





September 16, 2009

Commander Kimberly Colloton Department of the Army Albuquerque District, Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, NM 87109-3435

Re: Ready for Reuse Determination - Former Atlas Missile Silo Site 5, Roswell, New Mexico

Dear Commander Colloton:

The United States Environmental Protection Agency (EPA) Region 6, in concurrence with the New Mexico Environment Department (NMED), has determined that the Former Atlas Missile Silo Site 5 surface property is Ready for Reuse. A Ready for Reuse Determination is an acknowledgment that environmental conditions on the property are protective for its current and anticipated future use.

The Former Atlas Missile silo is located in central Chaves County, approximately 35 miles east of Roswell, New Mexico, on the north side of U.S. Highway 380. Of the 247.24 acres acquired by the Department of Defense (DOD) for development of silo site 5, the actual missile facility occupied 8 acres plus a road easement. The DOD acquired the property in 1960 and construction of the missile launching facility was completed in November 1961. In May 1964 the DOD announced that the Atlas "F" missile program was to be phased out and in February 1965 silo site 5 was declared excess to the General Service Administration (GSA). In December 1966 the GSA conveyed the 8.26 acres fee simple and 1.65 acres in easement, including all improvements, to W.L. Pennington and Cliff C. Henderson. The remaining 237.03 acres in easements expired and reverted to original ownership following a one-year period of nonuse. The current owner, William L. Wilcox, acquired the site property in March 1999.

A Preliminary Assessment (PA) and Site Inspection (SI) were conducted, under the Defense Environmental Restoration Program, by the U.S. Army Corps of Engineers (USACE) to determine whether an immediate or potential threat to human health and the environment exists at the site as a result of DOD activities and whether further action is warranted. In April 2008, the USACE completed an SI of silo site 5. The soil assessment component of the SI at silo site 5 examined the potential release of hazardous constituents to surface and subsurface soil from three (3) potential source areas: the former Underground Storage Tank (UST) area, the septic leachfield, and the outfall area for the silo sump discharge. During the SI, arsenic and iron were detected in soil samples in the UST area and sump outfall at concentrations exceeding evaluation criteria. Based on a geochemical evaluation of the site soil, the arsenic and iron in soil was determined to be naturally occurring and not indicative of contamination. Impacted soil from the silo outfall containing a polychlorinated biphenyl (PCB), Aroclor-1260, and a polynuclear aromatic hydrocarbon (PAH) were detected in soil samples in the sump outfall area at concentrations exceeding evaluation criteria. The USACE undertook voluntary removal actions and the PAH and PCB impacted soil was excavated, transported, and disposed of at a licensed disposal facility. Before filling the excavation with clean soil, five confirmation soil samples were collected to verify removal of PCB and PAH impacted soil. The results of the confirmation soil sampling indicated that PCB and PAH concentrations were either not detected above laboratory reporting limits or detected at concentrations well below evaluation criteria.

Groundwater and silo water characterization were accomplished during the SI. Four metals (aluminum, arsenic, iron, and manganese) were detected in filtered and unfiltered groundwater samples at concentrations exceeding the evaluation criteria. Based on a geochemical evaluation of metals in groundwater, these metals were at ratios indicative of naturally occurring background concentrations. Antimony concentrations in silo water collected exceeded the evaluation criteria. Supplemental silo water sampling was conducting in June 2008. The source of the antimony in silo water is not known

but based on the physical characteristics of the site, lack of groundwater unit beneath the silo (at least 75 feet), and geochemistry of the vadose zone, antimony in silo water is not expected to impact groundwater beneath the site. Based upon the high total dissolved solids concentrations in groundwater beneath silo site 5, NMWQCC regulations indicate that the water cannot be used for domestic purposes without treatment. Environmental conditions of the property are summarized in Enclosure 1 to this letter.

The Ready for Reuse Determination is based on a review of all relevant corrective action documents (collectively, the "Documentation") for Former Atlas Missile silo site 5 (the "Property"), which are listed in Enclosure 2. NMED concurred with a Finding of No Defense Action Indicated in August 2009. With this Ready for Reuse Determination, the EPA deems that the USACE has successfully completed its investigation and that environmental conditions at the property are protective of human health and the environment. The Documentation demonstrates that, although releases of chemical constituents have occurred as a result of DOD activities on the Property, corrective action was completed and residual concentrations do not require further removal or remedial action to protect human health or the environment, based on the evaluation criteria of the most conservative of either the NMED Soil Screening Levels or the EPA Region 6 Human Health Medium-Specific Screening Levels for residential exposure.

Copies of the documents listed in Enclosure 2 may be obtained from either NMED, Hazardous Waste Bureau, 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico 87505-6303, USACE, Albuquerque District, 4101 Jefferson Plaza, NE, Albuquerque, New Mexico 87109, or Region 6 EPA, 6PD-F, 1445 Ross Ave Ste 1200, Dallas, Texas 75202.

If conditions at the property change, including environmental conditions, land use, and site receptors, it will be necessary to revisit this determination of suitability for reuse to ensure its continuing protectiveness. The undersigned expressly reserves all rights and authorities to require future action by owners, operators, or USACE if new or additional information comes to light that materially impacts this Ready for Reuse Determination, whether such information is known as of this date, or is discovered in the future.

Congratulations on this most noteworthy accomplishment!

Sincerely,

Chief, Federal Facilities Section

Multimedia Planning and

Permitting Division EPA, Region 6

RON CURRY / Cabinet Secretary

New Mexico Environment

Department

BRIANJORDAN

Atlas Project Manager

US Army Corps of Engineers

Albuquerque District

**Enclosures:** 

1) Current Environmental Conditions Table

2) Relevant Documents List

## Enclosure 1

		Former / Current En	Former Atlas F Missile Silo Site No. 5 arrent Environmental Conditions Table	e No. 5 ms Table		
Site Name/Site Number	Remedial Action Taken	Residual Contamina	Contaminants of Concern (CoCs) <sup>a</sup>	Clean-up Status	Clean-up Standard	Institutional Control(s) (Type/Purpose/Location)
Soil						
Former ITST Area	Mone	Arsenic	11.1 mg/kg	Determined	3.9 mg/kg	
	NOIR	Iron	25,200 & 31,800 mg/kg	naturally occurring	23,500 mg/kg	None
		Arsenic	5.50 mg/kg	Determined naturally occurring	3.9 mg/kg	
Sump Outfall Area (Post Remediation)	Excavation and Disposal	PCB Aroclor-1260	8.23 to 17.1 μg/kg	Detection below evaluation criteria in	220 µg/kg	None
		Benzo(a)pyrene	2.50 to 5.09 µg/kg	confirmation soil sampling	15 µg/kg	
Groundwater						
BARCAD <sup>TM</sup> Groundwater		Total Dissolved Solids (TDS)	6,400 to 7,420 mg/L	Determined naturally occurring	10,000 mg/L <sup>b</sup>	None
Monitoring Wells	None	Aluminum	0.922 & 1.59 mg/L		0.2 mg/L	
		Arsenic	0.0430 & 0.0425 mg/L	Determined	0.01 mg/L	-1-1-4
		Iron	1.73 to 4.93 mg/L	naturally occurring	0.3 mg/L	None
		Manganese	0.965 to 5.44 mg/L		0.05 mg/L	
Silo Water	None	Antimony	0.0125 to 0.0135 mg/L	See Note 1	0.006 mg/L	None
		Total Dissolved Solids (TDS)	2,260 & 2,400 mg/L	Determined naturally occurring	10,000 mg/L <sup>b</sup>	None

<sup>a</sup>Information based on Site Investigation (SI) Report and Supplemental SI Report prepared by Shaw Environmental in 2008. <sup>b</sup> New Mexico Water Quality Control Commission (NMWQCC) standards for groundwater of 10,000 mg/L TDS or less

Note 1: The source of the antimony in silo water is not known but based on the physical characteristics of the site, lack of groundwater unit beneath the silo (at least 75 feet), and geochemistry of the vadose zone, antimony in silo water is not expected to impact groundwater beneath the site.

## **Enclosure 2**

## Relevant Documents List Former Atlas "F" Missile Silo Site No. 5 Formerly Used Defense Site Project ID No. K06NM0483

HydroGeologic, Inc. (HGL), 2007, Final Preliminary Assessment Report, Former Walker Air Force Base Atlas "F" Missile Silo 5, Chaves County, New Mexico, Property No. K06NM0483, prepared for Shaw Environmental, Inc and U.S. Army Corps of Engineers, Albuquerque District.

New Mexico Environment Department and US Army Corps of Engineers, Finding of No Defense Action Indicated, August 2009.

Shaw Environmental, Inc. (Shaw), 2008, Site Inspection Report, Former Atlas Missile Silo Site 5, Roswell, New Mexico, FUDS Project ID No. K06NM0483, Draft Final Report, Revision C, prepared for U.S. Army Corps of Engineers, Albuquerque District.

Shaw Environmental, Inc. (Shaw), 2008, Supplemental Site Inspection Report, Former Atlas Missile Silo Site 5, Roswell, New Mexico FUDS Project ID No. K06NM0483, Final, Revision 0, prepared for U.S. Army Corps of Engineers, Albuquerque District.