

July 31, 2014

Ms. Eleanor Wehner, P.G.
Texas Commission on Environmental Quality
Remediation Division
VCP-CA Section, Mail Code MC-127
Post Office Box 13087
Austin, Texas 78753

**Re: Texas Custodial Trust
Former ASARCO Smelter Site (Site), El Paso, Texas**

**Subject: Upper Parker Brothers Arroyo (Fines Pile/Ephemeral Pond/Triangle
Areas) Improvement Plans Including Regrading, Cover and Drainage
Elements and CLOMR Application**

Dear Ms. Wehner:

Submitted with this letter are improvement plans and a Conditional Letter of Map Revision (CLOMR) that includes hydrologic and hydraulic analyses for regrading, drainage and cover elements in the Upper Parker Brothers Arroyo. The improvement plans include the following elements:

Regrading

- Regrading the Fines Pile area with 3:1 side-slopes and a top deck sloped at 2% to create the final shape of the area for capping in-place.
- Regrading the Ephemeral Pond area to enhance drainage of the area and provide the foundation for channel lining and erosion protection components. Special care will be taken to protect a large diameter, high pressure natural gas line through this area. Please note that the presence of the gas line precludes removal of subsurface Category II material in this area. However, since the area is proposed to be covered with a geomembrane, the remaining Category II material will be isolated from infiltration.
- Regrading an area south of the west abutment of the I-10 slag bridge (Triangle Area) to enhance drainage of the area and provide the foundation for channel lining and erosion protection components. Special care will also be taken to protect the same large diameter, high pressure natural gas line through this area.
- Regrading the channel on the west side of the Union Pacific Railroad (Railroad Channel) to enhance drainage of the area and provide the foundation for channel lining.



Channel Lining

A CLOMR that describes drainage through the upper reach area is attached. The CLOMR includes reference to design storm events and channel modeling (with HEC-RAS) that provides rationale for the channel dimensions, flows and velocities. Channel linings and erosion protection materials were selected based on this analysis. All analyses were completed following the El Paso Drainage Manual. Channel lining materials include the following:

- HydroTurf™ on channel slopes and bottom (Ephemeral Pond, Triangle and Railroad Channel areas) consisting of a 50 mil spiked/nubbed linear low density polyethylene (LLDPE) liner installed on prepared subgrade, overlain by a high density polyethylene (HDPE) grass fiber/sand ballast layer (see material brochure in Attachment)
- Gabions at the I-10 box culvert outlet (this is the inlet to the Upper Reach)
- Shotcrete over exposed slag to the high water line in select areas
- Asphalt parallel and adjacent to the east side of the Union Pacific Railroad to provide a combined access road/drainage channel to route flow to the Triangle Area
- Concrete masonry unit (CMU) block wall under the plant-side slag bridge abutment (note that this section is on hold for final design; the configuration is complete; lining components are being reevaluated in light of the rail road slope).

The lining materials have been selected to provide long-term protection of the channel from erosion and also provide an impermeable barrier to prevent infiltration into the subsurface thereby delivering storm water to the Rio Grande River that is not impacted by contact with Site materials.

Fines Pile Cover System

Characterization and rationale for closing the Fines Pile in-place was provided in Appendix M of the Supplemental Remedial Investigation Report prepared by Malcolm Pirnie (November, 2013) in order to prevent infiltration of precipitation. The proposed design includes regrading and preparing the surface of the fines pile as discussed above followed by installing an impermeable cover system and surface water drainage ditches. The proposed configuration is the following:

- ClosureTurf™ cover system over the Fines Pile consisting of a 50 mil spiked/nubbed LLDPE geomembrane installed on the prepared subgrade, overlain by a HDPE grass fiber/sand ballast layer. The cover materials will provide long-term isolation of the fines pile and also provide an impermeable barrier to prevent infiltration into the subsurface.





- Drainage ditches to route surface water flow away from the Fines Pile and adjacent areas into the improved channels.

This design package is issued for your review and approval. Your concurrence to proceed with grading and channel lining installations is requested as soon as possible such that we can submit the CLOMR to the City of El Paso/FEMA and obtain a grading permit to proceed with the excavation activities. We will also be obtaining access agreements from Union Pacific where the required improvements encroach on their property. We understand that you may have comments on the Fines Pile cover and drainage system and will not install those components until we have received your approval.

If you have any questions regarding the information submitted, please call me at 602-438-0883.

Very truly yours,

MALCOLM PIRNIE, INC.

A handwritten signature in blue ink, appearing to read "Scott M. Brown".

Scott M. Brown, P.E.
Project Manager

cc: Roberto Puga
Elizabeth Schell
Mark Landress
Malcolm Pirnie Team

