



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
Underground Storage Tanks Program Office
(LND-4-3)

DEC 12 2016

CERTIFIED MAIL: 7015 0640 0001 1118 1950
RETURN RECEIPT REQUESTED

Mr. Delvin Kane
60 North Barlow Lane
Bishop, California 93514

**Subject: No Further Action for the Underground Storage Tank Cleanup Site
Located at 2581 West Line Street in Bishop, California (EPA ID# BISH-001)**

Dear Mr. Kane:

The U.S. Environmental Protection Agency ("EPA") is sending this letter to inform you of our determination regarding the status of the underground storage tank ("UST") cleanup site, located at 2581 West Line Street in Bishop, California ("Site"), on land of the Bishop Paiute Tribe ("Tribe"). Pursuant to the Code of Federal Regulations ("CFR") at 40 CFR § 280, EPA has jurisdiction over UST sites on Indian Lands. EPA has determined, in concert with the Tribe's Environmental Protection Agency ("TEPA") and the Environmental Management Office ("EMO"), that no further action ("NFA") is warranted for the Site, at this time, based on the findings of EPA's site assessment and corrective action work since 2014. EPA's corrective action work at the Site included the removal of approximately 160 cubic yards of petroleum contaminated soil ("PCS") in May 2015, followed by backfilling with clean soil. Specifically, this NFA determination is based on the following:

- The homes and businesses in the immediate vicinity of the Site are on the Tribe's public water supply system.
- The nearest hydraulically downgradient Tribal drinking water well (the "Siebu Well") is approximately 0.63 mile east-northeast of the Site. EPA's analyses of water sampled from that well on November 12, 2014 showed no detections of volatile organic compounds ("VOCs"). In addition, the Tribe's analyses of water samples from that well between December 5, 2006 and August 12, 2015 showed no VOC detections.
- Direct human exposure to any residual hydrocarbon contamination in soil or groundwater, through dermal contact, inhalation or ingestion, is unlikely based on the depth of the soil and groundwater contamination at approximately 9-10 feet below ground surface ("bgs").
- The hydrocarbon plume in groundwater is localized around the former location of the USTs.
- None of the groundwater monitoring wells downgradient of the plume showed concentrations of VOCs above EPA's Maximum Contaminant Levels ("MCLs") during the November 2014 sampling event.

- Petroleum vapor intrusion into nearby buildings would not appear to be a current problem based on the results of EPA's indoor and crawl space air sampling at the hydraulically downgradient trailer home in August 2016.

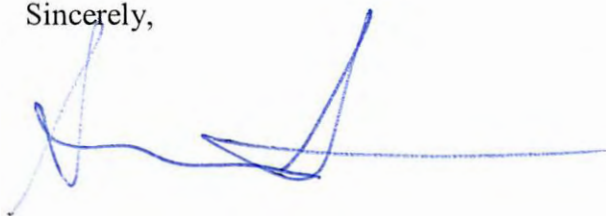
Recommended Amendment to the Tribe's Wellhead Protection Plan

Although significant hydrocarbon contamination has been remediated at the Site, residual contamination remains in soil and groundwater. For this reason, EPA believes it would be prudent for the Tribe to amend its Wellhead Protection Plan to acknowledge the existence of the residual hydrocarbon contamination at the Site. This amendment would also require the Tribe to consider potential impacts from the Site in any future decisions regarding new drinking water wells within ¼ mile of the Site, or prior to any redevelopment of the Site.

Conclusion

As noted previously in this letter, EPA has coordinated extensively with the TEPA/EMO and the TEPA/EMO support EPA's NFA determination for the Site for the reasons listed in this letter. However, if additional information becomes available in the future regarding hydrocarbon contamination in soil and/or groundwater at the Site, EPA may determine that additional site assessment and/or corrective action is warranted. If you have any questions regarding the information contained in this letter, please contact Chris Prokop of my staff at (415) 972-3363, or you may contact me directly at (415)-972-3369.

Sincerely,



Steven C. Linder, P.E., Manager
Underground Storage Tanks Program

Enclosure: History of UST Operations, Site Assessment and Corrective Action

Cc (via email, all w/enclosures):

Brian Adkins, Director, EMO

John Rydzik, BIA

Ed Fluette, Associate Director, Office of Environmental Health and Engineering, IHS

ENCLOSURE
2581 West Line Street UST Cleanup Site
Bishop, California (EPA ID# BISH-001)
History of UST Operations, Site Assessment and Corrective Action

Former UST Operations

The first EPA UST notification form for the Site, dated January 23, 1995, described the Site as an "Abandoned Service Station", and indicated that two 1,000 gallon, steel USTs were installed in 1959, and a single 2,000 gallon, steel UST was installed in 1984. The notification form also indicated that all three USTs stored gasoline and were last used in 1987. The operational history of the USTs at the Site is not well documented. EPA's file records indicate that on July 11, 1962, Ollie Kane was issued a Grant of Standard Assignment of Tribal Land (No. 85) by the Owens Valley Board of Trustees. Based on the Site being located on this land assignment, as well as other file records, EPA believes that Ollie Kane was the original owner and operator of the USTs formerly at the Site. Following Ollie Kane's death on August 8, 1974, the file records suggest that operation of the USTs was continued by Ollie's son, Delvin Kane, until 1987. The file records also suggest that Michael Rogers and Mr. J.C. Bodine may have operated and/or leased the USTs at the Site for an unknown period of time. Lastly, the file records contain a memorandum, dated January 24, 1967, referring to a contract with Atlantic Richfield for delivering fuel to the USTs at the Site.

Initial Petroleum Release Confirmation

The Tribe's Preliminary Site Investigation Report, dated January 17, 2001, stated that petroleum contaminated soil ("PCS") was observed on January 5, 2001 along a sewer line adjacent to the northern boundary of the Site. Based on this observation of PCS and at the Tribe's request, EPA's Superfund program conducted a Geoprobe-based site assessment in March 2001 to determine the extent of PCS and potentially contaminated groundwater. One of the goals of this site assessment was to determine if Bishop Creek or Owens River could have been impacted by petroleum contamination from the Site. The single groundwater sample collected during this site assessment had a benzene concentration of 420 micrograms per liter (" $\mu\text{g/l}$ "), which was above EPA's 5 $\mu\text{g/l}$ Maximum Contaminant Level ("MCL") for benzene. In addition, the total petroleum hydrocarbon ("TPH") concentration in this groundwater sample was 9,300 $\mu\text{g/l}$.

UST Removals and Initial Site Assessment by the Tribe in December 2001

On December 12, 2001, the Tribe removed the three USTs at the Site, and collected soil and groundwater samples for subsequent analysis. At the time of their removals, the USTs contained 1-2 inches of fuel and there were visual/olfactory indicators of petroleum releases in the excavation. Based on this initial release confirmation, the Tribe conducted some limited excavation of PCS. Three soil samples were collected from the excavation sidewalls and four "grab" groundwater samples were collected from the standing water in the excavation. The maximum benzene and TPH (as gasoline) concentrations in the soil samples were 0.44 milligrams per kilogram (" mg/kg ") and 850 mg/kg , respectively. The maximum benzene and TPH (as gasoline) concentrations in the groundwater samples were 15 $\mu\text{g/l}$ and 3,900 $\mu\text{g/l}$, respectively. Although groundwater was only 5 feet below ground surface ("bgs"), PCS was observed to extend to approximately 11 feet bgs.

Initial Corrective Action by the Tribe in January 2002

In addition to the limited removal of PCS noted above, the Tribe left the excavation open for 28 days to allow further photo-degradation of the hydrocarbons. The Tribe subsequently added 120 pounds of Oxygen Releasing Compound ("ORC") along three trenches in the excavation to a maximum depth of 8 feet bgs in order to enhance biodegradation. On January 10, 2002, the excavation was backfilled with clean soil. In its UST closure report with cover letter dated January 18, 2002, the Tribe recommended permanent closure of the Site.

Subsequent Tribal Site Assessment Work from 2002 to 2004

At EPA's request, the Tribe installed five groundwater monitoring wells at the Site on December 4, 2002 in order to determine the extent of hydrocarbon contamination in groundwater. The Tribe subsequently conducted four groundwater monitoring events at these monitoring wells between December 26, 2002 and April 23, 2004. During this approximately 1.5 year monitoring period, the only exceedance of EPA's MCLs was for benzene in well MW-4, located immediately downgradient of the former UST area. However, the benzene concentrations in MW-4 had dropped from 280 µg/l on December 26, 2002 to 130 µg/l on April 23, 2004. The Tribe's semi-annual reports documented that on April 15, 2003, the groundwater flow direction was N52E under a hydraulic gradient of 0.027. These reports also documented an easterly shift of the groundwater flow direction during winter months.

EPA's Groundwater Sampling Event in 2009 to Assess Remaining Hydrocarbon Contamination

On June 12, 2009, EPA's contractor, Bristol Environmental and Remediation Services, LLC ("BERS"), sampled all five monitoring wells at the Site. BERS' groundwater sampling report, dated August 14, 2009, indicated the following:

- MW-4 contained several inches of free product.
- The groundwater sample from beneath the free product in MW-4 had a benzene concentration of 110 µg/l, which was above EPA's 5 µg/l MCL for benzene.
- None of the other monitoring wells had VOC concentrations above the MCLs.
- Methyl tertiary-butyl ether ("MTBE") and 1,2-dichloroethane ("1,2-DCA") were also detected in MW-4 at less than 1 ug/l (i.e., below EPA's Regional Screening Level ("RSL") for tap water and EPA's MCL, respectively).

BERS elected to sample the groundwater beneath the free product in MW-4 because this had been the Tribe's stated practice for sampling this well. BERS also documented a northeast groundwater flow direction, which was consistent with previous assessments.

EPA's Ability to Pay Determination for the Site and Request for Funding

In 2013, EPA conducted an ability to pay ("ATP") analysis on the financial records for the Site's responsible party, Delvin Kane. EPA's ATP analysis concluded that Mr. Kane could not realistically afford to pay any portion of the required site assessment and corrective action work.

EPA's Follow-up Site Assessment in 2014

On November 11-13, 2014, EPA's contractor, Antea Group ("Antea"), conducted additional assessment work at the Site, which included the following:

- Installing a new groundwater monitoring well (MW-6) hydraulically downgradient of MW-4.
- Purging, gauging and sampling monitoring wells MW-1 through MW-6.
- Completing six step-out borings hydraulically downgradient of MW-4, and collecting multiple soil samples and one "grab" groundwater sample from each boring to assess the extent of hydrocarbon contamination in the vicinity of MW-4.
- Conducting a soil vapor survey near residences surrounding the Site, and along the sewer line located north of MW-4, by means of six soil vapor probes.
- Collecting and analyzing water samples from the Tribal drinking water well located approximately 0.63 mile east-northeast and hydraulically downgradient of the Site (i.e., the Siebu Well).

EPA's "Site Assessment Report", dated December 30, 2014, concluded that most of the residual hydrocarbon mass at the Site was localized near monitoring well MW-4. This conclusion was supported by the overall more elevated hydrocarbon concentrations in borings SB-4, SB-5 and SB-6, and also in soil vapor probe SVP-3. In addition, of the five monitoring wells sampled on November 12, 2014, only MW-4 showed a VOC concentration above an MCL (the benzene concentration was 71 µg/l versus the 5 µg/l MCL). The Site Assessment Report also documented the absence of VOC detections in the water sample from the Siebu Well, and also a northeasterly groundwater flow direction.

EPA's Corrective Action Work in 2015

On May 11-14, 2015, EPA's contractor, Antea, conducted corrective action work at the Site by excavating and properly disposing of approximately 160 cubic yards of PCS. Groundwater was encountered at 9-10 feet bgs, and the excavation extended to approximately 12 feet bgs. Seven post-excavation soil samples were collected from just above the water table and at selected locations along the sidewalls, based on visual observations and VOC concentrations measured with a photo-ionization detector ("PID"). All of these soil samples were analyzed for TPH (as gasoline, diesel and oil), VOCs, semivolatile organic compounds ("SVOCs") and total lead. The analytical results for the soil samples contained in the report entitled, "Site Assessment – Limited Excavation Activities", dated July 30, 2015, showed no detections for benzene, and none of the concentrations for ethylbenzene, toluene and total xylenes exceeded EPA's residential RSLs. This comparison to the residential RSLs is just for reference purposes because at the 9-10 foot depth of sample collection, the direct exposure pathway (via ingestion, inhalation and dermal contact) is not complete. Only one of the seven soil samples showed detectable TPH (as gasoline), and this concentration was 81 mg/kg in sample SW-4-10. The excavation report noted that residual hydrocarbon mass remained at the Site. Following waste profiling and manifesting, the excavated PCS was disposed at the US Ecology Landfill in Beatty, Nevada.

EPA's Offsite Petroleum Vapor Intrusion ("PVI") Assessment

Based on the presence of residual hydrocarbon mass at the Site, EPA determined that a PVI assessment was warranted. Given the well-defined east-northeast groundwater flow direction at the Site, the hydraulically downgradient trailer home, located approximately 30 feet northeast of the PCS excavation, was deemed to be the likely worst case exposure scenario. This inference was supported by the

likelihood that hydrocarbon contamination, either as free product or dissolved in groundwater, could have migrated underneath the trailer home over time.

On August 25, 2016, EPA collected air samples inside the trailer home, in the crawl space below the home and from the home's yard. The analytical results for these air samples showed no concentrations for toluene, ethylbenzene and total xylenes above EPA's residential indoor air health-based screening levels, which are set at the most conservative 10^{-6} excess cancer risk level. The benzene concentrations in the air samples from inside the trailer home and the crawl space, which ranged from 0.52 microgram per cubic meter (" $\mu\text{g}/\text{m}^3$ ") to $0.77 \mu\text{g}/\text{m}^3$, were above EPA's $0.36 \mu\text{g}/\text{m}^3$ residential indoor air RSL for the 10^{-6} excess cancer risk level. However, these benzene concentrations were still at the conservative end of EPA's acceptable 10^{-4} to 10^{-6} excess cancer risk range. In addition, these benzene concentrations were below the benzene concentration associated with non-carcinogenic health impacts. For this reason, the benzene concentrations found in the trailer home and crawl space air do not pose an unacceptable health risk to the current occupants, and are considered safe.

EPA also collected two air samples from the sewer manhole located approximately 30 feet southeast of the trailer home, in order to determine if the sewer line were acting as a preferential pathway for hydrocarbon vapor migration. The sewer gas samples showed $100 \mu\text{g}/\text{m}^3$ detections for chloroform, which was not unexpected based on the chlorination of drinking water systems. Of the 37 other VOCs analyzed in the two sewer gas samples, only low concentrations (i.e., less than $30 \mu\text{g}/\text{m}^3$) of dichloroethane, carbon tetrachloride and toluene were detected. Based on this analytical data, the sewer line does not appear to be a preferential pathway for hydrocarbon vapor migration.

Discussion of Potential Receptors

The Site is located in an area of mixed residential and commercial use. In addition to the trailer home which was the subject of EPA's PVI assessment, residential structures are located within approximately 30 feet of the PCS excavation near its western, northwestern and southeastern boundaries. An auto service shop and a two-car garage are also located south and north of the PCS excavation, respectively. All of the homes and business in this area are on the Tribe's public water supply system. As noted previously, the Siebu Well, located approximately 0.63 mile east-northeast of the Site, is the nearest hydraulically downgradient drinking water well. In addition, EPA's analyses of the water sample collected from this drinking water well on November 12, 2014 showed no VOC detections. At present, the land directly above the former UST area is an open lot. However, if the exposure scenario for this land changed in the future, it would potentially have an impact on this receptor assessment.

Assessment of the Water Quality of the Shallow Groundwater beneath the Site

As noted previously, residual hydrocarbon contamination remains in soil and groundwater at the Site. In addition, EPA's metals analyses for groundwater samples collected on November 12-13, 2014 showed concentrations for arsenic, barium, chromium and total lead above EPA's MCLs. For this reason, the groundwater beneath the Site would only be usable for drinking water purposes after potentially extensive treatment.



BISHOP TRIBAL COUNCIL

November 10, 2016

Dear Mr. Linder, P.E. Manager
Underground Storage Tanks Program
USEPA Region 9
75 Hawthorne Street,
San Francisco, CA 94105

Subject: Draft correspondence re: "No Further Action for the Underground Storage Tank Cleanup Site Located at 2581 West Line Street in Bishop, California (EPA ID# BISH-001)" received via email from Chris Prokop on 10/4/2016

Dear Mr. Linder,

The Bishop Paiute Tribe has been working with your program for many years regarding the above referenced site investigation and are in receipt of a draft correspondence from your office to Mr. Delvin Kane, tribal member (BISH001 draft NFA letter 9 15 16 rev 1.doc). Your draft correspondence has been reviewed thoroughly by our Tribal Environmental Management Office and more recently by our Tribal Environmental Protection Agency during their regular scheduled meeting on November 2, 2016.

The Tribe appreciates the detail of the chronologic summary of the background of the investigation and the suggestion to amend the Tribe's wellhead protection plan. The Bishop Paiute Tribe concurs with the information and format of your letter and the determination of your office that no further action (NFA) is warranted for the Site at this time, based on the findings of EPA's site assessment and corrective action work since 2014. It is our understanding that if any new information becomes available regarding hydrocarbon contamination at the site that the Tribe and/or US EPA may determine that additional site assessment and/or corrective action is warranted. Thank you.

Sincerely,

Deston Rogers,
Chairman
Bishop Paiute Tribe

Attached:

Draft USEPA NFA letter (BISH001 draft NFA letter 9 15 16 rev 1.doc) and corresponding email from C. Prokop 10/4/16

cc

Brian Adkins, Bishop Paiute Tribe Environmental Management Office

TEPA, Bishop Paiute Tribe

Mervin Hess, Tribal Administrator

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