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Title: TA-16-197 Underground Storage Tank Removal 2/12/03

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TA-16-197 Underground Storage Tank Removal 2/12/03

As part of an ongoing decommissioning and demolition project at the Los Alamos National Laboratory's Technical Area 16, the old TA-16 fuel station building was removed. The underground storage tank, TA-16-197, which provided fuel storage for the station was also removed on February 12, 2003. The tank removal was conducted in accordance with the requirements of the New Mexico Petroleum Tank regulations 20 NMAC 5. A representative of the New Mexico Environment Department (NMED) was present to observe the tank removal. The 10,000 gallon gasoline storage tank was originally installed in 1990. The tank, upon removal, appeared to be in very good condition and there was no visible evidence of any releases of gasoline from the dispenser, line or tank. Soil samples were collected under the former location of the fuel line, dispenser, and from under the tank. Samples RE16-03-50573 and RE16-03-50574 were collected from the soil under the dispenser/fuel line. Sample RE16-03-50575 was collected from under the west end of the tank and sample RE16-03-50576 from the east end. A second sample, RE16-03-50577, was collected from the east end of the excavation from an area with soil of a darker color. The results of the sampling are shown in the table below.

TA-16-197 Soil Sampling Results

	Sample No.				
	RE16-03-50573	RE16-03-50574	RE16-03-50575	RE16-03-50576	RE16-03-50577
	dispenser/fuel line	**dispenser/fuel line**	**Tank west**	**Tank east**	**Tank east**
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
1,2 Dibromoethane (EDB)	<0.005	<0.005	<0.006	<0.006	<0.006
1,2 Dichloroethane (EDC)	<0.005	<0.005	<0.006	<0.006	<0.006
Benzene	<0.005	<0.005	<0.006	<0.006	0.033
Ethylbenzene	<0.005	<0.005	<0.006	<0.006	0.029
Methyl t-butyl ether (MTBE)	<0.005	<0.005	<0.006	<0.006	<0.006
o-Xylene	<0.005	<0.005	<0.006	<0.006	<0.006
p/m-Xylenes	<0.011	<0.011	<0.011	<0.012	<0.013
Toluene	<0.005	<0.005	<0.006	<0.006	<0.006
TPH Gasoline Range	<0.27	<0.26	<0.29	<0.30	30
2-Methylnaphthalene	<0.030	<0.030	<0.030	<0.030	0.098
Naphthalene	<0.030	0.035	<0.030	<0.030	<0.030

Naphthalene was reported at a concentration slightly above the detection limit for one of the samples (RE16-03-50574) collected from the dispenser/fuel line trench. The soil sample (RE16-03-50577) with a darker appearance from the east end of the tank excavation had detected concentrations of total petroleum hydrocarbon (TPH) [30

mg/kg], benzene [0.033 mg/kg], ethylbenzene [0.029 mg/kg] and 2-methylnaphthalene [0.098 mg/kg]. The NMED Guidelines for UST Corrective Action state that a release is considered as confirmed when the TPH concentration in one or more soil samples is greater than or equal to 100 mg/kg, the total BTEX (benzene, toluene, ethylbenzene, xylene) is greater than 50 mg/kg or there is visual or olfactory evidence that a release has occurred. The TPH and BTEX concentrations found in sample RE16-03-50577 are still well below the threshold criteria for determining release as stated in NMED Guidelines for Corrective Action. Based on the soil sampling results, the excellent condition of the removed tank and past operating records including fuel inventories and tank tightness tests, LANL concludes that no releases to the surrounding soil occurred from Tank TA-16-197.

Photographs of the tank removal taken by Patricia Leyba of the Risk Reduction and Environmental Stewardship Division are shown below.

Photo 1. (LANL-03-284J2418) UST TA-16-197 (2/12/03)

Photo 2. (LANL-03-284J2448) UST TA-16-197 being lifted out the excavation. (2/12/03)

Photo 3. (LANL-03-284J2540) TA-16-197 prepared to be transported off-site. (2/12/03)

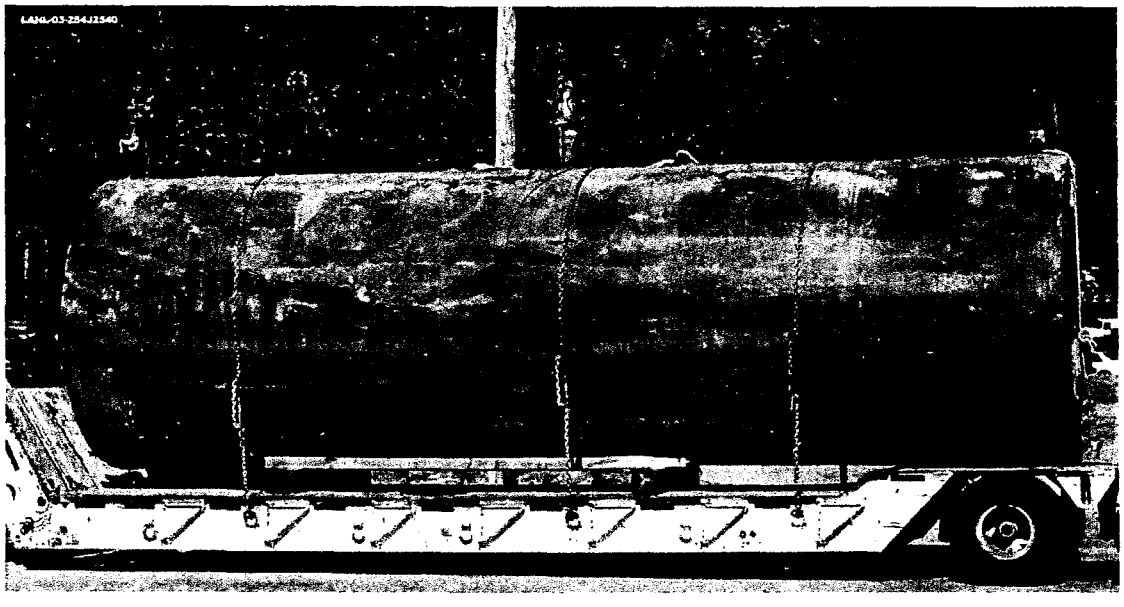

Photo 4. (LANL-03-284J2527) End view of TA-16-197 on flat bed trailer. (2/12/03)

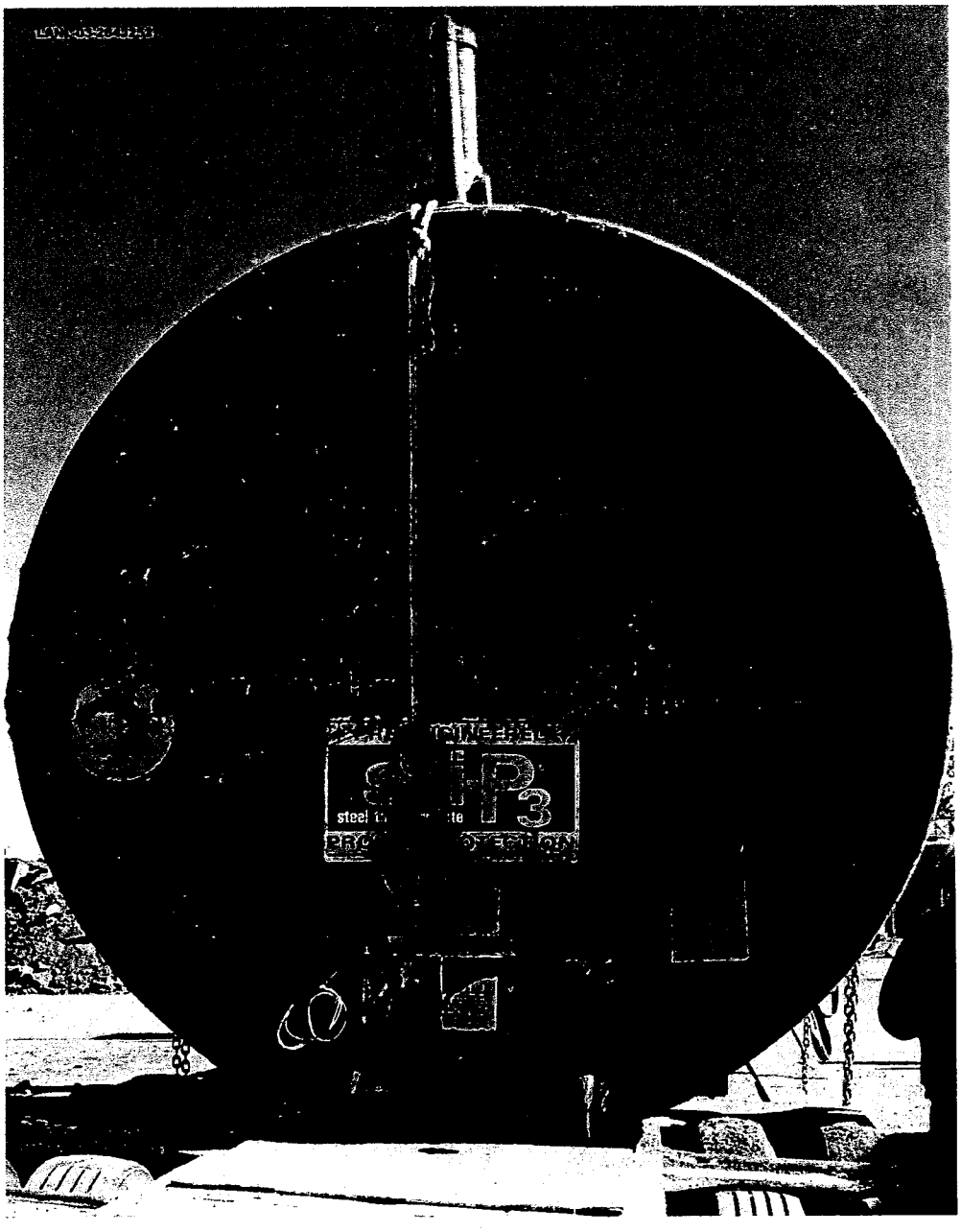

Photo 5. (LANL-03-284J2503) Close up of tank's sacrificial anode corrosion protection (2/12//03)

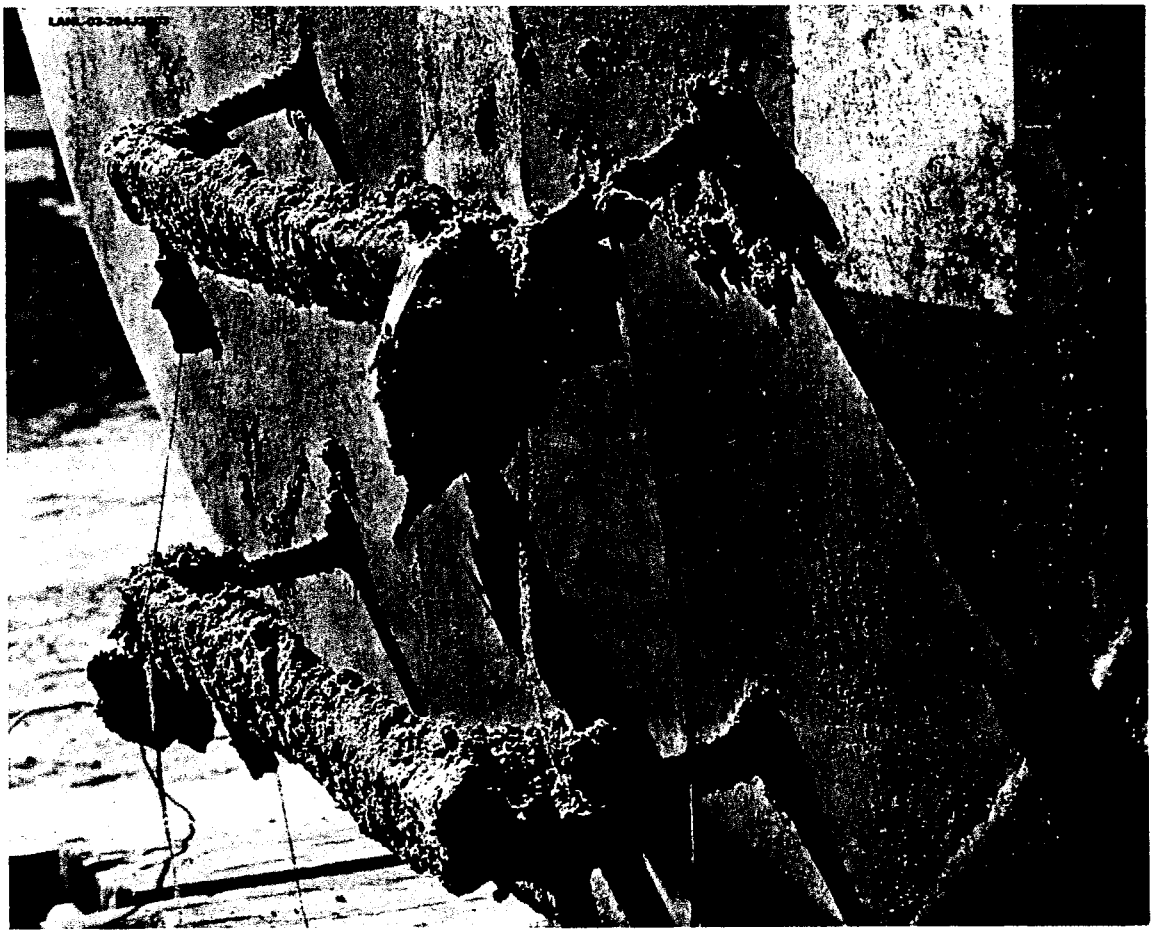

Photo 6. (LANL-03-284J2498) TA-16-197 excavation, view towards the west (2/12/03)

Photo 7. (LANL-03-284J2603) Excavation of TA-16-197, view towards the east (2/12/03)

Photo 8. (LANL-03-284J2518) Soil sampling conducted at the former location of the fuel dispenser and south of the tank excavation. 2/12/03