THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 1513.38.044
March 29, 2017

Via Electronic Mail
Mr. Bill Heubner
National Park Service – Alaska Region
240 West 5th Avenue
Anchorage, AK 99501

Re: Decision Document: NPS Glacier Bay – Indian Point (GBJ-B Shop)
Cleanup Complete Determination

Dear Mr. Heubner:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the NPS Glacier Bay – Indian Point (GBJ-B Shop) located at 3100 Indian Cove Road in Auke Bay (Juneau). Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the NPS Glacier Bay – Indian Point (GBJ-B Shop), which is located in the DEC office in Juneau, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:
NPS Glacier Bay – Indian Point (GBJ-D Shop)
3100 Indian Cove Road
Juneau, Alaska, 99801
Indian Point Lot 1 Parcel 4B3101020010

Name and Mailing Address of Contact Party:
Mr. Bill Heubner
National Park Service – Alaska Region
240 West 5th Avenue
Anchorage, Alaska, 99501

DEC Site Identifiers:
File No.: 1513.38.044
Hazard ID.: 2536

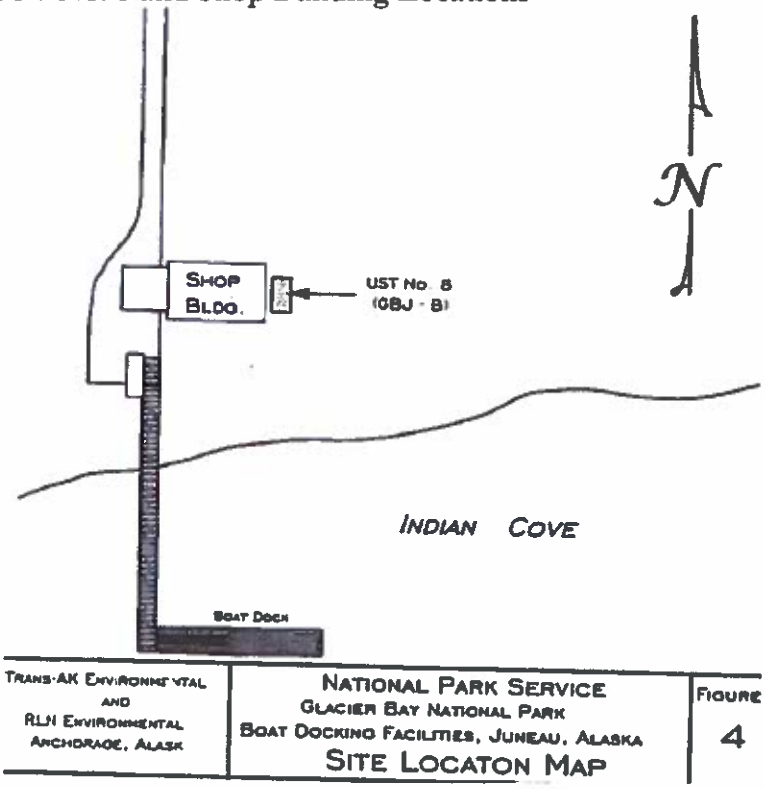
Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
The property at Indian Point is located twelve miles northwest of downtown Juneau in the Auke Bay area. The property is at the foot of and is south-southwest of a steep hill and tree line. The site topography is on a slight slope toward the marine waters of Indian Cove, less than 50 feet from the high tide line. A groundwater well is located at least three and perhaps four hundred feet north, upgradient of the site.

Several environmental assessments have been conducted at the Indian Point property. In July 1998 RLN Environmental (RLN) performed an underground storage tank (UST) closure assessment during removal of the 250-gallon tank, designated No.8 (GBJ-B). In May 1999, Shannon & Wilson (S&W) performed a post-removal site investigation and in 2000, Platt Environmental performed additional release investigation.

Tank No. 8 is a 250-gallon UST located on the east side of the Shop building near the boat docking facility. From the tank's location, land slopes to the south toward Indian Cove. Soil in the area around the tank consists of coarse-grained sand and rock fill material with some fines over a layer of fine-grained soil with high organic contents. The tank was reportedly installed in 1966 to supply heating oil to the building through fuel distribution and return lines that ran four feet west from the tank to where they entered through the east wall of the building. A replacement 250-gallon aboveground tank was installed before the UST was removed. There were no utilities or other features that would obstruct removal of the UST.

Site Figure 1 GBJ-B UST No. 8 and Shop Building Locations



In May, 1998, RLN used hand tools and a backhoe to remove tank No. 8 and the associated fuel distribution lines to the shop building. The ground surface around the tank was clean with no staining. As the pit was excavated below the top of the tank, contaminated soil was encountered on the west and south walls of the UST pit. Soil suspected of contamination was placed on an impermeable liner on-site. Field screen photoionization readings from samples collected from the west and south UST pit walls ranged from 4.9 to 5.2 ppm, with the highest readings being associated with the west wall of the pit, below the former fuel distribution line and vent pipe. Excavation continued until the tank could be lifted from the pit and placed on a separate liner. As the tank was removed, the depth of water in the excavation was estimated at two feet deep. The tank was in fair condition with no signs of punctures or leaks. The total pit area for this tank measured nine by fifteen feet and reached a depth of between five and five and one half feet below ground surface (BGS) where groundwater was encountered.

RLN collected two soil samples for laboratory analyses from the excavation wall, six inches above the soil-water interface and directly below former pipe trenches where the PID field screen sample readings were the highest. Analytical results from samples GBJ B-1 and GBJ B-2 had DRO concentrations above the cleanup level. The tank pit was backfilled with the material excavated and then was capped with new clean material obtained off-site. The release was subsequently reported to the DEC Juneau office and the site was listed on the Contaminated Sites Database.

Contaminants of Concern
During the site characterization and cleanup activities at this site, samples collected during site investigation were analyzed for diesel (DRO) range hydrocarbons and volatile compounds benzene, toluene, ethylbenzene and total xylenes (BTEX). Based on the analytical results and site characteristics, the following compounds are retained as contaminants of concern at this site:

- Diesel Range Organics (DRO)

Cleanup Levels
DEC has developed cleanup regulations for oil and other hazardous substances called the "site cleanup rules" under 18 AAC 75.325- 18 AAC 75.390. The most stringent levels of all applicable pathways under Method Two soil cleanup levels for the over 40-inch precipitations zone, established in 18 AAC 75.341(c), Table B1, and 18 AAC 75.341 (d), Table B2 apply to the site. The groundwater criteria list in Table C at 18 AAC 75.345(b)(1) also apply, and surface water as referenced in 18 AAC 75.345(f) must meet the Water Quality Standards found in 18 AAC 70. Table 1 below displays the contaminants of concern cleanup levels for completed pathways at this site:

Table 1 – Approved Cleanup Levels

Contaminant (mg/kg)	Soil (mg/kg)	Groundwater (mg/L)	Surface Water (ug/L)
DRO	230	1.5	N/A

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
ug/L = micrograms per liter

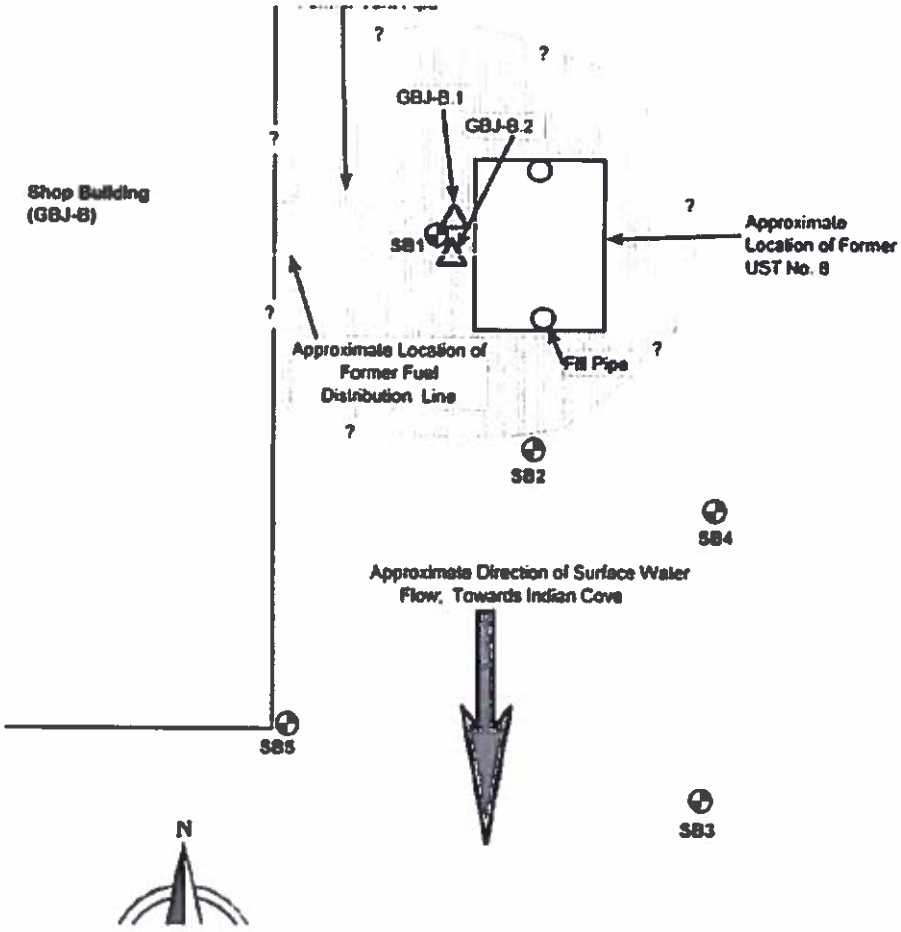
Characterization and Cleanup Activities
Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began at this site in 1998. These activities are described below.

Site Characterization of the GBJ-B UST site by Shannon & Wilson (S&W) in May 1999 included advancing five soil borings by hand auger to collect five samples plus a field duplicate. The borings, advanced to depths between 2.4 and 5.5 feet BGS, were designated borings SB1 through SB5. SB1 was placed at the former UST excavation next to the closure assessment samples and SB2 through SB5 were advanced downgradient, with respect to the surface slope, and south of the former UST excavation. Due to the shallow water table and surface water flow from the heavy rain, a piezometer was not installed to investigate groundwater. The tides affect the depth of groundwater at this site due to the proximity of the site to the marine shoreline. Groundwater flow direction follows the slope of the site, to the south. Subsurface materials encountered during drilling consisted of sandy and gravelly soil except for the silty soil encountered at the UST excavation. The silty soil was likely imported backfill and not undisturbed native soil.

Groundwater was not reached in boring SB3, advanced to a depth of 2.5 feet BGS, due to auger refusal. Of the six soil GBJ-B samples collected and analyzed, the results for sample SB1S5 detected a DRO concentration of 103 milligrams per kilogram (mg/kg) and its duplicate SB1S6 1,300 mg/kg, respectively, were the only samples with results above the laboratory reporting limit.

These two samples were collected from the boring located at the west end of the former UST at a depth of between five and five and one half feet BGS. Given the location and depth, the sample may have been obtained from the fill material of the former UST excavation. DRO concentrations in the remaining four samples ranged from 4.2 mg/kg in sample boring SB4S1 to 12.6 mg/kg detected in sample boring SB5S1.

Figure 2 GBJ-B Shannon & Wilson Sample Locations

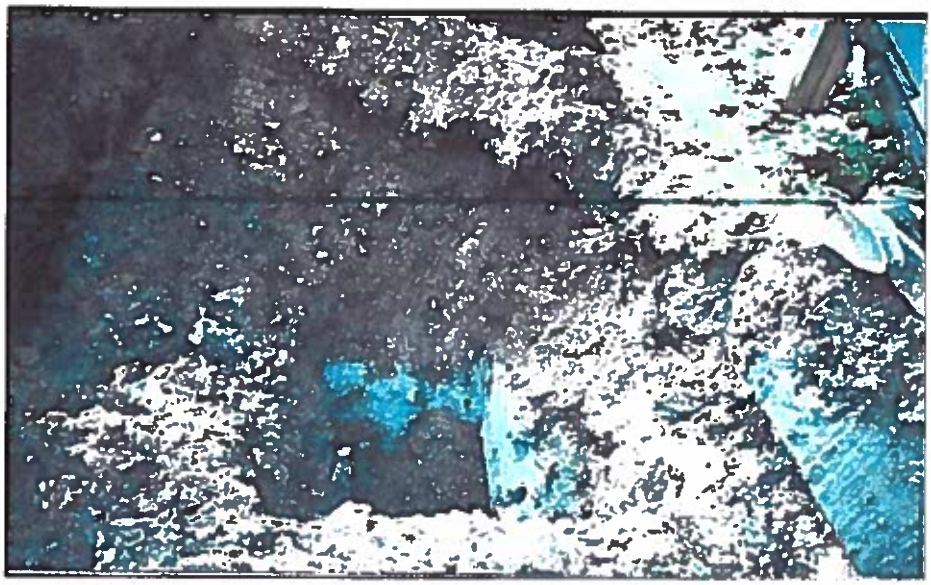


The UST removal excavation measured twelve by twelve feet to a depth of five feet BGS, S&W estimated a volume of 40 cubic yards of contamination may remain at the GBJ-B site and recommended removing the contaminated soil for off-site remediation.

In October 2000, Platt Environmental (Platt) performed additional assessment of the GBJ-B UST No. 8 site using a rubber tired backhoe. Platt encountered a few inches of brown topsoil overlaying 3.5 feet of gray silty sands with some gravel, overlaying inorganic clays of low plasticity at the site. The depth BGS of excavation reached 2.5 feet, the depth where groundwater was reached during the assessment.

Platt collected field screen samples during excavation of the former UST pit and the PID readings on samples were all zero ppm. Warm water sheen tests were performed on soil thought to be clean soil. When soil in the excavation was negative for these two tests, a total of two discrete analytical confirmation samples were collected from along the bottom of the re-excavated UST pit. Samples 00NPSGBJB1025-7 and 00NPSGBJB1025-8 were submitted for laboratory analysis for DRO and BTEX. DRO and BTEX compound concentrations in the two samples were below the laboratory reporting limit in both samples.

Photograph 1 GBJ-B UST No. 8 excavation Platt Environmental



The Table 2 below displays the highest levels detected in soil remaining at the site, the sample depth, and the Method Two (M2) Migration to Groundwater (MTG) cleanup levels. Levels shown in bold are above the applicable cleanup levels and represent the contaminant(s) of concern.

Table 2 the greatest levels of analytes detected in remaining soil at the site.

Hydrocarbon range and compounds of concern	Greatest level in soil mg/kg	Sample name and depth below the surface	M2 MTG Cleanup Levels mg/kg
DRO	**1,300**	SB1S6 from the west end of the UST at 5.5 feet BGS	230

The Platt investigation found no contamination at this site, therefore all overburden was placed back in the excavation, compacted, and brought to grade. Due to the lack of hydrocarbon-contaminated soils, only two analytical samples were collected at this site. The analytical results pertaining to the two discrete samples collected along the bottom of the excavation indicated that the soils were free of contamination.

No sheen was observed on the groundwater which seeped into the excavation or down gradient, along the shoreline of Indian Cove. Prior assessments indicated that this site had good potential for biodegradation. Platt concludes from the findings that the hydrocarbons left in place in 1998 have since naturally attenuated. Platt recommended no further action for the site.

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways. Based on a review of the environmental record, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3 below.

Table 3 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Sub-Surface Soil Contact	De Minimis Exposure	Contamination may be present in the sub-surface and is below ingestion cleanup levels.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination in the sub-surface is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are present within 30 feet of the former UST site but no volatile compounds were detected in soil at the site.
Groundwater Ingestion	De Minimis Exposure	Contamination may be present in the sub-surface but is now considered below migration of groundwater cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Petroleum does not bioaccumulate and there are no ecological receptors at the residential site setting.

Notes to Table 2: "De Minimis Exposure" means that in DEC's judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in DEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

DEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a "Cleanup Complete" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.

2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of DEC, at 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact me at (907) 465-5210, or email me at bruce.wanstall@alaska.gov

Sincerely,

Bruce Wanstall

Bruce Wanstall
Project Manager

cc: Eric Breitenberger, Unit Manager, Contaminated Sites Program
Sally Schlichting, Unit Manager, Contaminated Sites Program
DEC Spill Prevention and Response, Cost Recovery Unit