UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

JUL 29 2015

CERTIFIED MAIL:
7001 2510 0003 5942 6258

Ruben Balderas, President
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, Arizona 85269

Subject: No Further Action
Former Ba'Ja Service Station, UST Cleanup Site
Northwest Corner of S.R. 87 & Fort McDowell Road
Fountain Hills, AZ (EPA Site ID# FTMC001)

Dear President Balderas,

The United States Environmental Protection Agency ("EPA") has completed its review into the 1990 gasoline release from underground storage tanks ("USTs") at the former Ba'Ja Service Station in Fountain Hills, Arizona ("Site"). The Fort McDowell Yavapai Nation ("FMYN") owned and operated the service station from the time of its construction in the early 1970s to its closure in the mid-1990s. Remediation systems extracted petroleum hydrocarbons from the subsurface between 1992 and 1998, and all USTs and buildings remaining on the property were removed during this time.

EPA reviewed the information in its site file, including a June 1996 UST removal report by Dunn and Associates, as well as a November 2004 Groundwater Monitoring Report by Environmental Resolutions Inc. EPA also reviewed the June 18, 2015, TestAmerica laboratory report for reconnaissance groundwater samples collected by the FMYN Environmental Department.

Based on the findings from these reports, and confirmation from the FMYN Environmental Department that groundwater underneath and around the Site is not used and will not be used as a drinking water source, EPA determines that no additional site investigation and/or cleanup is warranted at this time. No further action ("NFA") is required.

If, at a later date, FMYN or another party decides to install drinking water wells in the area bounded by S.R. 87 (to the north), the reservation boundary (to the south), Fort McDowell Road (to the west), and the Verde River (to the east), it should confirm groundwater does not contain unacceptable levels of methyl tert-butyl ether ("MTBE") as a precaution. If information becomes available in the future regarding hydrocarbon contamination in soil and/or groundwater at the Site or the offsite area delineated above, EPA may reopen the case and require additional site assessment and/or corrective action.

Please note that this NFA letter, as well as supporting documentation, will be available to the general public. If you have any questions regarding this letter, please contact me at (415) 972-3369, or Kenneth Dixon of my staff at (415) 972-3343.

Sincerely,

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

Enclosure: Site Summary

cc: (via email)
Mark Frank, Acting Environmental Manager, Fort McDowell Yavapai Nation

Enclosure – UST Cleanup Site Summary

Former Ba'Ja Service Station
S.R. 87 & Fort McDowell Road
Fountain Hills, AZ
EPA Site ID# FTMC001

Site Background & UST Release

Owned and operated by the Fort McDowell Yavapai Nation ("FMYV"), the former Ba'Ja Service Station contained one 1,000-gallon and one 2,000 gallon UST when it opened in the early 1970s.[1] The original UST system was closed in place in 1982, replaced by three adjacent 10,000 gallon USTs.

In April 1990, a gasoline release occurred due to corrosion of a subsurface pipe connecting one of the 10,000-gallon gasoline USTs to the dispenser islands. The piping system was replaced in June 1990, but gasoline had by then spread to soil and groundwater underlying the Site.

The Verde River lies approximately 0.4 miles east of the Site, flowing north to south toward the Salt River. The City of Phoenix owned and operated four public water supply wells between the Site and the Verde River at the time the release was discovered. The City of Phoenix ceased using all four wells by the spring of 1994 due to low levels of gasoline hydrocarbons and the fuel additive MTBE found in two of the four wells. Groundwater has historically flowed south or east as it moves away from the Site, with the precise flow direction likely impacted by pumping rates at wells east of the Site.

UST Removal and Site Remediation

The two original USTs were excavated and removed in September 1991; the three remaining USTs and associated piping were excavated and removed in May 1996. In between these two events, FMYN consultants installed and operated a dual-phase extraction system that removed an estimated 1,771 gallons of petroleum hydrocarbons from the subsurface.

During the 1996 UST system removal, 20 cubic yards of petroleum-contaminated soils were segregated for proper disposal offsite. This included soils along the piping route south and southwest of the former service station building, where the 1990 release occurred. Thirteen soil samples were taken, including two underneath each UST and five along the piping route. Sampling results showed no detections of petroleum hydrocarbons above EPA Region 9 Regional Screening Levels ("RSLs") for residential use.

To address remaining groundwater contamination, FMYN consultants installed and operated an air sparging / soil vapor extraction system from 1996 to 1998. The Site was then placed in monitored natural attenuation. By November 2004, groundwater monitoring detected neither benzene nor toluene at or down gradient from the Site. Ethylbenzene and xylenes were only detected at Monitoring Well 'A' near the former tank pit (5.7 and 39 ug/L, respectively), far below EPA's Maximum Contaminant Levels for drinking water (700 and 10,000 ug/L, respectively). Uncertainty regarding MTBE concentrations in groundwater, south of the Site, remained the only concern from this point forward.

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[1] The former Ba'Ja Service Station site has also been referred to as the Ba'Ja I Service Station because the Fort McDowell Yavapai Nation later opened a newer service station (Ba'Ja II) on the southwest corner of S.R. 87 and Fort McDowell Road.

MTBE in Groundwater

MTBE had spread across S.R. 87 by 1996, to monitoring wells near the southwest and southeast corners of the intersection with Fort McDowell Road. Concentrations had diminished by 50 percent, however, when highway improvements paved over these monitoring wells circa 2003. Sampling from 2004 could not assess what had previously been the center of the MTBE plume. Importantly, MTBE was not detected in the 2004 sampling of monitoring wells further southwest and east of intersection.

A declining water table over the past two decades has left many Site monitoring wells with insufficient water for sampling. In June 2015, the FMYN Environmental Department was able to sample three remaining wells with sufficient water. Two wells near the former tank pit contained no detectable or significantly reduced amounts of MTBE—and no other detectable petroleum hydrocarbons. One of these two wells, sampled in both 2004 and 2015, showed 110 ug/L MTBE in 2004 but only 1.6 ug/L in 2015. The third well sampled in 2015 was due east of the S.R. 87 and Fort McDowell Road intersection; similar to 2004, neither MTBE nor other petroleum hydrocarbons were detected.

Current and Potential Future Groundwater Use

The Fort McDowell Yavapai Reservation extends approximately 0.8 miles south from the intersection of S.R. 87 and Fort McDowell Road. Of the wells in this area, none supply drinking water—to Tribal members or anyone else.

EPA and the FMYN Environmental Department reviewed potential groundwater users in the area, confirming that the Casino northwest of the Site, the new Ba'Ja Service Station south of the Site, the residence east of the new Ba'Ja Service Station, and the RV Resort on the east side of Fort McDowell Road all receive water from the Tribe's Public Water Supply system. All supply wells for this water system are located several miles north, and up gradient from, the Site. Furthermore, due to groundwater quality parameters unrelated to the Site or petroleum hydrocarbons, future system expansions would be very unlikely to utilize groundwater resources south of Fort McDowell Road.

Conclusion

EPA concludes that excavation associated with past UST removals, in conjunction with two remediation systems involving soil vapor extraction, have adequately addressed soil contamination from the 1990 gasoline release. A sign for the Fort McDowell Casino currently occupies the Site.

Although MTBE was known to be present in groundwater that crossed the intersection of S.R. 87 and Fort McDowell Road, no evidence suggests its further migration. Significant attenuation appears to have occurred in the 12 years since wells near this intersection were paved over, and EPA concludes that any remaining groundwater contamination does not pose a risk to human health or the environment. Samples collected in both 2004 and 2015 support this conclusion. Furthermore, groundwater down gradient from the Site is not used—and is unlikely to be used—as drinking water. If, at a later date, FMYN or another party decides to install drinking water wells in the area bounded by S.R. 87 (to the north), the reservation boundary (to the south), Fort McDowell Road (to the west), and the Verde River (to the east), it should confirm groundwater does not contain unacceptable levels of MTBE. [2]

[2] The June 2015 EPA Region 9 Regional Screening Level for MTBE in residential tapwater is 14 ug/L