

Memorandum

May 26, 2017

To: Gary Miller and Anne Foster, U.S. Environmental Protection Agency
From: John Laplante, John Verduin, Wendell Mears, and David Keith
cc: Phil Slowiak, International Paper Company
David Moreira, McGinnes Industrial Maintenance Corporation

Re: Post-TCRA Quarterly Inspection Report – April 2017

Introduction

This memorandum reports the results of the April 2017 inspections of the armored cap cover, fencing, signage, buoys, and security cameras installed for the Time Critical Removal Action (TCRA) at the San Jacinto River Waste Pits Superfund Site (TCRA Site).

Background

The TCRA was implemented by International Paper Company and McGinnes Industrial Maintenance Corporation (Respondents) under an Administrative Settlement Agreement and Order on Consent 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 following associated project documentation:

- Removal Action Work Plan (Anchor QEA 2010, 2011)
- Revised Draft Final Removal Action Completion Report¹ (RACR; Anchor QEA 2012)

The inspection summarized in this memorandum was conducted in accordance with the Operations, Monitoring, and Maintenance (OMM) Plan (Appendix N of the RACR; Anchor QEA 2012) and a subsequent USEPA-approved amendment to the OMM Plan.² The OMM Plan specifies the timing, pertinent items, tolerances, and procedures for inspection, maintenance, and repair of the armored

¹ David Keith, Ph.D., R.G., C.H.G., Respondents' Project Coordinator, received a RACR (in the form issued by USEPA) from Valmichael Leos via email on August 15, 2012; however, the appendices to the RACR, including the OMM Plan, were not provided to Dr. Keith as part of the document. The OMM Plan had been previously approved by USEPA (in an email from Mr. Leos dated January 18, 2012) and is assumed to remain unchanged. 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.

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. An addendum to the OMM Plan, dated February 29, 2016, was developed to describe the addition of security cameras, their monitoring, and notifications, and approved by USEPA on March 31, 2016.

cap, fencing, and signage installed for the TCRA Site (Figure 1). David Keith, Ph.D., R.G., C.H.G., (Respondents' Project Coordinator) received an email from Gary Miller of USEPA, dated February 16, 2016, directing Respondents to increase the frequency of cap inspections to quarterly until further notice.

Visual Inspection

The visual inspection took place on April 20, 2017, and included evaluation of the following TCRA elements:

- Inspection of the security fence and signage surrounding the TCRA Site
- Inspection of the armored cap visible above the water line of the San Jacinto River
- Visual confirmation that waste materials are not actively eroding into the San Jacinto River
- Inspection of perimeter buoys and security camera system

The inspection was performed by David Keith, the Respondents' Project Coordinator, Gary Miller (USEPA), and Katie Delbecq (Texas Commission on Environmental Quality). A second visual inspection of the armored cap and signs was performed by David Keith and Holly Samaha (Anchor QEA) on May 4, 2017. The primary purpose of the May 4 inspection was to identify signs to be replaced because of weathering.

Photographs of conditions observed during visual inspections are provided in Appendix A. 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 events are provided in Appendix A. The majority of the Eastern Cell armored cap was underwater at the time of the inspection on April 20, 2017; however, there was a north wind and associated low tide during the inspection on May 4, 2017, and large portions of the Eastern Cell were exposed (Photographs 13 through 16 in Appendix A). All the visible portions of the armored cap were observed to be intact, and no movement of cap materials was observed at any location during either of the visual inspections.

During the inspection, some driftwood, litter, and other debris were observed on the surface of the cap. Additionally, woody vegetation was observed on portions of the cap surface and berm areas. Benchmark Ecological Services, the Respondents' on-call contractor, was engaged to remove litter and debris and perform vegetation control on the cap surface, following USEPA approval for this work on May 3, 2017. This work was performed on May 4 and 5, 2017. A second round of vegetation control is also scheduled for June 2017.

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 indications of damage on April 20, 2017. No breaches or indications of fence damage were observed during the inspection of the perimeter fencing around the cap area north of Interstate-10 (I-10). Fencing on the west bank and south of I-10 was in good condition and did not have any breaches. Fencing on the east bank and south of I-10 was in good condition and had no breaches, except for a small area beneath the I-10 bridge (Photograph 11, Appendix A). National Fence was contacted to repair this breach, and the repairs were made on May 16, 2017.

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

Signage

"Danger" and "No Trespassing" signs are posted at regular intervals on the perimeter fencing surrounding the TCRA Site. All "Danger" and "No Trespassing" signs were observed to be in place during the April 20, 2017, inspection.

A total of 15 signs were installed around the perimeter of the land portion of the TCRA Site; the signs are mounted on steel posts and set in concrete pads. These signs are intended to face the San Jacinto River to deter water-based entry to the TCRA Site. For an example of these signs, see Photograph 9 in Appendix A. All signs were observed to be in place; however, during the inspection, several of the "Danger" and "No Trespassing" signs on the cap and perimeter fencing were observed to have begun to fade due to weathering. In addition, there are three USEPA Public Notice signs present around the TCRA Site located near the gate entry point for the perimeter fence north of I-10; near a gate entry point south of I-10; and at the end of the Texas Department of Transportation right-of-way north of I-10 near the San Jacinto River. For examples, see Photographs 1 and 13 in Appendix A. A detailed inspection and inventory of the signs that require replacement due to weathering was performed on May 4, 2017. That inspection revealed the signs needing replacement include 36 orange "Danger" signs (36 inches by 48 inches), 31 white "No Trespassing" signs (24 inches by 24 inches), and 2 USEPA Public Notice signs (60 inches by 90 inches). The Respondents have ordered new signs and plan to replace them when the sign fabrication is completed.

Signage on all locked gates 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	4/20/2017
"Danger" and "No Trespassing" Signs Visually inspect the 15 signs on the armored cap and signs on the perimeter fencing to verify they remain in place.	Yes	4/20/2017
USEPA Public Notice Signs Visually inspect the 3 signs to verify that they remain in place.	Yes	4/20/2017
Daisy Chain Signs Visually inspect the 2 signs to verify that they remain in place.	Yes	4/20/2017

Perimeter Buoys

Permanent warning buoys were installed around the perimeter of the armored cap, as outlined in the letter from Respondents' Project Coordinator dated February 16, 2016 (Anchor QEA 2016a). The perimeter buoy system was visually inspected and found to be intact on April 20, 2017, and May 4, 2017. See Photographs 4, 8, and 12 in Appendix A for examples.

Security Cameras

Security cameras, installed as outlined in an addendum to the OMM Plan (Anchor QEA 2016b), were also inspected on April 20, 2017. The security camera system was operating normally during the inspection. For an example of the security camera apparatus at the Site, see Photograph 10 in Appendix A.

Survey

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. The survey began on April 10, 2017, and was completed on April 24, 2017. The surveyor followed the track line spacing, measurement intervals, and accuracy requirements detailed in the OMM Plan (Anchor QEA 2012) for all survey work.

Survey Tolerance Requirements

The OMM Plan (Anchor QEA 2012) 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 trigger 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 survey data from the January 2017 inspection survey and the April 2017 inspection survey were compared to evaluate the differences in the top of the armored cap elevation. These differences are shaded and shown on Figure 3. The survey results indicate continued deposition and periodic erosion of alluvial sediment on the surface of the cap.

The OMM Plan (Anchor QEA 2012) calls for manual probing of armored cap thickness in contiguous areas larger than 30 feet by 30 feet identified by the topographic or bathymetric surveys as more than 6 inches higher or lower in elevation as compared to the prior survey. When the January 2017 and April 2017 surveys were compared, the results indicated that there were no areas where manual probing was required.

Inspection Summary

The visual TCRA inspections during April and May 2017 showed the security camera system was in place and operating normally, and the armored cap and perimeter buoy system remained intact with no visual deficiencies. A total of 69 signs showed signs of weathering and fading and are being replaced by the Respondents. One small section of fencing beneath the I-10 bridge on the eastern bank was repaired on May 16, 2017. The survey that was completed on April 24, 2017, indicates continued deposition and periodic erosion of alluvial sediment on the surface of the cap. As a result of the inspection, debris and routine vegetation removal from the cap surface occurred on May 4 and 5, 2017. Additional vegetation control is planned in June 2017.

Figures

- Figure 1 Vicinity Map
- Figure 2 Fence and Warning Sign Layout
- Figure 3 April 2017 Quarterly Inspection Survey Results

List of Appendices

Appendix A – Inspection Photographic Log

References

- Anchor QEA (Anchor QEA, LLC), 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 (MIMC) and International Paper Company (IPC). 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 MIMC and IPC. Revised February 2011.
- Anchor QEA, 2012. *Revised Draft Final Removal Action Completion Report, San Jacinto River Waste Pits Superfund Site*. Prepared for MIMC, IPC, and USEPA Region 6. Revised March 2012.
- Anchor QEA, 2015. Draft Amendment 1, Operations, Monitoring and Maintenance Plan, San Jacinto River Waste Pits Time Critical Removal Action. Memorandum to Gary Miller, USEPA, from David Keith, Anchor QEA, LLC. December 3, 2015.
- Anchor QEA, 2016a. Letter from D. Keith to G. Miller, USEPA, regarding Site Buoy Enhancement for San Jacinto River Waste Pits Superfund Site. February 16, 2016.
- Anchor QEA, 2016b. Addendum 2, Operations, Monitoring, and Maintenance Plan, San Jacinto River Waste Pits Time Critical Removal Action (Proposed Camera Security System Memorandum). February 29, 2016.
- USEPA (U.S. Environmental Protection Agency), 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. IPC & MIMC, Respondents.

Figures

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May 01, 2017 4:52pm dholmer

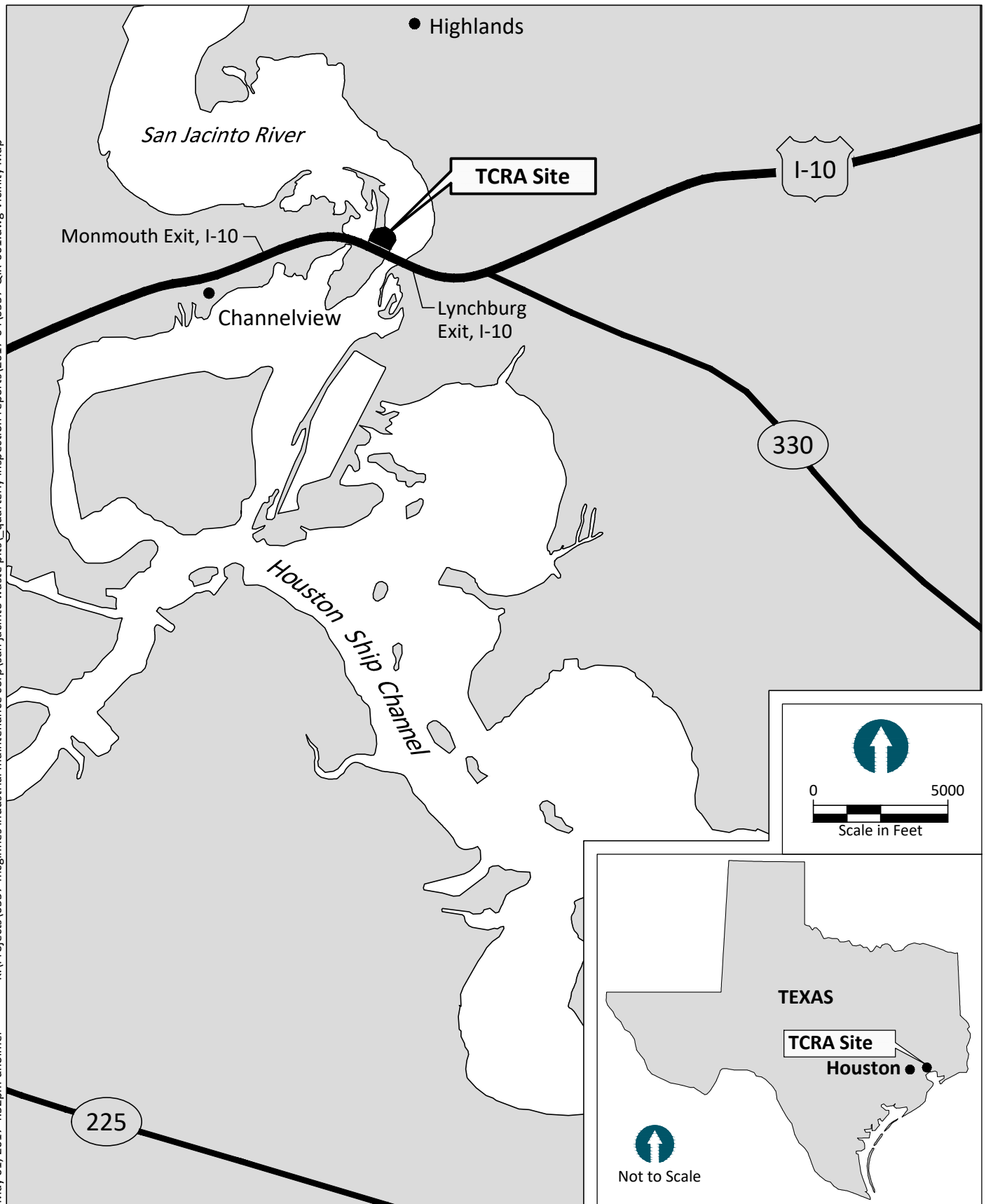


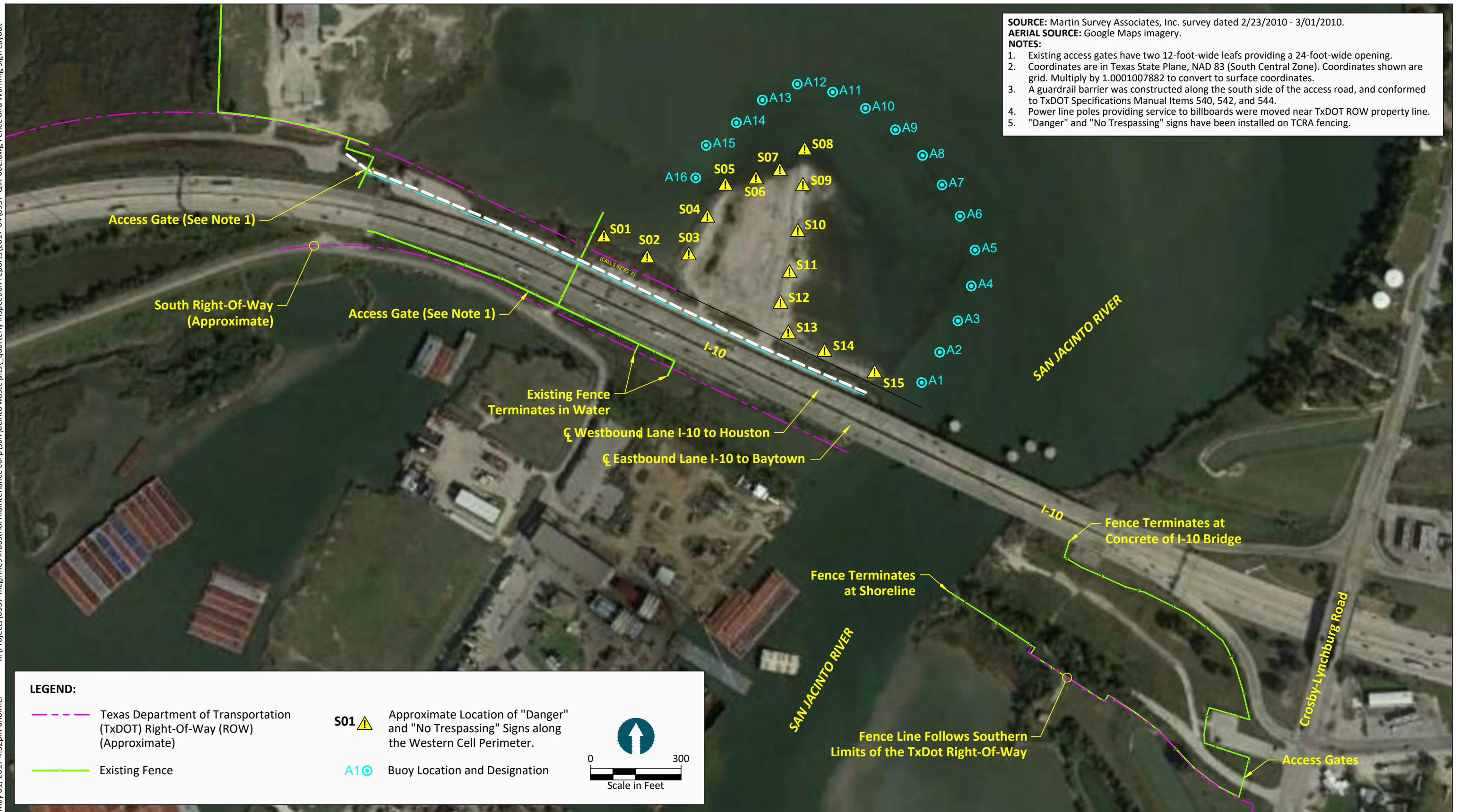
Figure 1

Vicinity Map

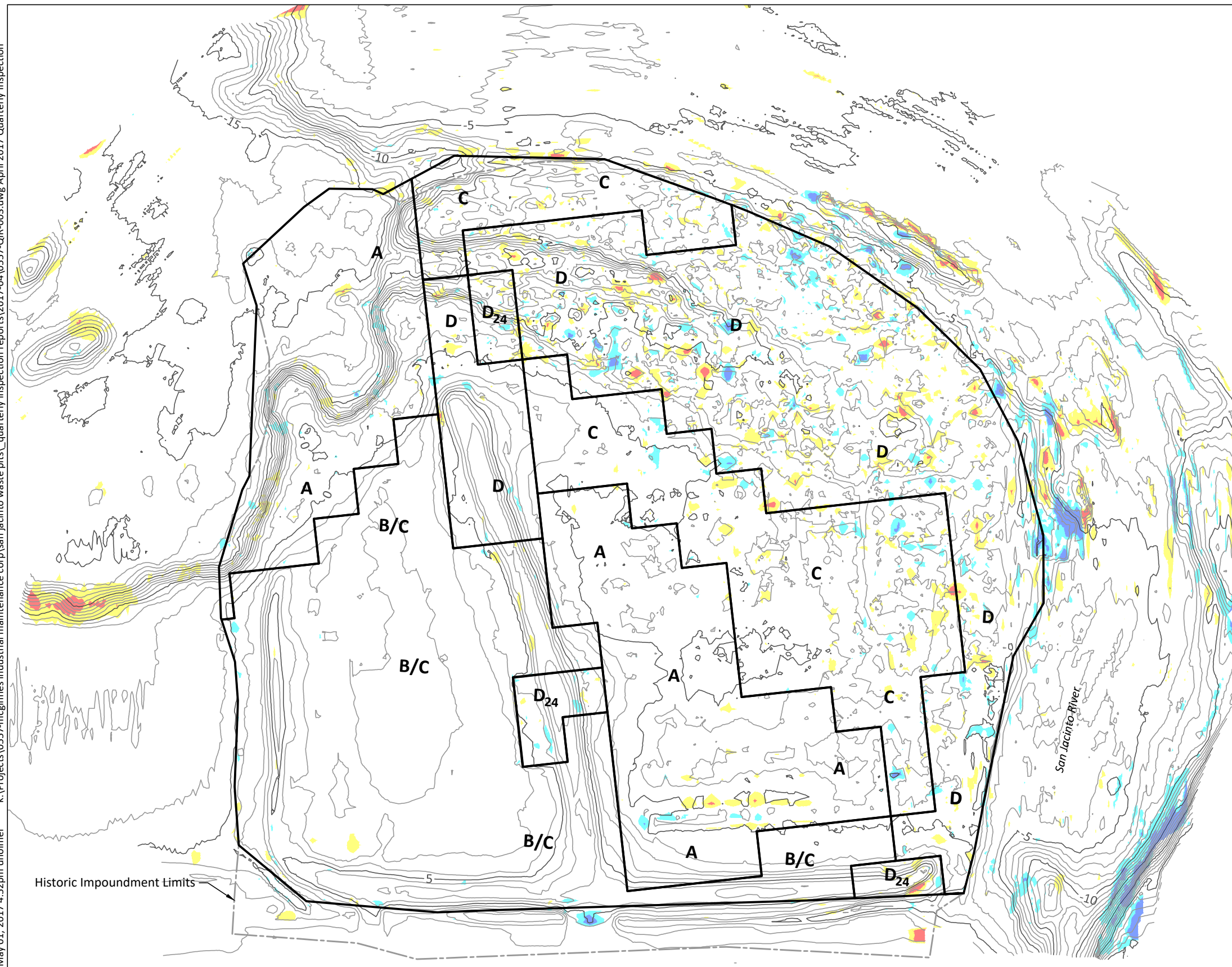
Post-TCRA Quarterly Inspection (April 2017)

San Jacinto River Waste Pits Superfund Site

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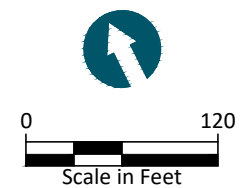
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LEGEND:

- April 2017 Bathymetric and Topographic Contours (1 Foot Interval)
- 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
- Example 30'x30' Area

SOURCE: Drawing prepared from surveys provided by Hydrographic Consultants dated January 2017 and April 2017.
HORIZONTAL DATUM: Texas State Plane South Central, NAD83, U.S. Feet.
VERTICAL DATUM: NAVD 88.



Appendix A

Inspection Photographic Log



Photograph 01: USEPA Public Notice Sign located outside the access gate north of I-10 (view southeast)



Photograph 02: Southern berm (view east)



Photograph 03: Central berm and intertidal area of Eastern Cell (view north)



Photograph 04: Perimeter buoy system (view northeast)



Photograph 05: Vegetation along intertidal area of Eastern Cell (view southeast)



Photograph 06: Interior of Western Cell (view northwest)



Photograph 07: Western berm (view north)



Photograph 08: Interior of Western Cell (view northeast)



Photograph 9: Danger sign located on central berm (view west)



Photograph 10: Security camera on southern berm (view east)



Photograph 11: Fence repair location beneath I-10 Bridge on east bank



Photograph 12: Perimeter buoy system with warning buoy (view west)



Photograph 13: USEPA public notification sign located at the end of the TXDOT right-of-way (view southwest)



Photograph 14: Eastern berm and cell facing east, May 4, 2017, low tide conditions



Photograph 16: Middle eastern cell facing southeast May 4, 2017, low tide conditions



Photograph 15: Eastern berm and cell facing north May 4, 2017, low tide conditions