



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: 1513.38.021  
March 17, 2017

Via Electronic Mail

Mr. Bill Heubner  
National Park Service – Alaska Region  
240 West 5<sup>th</sup> Avenue  
Anchorage, AK 99501

Re: Decision Document: NPS Glacier Bay – Indian Point (GBJ-A Resid)  
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-A Resid) 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-A Resid), 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-A Resid)  
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 5<sup>th</sup> Avenue  
Anchorage, Alaska, 99501

**DEC Site Identifiers:**

File No.: 1513.38.021  
Hazard ID.: 2537

**Regulatory Authority for Determination:**

18 AAC 75

**Site Description and Background**

The property at Indian Point is located thirteen 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, about 150 feet from the high tide line. A groundwater well is located several 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 500-gallon tank, designated No.7 (GBJ-A). In May 1999, Shannon & Wilson (S&W) performed a post-removal site investigation and in 2000, Platt Environmental performed a removal action at the UST site.

The 500-gallon heating oil UST, reportedly installed in 1966 to store and supply heating oil for the residence, was located northwest of the residence on the property and was buried two and one half feet below ground surface (BGS). During the tank removal in May 1998, RLN closed the supply and return lines to the residence in place due to their proximity to public water supply piping. A replacement 500-gallon above ground tank was installed before removal of the UST.

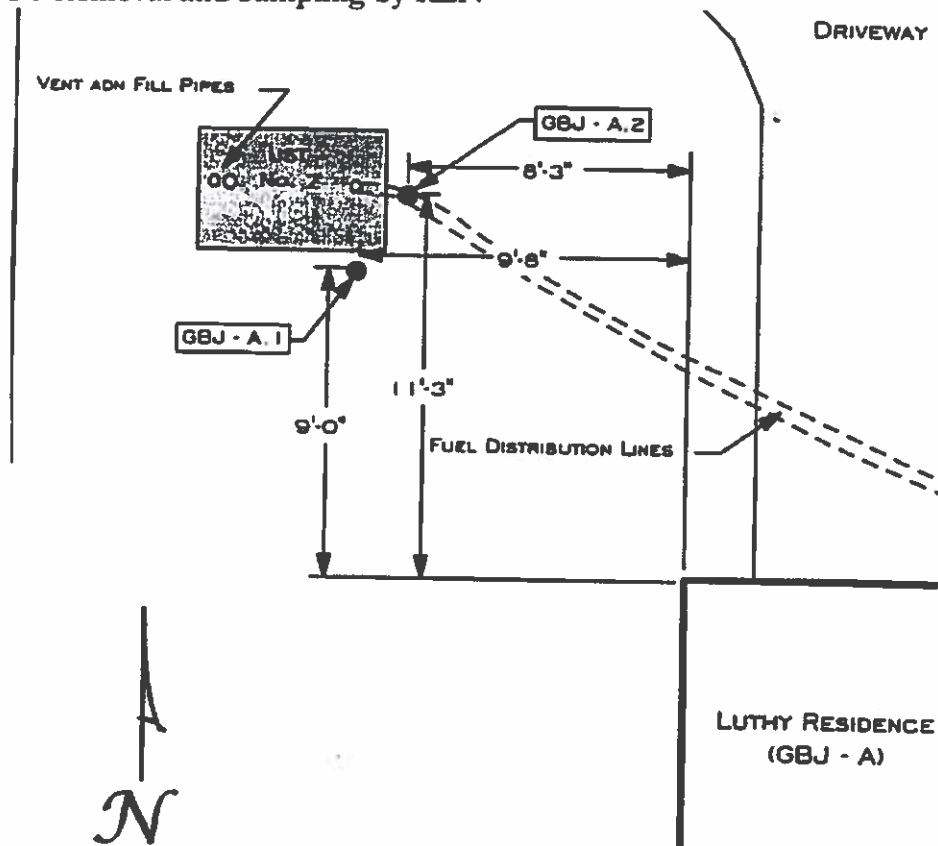
**Site Photograph 1 UST Removal and Sampling by RLN**



Before, during, and after the closure by removal of the UST, RLN collected field screening samples from overburden soil at the fill and vent pipes and from the excavation pit. As excavation of the tank progressed, contamination was encountered at the east end of the tank near the fittings of the fuel supply and return lines. Photoionization detector (PID) readings from field screen samples collected from the excavation pit walls and from below the tank ranged from between 1.3 and 103 parts per million (ppm), with the highest concentrations on samples from the east end of the tank.

Groundwater was not encountered but surface water from heavy rain entered the excavation and percolated into soil in the bottom of the excavation. Upon removal the UST appeared to be in good condition without signs of corrosion or rust, punctures or leaks. Analytical confirmation samples were collected from those field samples with the highest PID readings. GBJ A-1 was collected from the south wall of the excavation from a depth of six feet BGS and sample GBJ A-2 was collected from beneath the fuel supply lines at the east end of the pit from a depth of five feet BGS. Approximately four cubic yards of contaminated soil was identified from the tank No. 7 excavation and was placed on a liner on-site. The RLN Report did not estimate the volume of contamination remaining in the excavation and did not discuss the fate of the contaminated soil stockpile.

**Site Figure 1 UST Removal and Sampling by RLN**



Analytical results from sample GBJ A-1, had a DRO concentration of 913 milligrams per kilogram with a total BTEX concentration below the cleanup level and sample GBJ A-2 had a DRO concentration of 462 mg/kg and benzene concentration of 0.026 mg/kg (BTEX was below the cleanup level). 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)
- Benzene

### 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 cleanup levels for completed pathways at this site:

**Table 1 – Approved Cleanup Levels**

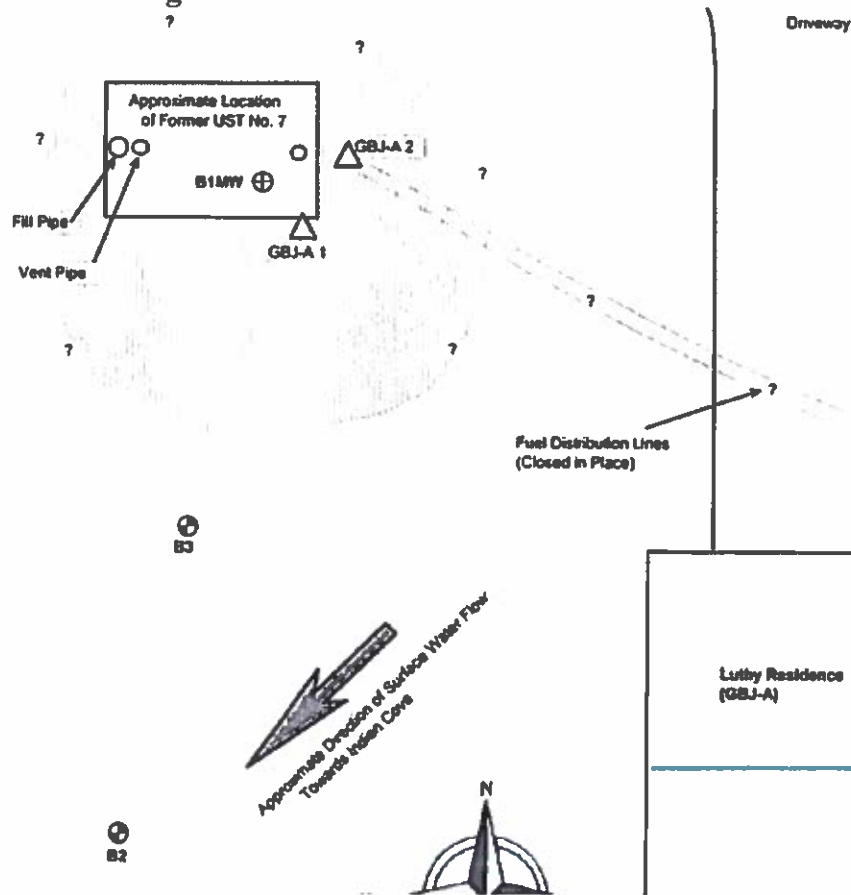
Contaminant (mg/kg)	Soil (mg/kg)	Groundwater (mg/L)
DRO	230	1.5
Benzene	0.025	0.005

mg/kg = milligrams per kilogram  
mg/L = milligrams 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 Figure 2 UST Site Investigation Shannon & Wilson**



Site Characterization of the GBJ-A UST site by Shannon & Wilson (S&W) in May 1999 included drilling and collecting samples from two soil borings and a boring to install and collect a sample from one groundwater monitoring well. The borings, advanced to depths of between 9.8 and 12 feet BGS, were designated borings B1, B2, and B3. B1 was placed at the former UST location, while B2 and B3 were advanced downgradient, with respect to the slope, and south of the former UST location. After the drilling, boring B1 was developed as a monitoring well and was re-designated as B1MW.

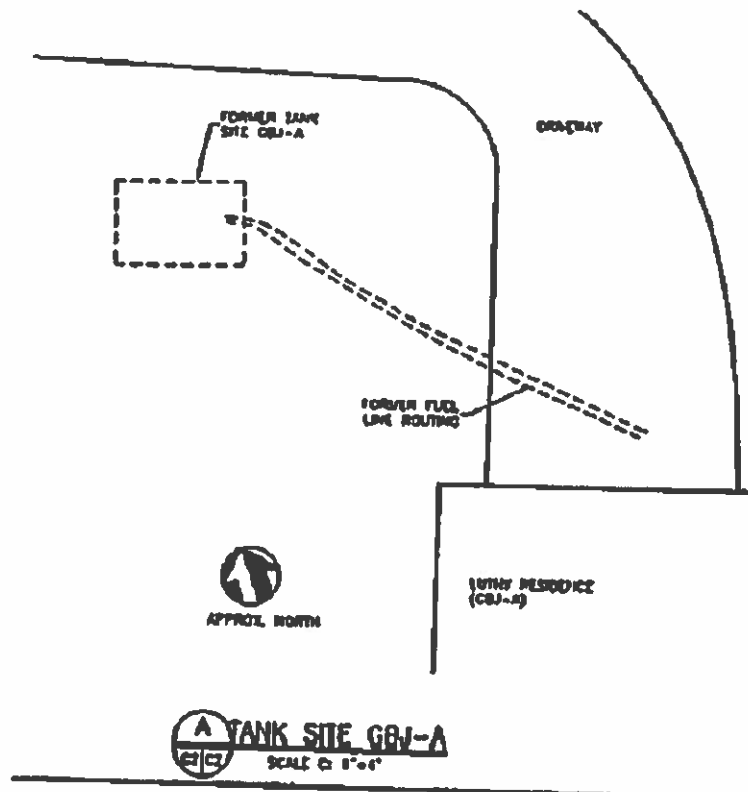
In addition to six soil samples (two from each boring) and one water sample from the monitoring well, S&W collected a field duplicate and a composite soil sample for laboratory analyses to evaluate for quality control and to characterize the drill cuttings for disposal.

Of the seven soil confirmation samples analyzed (including the field duplicate), only sample B1S1 had a DRO concentration above the cleanup level of 383 mg/kg. Sample B1S1 was collected from the monitoring well boring located within the former UST excavation at a depth of between two and four feet BGS. Given the location and depth, the sample was obtained from the fill material of the former UST excavation. The unaccounted for two cubic yard contaminated soil stockpile was likely returned to the excavation.

The remaining samples had DRO concentrations ranging from B3S4 of 7.25 mg/kg to B3S2 of 35.7 mg/kg. The groundwater sample (B1MW), which is from the same location as B1S1, had concentrations of BTEX compounds below the laboratory reporting limit, and a DRO concentration of 1.55 mg/L, slightly above the cleanup level. Nutrient levels and bacteria tested for in soil sample B1S2 appeared to be adequate for cell growth and had secondary electron acceptors that promote biodegradation.

One of the seven soil samples (B1S1) collected in 1999 by S&W and two samples (RLN samples GBJ-A.1 and GBJ-A.2) collected by RLN during the UST removal in 1998 had DRO concentrations above the cleanup level. Considering that no soil had been removed from the excavation, the location of contamination appeared to be at the eastern end of the former UST in the backfill material. S&W estimated a volume of 60 cubic yards of contamination remained at the GBJ-A site and recommended removing the contaminated soil for off-site remediation.

**Site Figure 3 Platt Environmental Removal Action and Sampling**



In October 2000, Platt Environmental (Platt) excavated the former UST site and 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 five and one-half feet, where groundwater was reached. Platt collected field screen samples during the excavation and found PID readings ranging from zero to 8.1ppm. Warm water sheen tests were performed on soil with zero PID readings, which was thought to be clean soil. When soil in the excavation was negative for both tests, five discrete analytical confirmation samples were collected from the bottom and each of the sidewalls of the re-excavated UST pit. The samples were analyzed for DRO and BTEX.

DRO concentrations in the samples were below instrument detection in three out of the five collected and were below the cleanup level in the remaining two samples. BTEX compounds were not detected in four of the five samples, however a concentration of benzene was detected above the cleanup level in the fifth sample that was collected from the bottom of the pit at a depth of five feet BGS.

Table 1 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	36.4	00NPSGBJA1025-4 from the North wall at 5 feet BGS	260
Benzene	<b>0.0532</b>	00NPSGBJA1025-1 from the bottom of the excavation at 5.5 feet BGS	0.025

Contaminated soil from the former UST site was transferred directly into a dump truck. The estimated volume of 14 cubic yards of contaminated soil was then transported to United Soil Recycling where it was thermally remediated.

Due to the small volume of contaminated soil removed from the site and field observations indicating that there was no contamination remaining in the ground, groundwater monitoring wells were not installed. As groundwater slowly seeped into the excavation and formed a pond, sheen was not observed. No additional groundwater sampling was conducted at the site. Platt recommended no further action for this 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 in the sub-surface is below ingestion cleanup levels.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination in the sub-surface is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De Minimis Exposure	Buildings are present within 30 feet of the former UST site. Contamination of subsurface soil and groundwater in the UST excavation is to de minimis extent.
Groundwater Ingestion	De Minimis Exposure	Groundwater from a deep aquifer is used as a drinking water source several hundred feet upgradient of the site; however contamination of subsurface soil and groundwater in the former UST excavation is in a shallow zone of 5 feet bgs and is de minimis in extent.
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.

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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](mailto:bruce.wanstall@alaska.gov)

Sincerely,



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