 973.18 | 971.27 | 1.91 | |
| 64X (W) | 984.87 | 11.78 | 11.70 | 0.08 | 973.16 | 971.26 | 1.90 | |
| C60 | 979.62 | 2.78 | — | — | 972.93 | 972.93 | -1.15 | |
| EASTERN | — | 20.81 | — | — | — | — | — | |

NOTES:

1. All wells were bailed by Blasland, Bouck & Lee, Inc., during October 16 through 18, 1995.

2. Measuring point elevations developed by Geraghty & Miller, Inc., Albany, New York as part of previous monitoring events.

3. 1995 water table and oil thickness measurements were obtained by Blasland, Bouck & Lee, Inc. on October 23 through 26, 1995.

4. 1995 water table elevations for wells containing oil were computed as follows:
   Corrected Water Table Elevation = Measuring Point Elevation - Depth to Water + (Oil Thickness x Specific Density of Oil). Specific density of oil estimated at 0.93.

5. Fall 1994 corrected water table elevations were measured by Blasland, Bouck & Lee, Inc., during October 1994.
   The values have been adjusted to account for oil presence as indicated above.

6. * = Water table elevation was greater than the top of the well screen elevation.

TABLE 2

EAST STREET AREA 2/USEPA AREA 4

SUMMARY OF ACTIVE OIL AND GROUNDWATER RECOVERY VOLUMES (GALLONS) - JULY 1995 TO DECEMBER 1995

| MONTH (1995) | 64S | | 64V | | 64R | | RW-1(X) | | RW-2(X) | | 64X | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OIL | WATER | OIL | WATER | OIL | WATER | OIL | WATER | OIL | WATER | OIL | WATER |
| July 1995 | 0 | 142,000 | 1,790 | 985,800 | 0 | Pump Off | 107* | 1,639,500 | 0 | 326,800 | 107* | 806,400 |
| August 1995 | 240 | 64,600 | 2,588 | 1,161,400 | 0 | 44,700 | 466* | 2,234,800 | 0 | 360,600 | 466* | 1,008,000 |
| September 1995 | 0 | 1,000 | 2,973 | 893,200 | 0 | 10,000 | 191* | 1,767,300 | 0 | 484,600 | 191* | 577,600 |
| October 1995 | 743 | 119,200 | 1,733 | 989,300 | 0 | 80,800 | 417* | 1,836,900 | 0 | 304,400 | 417* | 835,200 |
| November 1995 | 780 | 668,900 | 1,799 | 1,429,300 | 0 | 106,200 | 0* | 2,185,900 | 0 | 459,500 | 0* | 979,200 |
| December 1995 | 500 | 335,000 | 531 | 1,115,100 | 0 | 65,900 | 60* | 1,669,000 | 0 | 196,900 | 60* | 806,400 |
| Subtotals: | 2,263 | 1,330,700 | 11,414 | 6,574,100 | 0 | 307,600 | 1,241* | 11,333,400 | 0 | 2,132,800 | 1,241* | 5,012,800 |
| Totals for July 1995 to December 1995: 36,276** Gallons of Oil; 26,691,400 Gallons of Water | | | | | | | | | | | | |

NOTES:

1. Data were compiled by GE.
2. E - Estimated water volume based on 10 gpm.
3. * - Oil collection is combination of RW-1(X) and 64X systems.
4. ** - Total volume of oil collected includes an additional 21,358 gallons of oil collected from well 40R as part of additional oil recovery operations.



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TABLE 3

EAST STREET AREA 2/USEPA AREA 4

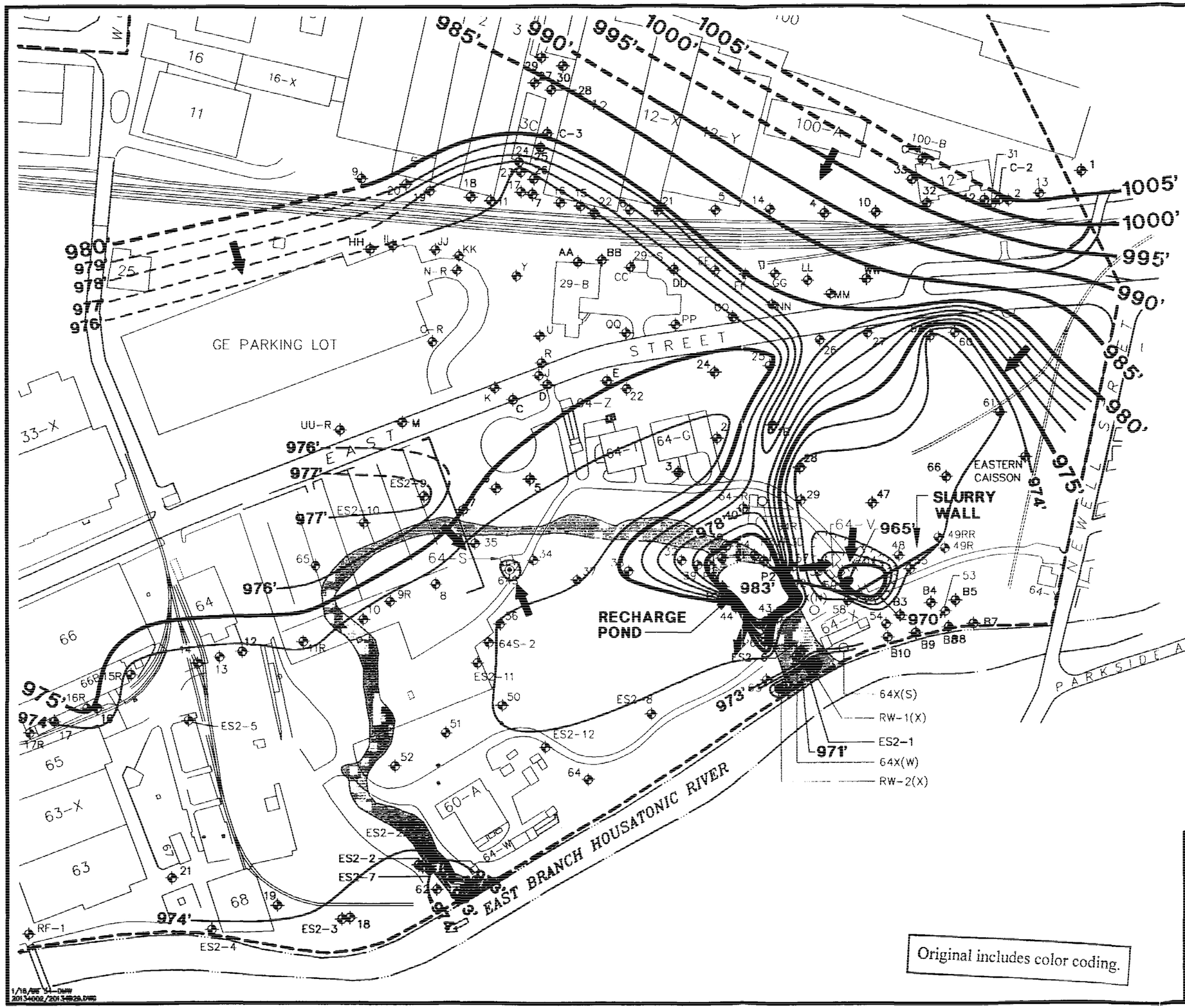
SUMMARY OF DOWNTIME (PERCENT) FOR ACTIVE OIL RECOVERY SYSTEMS - JULY 1995 TO DECEMBER 1995

| MONTH (1995) | 64S | 64R | 64V | 64X | RW-1(X) | RW-2(X) |
|---|---|---|---|---|---|---|
| July 1995 | 1.7 | 100 | 1.7 | 0.3 | 0.3 | 0 |
| August 1995 | 0 | 0 | 0 | 0 | 0 | 0 |
| September 1995 | 0 | 0 | 0 | 0 | 0 | 0 |
| October 1995 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 1.5 |
| November 1995 | 5.3 | 0 | 0 | 0 | 0 | 0 |
| December 1995 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Average Downtime: | 1.3 | 16.8 | 0.4 | 0.2 | 0.2 | 0.4 |

NOTES:

1. Data were compiled by GE.
2. Downtime defined as time at which system was inoperative due to equipment failure, alarm conditions, or power failure.

# Figures




LEGEND:

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE DELINEATION OF FORMER RIVER CHANNEL
- 12 OR 25 — MONITORING WELL
- 64X — OIL RECOVERY CAISSON
- RW-1(X) — PUMPING WELL
- 980' — GROUNDWATER ELEVATION CONTOUR (5 FT INTERVAL), DASHED WHERE INFERRED
- GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL), DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION

0 200' 400'

APPROXIMATE SCALE: 1" = 200'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY, AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARY IS APPROXIMATE.
4. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.
5. ALL MONITORING WELLS AND CAISSONS INCLUDED IN THIS MONITORING EVENT ARE INDICATED IN GREEN.
6. ILLUSTRATED GROUNDWATER CONTOURS REPRESENT WATER TABLE ELEVATIONS WHICH HAVE BEEN CORRECTED FOR OIL PRESENCE, AS APPROPRIATE.
7. SOME GROUNDWATER CONTOURS AROUND RECHARGE POND NOT SHOWN FOR CLARITY.

Original includes color coding.

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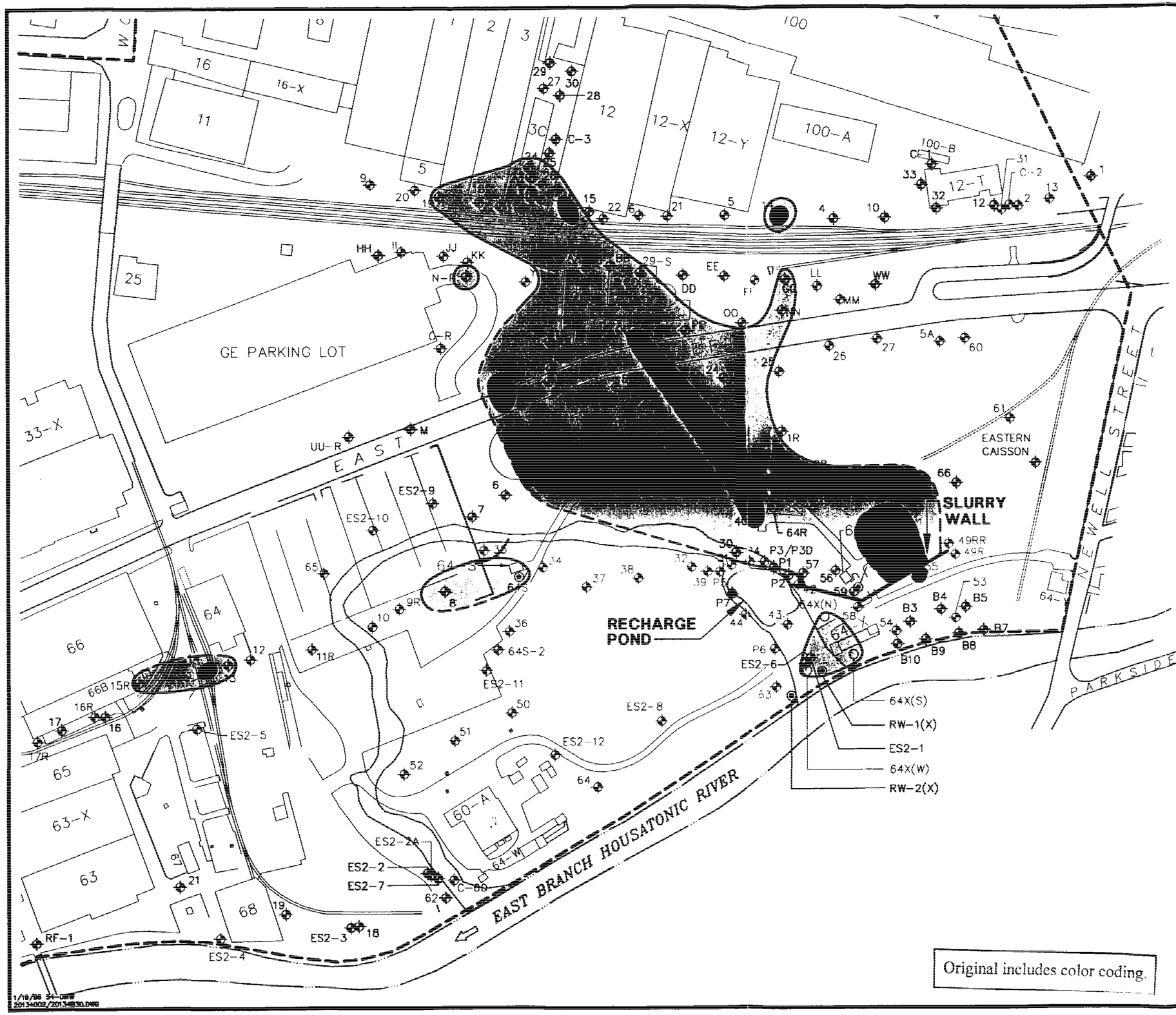
*ENGINEERS & SCIENTISTS*

GENERAL ELECTRIC COMPANY
PITTSFIELD MASSACHUSETTS

**MCP EAST STREET AREA 2/USEPA AREA 4**

**GROUNDWATER ELEVATION CONTOUR MAP OCTOBER 1995**

FIGURE 1




LEGEND:

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE DELINEATION OF FORMER RIVER CHANNEL
- 12 OR 25 — MONITORING WELL
- 64X — OIL RECOVERY CAISSON
- RW-1(X) — PUMPING WELL
- 0.01 – 0.8' OIL THICKNESS
- > 0.8' OIL THICKNESS

0 200' 400'

APPROXIMATE SCALE: 1" = 200'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY, AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARY IS APPROXIMATE.
4. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.
5. ALL MONITORING WELLS AND CAISSONS INCLUDED IN THIS MONITORING EVENT ARE INDICATED IN GREEN.
6. THE BOUNDARIES OF THE OIL PLUME ARE BASED ON GENERALIZED REVIEW OF THE CURRENT DATA AND PRIOR OIL MONITORING REPORT CONCLUSIONS. ILLUSTRATION OF THE EXTENT OF OIL PRESENT BETWEEN MONITORING POINTS IS NECESSARILY APPROXIMATE.
7. APPARENT OIL THICKNESS CONTOURS ARE DASHED WHERE INFERRED.

Original includes color coding.

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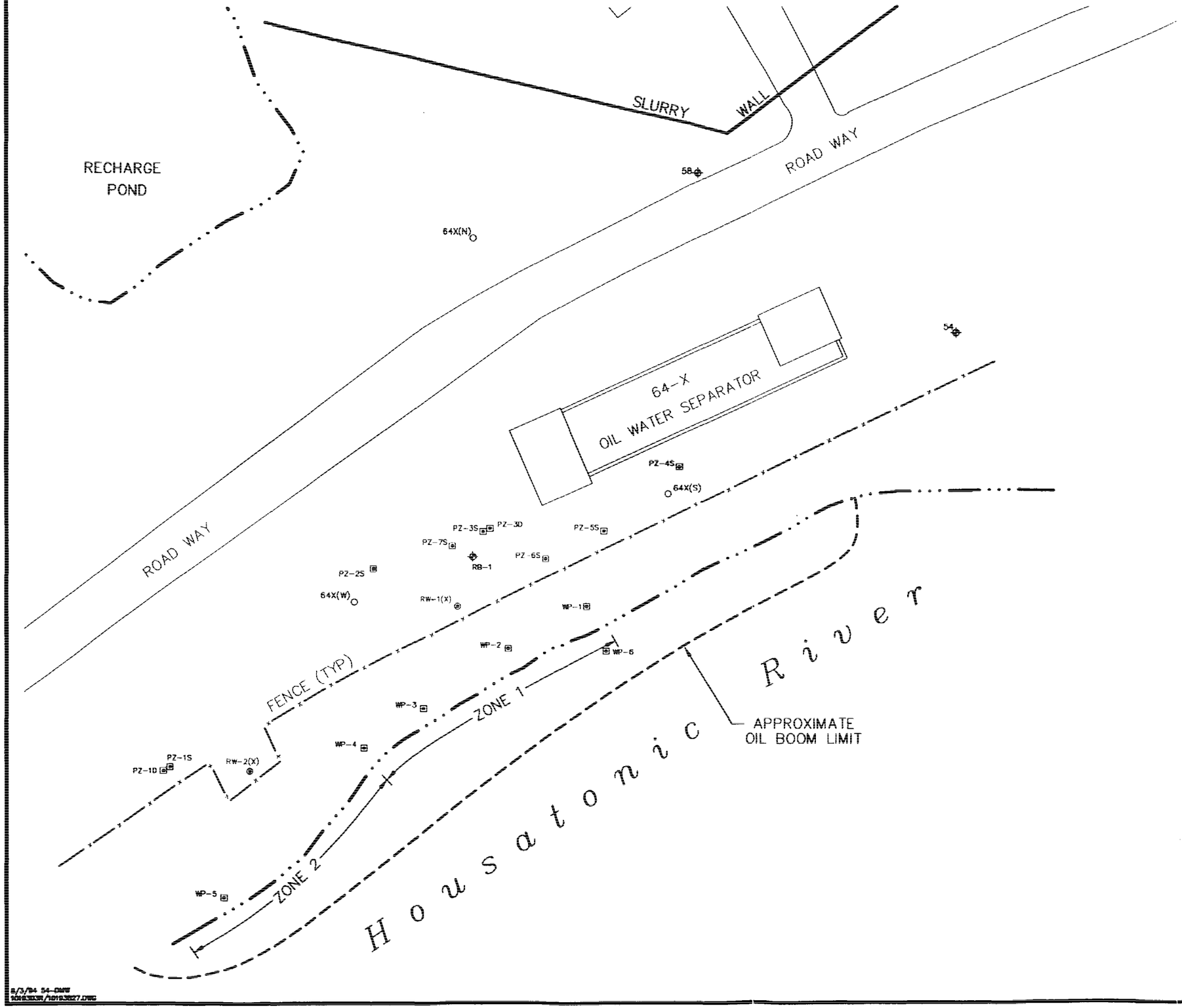
PITTSFIELD MASSACHUSETTS

**MCP EAST STREET AREA 2/USEPA AREA 4**

**OIL PLUME MAP**
**OCTOBER 1995**

FIGURE **2**

1/19/96 54-DWG
20134002/20134B30.DWG




LEGEND:

| | |
|---|---|
| PZ-15 ⊡ | PIEZOMETER |
| RW 1(X) ⊛ | PUMPING WELL |
| 64X ○ | OIL RECOVERY CAISSON |
| 25 ◈ | MONITORING WELL |

0 30' 60'

APPROXIMATE SCALE: 1" = 30'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY, AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

Original includes color coding.

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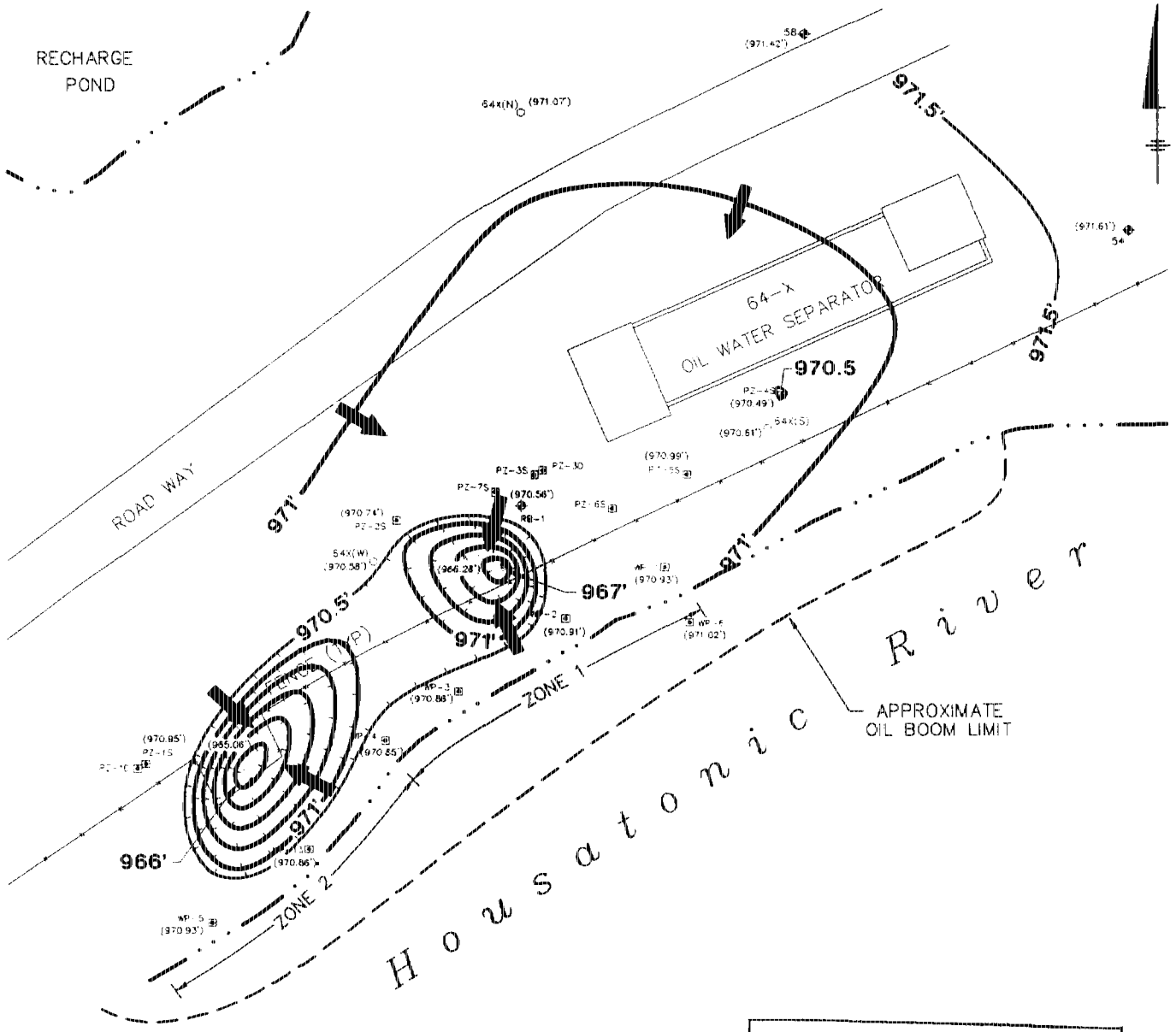
**MCP EAST STREET AREA 2/USEPA AREA 4**

**RIVERBANK AREA**

FIGURE **3**

8/3/94 54-DWG




Original includes color coding

LEGEND:

- PIEZOMETER
- PUMPING WELL
- OIL RECOVERY CAISSON
- MONITORING WELL
- GROUNDWATER ELEVATION
- 971' GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL)
- 971.5' GROUNDWATER ELEVATION CONTOUR (0.5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION

0 40' 80'

APPROXIMATE SCALE: 1" = 40'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

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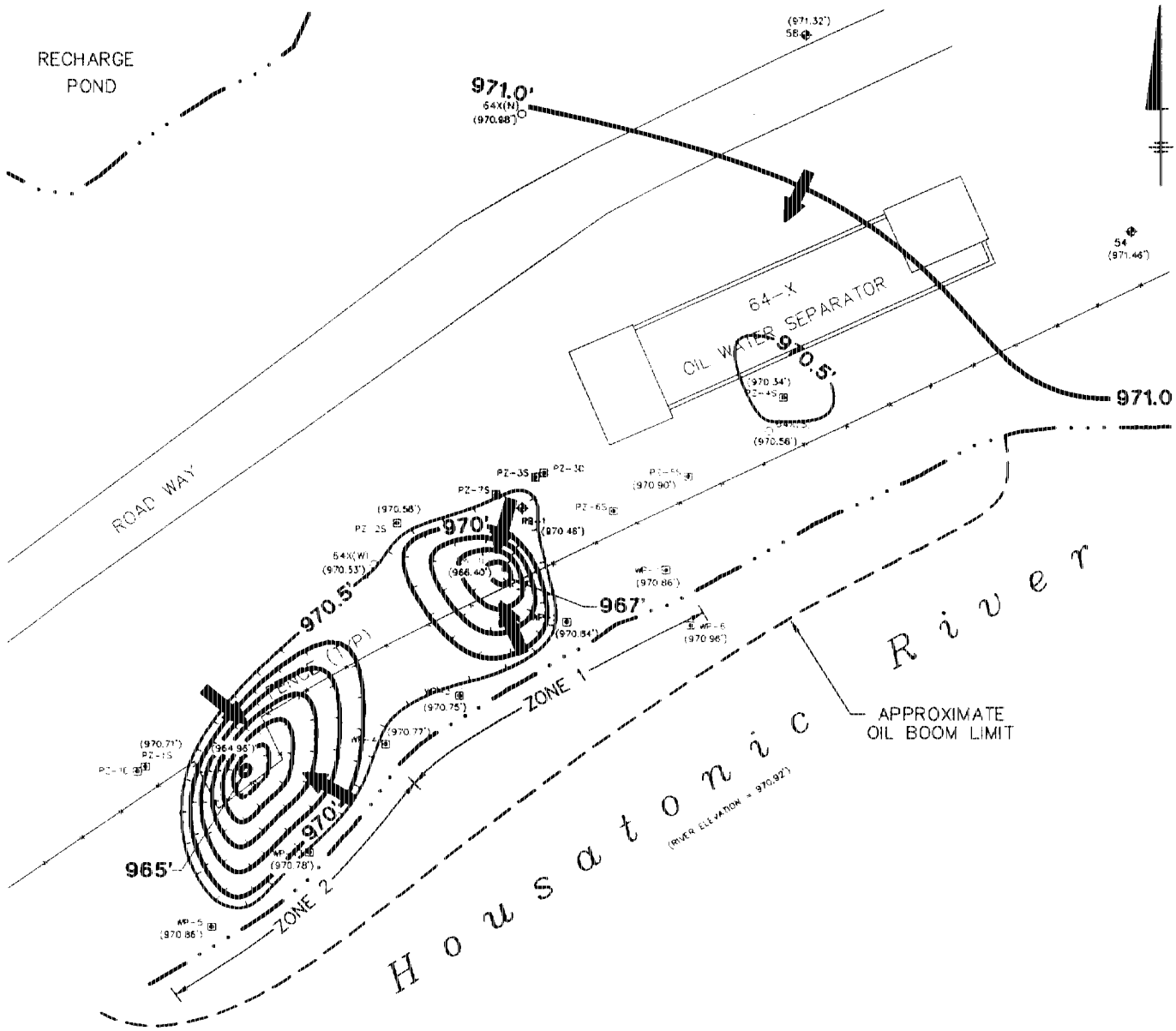
PITTSFIELD MASSACHUSETTS

MCP EAST STREET AREA 2/USEPA AREA 4

# RIVERBANK AREA GROUNDWATER ELEVATION CONTOUR MAP - 7/5,7/95

FIGURE 4

DJB05.PCP
1/18/96 54--DMW
20134002/20134B31.DWG




Original includes color coding

LEGEND:

- PIEZOMETER
- PUMPING WELL
- OIL RECOVERY CAISSON
- MONITORING WELL
- (971.32') GROUNDWATER ELEVATION
- 971' GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL)
- 970.5' GROUNDWATER ELEVATION CONTOUR (0.5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION

0 40' 80'

APPROXIMATE SCALE: 1" = 40'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

DJB05.PCP
1/18/96 54-DMW
20134002/20134B32.DWG

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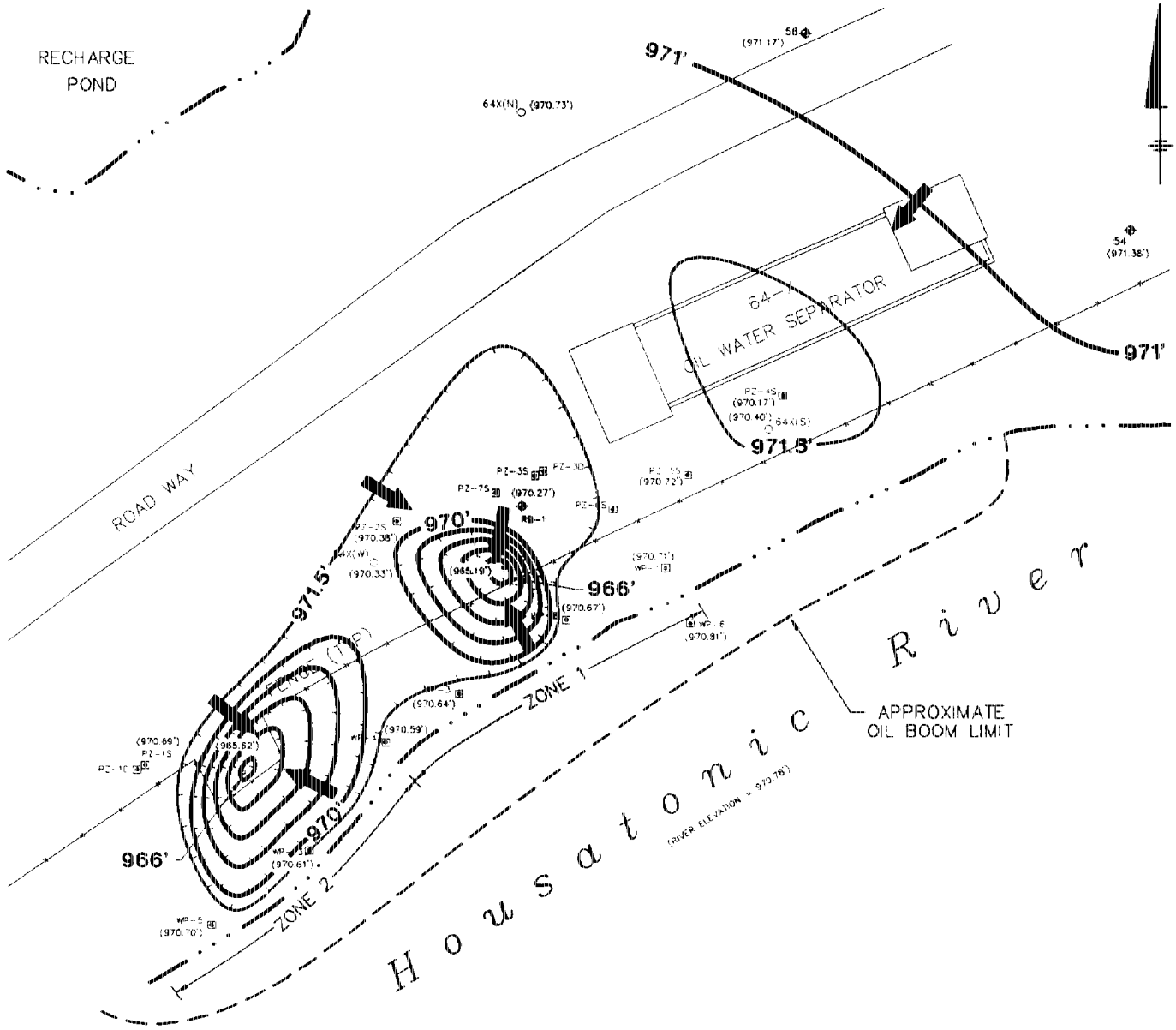
MCP EAST STREET AREA 2/USEPA AREA 4

**RIVERBANK AREA GROUNDWATER ELEVATION CONTOUR MAP - 8/2,3/95**

FIGURE **5**




LEGEND:

- PIEZOMETER
- PUMPING WELL
- OIL RECOVERY CAISSON
- MONITORING WELL
- (971.38') GROUNDWATER ELEVATION
- 971' GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL)
- 970.5' GROUNDWATER ELEVATION CONTOUR (0.5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION

0 40' 80'

APPROXIMATE SCALE: 1" = 40'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

Original includes color coding.

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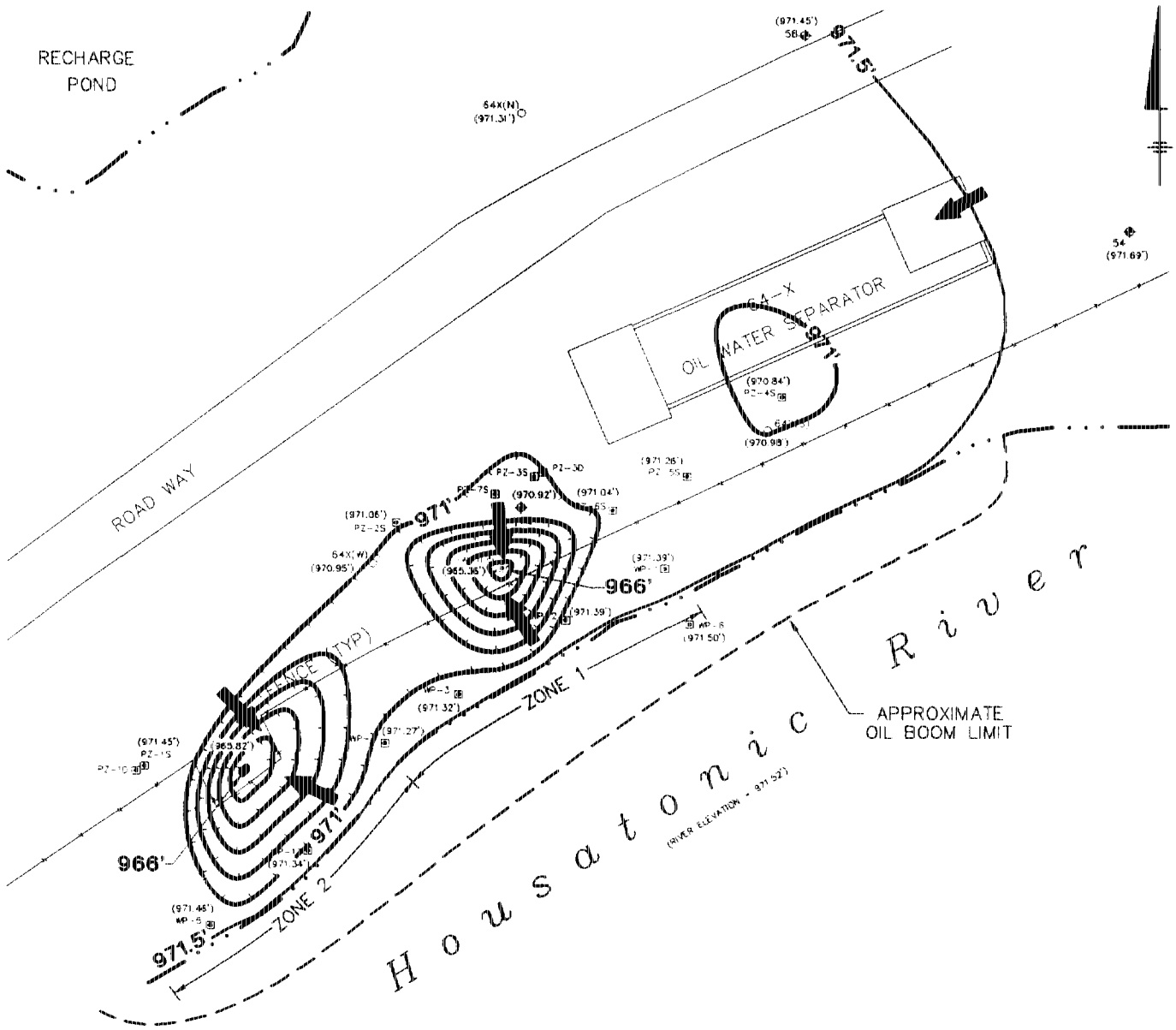
MCP EAST STREET AREA 2/USEPA AREA 4

# RIVERBANK AREA GROUNDWATER ELEVATION CONTOUR MAP - 9/7/95

FIGURE 6

DJB05.PCP
1/18/96 54--DMW
20134002/20134B33.DWG




LEGEND:

- PIEZOMETER
- PUMPING WELL
- OIL RECOVERY CAISSON
- MONITORING WELL
- (971.45') GROUNDWATER ELEVATION
- 971' GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL)
- 970.5' GROUNDWATER ELEVATION CONTOUR (0.5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION

0 40' 80'

APPROXIMATE SCALE: 1" = 40'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

Original includes color coding

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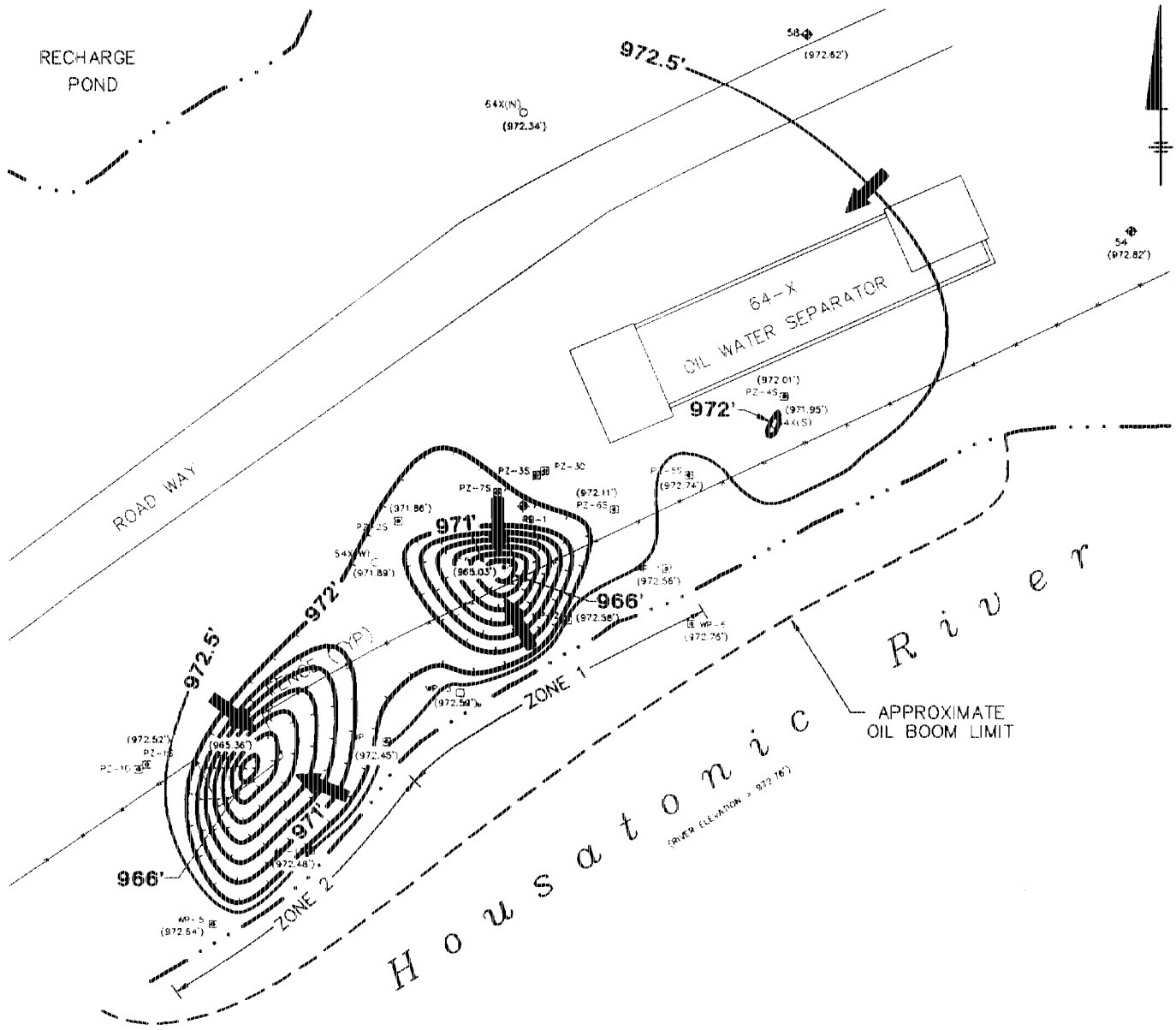
MCP EAST STREET AREA 2/USEPA AREA 4

# RIVERBANK AREA GROUNDWATER ELEVATION CONTOUR MAP - 10/5/95

FIGURE 7

DJB05.PCP
1/18/96 54-DMW
20134002/20134B34.DWG




LEGEND:

- PIEZOMETER
- PUMPING WELL
- OIL RECOVERY CAISSON
- MONITORING WELL
- (971.95') GROUNDWATER ELEVATION
- 972' GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL)
- 972.5' GROUNDWATER ELEVATION CONTOUR (0.5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION

0 40' 80'

APPROXIMATE SCALE: 1" = 40'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

Original includes color coding.

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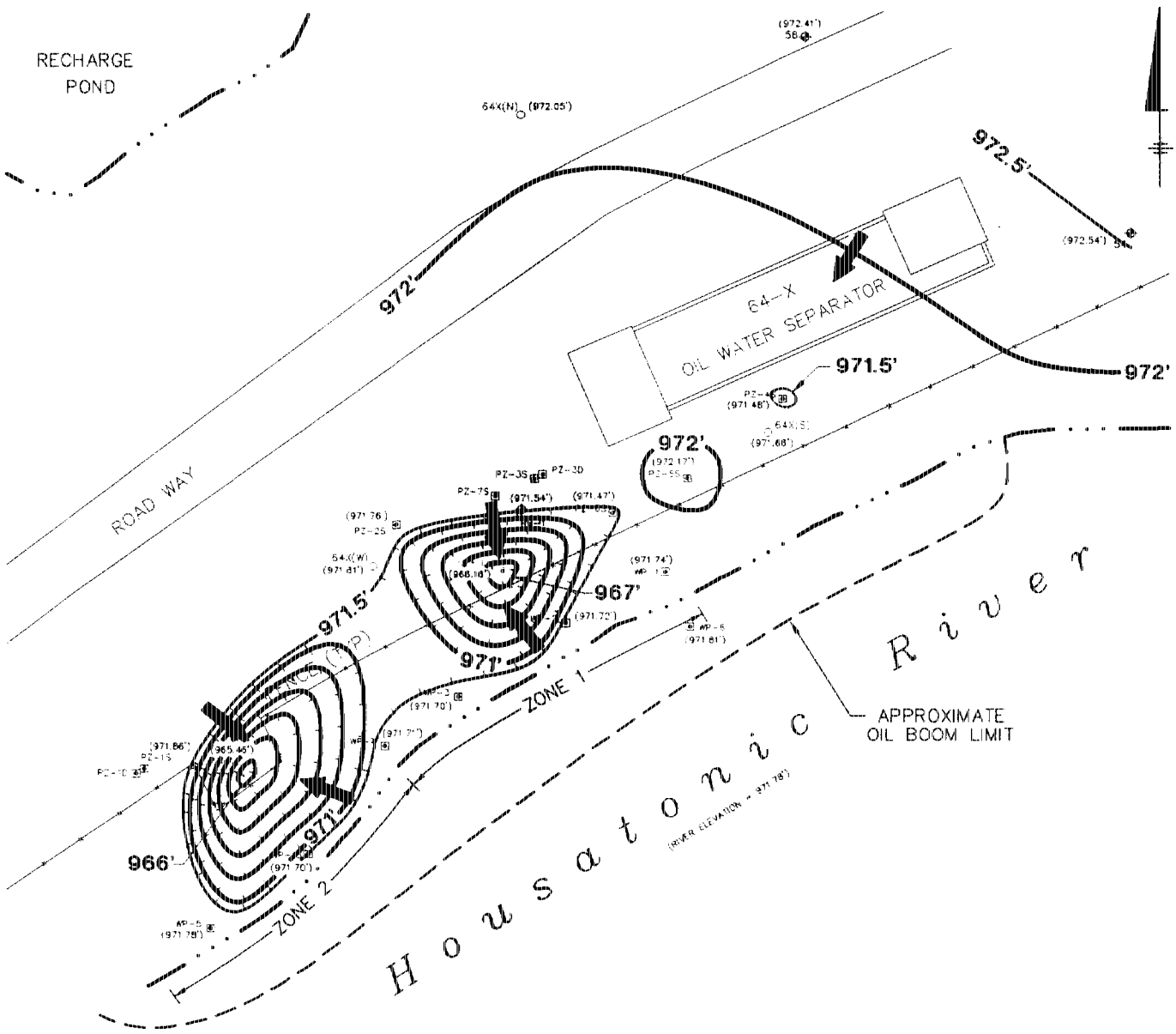
PITTSFIELD MASSACHUSETTS

MCP EAST STREET AREA 2/USEPA AREA 4

# RIVERBANK AREA GROUNDWATER ELEVATION CONTOUR MAP - 11/1,3/95

FIGURE 8

DJB05.PCP
1/18/96 54-DMW
20134002/20134B35.DWG




LEGEND:

- PIEZOMETER
- PUMPING WELL
- OIL RECOVERY CAISSON
- MONITORING WELL
- (971.76') GROUNDWATER ELEVATION
- 972' GROUNDWATER ELEVATION CONTOUR (1 FT INTERVAL)
- 971.5' GROUNDWATER ELEVATION CONTOUR (0.5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION

0 40' 80'

APPROXIMATE SCALE: 1" = 40'

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. ALL WELL/PIEZOMETER LOCATIONS ARE APPROXIMATE.

Original includes color coding.

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GENERAL ELECTRIC COMPANY
PITTSFIELD MASSACHUSETTS

MCP EAST STREET AREA 2/USEPA AREA 4

**RIVERBANK AREA GROUNDWATER ELEVATION CONTOUR MAP - 12/6,7/95**

FIGURE **9**

DJB05.PCP
1/18/96 54-DMW
20134002/20134B36.DWG

# Appendix A

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Wednesday, July 05, 1995 | 54 | 986.13 | 0.00 | 14.52 | 0.00 | 971.61 | 971.61 |
| Wednesday, July 05, 1995 | 58 | 985.79 | 14.36 | 14.48 | 0.12 | 971.31 | 971.42 |
| Wednesday, July 05, 1995 | 64X-N | 984.83 | 13.75 | 13.90 | 0.15 | 970.93 | 971.07 |
| Wednesday, July 05, 1995 | 64X-S | 981.55 | 10.93 | 11.03 | 0.10 | 970.52 | 970.61 |
| Wednesday, July 05, 1995 | 64X-W | 984.86 | 14.28 | 14.30 | 0.02 | 970.56 | 970.58 |
| Wednesday, July 05, 1995 | RW-1(x) | 982.68 | 0.00 | 16.42 | 0.00 | 966.26 | 966.26 |
| Wednesday, July 05, 1995 | RW-2(x) | 985.96 | 0.00 | 20.90 | 0.00 | 965.06 | 965.06 |
| Friday, July 07, 1995 | PZ-1S | 989.93 | 18.95 | 19.40 | 0.45 | 970.53 | 970.95 |
| Friday, July 07, 1995 | PZ-2S | 985.34 | 14.60 | 14.66 | 0.06 | 970.68 | 970.74 |
| Friday, July 07, 1995 | PZ-4S | 982.59 | 0.00 | 12.10 | 0.00 | 970.49 | 970.49 |
| Friday, July 07, 1995 | PZ-5S | 983.74 | 12.75 | 12.77 | 0.02 | 970.97 | 970.99 |
| Friday, July 07, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Friday, July 07, 1995 | RB-1 | 985.18 | 14.61 | 14.71 | 0.10 | 970.47 | 970.56 |
| Friday, July 07, 1995 | river | 974.85 | Gauge out of water | | | | |
| Friday, July 07, 1995 | WP-1 | 979.21 | 8.26 | 8.50 | 0.24 | 970.71 | 970.93 |
| Friday, July 07, 1995 | WP-13 | 979.20 | 8.34 | 8.35 | 0.01 | 970.85 | 970.86 |
| Friday, July 07, 1995 | WP-2 | 977.61 | 0.00 | 6.70 | 0.00 | 970.91 | 970.91 |
| Friday, July 07, 1995 | WP-3 | 976.77 | 5.90 | 6.10 | 0.20 | 970.67 | 970.86 |
| Friday, July 07, 1995 | WP-4 | 978.12 | 0.00 | 7.27 | 0.00 | 970.85 | 970.85 |
| Friday, July 07, 1995 | WP-5 | 977.21 | 0.00 | 6.28 | 0.00 | 970.93 | 970.93 |
| Friday, July 07, 1995 | WP-6 | 974.91 | 0.00 | 3.89 | 0.00 | 971.02 | 971.02 |
| Wednesday, July 12, 1995 | 54 | 986.13 | 0.00 | 14.33 | 0.00 | 971.80 | 971.80 |
| Wednesday, July 12, 1995 | 58 | 985.79 | 0.00 | 14.09 | 0.00 | 971.70 | 971.70 |
| Wednesday, July 12, 1995 | 64X-N | 984.83 | 13.45 | 13.70 | 0.25 | 971.13 | 971.38 |
| Wednesday, July 12, 1995 | 64X-S | 981.55 | 10.70 | 10.79 | 0.09 | 970.76 | 970.84 |
| Wednesday, July 12, 1995 | 64X-W | 984.86 | 14.04 | 14.05 | 0.01 | 970.81 | 970.82 |
| Wednesday, July 12, 1995 | RW-1(x) | 982.68 | 0.00 | 16.20 | 0.00 | 966.48 | 966.48 |
| Wednesday, July 12, 1995 | RW-2(x) | 985.96 | 0.00 | 20.80 | 0.00 | 965.16 | 965.16 |
| Thursday, July 13, 1995 | PZ-1S | 989.93 | 18.85 | 19.27 | 0.42 | 970.66 | 971.05 |
| Thursday, July 13, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, July 13, 1995 | river | 974.85 | | | | 971.04 | 971.04 |
| Thursday, July 13, 1995 | WP-1 | 979.21 | 8.20 | 8.39 | 0.19 | 970.82 | 971.00 |
| Thursday, July 13, 1995 | WP-13 | 979.20 | 8.26 | 8.27 | 0.01 | 970.93 | 970.94 |
| Thursday, July 13, 1995 | WP-2 | 977.61 | 0.00 | 6.65 | 0.00 | 970.96 | 970.96 |
| Thursday, July 13, 1995 | WP-3 | 976.77 | 5.89 | 6.10 | 0.21 | 970.67 | 970.87 |
| Thursday, July 13, 1995 | WP-4 | 978.12 | 0.00 | 7.20 | 0.00 | 970.92 | 970.92 |
| Thursday, July 13, 1995 | WP-5 | 977.21 | 0.00 | 6.19 | 0.00 | 971.02 | 971.02 |
| Thursday, July 13, 1995 | WP-6 | 974.91 | 0.00 | 3.83 | 0.00 | 971.08 | 971.08 |
| Wednesday, July 19, 1995 | 54 | 986.13 | 0.00 | 14.52 | 0.00 | 971.61 | 971.61 |
| Wednesday, July 19, 1995 | 58 | 985.79 | 14.36 | 14.56 | 0.20 | 971.23 | 971.42 |
| Wednesday, July 19, 1995 | 64X-N | 984.83 | 13.69 | 13.99 | 0.30 | 970.84 | 971.12 |
| Wednesday, July 19, 1995 | 64X-S | 981.55 | 10.83 | 10.93 | 0.10 | 970.62 | 970.71 |
| Wednesday, July 19, 1995 | 64X-W | 984.86 | 14.17 | 14.19 | 0.02 | 970.67 | 970.69 |
| Wednesday, July 19, 1995 | RW-1(x) | 982.68 | 0.00 | 16.50 | 0.00 | 966.18 | 966.18 |
| Wednesday, July 19, 1995 | RW-2(x) | 985.96 | 0.00 | 20.60 | 0.00 | 965.36 | 965.36 |
| Thursday, July 20, 1995 | PZ-1S | 989.93 | 18.98 | 19.44 | 0.46 | 970.49 | 970.92 |
| Thursday, July 20, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, July 20, 1995 | river | 974.85 | | | | 970.94 | 970.94 |
| Thursday, July 20, 1995 | WP-1 | 979.21 | 8.32 | 8.60 | 0.28 | 970.61 | 970.87 |
| Thursday, July 20, 1995 | WP-13 | 979.20 | 8.38 | 8.39 | 0.01 | 970.81 | 970.82 |
| Thursday, July 20, 1995 | WP-2 | 977.61 | 0.00 | 6.74 | 0.00 | 970.87 | 970.87 |
| Thursday, July 20, 1995 | WP-3 | 976.77 | 5.90 | 6.28 | 0.38 | 970.49 | 970.84 |
| Thursday, July 20, 1995 | WP-4 | 978.12 | 0.00 | 7.32 | 0.00 | 970.80 | 970.80 |
| Thursday, July 20, 1995 | WP-5 | 977.21 | 0.00 | 6.30 | 0.00 | 970.91 | 970.91 |
| Thursday, July 20, 1995 | WP-6 | 974.91 | 0.00 | 3.93 | 0.00 | 970.98 | 970.98 |
| Wednesday, July 26, 1995 | 54 | 986.13 | 0.00 | 14.52 | 0.00 | 971.61 | 971.61 |
| Wednesday, July 26, 1995 | 58 | 985.79 | 14.36 | 14.70 | 0.34 | 971.09 | 971.41 |
| Wednesday, July 26, 1995 | 64X-N | 984.83 | 13.68 | 14.02 | 0.34 | 970.81 | 971.13 |
| Wednesday, July 26, 1995 | 64X-S | 981.55 | 10.85 | 10.95 | 0.10 | 970.60 | 970.69 |
| Wednesday, July 26, 1995 | 64X-W | 984.86 | 14.22 | 14.25 | 0.03 | 970.61 | 970.64 |
| Wednesday, July 26, 1995 | RW-1(x) | 982.68 | 0.00 | 16.20 | 0.00 | 966.48 | 966.48 |
| Wednesday, July 26, 1995 | RW-2(x) | 985.96 | 0.00 | 20.90 | 0.00 | 965.06 | 965.06 |
| Thursday, July 27, 1995 | PZ-1S | 989.93 | 18.81 | 19.25 | 0.44 | 970.68 | 971.09 |
| Thursday, July 27, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, July 27, 1995 | river | 974.85 | | | | 971.12 | 971.12 |
| Thursday, July 27, 1995 | WP-1 | 979.21 | 8.14 | 8.19 | 0.05 | 971.02 | 971.07 |
| Thursday, July 27, 1995 | WP-13 | 979.20 | 8.20 | 8.22 | 0.02 | 970.98 | 971.00 |

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Thursday, July 27, 1995 | WP-2 | 977.61 | 0.00 | 6.58 | 0.00 | 971.03 | 971.03 |
| Thursday, July 27, 1995 | WP-3 | 976.77 | 5.78 | 5.87 | 0.09 | 970.90 | 970.98 |
| Thursday, July 27, 1995 | WP-4 | 978.12 | 0.00 | 7.15 | 0.00 | 970.97 | 970.97 |
| Thursday, July 27, 1995 | WP-5 | 977.21 | 0.00 | 6.13 | 0.00 | 971.08 | 971.08 |
| Thursday, July 27, 1995 | WP-6 | 974.91 | 0.00 | 3.76 | 0.00 | 971.15 | 971.15 |
| Wednesday, August 02, 1995 | 54 | 986.13 | 0.00 | 14.67 | 0.00 | 971.46 | 971.46 |
| Wednesday, August 02, 1995 | 58 | 985.79 | 14.44 | 14.82 | 0.38 | 970.97 | 971.32 |
| Wednesday, August 02, 1995 | 64X-N | 984.83 | 13.82 | 14.22 | 0.40 | 970.61 | 970.98 |
| Wednesday, August 02, 1995 | 64X-S | 981.55 | 10.98 | 11.08 | 0.10 | 970.47 | 970.56 |
| Wednesday, August 02, 1995 | 64X-W | 984.86 | 14.33 | 14.40 | 0.07 | 970.46 | 970.53 |
| Wednesday, August 02, 1995 | RW-1(x) | 982.68 | 0.00 | 16.28 | 0.00 | 966.40 | 966.40 |
| Wednesday, August 02, 1995 | RW-2(x) | 985.96 | 0.00 | 21.00 | 0.00 | 964.96 | 964.96 |
| Thursday, August 03, 1995 | PZ-1S | 989.93 | 19.21 | 19.41 | 0.20 | 970.52 | 970.71 |
| Thursday, August 03, 1995 | PZ-2S | 985.34 | 14.76 | 14.79 | 0.03 | 970.55 | 970.58 |
| Thursday, August 03, 1995 | PZ-4S | 982.59 | 0.00 | 12.25 | 0.00 | 970.34 | 970.34 |
| Thursday, August 03, 1995 | PZ-5S | 983.74 | 12.84 | 12.91 | 0.07 | 970.83 | 970.90 |
| Thursday, August 03, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, August 03, 1995 | RB-1 | 985.18 | 14.71 | 14.81 | 0.10 | 970.37 | 970.46 |
| Thursday, August 03, 1995 | river | 974.85 | | | | 970.92 | 970.92 |
| Thursday, August 03, 1995 | WP-1 | 979.21 | 8.34 | 8.48 | 0.14 | 970.73 | 970.86 |
| Thursday, August 03, 1995 | WP-13 | 979.20 | 8.41 | 8.49 | 0.08 | 970.71 | 970.78 |
| Thursday, August 03, 1995 | WP-2 | 977.61 | 0.00 | 6.77 | 0.00 | 970.84 | 970.84 |
| Thursday, August 03, 1995 | WP-3 | 976.77 | 6.00 | 6.22 | 0.22 | 970.55 | 970.75 |
| Thursday, August 03, 1995 | WP-4 | 978.12 | 0.00 | 7.35 | 0.00 | 970.77 | 970.77 |
| Thursday, August 03, 1995 | WP-5 | 977.21 | 0.00 | 6.35 | 0.00 | 970.86 | 970.86 |
| Thursday, August 03, 1995 | WP-6 | 974.91 | 0.00 | 3.95 | 0.00 | 970.96 | 970.96 |
| Wednesday, August 09, 1995 | 54 | 986.13 | 0.00 | 14.45 | 0.00 | 971.68 | 971.68 |
| Wednesday, August 09, 1995 | 58 | 985.79 | 14.29 | 14.51 | 0.22 | 971.28 | 971.48 |
| Wednesday, August 09, 1995 | 64X-N | 984.83 | 13.73 | 13.75 | 0.02 | 971.08 | 971.10 |
| Wednesday, August 09, 1995 | 64X-S | 981.55 | 10.83 | 10.92 | 0.09 | 970.63 | 970.71 |
| Wednesday, August 09, 1995 | 64X-W | 984.86 | 14.16 | 14.20 | 0.04 | 970.66 | 970.70 |
| Thursday, August 10, 1995 | PZ-1S | 989.93 | 19.05 | 19.28 | 0.23 | 970.65 | 970.86 |
| Thursday, August 10, 1995 | PZ-6S | 984.13 | 0.00 | 13.14 | 0.00 | 970.99 | 970.99 |
| Thursday, August 10, 1995 | river | 974.85 | | | | 971.02 | 971.02 |
| Thursday, August 10, 1995 | WP-1 | 979.21 | 8.24 | 8.39 | 0.15 | 970.82 | 970.96 |
| Thursday, August 10, 1995 | WP-13 | 979.20 | 8.33 | 8.34 | 0.01 | 970.86 | 970.87 |
| Thursday, August 10, 1995 | WP-2 | 977.61 | 0.00 | 6.68 | 0.00 | 970.93 | 970.93 |
| Thursday, August 10, 1995 | WP-3 | 976.77 | 5.89 | 6.12 | 0.23 | 970.65 | 970.86 |
| Thursday, August 10, 1995 | WP-4 | 978.12 | 0.00 | 7.26 | 0.00 | 970.86 | 970.86 |
| Thursday, August 10, 1995 | WP-5 | 977.21 | 0.00 | 6.24 | 0.00 | 970.97 | 970.97 |
| Thursday, August 10, 1995 | WP-6 | 974.91 | 0.00 | 3.86 | 0.00 | 971.05 | 971.05 |
| Wednesday, August 16, 1995 | 54 | 986.13 | 0.00 | 14.59 | 0.00 | 971.54 | 971.54 |
| Wednesday, August 16, 1995 | 58 | 985.79 | 14.45 | 14.77 | 0.32 | 971.02 | 971.32 |
| Wednesday, August 16, 1995 | 64X-N | 984.83 | 13.93 | 14.01 | 0.08 | 970.82 | 970.89 |
| Wednesday, August 16, 1995 | 64X-S | 981.55 | 10.99 | 11.10 | 0.11 | 970.45 | 970.55 |
| Wednesday, August 16, 1995 | 64X-W | 984.86 | 14.36 | 14.40 | 0.04 | 970.46 | 970.50 |
| Thursday, August 17, 1995 | PZ-1S | 989.93 | 19.03 | 19.53 | 0.50 | 970.40 | 970.87 |
| Thursday, August 17, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, August 17, 1995 | river | 974.85 | Gauge out of water | | | | |
| Thursday, August 17, 1995 | WP-1 | 979.21 | 8.31 | 8.52 | 0.21 | 970.69 | 970.89 |
| Thursday, August 17, 1995 | WP-13 | 979.20 | 8.40 | 8.43 | 0.03 | 970.77 | 970.80 |
| Thursday, August 17, 1995 | WP-2 | 977.61 | 0.00 | 6.78 | 0.00 | 970.83 | 970.83 |
| Thursday, August 17, 1995 | WP-3 | 976.77 | 6.00 | 6.21 | 0.21 | 970.56 | 970.76 |
| Thursday, August 17, 1995 | WP-4 | 978.12 | 0.00 | 7.37 | 0.00 | 970.75 | 970.75 |
| Thursday, August 17, 1995 | WP-5 | 977.21 | 0.00 | 6.35 | 0.00 | 970.86 | 970.86 |
| Thursday, August 17, 1995 | WP-6 | 974.91 | 0.00 | 3.93 | 0.00 | 970.98 | 970.98 |
| Wednesday, August 23, 1995 | 54 | 986.13 | 0.00 | 14.71 | 0.00 | 971.42 | 971.42 |
| Wednesday, August 23, 1995 | 58 | 985.79 | 14.50 | 14.91 | 0.41 | 970.88 | 971.26 |
| Wednesday, August 23, 1995 | 64X-N | 984.83 | 14.04 | 14.08 | 0.04 | 970.75 | 970.79 |
| Wednesday, August 23, 1995 | 64X-S | 981.55 | 11.14 | 11.22 | 0.08 | 970.33 | 970.40 |
| Wednesday, August 23, 1995 | 64X-W | 984.86 | 14.48 | 14.54 | 0.06 | 970.32 | 970.38 |
| Thursday, August 24, 1995 | PZ-1S | 989.93 | 19.25 | 19.70 | 0.45 | 970.23 | 970.65 |
| Thursday, August 24, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, August 24, 1995 | river | 974.85 | | | | 970.79 | 970.79 |
| Thursday, August 24, 1995 | WP-1 | 979.21 | 8.45 | 8.85 | 0.40 | 970.36 | 970.73 |
| Thursday, August 24, 1995 | WP-13 | 979.20 | 8.56 | 8.64 | 0.08 | 970.56 | 970.63 |
| Thursday, August 24, 1995 | WP-2 | 977.61 | 0.00 | 6.93 | 0.00 | 970.68 | 970.68 |
| Thursday, August 24, 1995 | WP-3 | 976.77 | 6.08 | 6.28 | 0.20 | 970.49 | 970.68 |

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Thursday, August 24, 1995 | WP-4 | 978.12 | 0.00 | 7.51 | 0.00 | 970.61 | 970.61 |
| Thursday, August 24, 1995 | WP-5 | 977.21 | 0.00 | 6.50 | 0.00 | 970.71 | 970.71 |
| Thursday, August 24, 1995 | WP-6 | 974.91 | 0.00 | 4.09 | 0.00 | 970.82 | 970.82 |
| Wednesday, August 30, 1995 | 54 | 986.13 | 0.00 | 14.74 | 0.00 | 971.39 | 971.39 |
| Wednesday, August 30, 1995 | 58 | 985.79 | 14.57 | 14.94 | 0.37 | 970.85 | 971.19 |
| Wednesday, August 30, 1995 | 64X-N | 984.83 | 14.04 | 14.28 | 0.24 | 970.55 | 970.77 |
| Wednesday, August 30, 1995 | 64X-S | 981.55 | 11.13 | 11.22 | 0.09 | 970.33 | 970.41 |
| Wednesday, August 30, 1995 | 64X-W | 984.86 | 14.47 | 14.56 | 0.09 | 970.30 | 970.38 |
| Thursday, August 31, 1995 | PZ-1S | 989.93 | 19.14 | 19.94 | 0.80 | 969.99 | 970.73 |
| Thursday, August 31, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, August 31, 1995 | river | 974.85 | | | | 970.84 | 970.84 |
| Thursday, August 31, 1995 | WP-1 | 979.21 | 8.49 | 8.59 | 0.10 | 970.62 | 970.71 |
| Thursday, August 31, 1995 | WP-13 | 979.20 | 8.55 | 8.66 | 0.11 | 970.54 | 970.64 |
| Thursday, August 31, 1995 | WP-2 | 977.61 | 0.00 | 6.91 | 0.00 | 970.70 | 970.70 |
| Thursday, August 31, 1995 | WP-3 | 976.77 | 6.12 | 6.25 | 0.13 | 970.52 | 970.64 |
| Thursday, August 31, 1995 | WP-4 | 978.12 | 0.00 | 7.50 | 0.00 | 970.62 | 970.62 |
| Thursday, August 31, 1995 | WP-5 | 977.21 | 0.00 | 6.48 | 0.00 | 970.73 | 970.73 |
| Thursday, August 31, 1995 | WP-6 | 974.91 | 0.00 | 4.09 | 0.00 | 970.82 | 970.82 |
| Thursday, September 07, 1995 | 54 | 986.13 | 0.00 | 14.75 | 0.00 | 971.38 | 971.38 |
| Thursday, September 07, 1995 | 58 | 985.79 | 14.59 | 15.05 | 0.46 | 970.74 | 971.17 |
| Thursday, September 07, 1995 | 64X-N | 984.83 | 14.08 | 14.38 | 0.30 | 970.45 | 970.73 |
| Thursday, September 07, 1995 | 64X-S | 981.55 | 11.14 | 11.28 | 0.14 | 970.27 | 970.40 |
| Thursday, September 07, 1995 | 64X-W | 984.86 | 14.52 | 14.63 | 0.11 | 970.23 | 970.33 |
| Thursday, September 07, 1995 | PZ-1S | 989.93 | 19.19 | 19.86 | 0.67 | 970.07 | 970.69 |
| Thursday, September 07, 1995 | PZ-2S | 985.34 | 14.96 | 14.97 | 0.01 | 970.37 | 970.38 |
| Thursday, September 07, 1995 | PZ-4S | 982.59 | 0.00 | 12.42 | 0.00 | 970.17 | 970.17 |
| Thursday, September 07, 1995 | PZ-5S | 983.74 | 13.01 | 13.13 | 0.12 | 970.61 | 970.72 |
| Thursday, September 07, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, September 07, 1995 | RB-1 | 985.18 | 14.90 | 15.04 | 0.14 | 970.14 | 970.27 |
| Thursday, September 07, 1995 | river | 974.85 | | | | 970.78 | 970.78 |
| Thursday, September 07, 1995 | RW-1(x) | 982.68 | 0.00 | 17.49 | 0.00 | 965.19 | 965.19 |
| Thursday, September 07, 1995 | RW-2(x) | 985.96 | 20.30 | 20.90 | 0.60 | 965.06 | 965.62 |
| Thursday, September 07, 1995 | WP-1 | 979.21 | 8.49 | 8.63 | 0.14 | 970.58 | 970.71 |
| Thursday, September 07, 1995 | WP-13 | 979.20 | 8.57 | 8.80 | 0.23 | 970.40 | 970.61 |
| Thursday, September 07, 1995 | WP-2 | 977.61 | 0.00 | 6.94 | 0.00 | 970.67 | 970.67 |
| Thursday, September 07, 1995 | WP-3 | 976.77 | 6.12 | 6.26 | 0.14 | 970.51 | 970.64 |
| Thursday, September 07, 1995 | WP-4 | 978.12 | 0.00 | 7.53 | 0.00 | 970.59 | 970.59 |
| Thursday, September 07, 1995 | WP-5 | 977.21 | 0.00 | 6.51 | 0.00 | 970.70 | 970.70 |
| Thursday, September 07, 1995 | WP-6 | 974.91 | 0.00 | 4.10 | 0.00 | 970.81 | 970.81 |
| Thursday, September 14, 1995 | 54 | 986.13 | 0.00 | 14.71 | 0.00 | 971.42 | 971.42 |
| Thursday, September 14, 1995 | 58 | 985.79 | 14.55 | 15.00 | 0.45 | 970.79 | 971.21 |
| Thursday, September 14, 1995 | 64X-N | 984.83 | 13.95 | 14.29 | 0.34 | 970.54 | 970.88 |
| Thursday, September 14, 1995 | 64X-S | 981.55 | 11.08 | 11.18 | 0.10 | 970.37 | 970.46 |
| Thursday, September 14, 1995 | 64X-W | 984.86 | 14.41 | 14.52 | 0.11 | 970.34 | 970.44 |
| Thursday, September 14, 1995 | PZ-1S | 989.93 | 19.01 | 19.71 | 0.70 | 970.22 | 970.87 |
| Thursday, September 14, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, September 14, 1995 | river | 974.85 | | | | 970.96 | 970.96 |
| Thursday, September 14, 1995 | RW-1(x) | 982.68 | 0.00 | 17.31 | 0.00 | 965.37 | 965.37 |
| Thursday, September 14, 1995 | RW-2(x) | 985.96 | 20.90 | 21.30 | 0.40 | 964.66 | 965.03 |
| Thursday, September 14, 1995 | WP-1 | 979.21 | 8.33 | 8.46 | 0.13 | 970.75 | 970.87 |
| Thursday, September 14, 1995 | WP-13 | 979.20 | 8.39 | 8.59 | 0.20 | 970.61 | 970.80 |
| Thursday, September 14, 1995 | WP-2 | 977.61 | 0.00 | 6.76 | 0.00 | 970.85 | 970.85 |
| Thursday, September 14, 1995 | WP-3 | 976.77 | 6.04 | 6.19 | 0.15 | 970.58 | 970.72 |
| Thursday, September 14, 1995 | WP-4 | 978.12 | 0.00 | 7.36 | 0.00 | 970.76 | 970.76 |
| Thursday, September 14, 1995 | WP-5 | 977.21 | 0.00 | 6.33 | 0.00 | 970.88 | 970.88 |
| Thursday, September 14, 1995 | WP-6 | 974.91 | 0.00 | 3.92 | 0.00 | 970.99 | 970.99 |
| Thursday, September 21, 1995 | 54 | 986.13 | 0.00 | 14.72 | 0.00 | 971.41 | 971.41 |
| Thursday, September 21, 1995 | 58 | 985.79 | 14.56 | 15.04 | 0.48 | 970.75 | 971.20 |
| Thursday, September 21, 1995 | 64X-N | 984.83 | 14.00 | 14.36 | 0.36 | 970.47 | 970.80 |
| Thursday, September 21, 1995 | 64X-S | 981.55 | 11.08 | 11.19 | 0.11 | 970.36 | 970.46 |
| Thursday, September 21, 1995 | 64X-W | 984.86 | 14.42 | 14.56 | 0.14 | 970.30 | 970.43 |
| Thursday, September 21, 1995 | PZ-1S | 989.93 | 19.02 | 19.80 | 0.78 | 970.13 | 970.86 |
| Thursday, September 21, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, September 21, 1995 | river | 974.85 | | | | 970.92 | 970.92 |
| Thursday, September 21, 1995 | RW-1(x) | 982.68 | 0.00 | 17.61 | 0.00 | 965.07 | 965.07 |
| Thursday, September 21, 1995 | RW-2(x) | 985.96 | 20.80 | 21.10 | 0.30 | 964.86 | 965.14 |
| Thursday, September 21, 1995 | WP-1 | 979.21 | 8.33 | 8.47 | 0.14 | 970.74 | 970.87 |
| Thursday, September 21, 1995 | WP-13 | 979.20 | 8.42 | 8.65 | 0.23 | 970.55 | 970.76 |

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Thursday, September 21, 1995 | WP-2 | 977.61 | 0.00 | 6.79 | 0.00 | 970.82 | 970.82 |
| Thursday, September 21, 1995 | WP-3 | 976.77 | 6.00 | 6.27 | 0.27 | 970.50 | 970.75 |
| Thursday, September 21, 1995 | WP-4 | 978.12 | 0.00 | 7.40 | 0.00 | 970.72 | 970.72 |
| Thursday, September 21, 1995 | WP-5 | 977.21 | 0.00 | 6.37 | 0.00 | 970.84 | 970.84 |
| Thursday, September 21, 1995 | WP-6 | 974.91 | 0.00 | 3.98 | 0.00 | 970.93 | 970.93 |
| Wednesday, September 27, 1995 | 54 | 986.13 | 0.00 | 14.64 | 0.00 | 971.49 | 971.49 |
| Wednesday, September 27, 1995 | 58 | 985.79 | 14.49 | 14.89 | 0.40 | 970.90 | 971.27 |
| Wednesday, September 27, 1995 | 64X-N | 984.83 | 13.92 | 14.32 | 0.40 | 970.51 | 970.88 |
| Wednesday, September 27, 1995 | 64X-S | 981.55 | 10.95 | 11.07 | 0.12 | 970.48 | 970.59 |
| Wednesday, September 27, 1995 | 64X-W | 984.86 | 14.33 | 14.43 | 0.10 | 970.43 | 970.52 |
| Wednesday, September 27, 1995 | RW-1(x) | 982.68 | 0.00 | 17.95 | 0.00 | 964.73 | 964.73 |
| Wednesday, September 27, 1995 | RW-2(x) | 985.96 | 20.08 | 21.50 | 1.42 | 964.46 | 965.78 |
| Thursday, September 28, 1995 | PZ-1S | 989.93 | 19.01 | 19.56 | 0.55 | 970.37 | 970.88 |
| Thursday, September 28, 1995 | PZ-6S | 984.13 | Well is dry at 13.15' | | | 984.13 | 984.13 |
| Thursday, September 28, 1995 | river | 974.85 | | | | 970.98 | 970.98 |
| Thursday, September 28, 1995 | WP-1 | 979.21 | 8.36 | 8.44 | 0.08 | 970.77 | 970.84 |
| Thursday, September 28, 1995 | WP-13 | 979.20 | 8.39 | 8.46 | 0.07 | 970.74 | 970.81 |
| Thursday, September 28, 1995 | WP-2 | 977.61 | 0.00 | 6.74 | 0.00 | 970.87 | 970.87 |
| Thursday, September 28, 1995 | WP-3 | 976.77 | 5.96 | 6.16 | 0.20 | 970.61 | 970.80 |
| Thursday, September 28, 1995 | WP-4 | 978.12 | 0.00 | 7.35 | 0.00 | 970.77 | 970.77 |
| Thursday, September 28, 1995 | WP-5 | 977.21 | 0.00 | 6.33 | 0.00 | 970.88 | 970.88 |
| Thursday, September 28, 1995 | WP-6 | 974.91 | 0.00 | 3.94 | 0.00 | 970.97 | 970.97 |
| Thursday, October 05, 1995 | 54 | 986.13 | 0.00 | 14.44 | 0.00 | 971.69 | 971.69 |
| Thursday, October 05, 1995 | 58 | 985.79 | 14.32 | 14.62 | 0.30 | 971.17 | 971.45 |
| Thursday, October 05, 1995 | 64X-N | 984.83 | 13.52 | 13.54 | 0.02 | 971.29 | 971.31 |
| Thursday, October 05, 1995 | 64X-S | 981.55 | 10.56 | 10.70 | 0.14 | 970.85 | 970.98 |
| Thursday, October 05, 1995 | 64X-W | 984.86 | 13.90 | 14.02 | 0.12 | 970.84 | 970.95 |
| Thursday, October 05, 1995 | PZ-1S | 989.93 | 18.48 | 18.50 | 0.02 | 971.43 | 971.45 |
| Thursday, October 05, 1995 | PZ-2S | 985.34 | 0.00 | 14.28 | 0.00 | 971.06 | 971.06 |
| Thursday, October 05, 1995 | PZ-4S | 982.59 | 0.00 | 11.75 | 0.00 | 970.84 | 970.84 |
| Thursday, October 05, 1995 | PZ-5S | 983.74 | 0.00 | 12.48 | 0.00 | 971.26 | 971.26 |
| Thursday, October 05, 1995 | PZ-6S | 984.13 | 0.00 | 13.09 | 0.00 | 971.04 | 971.04 |
| Thursday, October 05, 1995 | RB-1 | 985.18 | 14.25 | 14.40 | 0.15 | 970.78 | 970.92 |
| Thursday, October 05, 1995 | river | 974.85 | | | | 971.52 | 971.52 |
| Thursday, October 05, 1995 | RW-1(x) | 982.68 | 0.00 | 17.32 | 0.00 | 965.36 | 965.36 |
| Thursday, October 05, 1995 | RW-2(x) | 985.96 | 20.07 | 21.10 | 1.03 | 964.86 | 965.82 |
| Thursday, October 05, 1995 | WP-1 | 979.21 | 7.82 | 7.83 | 0.01 | 971.38 | 971.39 |
| Thursday, October 05, 1995 | WP-13 | 979.20 | 7.86 | 7.87 | 0.01 | 971.33 | 971.34 |
| Thursday, October 05, 1995 | WP-2 | 977.61 | 0.00 | 6.22 | 0.00 | 971.39 | 971.39 |
| Thursday, October 05, 1995 | WP-3 | 976.77 | 5.43 | 5.78 | 0.35 | 970.99 | 971.32 |
| Thursday, October 05, 1995 | WP-4 | 978.12 | 0.00 | 6.85 | 0.00 | 971.27 | 971.27 |
| Thursday, October 05, 1995 | WP-5 | 977.21 | 0.00 | 5.75 | 0.00 | 971.46 | 971.46 |
| Thursday, October 05, 1995 | WP-6 | 974.91 | 0.00 | 3.41 | 0.00 | 971.50 | 971.50 |
| Wednesday, October 11, 1995 | 54 | 986.13 | 0.00 | 14.41 | 0.00 | 971.72 | 971.72 |
| Wednesday, October 11, 1995 | 58 | 985.79 | 14.25 | 14.29 | 0.04 | 971.50 | 971.54 |
| Wednesday, October 11, 1995 | 64X-N | 984.83 | 13.60 | 13.62 | 0.02 | 971.21 | 971.23 |
| Wednesday, October 11, 1995 | 64X-S | 981.55 | 10.67 | 10.80 | 0.13 | 970.75 | 970.87 |
| Wednesday, October 11, 1995 | 64X-W | 984.86 | 14.05 | 14.15 | 0.10 | 970.71 | 970.80 |
| Wednesday, October 11, 1995 | RW-1(x) | 982.68 | 0.00 | 17.92 | 0.00 | 964.76 | 964.76 |
| Wednesday, October 11, 1995 | RW-2(x) | 985.96 | 20.60 | 20.80 | 0.20 | 965.16 | 965.35 |
| Thursday, October 12, 1995 | PZ-1S | 989.93 | 18.81 | 18.89 | 0.08 | 971.04 | 971.11 |
| Thursday, October 12, 1995 | PZ-6S | 984.13 | 0.00 | 13.13 | 0.00 | 971.00 | 971.00 |
| Thursday, October 12, 1995 | river | 974.85 | | | | 971.18 | 971.18 |
| Thursday, October 12, 1995 | WP-1 | 979.21 | 8.05 | 8.06 | 0.01 | 971.15 | 971.16 |
| Thursday, October 12, 1995 | WP-13 | 979.20 | 8.12 | 8.13 | 0.01 | 971.07 | 971.08 |
| Thursday, October 12, 1995 | WP-2 | 977.61 | 0.00 | 6.48 | 0.00 | 971.13 | 971.13 |
| Thursday, October 12, 1995 | WP-3 | 976.77 | 5.74 | 5.78 | 0.04 | 970.99 | 971.03 |
| Thursday, October 12, 1995 | WP-4 | 978.12 | 0.00 | 7.08 | 0.00 | 971.04 | 971.04 |
| Thursday, October 12, 1995 | WP-5 | 977.21 | 0.00 | 6.04 | 0.00 | 971.17 | 971.17 |
| Thursday, October 12, 1995 | WP-6 | 974.91 | 0.00 | 3.65 | 0.00 | 971.26 | 971.26 |
| Wednesday, October 18, 1995 | 54 | 986.13 | 0.00 | 14.32 | 0.00 | 971.81 | 971.81 |
| Wednesday, October 18, 1995 | 58 | 985.79 | 0.00 | 14.18 | 0.00 | 971.61 | 971.61 |
| Wednesday, October 18, 1995 | 64X-N | 984.83 | 13.43 | 13.45 | 0.02 | 971.38 | 971.40 |
| Wednesday, October 18, 1995 | 64X-S | 981.55 | 10.61 | 10.71 | 0.10 | 970.84 | 970.93 |
| Wednesday, October 18, 1995 | 64X-W | 984.86 | 13.94 | 14.02 | 0.08 | 970.84 | 970.91 |
| Wednesday, October 18, 1995 | RW-1(x) | 982.68 | 0.00 | 17.84 | 0.00 | 964.84 | 964.84 |
| Wednesday, October 18, 1995 | RW-2(x) | 985.96 | 20.52 | 20.68 | 0.16 | 965.28 | 965.43 |
| Thursday, October 19, 1995 | PZ-1S | 989.93 | 18.67 | 18.79 | 0.12 | 971.14 | 971.25 |

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Thursday, October 19, 1995 | PZ-6S | 984.13 | 0.00 | 13.11 | 0.00 | 971.02 | 971.02 |
| Thursday, October 19, 1995 | river | 974.85 | | | | 971.32 | 971.32 |
| Thursday, October 19, 1995 | WP-1 | 979.21 | 7.99 | 8.00 | 0.01 | 971.21 | 971.22 |
| Thursday, October 19, 1995 | WP-13 | 979.20 | 8.04 | 8.05 | 0.01 | 971.15 | 971.16 |
| Thursday, October 19, 1995 | WP-2 | 977.61 | 0.00 | 6.40 | 0.00 | 971.21 | 971.21 |
| Thursday, October 19, 1995 | WP-3 | 976.77 | 5.65 | 5.70 | 0.05 | 971.07 | 971.12 |
| Thursday, October 19, 1995 | WP-4 | 978.12 | 0.00 | 7.01 | 0.00 | 971.11 | 971.11 |
| Thursday, October 19, 1995 | WP-5 | 977.21 | 0.00 | 5.95 | 0.00 | 971.26 | 971.26 |
| Thursday, October 19, 1995 | WP-6 | 974.91 | 0.00 | 3.59 | 0.00 | 971.32 | 971.32 |
| Thursday, October 26, 1995 | 54 | 986.13 | 0.00 | 13.49 | 0.00 | 972.64 | 972.64 |
| Thursday, October 26, 1995 | 58 | 985.79 | 0.00 | 13.37 | 0.00 | 972.42 | 972.42 |
| Thursday, October 26, 1995 | 64X-N | 984.83 | 12.67 | 12.70 | 0.03 | 972.13 | 972.16 |
| Thursday, October 26, 1995 | 64X-S | 981.55 | 9.76 | 9.82 | 0.06 | 971.73 | 971.79 |
| Thursday, October 26, 1995 | 64X-W | 984.86 | 13.08 | 13.21 | 0.13 | 971.65 | 971.77 |
| Thursday, October 26, 1995 | PZ-1S | 989.93 | 17.87 | 18.05 | 0.18 | 971.88 | 972.05 |
| Thursday, October 26, 1995 | PZ-6S | 984.13 | 12.42 | 12.43 | 0.01 | 971.70 | 971.71 |
| Thursday, October 26, 1995 | river | 974.85 | | | | 972.40 | 972.40 |
| Thursday, October 26, 1995 | RW-1(x) | 982.68 | 0.00 | 20.30 | 0.00 | 962.38 | 962.38 |
| Thursday, October 26, 1995 | RW-2(x) | 985.96 | 0.00 | 17.15 | 0.00 | 968.81 | 968.81 |
| Thursday, October 26, 1995 | WP-1 | 979.21 | 7.10 | 7.11 | 0.01 | 972.10 | 972.11 |
| Thursday, October 26, 1995 | WP-13 | 979.20 | 0.00 | 7.15 | 0.00 | 972.05 | 972.05 |
| Thursday, October 26, 1995 | WP-2 | 977.61 | 0.00 | 5.50 | 0.00 | 972.11 | 972.11 |
| Thursday, October 26, 1995 | WP-3 | 976.77 | 4.72 | 4.73 | 0.01 | 972.04 | 972.05 |
| Thursday, October 26, 1995 | WP-4 | 978.12 | 0.00 | 6.10 | 0.00 | 972.02 | 972.02 |
| Thursday, October 26, 1995 | WP-5 | 977.21 | 0.00 | 5.05 | 0.00 | 972.16 | 972.16 |
| Thursday, October 26, 1995 | WP-6 | 974.91 | 0.00 | 2.66 | 0.00 | 972.25 | 972.25 |
| Wednesday, November 01, 1995 | 54 | 986.13 | 0.00 | 13.31 | 0.00 | 972.82 | 972.82 |
| Wednesday, November 01, 1995 | 58 | 985.79 | 0.00 | 13.17 | 0.00 | 972.62 | 972.62 |
| Wednesday, November 01, 1995 | 64X-N | 984.83 | 12.49 | 12.51 | 0.02 | 972.32 | 972.34 |
| Wednesday, November 01, 1995 | 64X-S | 981.55 | 9.60 | 9.66 | 0.06 | 971.89 | 971.95 |
| Wednesday, November 01, 1995 | 64X-W | 984.86 | 12.96 | 13.08 | 0.12 | 971.78 | 971.89 |
| Wednesday, November 01, 1995 | RW-1(x) | 982.68 | 0.00 | 17.65 | 0.00 | 965.03 | 965.03 |
| Wednesday, November 01, 1995 | RW-2(x) | 985.96 | 0.00 | 20.60 | 0.00 | 965.36 | 965.36 |
| Friday, November 03, 1995 | PZ-1S | 989.93 | 17.41 | 17.42 | 0.01 | 972.51 | 972.52 |
| Friday, November 03, 1995 | PZ-2S | 985.34 | 13.47 | 13.67 | 0.20 | 971.67 | 971.86 |
| Friday, November 03, 1995 | PZ-4S | 982.59 | 0.00 | 10.58 | 0.00 | 972.01 | 972.01 |
| Friday, November 03, 1995 | PZ-5S | 983.74 | 0.00 | 11.00 | 0.00 | 972.74 | 972.74 |
| Friday, November 03, 1995 | PZ-6S | 984.13 | 12.01 | 12.15 | 0.14 | 971.98 | 972.11 |
| Friday, November 03, 1995 | river | 974.85 | | | | 972.76 | 972.76 |
| Friday, November 03, 1995 | WP-1 | 979.21 | 0.00 | 6.65 | 0.00 | 972.56 | 972.56 |
| Friday, November 03, 1995 | WP-13 | 979.20 | 0.00 | 6.72 | 0.00 | 972.48 | 972.48 |
| Friday, November 03, 1995 | WP-2 | 977.61 | 0.00 | 5.03 | 0.00 | 972.58 | 972.58 |
| Friday, November 03, 1995 | WP-3 | 976.77 | 4.17 | 4.28 | 0.11 | 972.49 | 972.59 |
| Friday, November 03, 1995 | WP-4 | 978.12 | 0.00 | 5.67 | 0.00 | 972.45 | 972.45 |
| Friday, November 03, 1995 | WP-5 | 977.21 | 0.00 | 4.57 | 0.00 | 972.64 | 972.64 |
| Friday, November 03, 1995 | WP-6 | 974.91 | 0.00 | 2.15 | 0.00 | 972.76 | 972.76 |
| Wednesday, November 08, 1995 | 54 | 986.13 | 0.00 | 13.53 | 0.00 | 972.60 | 972.60 |
| Wednesday, November 08, 1995 | 58 | 985.79 | 0.00 | 13.39 | 0.00 | 972.40 | 972.40 |
| Wednesday, November 08, 1995 | 64X-N | 984.83 | 12.74 | 12.77 | 0.03 | 972.06 | 972.09 |
| Wednesday, November 08, 1995 | 64X-S | 981.55 | 9.72 | 9.78 | 0.06 | 971.77 | 971.83 |
| Wednesday, November 08, 1995 | 64X-W | 984.86 | 13.07 | 13.19 | 0.12 | 971.67 | 971.78 |
| Wednesday, November 08, 1995 | RW-1(x) | 982.68 | 0.00 | 17.16 | 0.00 | 965.52 | 965.52 |
| Wednesday, November 08, 1995 | RW-2(x) | 985.96 | 0.00 | 20.52 | 0.00 | 965.44 | 965.44 |
| Thursday, November 09, 1995 | PZ-1S | 989.93 | 17.79 | 17.85 | 0.06 | 972.08 | 972.14 |
| Thursday, November 09, 1995 | PZ-6S | 984.13 | 12.41 | 12.63 | 0.22 | 971.50 | 971.70 |
| Thursday, November 09, 1995 | river | 974.85 | | | | 972.26 | 972.26 |
| Thursday, November 09, 1995 | WP-1 | 979.21 | 7.10 | 7.11 | 0.01 | 972.10 | 972.11 |
| Thursday, November 09, 1995 | WP-13 | 979.20 | 0.00 | 7.16 | 0.00 | 972.04 | 972.04 |
| Thursday, November 09, 1995 | WP-2 | 977.61 | 0.00 | 5.50 | 0.00 | 972.11 | 972.11 |
| Thursday, November 09, 1995 | WP-3 | 976.77 | 4.73 | 4.74 | 0.01 | 972.03 | 972.04 |
| Thursday, November 09, 1995 | WP-4 | 978.12 | 0.00 | 6.12 | 0.00 | 972.00 | 972.00 |
| Thursday, November 09, 1995 | WP-5 | 977.21 | 0.00 | 5.06 | 0.00 | 972.15 | 972.15 |
| Thursday, November 09, 1995 | WP-6 | 974.91 | 0.00 | 2.66 | 0.00 | 972.25 | 972.25 |
| Wednesday, November 15, 1995 | 54 | 986.13 | 0.00 | 12.41 | 0.00 | 973.72 | 973.72 |
| Wednesday, November 15, 1995 | 58 | 985.79 | 0.00 | 12.36 | 0.00 | 973.43 | 973.43 |
| Wednesday, November 15, 1995 | 64X-N | 984.83 | 11.50 | 11.51 | 0.01 | 973.32 | 973.33 |
| Wednesday, November 15, 1995 | 64X-S | 981.55 | 8.44 | 8.45 | 0.01 | 973.10 | 973.11 |
| Wednesday, November 15, 1995 | 64X-W | 984.86 | 11.78 | 11.85 | 0.07 | 973.01 | 973.08 |

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Wednesday, November 15, 1995 | RW-1(x) | 982.68 | 0.00 | 16.20 | 0.00 | 966.48 | 966.48 |
| Wednesday, November 15, 1995 | RW-2(x) | 985.96 | 0.00 | 20.70 | 0.00 | 965.26 | 965.26 |
| Thursday, November 16, 1995 | PZ-1S | 989.93 | 16.10 | 16.11 | 0.01 | 973.82 | 973.83 |
| Thursday, November 16, 1995 | PZ-6S | 984.13 | 10.71 | 11.20 | 0.49 | 972.93 | 973.39 |
| Thursday, November 16, 1995 | river | 974.85 | | | | 973.94 | 973.94 |
| Thursday, November 16, 1995 | WP-1 | 979.21 | 0.00 | 5.45 | 0.00 | 973.76 | 973.76 |
| Thursday, November 16, 1995 | WP-13 | 979.20 | 0.00 | 5.50 | 0.00 | 973.70 | 973.70 |
| Thursday, November 16, 1995 | WP-2 | 977.61 | 0.00 | 3.84 | 0.00 | 973.77 | 973.77 |
| Thursday, November 16, 1995 | WP-3 | 976.77 | 0.00 | 2.98 | 0.00 | 973.79 | 973.79 |
| Thursday, November 16, 1995 | WP-4 | 978.12 | 0.00 | 4.34 | 0.00 | 973.78 | 973.78 |
| Thursday, November 16, 1995 | WP-5 | 977.21 | 0.00 | 3.35 | 0.00 | 973.86 | 973.86 |
| Thursday, November 16, 1995 | WP-6 | 974.91 | 0.00 | 0.98 | 0.00 | 973.93 | 973.93 |
| Tuesday, November 21, 1995 | 54 | 986.13 | 0.00 | 12.83 | 0.00 | 973.30 | 973.30 |
| Tuesday, November 21, 1995 | 58 | 985.79 | 0.00 | 12.69 | 0.00 | 973.10 | 973.10 |
| Tuesday, November 21, 1995 | 64X-N | 984.83 | 12.09 | 12.11 | 0.02 | 972.72 | 972.74 |
| Tuesday, November 21, 1995 | 64X-S | 981.55 | 9.18 | 9.20 | 0.02 | 972.35 | 972.37 |
| Tuesday, November 21, 1995 | 64X-W | 984.86 | 12.54 | 12.66 | 0.12 | 972.20 | 972.31 |
| Tuesday, November 21, 1995 | RW-1(x) | 982.68 | 0.00 | 17.25 | 0.00 | 965.43 | 965.43 |
| Tuesday, November 21, 1995 | RW-2(x) | 985.96 | 0.00 | 20.80 | 0.00 | 965.16 | 965.16 |
| Wednesday, November 29, 1995 | 54 | 986.13 | 0.00 | 13.36 | 0.00 | 972.77 | 972.77 |
| Wednesday, November 29, 1995 | 58 | 985.79 | 0.00 | 13.22 | 0.00 | 972.57 | 972.57 |
| Wednesday, November 29, 1995 | 64X-N | 984.83 | 12.70 | 12.72 | 0.02 | 972.11 | 972.13 |
| Wednesday, November 29, 1995 | 64X-S | 981.55 | 9.75 | 9.82 | 0.07 | 971.73 | 971.80 |
| Wednesday, November 29, 1995 | 64X-W | 984.86 | 13.10 | 13.18 | 0.08 | 971.68 | 971.75 |
| Wednesday, November 29, 1995 | RW-1(x) | 982.68 | 0.00 | 16.70 | 0.00 | 965.98 | 965.98 |
| Wednesday, November 29, 1995 | RW-2(x) | 985.96 | 0.00 | 20.64 | 0.00 | 965.32 | 965.32 |
| Thursday, November 30, 1995 | PZ-1S | 989.93 | 18.00 | 18.02 | 0.02 | 971.91 | 971.93 |
| Thursday, November 30, 1995 | PZ-6S | 984.13 | 12.59 | 12.64 | 0.05 | 971.49 | 971.54 |
| Thursday, November 30, 1995 | river | 974.85 | | | | 971.86 | 971.86 |
| Thursday, November 30, 1995 | WP-1 | 979.21 | 0.00 | 7.41 | 0.00 | 971.80 | 971.80 |
| Thursday, November 30, 1995 | WP-13 | 979.20 | 0.00 | 7.44 | 0.00 | 971.76 | 971.76 |
| Thursday, November 30, 1995 | WP-2 | 977.61 | 0.00 | 5.82 | 0.00 | 971.79 | 971.79 |
| Thursday, November 30, 1995 | WP-3 | 976.77 | 4.99 | 5.00 | 0.01 | 971.77 | 971.78 |
| Thursday, November 30, 1995 | WP-4 | 978.12 | 0.00 | 6.34 | 0.00 | 971.78 | 971.78 |
| Thursday, November 30, 1995 | WP-5 | 977.21 | 0.00 | 5.35 | 0.00 | 971.86 | 971.86 |
| Thursday, November 30, 1995 | WP-6 | 974.91 | 0.00 | 3.05 | 0.00 | 971.86 | 971.86 |
| Wednesday, December 06, 1995 | 54 | 986.13 | 0.00 | 13.59 | 0.00 | 972.54 | 972.54 |
| Wednesday, December 06, 1995 | 58 | 985.79 | 0.00 | 13.38 | 0.00 | 972.41 | 972.41 |
| Wednesday, December 06, 1995 | 64X-N | 984.83 | 12.78 | 12.80 | 0.02 | 972.03 | 972.05 |
| Wednesday, December 06, 1995 | 64X-S | 981.55 | 9.88 | 9.96 | 0.08 | 971.59 | 971.66 |
| Wednesday, December 06, 1995 | 64X-W | 984.86 | 13.24 | 13.34 | 0.10 | 971.52 | 971.61 |
| Wednesday, December 06, 1995 | RW-1(x) | 982.68 | 0.00 | 16.52 | 0.00 | 966.16 | 966.16 |
| Wednesday, December 06, 1995 | RW-2(x) | 985.96 | 0.00 | 20.50 | 0.00 | 965.46 | 965.46 |
| Thursday, December 07, 1995 | PZ-1S | 989.93 | 18.07 | 18.10 | 0.03 | 971.83 | 971.86 |
| Thursday, December 07, 1995 | PZ-2S | 985.34 | 13.57 | 13.76 | 0.19 | 971.58 | 971.76 |
| Thursday, December 07, 1995 | PZ-4S | 982.59 | 0.00 | 11.11 | 0.00 | 971.48 | 971.48 |
| Thursday, December 07, 1995 | PZ-5S | 983.74 | 0.00 | 11.57 | 0.00 | 972.17 | 972.17 |
| Thursday, December 07, 1995 | PZ-6S | 984.13 | 12.66 | 12.73 | 0.07 | 971.40 | 971.47 |
| Thursday, December 07, 1995 | RB-1 | 985.18 | 13.63 | 13.74 | 0.11 | 971.44 | 971.54 |
| Thursday, December 07, 1995 | river | 974.85 | | | | 971.78 | 971.78 |
| Thursday, December 07, 1995 | WP-1 | 979.21 | 7.47 | 7.48 | 0.01 | 971.73 | 971.74 |
| Thursday, December 07, 1995 | WP-13 | 979.20 | 0.00 | 7.50 | 0.00 | 971.70 | 971.70 |
| Thursday, December 07, 1995 | WP-2 | 977.61 | 0.00 | 5.89 | 0.00 | 971.72 | 971.72 |
| Thursday, December 07, 1995 | WP-3 | 976.77 | 5.07 | 5.08 | 0.01 | 971.69 | 971.70 |
| Thursday, December 07, 1995 | WP-4 | 978.12 | 0.00 | 6.41 | 0.00 | 971.71 | 971.71 |
| Thursday, December 07, 1995 | WP-5 | 977.21 | 0.00 | 5.43 | 0.00 | 971.78 | 971.78 |
| Thursday, December 07, 1995 | WP-6 | 974.91 | 0.00 | 3.10 | 0.00 | 971.81 | 971.81 |
| Wednesday, December 13, 1995 | 54 | 986.13 | 0.00 | 13.83 | 0.00 | 972.30 | 972.30 |
| Wednesday, December 13, 1995 | 58 | 985.79 | 0.00 | 13.64 | 0.00 | 972.15 | 972.15 |
| Wednesday, December 13, 1995 | 64X-N | 984.83 | 13.10 | 13.11 | 0.01 | 971.72 | 971.73 |
| Wednesday, December 13, 1995 | 64X-S | 981.55 | 10.26 | 10.34 | 0.08 | 971.21 | 971.28 |
| Wednesday, December 13, 1995 | 64X-W | 984.86 | 13.58 | 13.63 | 0.05 | 971.23 | 971.28 |
| Wednesday, December 13, 1995 | RW-1(x) | 982.68 | 0.00 | 16.85 | 0.00 | 965.83 | 965.83 |
| Wednesday, December 13, 1995 | RW-2(x) | 985.96 | 0.00 | 20.90 | 0.00 | 965.06 | 965.06 |
| Friday, December 15, 1995 | PZ-1S | 989.93 | 18.33 | 18.35 | 0.02 | 971.58 | 971.60 |
| Friday, December 15, 1995 | PZ-6S | 984.13 | 12.90 | 13.01 | 0.11 | 971.12 | 971.22 |
| Friday, December 15, 1995 | river | 974.85 | | | | 971.60 | 971.60 |
| Friday, December 15, 1995 | WP-1 | 979.21 | 0.00 | 7.70 | 0.00 | 971.51 | 971.51 |

**APPENDIX A**
**GROUNDWATER ELEVATIONS AND OIL THICKNESS - EAST STREET AREA 2/USEPA AREA 4**
**RIVERBANK AREA**

| SAMPLING DATE | WELL NO. | MEASURING POINT ELEVATION (FT. ABOVE MSL.) | DEPTH TO OIL (FEET) | DEPTH TO WATER (FEET) | OIL THICKNESS (FEET) | MEASURED WATER TABLE ELEVATION (FT. ABOVE MSL.) | CORRECTED WATER TABLE ELEVATION (FT. ABOVE MSL.) |
|---|---|---|---|---|---|---|---|
| Friday, December 15, 1995 | WP-13 | 979.20 | 0.00 | 7.71 | 0.00 | 971.49 | 971.49 |
| Friday, December 15, 1995 | WP-2 | 977.61 | 0.00 | 6.09 | 0.00 | 971.52 | 971.52 |
| Friday, December 15, 1995 | WP-3 | 976.77 | 0.00 | 5.25 | 0.00 | 971.52 | 971.52 |
| Friday, December 15, 1995 | WP-4 | 978.12 | 0.00 | 6.64 | 0.00 | 971.48 | 971.48 |
| Friday, December 15, 1995 | WP-5 | 977.21 | 0.00 | 5.69 | 0.00 | 971.52 | 971.52 |
| Friday, December 15, 1995 | WP-6 | 974.91 | 0.00 | 3.31 | 0.00 | 971.60 | 971.60 |
| Tuesday, December 19, 1995 | 54 | 986.13 | 0.00 | 13.89 | 0.00 | 972.24 | 972.24 |
| Tuesday, December 19, 1995 | 58 | 985.79 | 0.00 | 13.68 | 0.00 | 972.11 | 972.11 |
| Tuesday, December 19, 1995 | 64X-N | 984.83 | 13.11 | 13.13 | 0.02 | 971.70 | 971.72 |
| Tuesday, December 19, 1995 | 64X-S | 981.55 | 10.23 | 10.31 | 0.08 | 971.24 | 971.31 |
| Tuesday, December 19, 1995 | 64X-W | 984.86 | 13.56 | 13.62 | 0.06 | 971.24 | 971.30 |
| Tuesday, December 19, 1995 | RW-1(x) | 982.68 | 0.00 | 16.84 | 0.00 | 965.84 | 965.84 |
| Tuesday, December 19, 1995 | RW-2(x) | 985.96 | 0.00 | 20.32 | 0.00 | 965.64 | 965.64 |
| Thursday, December 21, 1995 | PZ-1S | 989.93 | 18.38 | 18.39 | 0.01 | 971.54 | 971.55 |
| Thursday, December 21, 1995 | PZ-6S | 984.13 | 12.89 | 13.02 | 0.13 | 971.11 | 971.23 |
| Thursday, December 21, 1995 | river | 974.85 | | | | 971.50 | 971.50 |
| Thursday, December 21, 1995 | WP-1 | 979.21 | 7.74 | 7.75 | 0.01 | 971.46 | 971.47 |
| Thursday, December 21, 1995 | WP-13 | 979.20 | 0.00 | 7.78 | 0.00 | 971.42 | 971.42 |
| Thursday, December 21, 1995 | WP-2 | 977.61 | 0.00 | 6.16 | 0.00 | 971.45 | 971.45 |
| Thursday, December 21, 1995 | WP-3 | 976.77 | 0.00 | 5.34 | 0.00 | 971.43 | 971.43 |
| Thursday, December 21, 1995 | WP-4 | 978.12 | 0.00 | 6.71 | 0.00 | 971.41 | 971.41 |
| Thursday, December 21, 1995 | WP-5 | 977.21 | 0.00 | 5.70 | 0.00 | 971.51 | 971.51 |
| Thursday, December 21, 1995 | WP-6 | 974.91 | 0.00 | 3.43 | 0.00 | 971.48 | 971.48 |
| Wednesday, December 27, 1995 | 54 | 986.13 | 0.00 | 13.99 | 0.00 | 972.14 | 972.14 |
| Wednesday, December 27, 1995 | 58 | 985.79 | 0.00 | 13.82 | 0.00 | 971.97 | 971.97 |
| Wednesday, December 27, 1995 | 64X-N | 984.83 | 13.19 | 13.20 | 0.01 | 971.63 | 971.64 |
| Wednesday, December 27, 1995 | 64X-S | 981.55 | 10.26 | 10.35 | 0.09 | 971.20 | 971.28 |
| Wednesday, December 27, 1995 | 64X-W | 984.86 | 13.66 | 13.72 | 0.06 | 971.14 | 971.20 |
| Wednesday, December 27, 1995 | RW-1(x) | 982.68 | 0.00 | 16.85 | 0.00 | 965.83 | 965.83 |
| Wednesday, December 27, 1995 | RW-2(x) | 985.96 | 0.00 | 20.55 | 0.00 | 965.41 | 965.41 |
| Thursday, December 28, 1995 | PZ-1S | 989.93 | 18.46 | 18.48 | 0.02 | 971.45 | 971.47 |
| Thursday, December 28, 1995 | PZ-6S | 984.13 | 12.92 | 13.10 | 0.18 | 971.03 | 971.20 |
| Thursday, December 28, 1995 | river | 974.85 | | | | 971.48 | 971.48 |
| Thursday, December 28, 1995 | WP-1 | 979.21 | 0.00 | 7.81 | 0.00 | 971.40 | 971.40 |
| Thursday, December 28, 1995 | WP-13 | 979.20 | 0.00 | 7.86 | 0.00 | 971.34 | 971.34 |
| Thursday, December 28, 1995 | WP-2 | 977.61 | 0.00 | 6.22 | 0.00 | 971.39 | 971.39 |
| Thursday, December 28, 1995 | WP-3 | 976.77 | 0.00 | 5.43 | 0.00 | 971.34 | 971.34 |
| Thursday, December 28, 1995 | WP-4 | 978.12 | 0.00 | 6.76 | 0.00 | 971.36 | 971.36 |
| Thursday, December 28, 1995 | WP-5 | 977.21 | 0.00 | 5.78 | 0.00 | 971.43 | 971.43 |
| Thursday, December 28, 1995 | WP-6 | 974.91 | 0.00 | 3.44 | 0.00 | 971.47 | 971.47 |

NOTES:
1. Liquid-level measurements obtained by Blasland, Bouck & Lee, Inc.
2. Corrected water table elevations in wells containing oil were computed as follows:
   Corrected Water Table Elevation = Measuring Point Elevation - Depth to Water + (Oil Thickness X Specific Density of Oil).
   Specific density of oil estimated at 0.93.