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MEMORANDUM

To:	Valmichael Leos and Anne Foster U.S. Environmental Protection Agency	**Date:**	August 26, 2014
From:	John Laplante, John Verduin, Wendell Mears, and David Keith, Anchor QEA	**Project:**	090557-01
Cc:	Gary Miller, USEPA Philip Slowiak, IP David Moreira, MIMC		
Re:	Revised Post-TCRA Semi-Annual Inspection Report - July 2014 Inspection		

Introduction

This document reports the results of the July 2014 inspection of the armored cap cover, fencing, and signage installed for the Time Critical Removal Action (TCRA) at the San Jacinto River Waste Pits Superfund Site (TCRA Site). This document supersedes the Post-TCRA Semi-Annual Inspection Report - July 2014 Inspection, dated August 11, 2014.

Background

The TCRA was implemented by International Paper Company (IP) and McGinnes Industrial Maintenance Corporation (MIMC) under an Administrative Settlement Agreement and Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) – Docket No. 06-12-10, effective May 17, 2010. A full description of the TCRA implementation is provided in the associated project documentation:

- Removal Action Work Plan (RAWP; Anchor QEA 2010, 2011)
- Revised Draft Final Removal Action Completion Report[1] (RACR; Anchor QEA 2012)

[1] David Keith, the Respondents' Project Coordinator, received a RACR (in the form issued by USEPA) from Valmichael Leos via email on August 15, 2012 but the appendices to the RACR, including the OMM Plan, were not provided to Dr. Keith as part of the document. Respondents reserve all rights related to the changes made by USEPA to the Revised Draft Final RACR, submitted by Respondents to USEPA on March 9, 2012.

The inspection summarized in this report was conducted in accordance with the schedule established in the Operations, Monitoring, and Maintenance (OMM) Plan (Appendix N of the RACR – Anchor QEA 2012)[2]. The OMM Plan specifies the timing, pertinent items, tolerances, and procedures for inspection, maintenance, and repair of the armored cap protective cover, fencing, and signage installed for the TCRA Site (Figure 1).

Monitoring

The purpose of this report is to document the July 2014 inspection of the armored cap cover, fencing, and signage installed as part of the TCRA, as well as corrective actions taken (if any), following the inspection. The inspection, which took place on July 10, 22, and 23, 2014, included evaluation of the TCRA elements referenced below:

- Visual inspection of the security fence and signage surrounding the TCRA Site.
- Visual inspection of the armored cap located above the water surface.
- Visual confirmation that waste materials are not being actively eroded into the San Jacinto River.
- Collection of hydrographic and topographic survey data of the armored cap to compare the current elevations with data from prior surveys.
- Manual probing of armored cap thickness at contiguous areas identified by the monitoring survey as more than 6 inches lower in elevation than in the last survey, which was performed in February 2014.

Visual Inspection

The visual inspection included observing the current conditions of the perimeter fence, warning signs, and the portion of the armored cap visible above the water line of the San Jacinto River. Figure 2 displays the location of the perimeter fence and the stand-alone signs around the armored cap (additional signs are affixed directly onto the perimeter fence). The visual inspection was performed on July 10, 2014. Photographs of conditions observed during the visual inspection are provided in Appendix A (Figures A-1 to A-5). The majority of the Eastern Cell armored cap was covered by water during the visual inspection. All visible portions of the armored cap were observed to be intact; there was no observed

[2] The OMM Plan was attached to the Draft Final RACR, submitted to USEPA on November 22, 2011, and authorization to implement the OMM Plan was contained in an email from USEPA dated January 18, 2012. The OMM Plan was also attached as an appendix to the Revised Draft Final RACR submitted to USEPA on March 9, 2012.

evidence of materials being eroded into the San Jacinto River; and there was no damage noted to on-site signage. A summary of each facet of the visual inspection is provided in the following sections.

Armored Cap

Photographs of the armored cap from the inspection event are provided in Appendix A (see Photographs 4 through 11). All of the visible portions of the armored cap were observed to be intact, and no movement or erosion of waste materials into the San Jacinto River was observed at any location during the visual inspection.

Grassy vegetation was observed around some intertidal areas of the Western Cell perimeter (see Photographs 5 through 6 and 8 through 10 in Appendix A). Following USEPA's notification and approval on May 28, 2014, vegetation was treated on July 15, 2014, using the vegetation control measures outlined in a letter to USEPA dated July 12, 2013 (Anchor QEA 2013).

Perimeter Fencing

The perimeter fencing (Figure 2) on the west and east banks of the San Jacinto River was visually inspected for breaches or other signs of damage on July 10, 2014. No breaches or other signs of fence damage were observed during the inspection for any of the three sections of the fence: the east bank of the San Jacinto River, the west bank of the San Jacinto River on the north side of I-10, or the west bank of the San Jacinto River on the south side of I-10 (see Photographs 2 through 3 and 12 through 16 in Appendix A).

A breach in the perimeter fencing had been observed on June 17, 2014, north of and adjacent to I-10 on the west bank of the San Jacinto River. Repairs were made on June 20, 2014, by reattaching the chain link fence to the fence post. Barbed wire was also added along the lower portion of the perimeter fencing between the access gate and I-10 (see Photographs 2 and 3).

The portion of the fence installed along the south boundary of the San Jacinto River Fleet (SJRF) property is not included in the fencing inspection, as it is currently an active facility that conducts daily security checks, as required by the U.S. Coast Guard and Transportation Security Administration, for an active maritime fleeting area.

Signage

"Danger" and "No Trespassing" signs are posted at regular intervals on the perimeter fencing surrounding the TCRA Site (see Photographs 2, 11 through 13, and 17 in Appendix A). These signs were observed to be in place during the July 10, 2014 inspection.

A total of 15 "Danger" and "No Trespassing" signs were installed at the TCRA Site; the signs are mounted on steel posts and set in concrete pads (see Photographs 5, 7, and 11 in Appendix A). These signs were observed to be in place during the July 10, 2014 inspection. These signs are intended to face the San Jacinto River to deter water-based entry to the TCRA Site. Several of these signs had rotated out of proper alignment due to the wind. The affected signs were re-aligned to the intended viewing perspective, and the screws fastening the signs to the steel posts were tightened.

Three USEPA Public Notice signs are present around the TCRA Site located: 1) near the gate entry point for the perimeter fence north of I-10; 2) near a gate entry point south of I-10; and 3) at the end of the TxDOT right-of-way north of I-10 near the San Jacinto River (see Photographs 1 and 15 in Appendix A). These three signs were observed to be in place and undamaged.

Signage on the gates of the exterior fencing at the TCRA Site location reminds entrants to "daisy chain" the locks properly prior to leaving the TCRA Site. These signs were observed to be in place and undamaged.

Table 1 summarizes the condition of the TCRA Site signage described in this section.

Table 1

TCRA Perimeter Fencing and Sign Inspection Punch List

Task	Status	
	Completed	Date
Perimeter Fence Visually inspect the perimeter fencing on the east and west sides of the San Jacinto River.	Yes	7/10/2014
"Danger" and "No Trespassing" Signs Visually inspect the 15 signs to verify that they remain in place.	Yes	7/10/2014

USEPA Public Notice Signs Visually inspect the 3 signs to verify that they remain in place.	Yes	7/10/2014
Daisy Chain Signs Visually inspect the 2 signs to verify that they remain in place.	Yes	7/10/2014

Surveys

Portions of the armored cap above the water surface or at a water depth too shallow to access by boat were surveyed using land-based topographic survey techniques. A bathymetric survey was performed for the portions of the armored cap below the water surface and accessible by boat. The surveyor followed the track line spacing, measurement intervals, and accuracy requirements detailed in the OMM Plan.

Survey Tolerance Requirements

The OMM Plan requires that each survey be compared with the prior completed survey using the following criteria:

1. Areas with elevations that are within 6 inches of the previous survey require no action.
2. Contiguous areas with elevation changes exceeding plus or minus 6 inches triggers a review of the survey benchmarks for accuracy or movement.
3. Areas where surveyed elevations are 6 inches higher or lower than the prior survey for a contiguous area larger than 30 feet by 30 feet will require probing to measure the cap thickness.

Survey Results

The armored cap was enhanced by adding additional armor rock where slopes exceeded 3 horizontal/1 vertical, in January 2014 (Anchor QEA 2014). A survey was conducted in February 2014 following completion of the enhancement work. With the one caveat mentioned below, the survey data from July 2014 and February 2014 post-enhancement surveys were compared to evaluate the differences in the top of the armored cap elevation between surveys (Anchor QEA 2014). These differences are shaded and shown in Figure 3.

In February 2014, the hatched areas on Figure 3 could not be accessed by boat during the survey in February due to continued frontal systems causing low water conditions, and furthermore, in February 2014, the presence of organic growth within the hatched areas did not allow a wading survey to be conducted safely (Anchor QEA 2014). The July 2014 survey data within the hatched areas on Figure 3 were therefore compared to the most recent survey data for that area, from October 2013, to evaluate differences in the top of the armored cap elevation between those two surveys for those areas. The differences between the July 2014 and October 2013 survey data for the hatched areas are shaded and shown on Figure 3.

The survey results generally indicate continued sedimentation/deposition on the surface of the armored cap in submerged areas. The results do not indicate any loss of cap material.

The OMM Plan provides for manual probing of armored cap thickness to be performed in areas identified by the topographic or bathymetric surveys as more than 6 inches lower in elevation than during the prior survey over contiguous areas of 30 feet by 30 feet. When the July and February 2014, and October 2013 surveys were compared, the results indicated that there were no areas that met the manual probing requirement. Therefore, no probing was conducted as part of the July 2014 inspection.

The small areas identified as increases and decreases in elevation, outside of the enhancement areas, can be attributed to the horizontal and vertical limitations of the survey, minor shifts in track line location from the baseline survey, and elevation data recorded in the crevices between rock surfaces. The potential for these types of variations between the two datasets to exist was confirmed by the surveyor after reviewing the data collected during this inspection versus the post-enhancement surveys taken in February 2014 and the October 2013 survey.

Repairs to TCRA Construction Elements

No TCRA construction elements were identified as deficient or damaged during this inspection event. No maintenance was required to the TCRA cap in response to the July 2014 inspection.

Inspection Summary

There were no damages or deficiencies identified by the visual, topographic or bathymetric surveys. The visual inspection event on July 10, 2014, did not identify damaged or otherwise deficient areas in the perimeter fence or signage. The armored cap remains intact.

List of Figures

Figure 1 - Vicinity Map
Figure 2 – Fence and Warning Sign Layout
Figure 3 – July 2014 Semi-Annual Inspection Survey

List of Appendices

Appendix A – Inspection Photographic Log

References

Anchor QEA, LLC (Anchor QEA), 2010. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. November 2010.

Anchor QEA, 2011. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. Revised February 2011.

Anchor QEA, 2012. *Revised Draft Final Removal Action Completion Report*, San Jacinto River Waste Pits Superfund Site. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency (USEPA) Region 6. Revised March 2012.

Anchor QEA, 2013. Letter to USEPA G. Miller from D. Keith regarding vegetation control and herbicide application(s). July 12, 2013.

Anchor QEA, 2014. San Jacinto River Waste Pits TCRA Armored Cap Enhancement Completion Report. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency (USEPA) Region 6. February 2014.

Anchor QEA, 2014. Post-TCRA Quarterly Inspection Report – January 2014 Inspection. San Jacinto River Waste Pits Superfund Site. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency (USEPA) Region 6. February 2014.

USEPA, 2010. *Administrative Settlement Agreement and Order on Consent for Removal Action*. U.S. Environmental Protection Agency Region 6 CERCLA Docket No. 06-03-10. In the matter of: San Jacinto River Waste Pits Superfund Site Pasadena, Harris County, Texas. International Paper Company & McGinnes Industrial Management Corporation, Respondents.

FIGURES

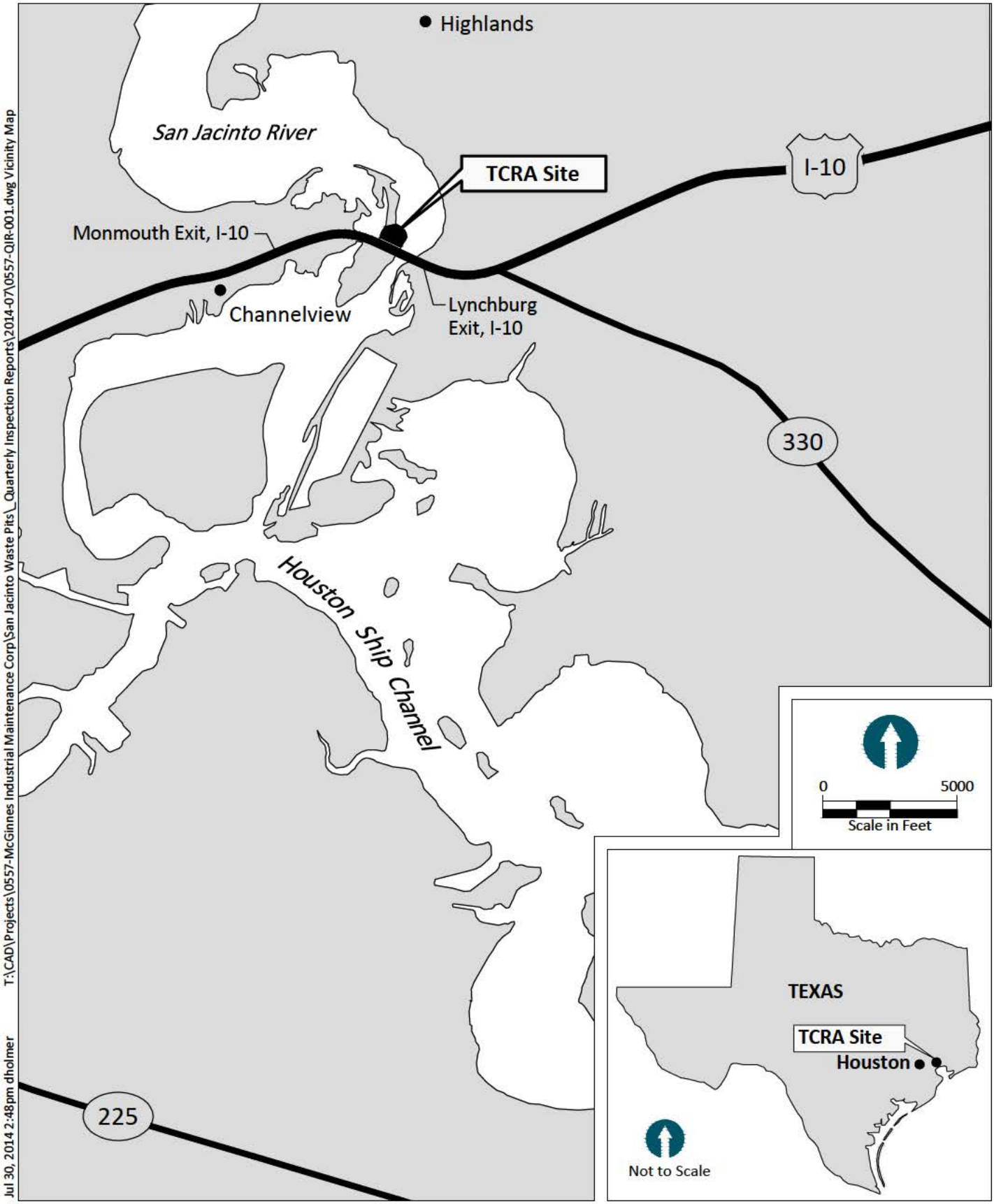

Figure 1
Vicinity Map
Post TCRA Semi-Annual Inspection (July 2014)
San Jacinto River Waste Pits Superfund Site

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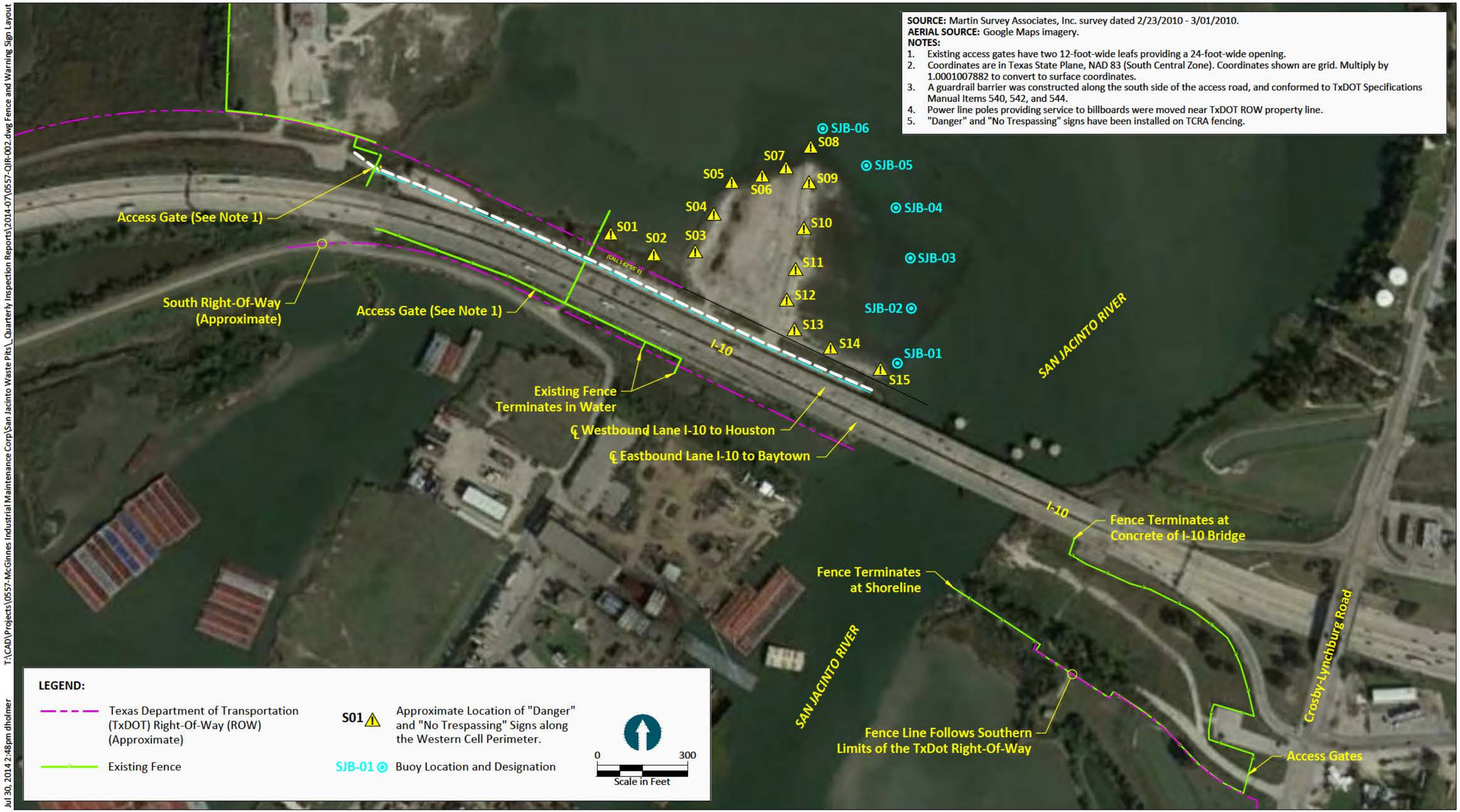

T:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2014-07\0557-QIR-002.dwg Fence and Warning Sign Layout

Jul 30, 2014 2:48pm dholmer

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Figure 2
Fence and Warning Sign Layout
Post TCRA Semi-Annual Inspection (July 2014)
San Jacinto River Waste Pits Superfund Site

Aug 13, 2014 9:14am dholmer T:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2014-07\0557-QIR-003.dwg July 2014 Semi-Annual Inspection Survey

LEGEND:

- July 2014 Bathymetric and Topographic Contours (1 Foot Interval)
- B/C — Armored Cap Type and Boundary
- Historic Impoundment Limits
- > 1.0 Foot Increase
- 0.5 Foot Increase to 1.0 Foot Increase
- 0.5 Foot Increase to 0.5 Foot Decrease
- 0.5 Foot Decrease to 1.0 Foot Decrease
- > 1.0 Foot Decrease
- October 2013 - July 2014 Survey Comparison
- 30' x 30' — Example 30'x30' Area

SOURCE: Drawing prepared from surveys provided by Hydrographic Consultants dated October 2013, February 2014 and July 2014.
HORIZONTAL DATUM: Texas State Plane South Central, NAD83, U.S. Feet.
VERTICAL DATUM: NAVD 88.

0 120
Scale in Feet

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Figure 3
July 2014 Semi-Annual Inspection Survey
Post TCRA Semi-Annual Inspection (July 2014)
San Jacinto River Waste Pits Superfund Site

APPENDIX A
INSPECTION PHOTOGRAPHIC LOG

Photograph 01: USEPA public notice sign located outside the access gate north of I-10 (view southeast)

Photograph 02: Perimeter fencing adjacent to access gate north of I-10 with recently added barbed wire along bottom portion (view southeast)

Photograph 03: Repaired fencing north of and adjacent to I-10 (view south)

Photograph 04: Interior of Western Cell (view northwest)

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Figure A-1
Site Photographs
Post TCRA Inspection Report (July 2014)
San Jacinto River Waste Pits Superfund Site

Photograph 05: Vegetation and warning signs along southern berm (view east)

Photograph 06: Southern and central berms (view northwest)

Photograph 07: Warning sign and dying vegetation along central berm (view west)

Photograph 08: Vegetation along northeastern end of central berm and warning buoy north of Eastern Cell (view northeast)

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Figure A-2
Site Photographs
Post TCRA Inspection Report (July 2014)
San Jacinto River Waste Pits Superfund Site

Photograph 09: Vegetation along northern edge of Western Cell (view southwest)

Photograph 10: Warning signs and vegetation along western berm (view south)

Photograph 11: Warning sign along western berm and interior of Western Cell (view southeast)

Photograph 12: Signage and perimeter fencing south of I-10 and west of San Jacinto River (view northeast)

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Figure A-3
Site Photographs
Post TCRA Inspection Report (July 2014)
San Jacinto River Waste Pits Superfund Site

Photograph 13: Signage and perimeter fencing south of I-10 and west of San Jacinto River (view north)

Photograph 14: Fish consumption advisory signs located south of I-10 and west of San Jacinto River (view south)

Photograph 15: USEPA public notice sign south of I-10 and west of San Jacinto River (view north)

Photograph 16: Perimeter fencing south of and adjacent to I-10 and east of San Jacinto River (view northwest)

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Figure A-4
Site Photographs
Post TCRA Inspection Report (July 2014)
San Jacinto River Waste Pits Superfund Site