



INITIAL INVESTIGATION FIELD REPORT

Check this box if you have attached any documents to this form (using the paperclip icon on the left).

ERTS #(s):
Parcel #(s):
County:
FSID #:
CSID #:
UST #:

678588
Clark
7154984

SITE INFORMATION

<u>Site Name (Name over door):</u> Kinder Morgan	<u>Site Address (including City, State and Zip):</u> 2735 Harborside Drive, Vancouver, WA 98660	<u>Phone</u> <u>Email</u>
<u>Site Contact, Title, Business:</u> Scott Heidegger	<u>Site Contact Address (including City, State and Zip):</u> 2735 Harborside Drive, Vancouver, WA 98660	<u>Phone</u> (360) 693-5300 <u>Email</u> Scott.Heidegger@kindermorgan.com
<u>Site Owner, Title, Business:</u> Kinder Morgan, bulk terminal	<u>Site Owner Address (including City, State and Zip):</u>	<u>Phone</u> <u>Email</u>
<u>Site Owner Contact, Title, Business:</u>	<u>Site Owner Contact Address (including City, State and Zip):</u>	<u>Phone</u> <u>Email</u>
<u>Previous Site Owner(s):</u>	<u>Additional Info (for any Site Information Item):</u>	
<u>Alternate Site Name(s):</u>		

<u>Latitude (Decimal Degrees):</u> 45.63661
<u>Longitude (Decimal Degrees):</u> -122.0430

Please check this box if there is relevant inspection information, such as data or photos, in an existing site report for this site.

INSPECTION INFORMATION

Inspection Conducted? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Date/Time: March 20, 2018	Entry Notice: Announced <input checked="" type="checkbox"/> Unannounced <input type="checkbox"/>
Photographs taken? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Note: Attach photographs or upload to PIMS	
Samples collected? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Note: Attach record with media, location, depth, etc.	

RECOMMENDATION

No Further Action (Check appropriate box below):	LIST on Confirmed and Suspected Contaminated Sites List: <input checked="" type="checkbox"/>
Release or threatened release does not pose a threat <input type="checkbox"/>	
No release or threatened release <input type="checkbox"/>	
Refer to program/agency (Name: _____) <input type="checkbox"/>	
Independent Cleanup Action Completed (contamination removed) <input type="checkbox"/>	

COMPLAINT (Brief Summary of ERTS Complaint):

ERTS #678588, in late December 2017 blue condensate water was found in the knockout tank of the south soil vapor extraction (SVE) system at NuStar Terminals Services Inc facility (2565 NW Harborside Dr.) at the Port of Vancouver. Analysis of the water showed copper in the "thousands" of parts per billion, as well as nitrates and ammonia, sulfate and chlorinated solvents. Solvents were expected as that is the purpose of the SVE. The nitrates and ammonia were previously detected in groundwater and expected as NuStar handles dry bulk fertilizer of ammonia nitrate.

CURRENT SITE STATUS (Brief Summary of why Site is recommended for Listing or NFA):

Sampling after the initial discovery detected copper in groundwater samples from monitoring wells near the SVE system at 10 to 4,530 micrograms per liter (ug/l). Additional groundwater sample analysis showed copper levels as high as 20,900 ug/l. These wells are located on the NuStar leasehold and NuStar has reason to believe the copper is sourced from copper concentrate dust and storm water mixing. This storm water infiltrated in to the ground reaching groundwater. NuStar has reported to Ecology from as far back as 2006 that copper in storm water is sourced from the Kinder Morgan facility where copper concentrate is stored and loaded into ships.

Investigator: Craig Rankine	Date Submitted: 4/2/2018
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OBSERVATIONS Please check this box if you included information on the Supplemental Page at end of report.

Description (If site visit made, please be sure to include the following: site observations, site features and cover, chronology of events, sources/past practices likely responsible for contamination, presence of water supply wells and other potential exposure pathways, etc.):

A tour of the Kinder Morgan facility was conducted on March 20, 2018. The facility handles bulk products of copper concentrate, bentonite clay and tire chips. The concentrate and clay are stored in warehouse buildings. The tire chips are stored in on a concrete pad outside without a cover. The copper concentrate arrives at the facility via rail car and leaves via ship. The rail cars are unloaded using an excavator that digs the material out of the rail car and places it into a hopper that loads a conveyor moving the concentrate to warehouse storage. The concentrate is dry to damp solid of sand size particles. A new offload facility was constructed in September 2017. Dust has not been reported at this location but is suspect during excavation offloading. Concentrate is moved from the rail car unload area to warehouse and from the warehouse to ship by conveyor. Dust is generated during travel on the conveyor belt to load the ships. This dust has been seen and reported as a problem for years by NuStar. The dust has been observed for years along the conveyor route. The dust accumulates on paved and unpaved areas and on the shore and into surface water of the Columbia River. Since at least 2006 Ecology's Water Quality Program has received letters and complaints from NuStar about the dust and elevated levels of copper in storm water. Storm water from the NuStar and Kinder Morgan facilities is routed to a treatment facility operated by the Port of Vancouver. The port has a storm water discharge permit.

Groundwater flow from the NuStar facility is towards the Columbia River.

Solvent cleanup at NuStar is under Agreed Order (DE 11137) with the Toxics Cleanup Program (FSID #1026, Vancouver Port of NuStar, Cadet and Swan).

Contaminant group:

Sediment for halogenated organics is from Columbia River sediment.

Metals - Other in groundwater only copper and cadmium detected above standards, not the other metals listed in the table below. Metals - Other detection in surface water is from storm water for copper and zinc. Metals detected in sediment where copper, cadmium and lead are above standards is of sludge from inside monitoring well monuments not from Columbia River sediment.

Documents reviewed:

Various Interim Action Work Plans for NuStar, Cadet and Swan.

Remedial Investigations report for NuStar, Cadet and Swan.

Feasibility Study for NuStar, Cadet and Swan.

CONTAMINANT GROUP	CONTAMINANT	SOL	GROUNDWATER	SURFACE WATER	AIR	SEDIMENT	DESCRIPTION
Non-Halogenated Organics	Phenolic Compounds						Compounds containing phenols (Examples: phenol; 4-methylphenol; 2-methylphenol)
	Non-Halogenated Solvents						Organic solvents, typically volatile or semi-volatile, not containing any halogens. To determine if a product has halogens, search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is not a Cl, I, Br, F in the formula, it's not halogenated. (Examples: acetone, benzene, toluene, xylenes, methyl ethyl ketone, ethyl acetate, methanol, ethanol, isopropanol, formic acid, acetic acid, stoddard solvent, Naptha). <i>Use this when TEX contaminants are present independently of gasoline.</i>
	Polynuclear Aromatic Hydrocarbons (PAH)						Hydrocarbons composed of two or more benzene rings.
	Tributyltin						The main active ingredients in biocides used to control a broad spectrum of organisms. Found in antifouling marine paint, antifungal action in textiles and industrial water systems. (Examples: Tributyltin; monobutyltin; dibutyltin)
	Methyl tertiary-butyl ether						MTBE is a volatile oxygen-containing organic compound that was formerly used as a gasoline additive to promote complete combustion and help reduce air pollution.
	Benzene						Benzene
	Other Non-Halogenated Organics						TEX
	Petroleum Diesel						Petroleum Diesel
	Petroleum Gasoline						Petroleum Gasoline
	Petroleum Other						Oil-range organics
Halogenated Organics (see notes at bottom)	PBDE						Polybrominated di-phenyl ether
	Other Halogenated Organics						Other organic compounds with halogens (chlorine, fluorine, bromine, iodine). search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is a Cl, I, Br, F in the formula, it is halogenated. (Examples: Hexachlorobutadiene; hexachlorobenzene; pentachlorophenol)
	Halogenated solvents	C	C	B		C	PCE, chloroform, EDB, EDC, MTBE
	Polychlorinated Biphenyls (PCB)						Any of a family of industrial compounds produced by chlorination of biphenyl, noted primarily as an environmental pollutant that accumulates in animal tissue with resultant pathogenic and teratogenic effects
	Dioxin/dibenzofuran compounds (see notes at bottom)						A family of more than 70 compounds of chlorinated dioxins or furans. (Examples: Dioxin; Furan; Dioxin TEQ; PCDD; PCDF; TCDD; TCDF; OCDD; OCDF). <i>Do not use for 'dibenzofuran', which is a non-chlorinated compound that is detected using the semivolatiles analysis 8270</i>
Metals	Metals - Other	S	C	C		C	Cr, Se, Ag, Ba, Cd
	Lead	S	S			C	Lead
	Mercury						Mercury
	Arsenic	S	S			S	Arsenic
Pesticides	Non-halogenated pesticides						Pesticides without halogens (Examples: parathion, malathion, diazinon, phosmet, carbaryl (sevin), fenoxycarb, aldicarb)
	Halogenated pesticides						Pesticides with halogens (Examples: DDT; DDE; Chlordane; Heptachlor; alpha-beta and delta BHC; Aldrin; Endosulfan, dieldrin, endrin)

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	SEDIMENT	DESCRIPTION
Other Contaminants	Radioactive Wastes						Wastes that emit more than background levels of radiation.
	Conventional Contaminants, Organic						Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)
	Conventional Contaminants, Inorganic						Non-metallic inorganic substances or indicator parameters that may indicate the existence of contamination if present at unusual levels (Examples: Sulfides, ammonia)
	Asbestos						All forms of Asbestos. Asbestos fibers have been used in products such as building materials, friction products and heat-resistant materials.
	Other Deleterious Substances						Other contaminants or substances that cause subtle or unexpected harm to sediments (Examples: Wood debris; garbage (e.g., dumped in sediments))
	Benthic Failures						Failures of the benthic analysis standards from the Sediment Management Standards.
	Bioassay Failures						For sediments, a failure to meet bioassay criteria from the Sediment Management Standards. For soils, a failure to meet TEE bioassay criteria for plant, animal or soil biota toxicity.
Reactive Wastes	Unexploded Ordnance						Weapons that failed to detonate or discarded shells containing volatile material.
	Other Reactive Wastes						Other Reactive Wastes (Examples: phosphorous, lithium metal, sodium metal)
	Corrosive Wastes						Corrosive wastes are acidic or alkaline (basic) wastes that can readily corrode or dissolve materials they come into contact with. Wastes that are highly corrosive as defined by the Dangerous Waste Regulation (WAC 173-303-090(6)). (Examples: Hydrochloric acid; sulfuric acid; caustic soda)

(fill in contaminant matrix above with appropriate status choice from the key below the table)

Status choices for contaminants	
Contaminant Status	Definition
B— Below Cleanup Levels (Confirmed)	The contaminant was tested and found to be below cleanup levels. (Generally, we would not enter each and every contaminant that was tested; for example if an SVOC analysis was done we would not enter each SVOC with a status of "below". We would use this for contaminants that were believed likely to be present but were found to be below standards when tested)
S— Suspected	The contaminant is suspected to be present; based on some knowledge about the history of the site, knowledge of regional contaminants, or based on other contaminants known to be present
C— Confirmed Above Cleanup Levels	The contaminant is confirmed to be present above any cleanup level. For example—above MTCA method A, B, or C; above Sediment Quality Standards; or above a presumed site-specific cleanup level (such as human health criteria for a sediment contaminant).
RA— Remediated - Above	The contaminant was remediated, but remains on site above the cleanup standards (for example—capped area).
RB— Remediated - Below	The contaminant was remediated, and no area of the site contains this contaminant above cleanup standards (for example— complete removal of contaminated soils).

Halogenated chemicals and solvents: Any chemical compound with chloro, bromo, iodo or fluoro is halogenated; those with eight or fewer carbons are generally solvents (e.g. halogenated methane, ethane, propane, butane, pentane, hexane, heptane or octane) and may also be used for or registered as pesticides or fumigants. Most are dangerous wastes, either listed or categorical. Organic compounds with more carbons are almost always halogenated pesticides or a contaminant or derivative. Referral to the HSDB is recommended if you are unfamiliar with a chemical name or compound, as it contains useful information about synonyms, uses, trade names, waste codes, and other regulatory information about most toxic or potentially toxic chemicals.

Dibenzodioxins and dibenzofurans are normalized to a combined equivalent toxicity based on 2,3,7,8-tetrachloro-p-dibenzodioxin as set out in WAC 173-340-708(8)(d) and in the Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures using Toxicity Equivalency Factors Focus Sheet (<https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf>). Results may be reported as individual compounds and isomers (usually lab results), or as a toxic equivalency value (reports).

FOR ECOLOGY II REVIEWER USE ONLY (For Listing Sites):

How did the Site come to be known: Site Discovery (received a report): _____ (Date Report Received)
 ERTS Complaint
 Other (please explain): _____

Does an Early Notice Letter need to be sent: Yes No
If No, please explain why: _____

NAICS Code (if known): _____
Otherwise, briefly explain how property is/was used (i.e., gas station, dry cleaner, paint shop, vacant land, etc.):

Site Unit(s) to be created (Unit Type): Upland (includes VCP & LUST) Sediment
If multiple Units needed, please explain why: _____

Cleanup Process Type (for the Unit): No Process Independent Action
 Voluntary Cleanup Program Ecology-supervised or conducted
 Federal-supervised or conducted

Site Status: Awaiting Cleanup Construction Complete – Performance Monitoring Model Remedy Used?
 Cleanup Started Cleanup Complete – Active O&M/Monitoring
 No Further Action Required If yes, was this a transformer spill?

Site Manager (Default: _____): _____

Specific confirmed contaminants include: _____ Facility/Site ID No. (if known):
7154984
_____ in Soil _____ Cleanup Site ID No. (if known):
_____ in Groundwater _____
_____ in Other (specify matrix: _____)

COUNTY ASSESSOR INFO: Please attach to this report a copy of the tax parcel/ownership information for each parcel associated with the site, as well as a parcel map illustrating the parcel boundary and location.

Additional or Supplemental Information from Observations Page