



Long-Term Stewardship Assessment Report
Saint Mary's Refining Company, Incorporated
EPA ID #: WVD004337135
Saint Marys, WV 26170

Assessment Date: August 30, 2018

Report Date: September 27, 2018

Introduction: Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

Site Background: Saint Mary's Refining Company, Inc. (SMRC) is located at 201 Barkwill Street in Saint Marys, West Virginia (Facility or Northern Refinery) encompassing approximately seventy acres twenty miles northeast of the City of Parkersburg. The Facility is a former petroleum refinery that produced lubricating oils, waxes, gasoline, jet fuel and other petroleum products throughout its operating history. Refining operations were conducted at the Facility by various owners from 1913 until 1993 when refinery operations ceased. Historic releases of hydrocarbons occurred primarily in the former refinery area, called the Northern Refinery, and impacted soil and groundwater. Since April 1993, the Facility has been used primarily for the bulk storage of petroleum products including gasoline and diesel fuel. SMRC has owned the Facility since August 1991. The Facility receives gasoline and diesel fuel by barge, and conveys the product to the refinery by underground and aboveground pipes. Product is loaded onto tanker trucks which transport the product for off-site distribution. It is bordered by State Route 2 to the north and west, with neighboring residential and commercial properties. Figure 1, is an aerial view of the Northern Refinery and impacted offsite properties (Creel Street, Waste Water Treatment and Pipeline properties) outlined.

Current Site Status: On January 30, 2012, EPA issued the Final Decision and Response to Comments (FDRTC) to address contamination at the Facility. The final remedy determination is No Further Action with Controls and monitored natural attenuation of groundwater. Controls include a Soil Management Plan (SMP), groundwater use and land use restrictions. The final remedy detailed in the FDRTC is implemented through multiple UECA Environmental Covenants which define activity and use limitations for the Northern Refinery and three off-site properties. A covenant between EPA and

SMRC was recorded with the Pleasants County clerk office on October 9, 2013 for the Northern Refining property. Covenants for the Wastewater Treatment, Pipeline and Creel Street properties were recorded with the Pleasants County clerk office on October 22, 2008, July 22, 2010 and August 8, 2012, respectively. The Facility is currently used for loading gasoline and diesel onto tanker trucks and the storage of petroleum in large above ground storage tanks.

Site Visit and Long-term Stewardship Conference Call: On November 15, 2017, West Virginia Department of Environmental Protection (WVDEP) conducted a site visit with a SMRC representative. On August 30, 2018, WVDEP and EPA held a conference call to discuss and assess the status of the implemented remedies at the site.

The site visit attendees were:

Name	Organization	Email Address	Phone No.
Kenan Cetin	WVDEP	kenan.cetin@wv.gov	(304) 238-1220 Ext. 3507
Charles McCulloch	Arcadis	charles.mcculloch@arcadis.com	(513) 659-8924
Dale Colvin	SMRC		
Sam Heater	SMRC		

The conference call attendees were:

Name	Organization	Email Address	Phone No.
Kenan Cetin	WVDEP	kenan.cetin@wv.gov	(304) 238-1220 Ext. 3507
Barbara Smith	EPA Region 3	smith.barbara@epa.gov	(215) 814-5786
John Hopkins	EPA Region 3	hopkins.john@epa.gov	(215) 814-3437

Institutional Controls (ICs) Status:

UECA Environmental Covenants: Covenants are the method for implementing institutional controls required as a condition of the Statement of Basis and Final Decision.

The following IC applies to the Northern Refinery, Creel Street and Wastewater Treatment properties:

Groundwater Use Restriction: Groundwater at the Facility shall not be used for any purpose other than 1) groundwater monitoring; and/or 2) remediation required by WVDEP and/or EPA.

The following IC applies to the Northern Refinery, Pipeline and Wastewater Treatment properties:

Land Use Restriction: Use of the property for any purpose other than as nonresidential property as defined by the West Virginia Voluntary Remediation and Redevelopment Act (West Virginia Code § 22-22-2(q)) is prohibited.

The following IC applies to the Northern Refinery property:

Soil Management Plan: Excavation, drilling or penetration unless such excavation, drilling or penetration is conducted by a contractor who is qualified and knowledgeable about releases

and exposures to contaminants known to exist at the site. The contractor will be required to perform the work in accordance with the Soils Management Plan (SMP) approved by EPA, and which will include a site-specific Health and Safety Plan, Sampling and Analysis Plan, and Quality Assurance Project Plan.

The following IC applies to the Pipeline property:

Construction and Excavation restriction: Building occupied structures above, and excavation a long, the Pipeline Property, except for excavation done by Pennzoil Quaker State Corporation, St. Marys Relining Company or their respective contractors, successors or assigns.

Monitored Natural Attenuation: SMRC conducts semi-annual groundwater monitoring at twelve wells located on and off-site. Groundwater flow direction beneath the Property is northwest towards the Ohio River. Wells MW-7D, MW-35S, MW-31D, MW-18D, MW-37, MW-38D, MW-41S, MW-39S, MW-30D, MW-27D, BW-1 and BW-5 are sampled for benzene, MTBE, BTEX, naphthalene, dissolved arsenic, sulfate, alkalinity and total organic carbon (see Figure 2). There are two known source areas of benzene at the Creel Street property and Northern Refining Area. The latest Spring 2017 groundwater sampling results showed concentrations are consistent with historical results, except for wells BW-1 and MW-45 prior to its decommissioning in 2016. Mr. McCulloch believes that a possible contaminant “smear zone” was present at BW-1 causing fluctuations in benzene concentrations and that the recent increase in benzene concentration is not related to SMRC’s pipeline in the area. A smear zone is the area between the high and low water levels in a well, due to fluctuations. MW-45 was a monitoring well located in the right-of-way of Route 2 and was damaged in late 2015 or early 2016 by West Virginia Department of Transportation (WVDOT) when paving the road. The increase in benzene in this well is believed to be caused by surface water infiltration off the asphalt into the damaged well. Monitoring wells upgradient and downgradient of MW-45 show no increase in benzene concentrations during this time period. EPA and WVDEP are both in agreement with Mr. McCulloch’s theory.

EPA and WVDEP recommended that well BW-1 be sampled tri-annually to monitor potential increases of benzene concentrations in groundwater. BW-1 was sampled on November 17, 2017 and results showed a decrease in benzene concentration when compared to the May 2016 to May 2017 results (and a reduction in groundwater depth). This, along with other factors such as the pipeline being under pressure and its shallow depth led to the conclusion that the pipeline was not the source of the increased concentration of benzene but was most likely due to a possible contaminant smear zone.

SMRC will discontinue the sampling naphthalene in all monitoring wells and MTBE in wells B-1 and B-5. Naphthalene concentrations in groundwater are low and the cleanup level of 0.17 ug/L is below the laboratory detection limit. MTBE has never been detected in wells B-1 or B-5. On October 16, 2017, WVDEP approved the reduction of groundwater monitoring frequency from semi-annual to annual sampling each Spring.

Financial Assurance: Financial Assurance is not required for this site.

Reporting Requirements/Compliance: SMRC is now required to submit annual groundwater monitoring reports. There are no issues of noncompliance regarding reporting requirements as SMRC has submitted two “Semi-annual Monitored Natural Attenuation Reports” each year, the last of which was received March 18, 2018 and was approved by WVDEP. No transfer of property, changes in use of the property, or work that will affect contamination at the property has been reported.

Mapping: The EPA facility website map is accurate and includes the 20-acre Northern Refinery and impacted off-site properties. A downloadable geospatial PDF map is available on EPA’s corrective action facility webpage under the “Reports, Documents and Photographs” section, found [here](#).

Conclusions and Recommendations: No IC deficiencies were identified. EPA and WVDEP have determined that the remedy ICs have been fully implemented. EPA and WVDEP concur with SMRC’s approach and recommendations regarding monitored natural attenuation of benzene in groundwater.

Attachments:

Figure 1: Aerial Map of SMRC and Surrounding Areas

Figure 2: Monitoring Well Location Map

Picture 1: Creel Street Property

Picture 2: Wastewater Treatment Plant

Picture 3: Ohio River Barge Dock

Figure 1: Aerial Map of SMRC and Surrounding Areas

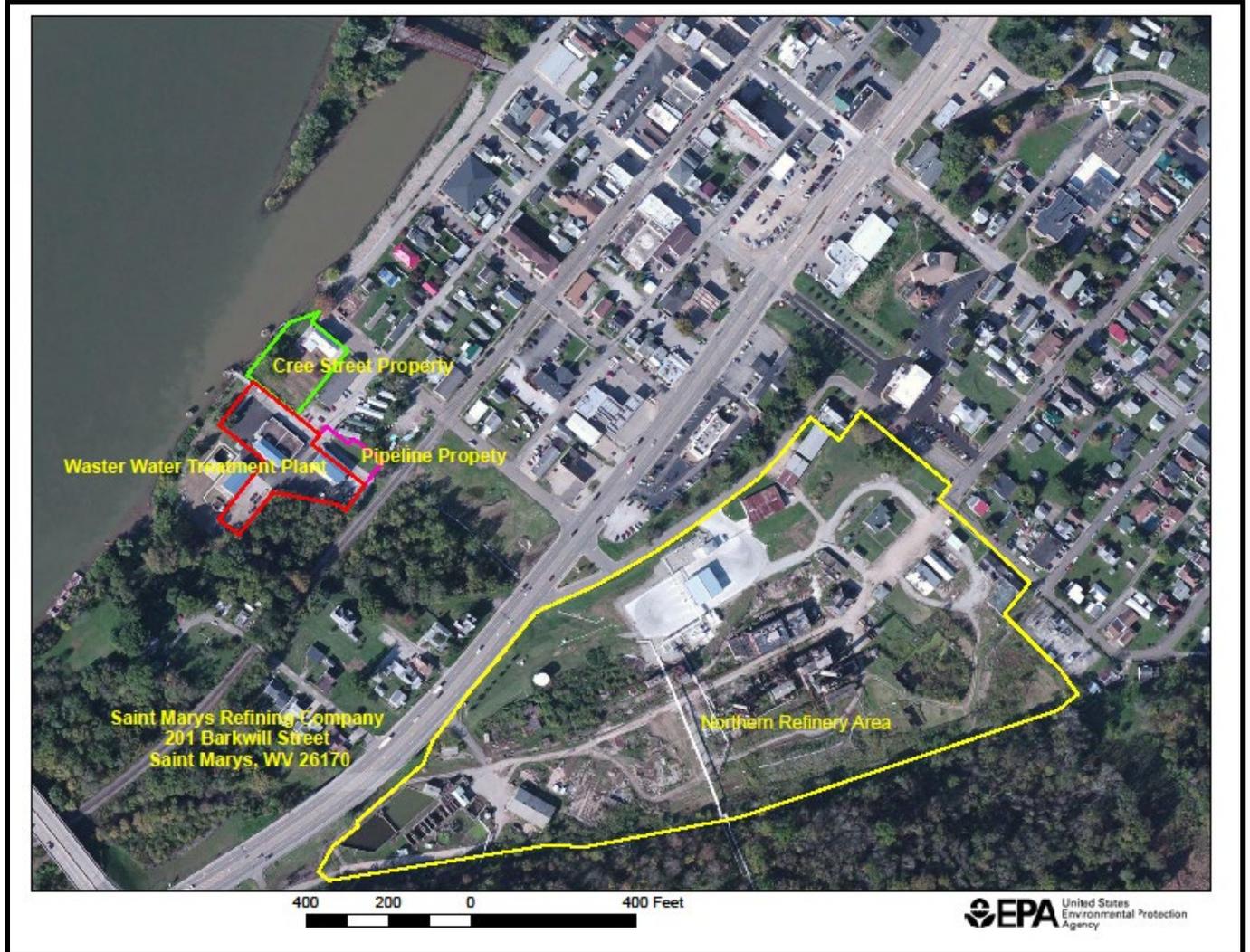
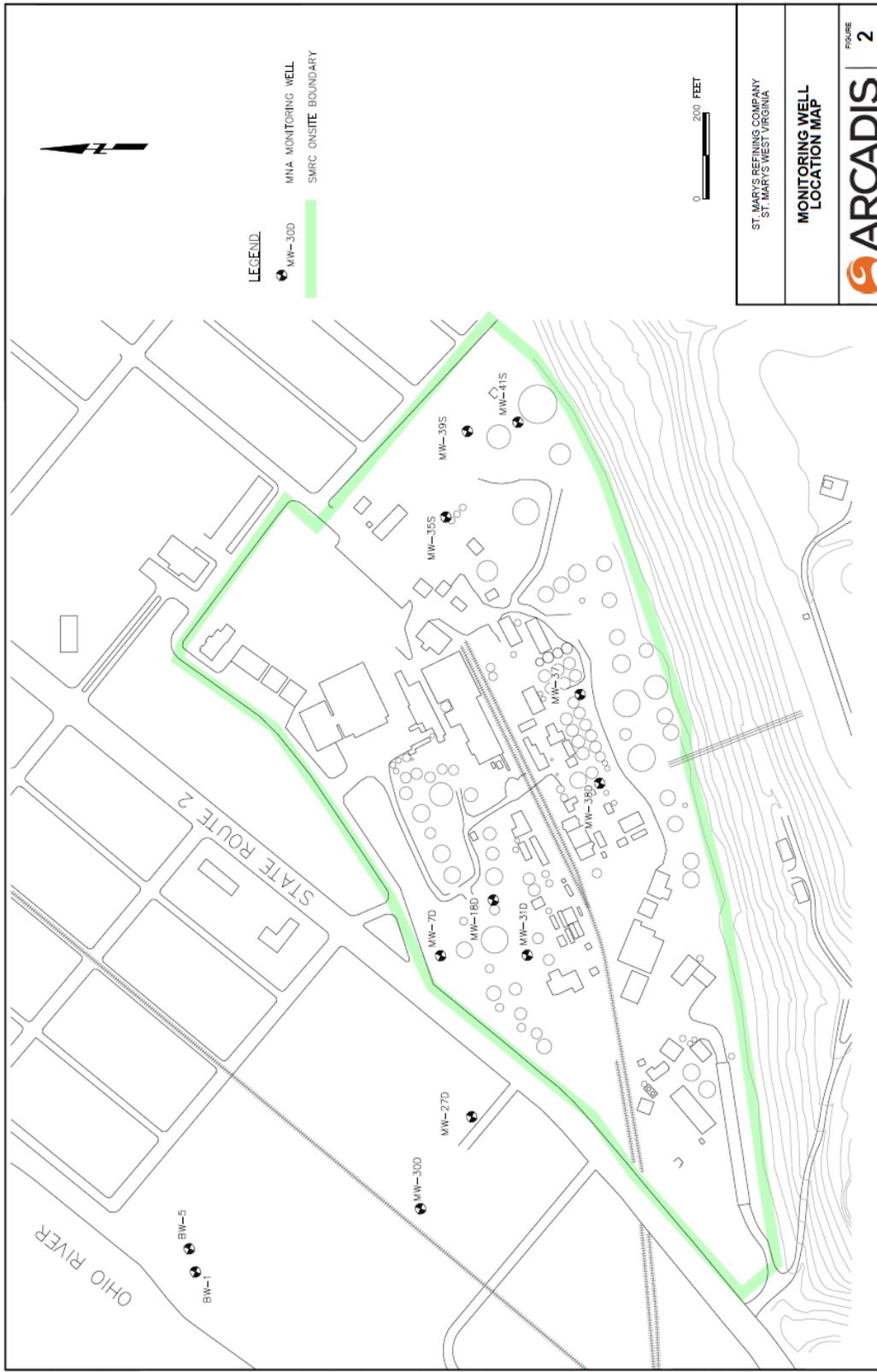


Figure 2: Monitoring Well Location Map



Picture 1: Creel Street Property



Picture 2: Wastewater Treatment Plant



Picture 3: Ohio River Barge Dock

