

PRE-CERCLIS FIELD SCREENING CHECKLIST

1.0 GENERAL SITE INFORMATION

SITE NAME: Vista Chemical Company (aka Condea Vista Company, aka Sasol North America)			
ADDRESS: 12024 Vista Parke Drive			
CITY: Austin	ZIP: 78726	COUNTY: Travis	CONG. DIST: 21
PHYSICAL LOCATION (directions to site): From RM 2222, take RR 620 north approximately 0.6 miles to Vista Park Drive.			
TYPE OF OWNERSHIP <input checked="" type="checkbox"/> Municipal <input type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Indian Nation <input type="checkbox"/> State <input type="checkbox"/> County Other			
SITE STATUS: <input type="checkbox"/> Active <input checked="" type="checkbox"/> Inactive <input type="checkbox"/> not specified) _____ # of employees (if active)		YEARS OF OPERATION <input type="checkbox"/> Unknown <u>1989</u> /September 2006	
EPA ID # <u>TXD987987914</u> State SWR # <u>39312</u> Other #			
Site Owner (if available): Leander Independent School District			
Site Operator (if available): Jimmy Disler, Executive Director of Capitol Improvements, Leander ISD, (512) 434-5250			
Description of site activities (e.g. manufacturing plant, abandoned refinery, etc.)			

The property is located at 12024 Vista Parke Drive, Austin Texas (Figure 7.0). The property consists of 46 acres of cedar and oak woodland occupied by six buildings, identified as Buildings A-F, and associated parking areas and driveways (Figure 8.0). The property was previously owned by Sasol North America, Inc. (Sasol), a chemical company that originally developed the property and maintained an office and testing laboratory center there between 1989 and 2006. The research and development conducted by Sasol at the Austin facility involved developing new products, and improving existing products relating to surfactants and detergents. The Leander Independent School District (LISD) purchased the property in September 2006 and plans to convert one of the buildings and a portion of the property to an elementary school and campus, with a smaller part of the facility designated for physical plant operations and district-wide support functions (Reference 1).

A description of the functions and operation of each building, as reported in Reference 1, are provided below.

Building A – Main Offices and Laboratory Building. Building A served as the main office area and laboratory. Approximately 60% of the building was utilized for office space, and the remaining 40% was utilized as laboratory space. The First Floor-West and Second Floor-West consisted of offices around the building interior core, and laboratories around the outside perimeter. The laboratory space included multi-purpose chemical labs, as well “functionspecific” labs where certain testing processes, such as the following were performed:

- Gas chromatography/mass spectroscopy lab (GC/MS Lab)
- Liquid Chromatography lab
- Electron Microscope lab
- X-ray diffraction/X-ray fluorescence lab
- Scintillation Lab

Building B – Physical Plant/Chemical Storage. The north end of Building B was where small quantities of reagent chemicals were stored, as well as some of the hazardous waste while the “accumulation” containers were in the process of being filled. Small containers of maintenance items such as lubricating oils and paints were stored in numerous cabinets located in the north side of Building B. Some of these chemicals are listed in Appendix A documents. Hazardous chemicals and wastes were stored in a separate room off the east side of Building B. Hazardous chemicals in this area typically included hexane, isopropyl alcohol, ethanol, and acetone. These were considered hazardous waste due to their flammability. Drums in this room were used as satellite accumulation areas to store flammable wastes transferred from Building A labs. Wastes were reportedly shipped off-site after satellite accumulation drums were filled. This room was equipped with a concrete floor with grated trench drain. The trench drain exited the building via an in-slab pipe to a small, rectangular, metal tank located on the exterior of the building, along the eastern exterior wall. The tank is not connected to the sanitary sewer. The tank remains at the site and has been empty since LISD purchased the property. The tank appears to be intact, with no obvious rusty sections or obvious holes, cracks or damage. All chemicals in this room were removed and disposed of off-site by Clean Harbors in February 2007.

Building C – Process Development Lab. The north end of Building C was where alumina processing was conducted. A long, horizontal dryer was reportedly used in this area (mounted on short concrete footers) to provide controlled drying of mixtures of aluminum with various catalysts, such as zirconium. Rock salt was also used in this process. A large air dryer reportedly occupied the northeast corner of the room. This equipment was used to dehumidify the pressurized air that was delivered to the other buildings. A hot oil system similar to a water radiator but using oil as the heat transfer liquid instead of water, was reportedly operated in this area. Blind trench drains in the floor of this room collected any water, chemical or debris that was spilled on the concrete floor of the room. A large blue, vertical tank in this room was designed to treat water or other fluids that were released into the trench drain and required treatment prior to off-site discharge or sewer discharge. Except for the large air dryer, all equipment has been removed from the north side of the PDL.

The south end of the PDL was the location of several tanks that contained benzene or benzene mixtures, as well as a miniature (2-inch diameter) reactive distillation column. The sulfonation plant was located here.

Building D – Container Storage Building. Building D was used for storage of drums and other waste containers while awaiting off-site disposal. Full drums from the satellite accumulation area in Building B were reportedly moved to Building D after they were filled. A small quantity of diesel fuel was also stored here in drums. Building D was equipped with a fire suppression system and a spill containment system that included a sloped concrete floor and a “blind” trench drain (no outlet) for accumulating any spills in the center of the buildings, where they could be collected and contained. According to Sasol personnel, no fires or spills occurred in the building.

Building E – High Pressure Test Cells. Chemical reactions (e.g., ethoxylation, aluminum reactions) and other tests involving sensitive mixtures were conducted in Building E. Building E consisted of five isolated, thick-walled cells in which small vessels (2-10 gallons) would be used to react the sensitive mixtures. Any potential reactions were controllable remotely from an adjacent part of Building E. A chemistry lab bench was present inside the control areas, located at the front (west side) of the building. Each cell in Building E had a floor drain, and each floor drain connected to a main lateral line that ran under the cell floors to a 5-ft deep sump located on the south side of Building E. At the time of sampling performed by Weston during February through April 2007, the sump was full of what appeared to be rainwater, and the concrete and steel box that formed the sump appeared to be intact. The sump had no plumbed outlet. It was reportedly emptied on an as-needed basis.

Building F – Dry Goods/Equipment Storage. Building F was equipped with tall racks on which a variety of dry goods and unused equipment and furniture reportedly had been stored.

The Acid Neutralization Tank (ANT) is located outside the north side of Building A. The ANT received drain water from the numerous sinks and drains that made up the process sewer system that served the laboratories in Building A. The ANT consisted of a

square, cement walled, sub-grade, concrete vault measuring approximately 10 ft by 10 ft by 12 ft deep. The vault was equipped with a cylindrical, open-topped, black polyethylene tank that received and stored the process wastewater. The black tank was filled with several feet of limestone aggregate used to neutralize any acidic wastewater entering the ANT. The limestone also would have provided some filtration of the wastewater. A thin layer of sediment/sludge was present on top of the limestone aggregate at the time of the PreCERCLIS inspection. The ANT was equipped with a sump pump and level switch that pumped treated water from the bottom of the ANT to the City of Austin sanitary sewer system manhole located about 100 ft north of the ANT. The tank, tank contents, vault and ancillary equipment are being removed as part of the redevelopment of the property.

Six different companies leased space at the facility between 2000 and 2006. The six companies' periods of lease, and their general operations, were as follows (Reference 1):

Genomic FX, LP. (2000-2001) – Conducted research on livestock DNA.

Jusung America – (2001-2006) – Semiconductor start-up involved in dry-deposition chip research.

Zimmer Biologics (2002-2006) – Conducted research on human cell cultures, tissue research, and material science for the health sciences field.

Intera, Inc. (2004-2006) – Conducted bench-scale environmental studies involving removal of contaminants from groundwater using surfactants and solvents.

ENSR (dates unknown) – Occupied small group of offices only.

Innovalight (approx 2000-2001) – Lighting research.

Comments
<p>LISD is currently renovating Building A to be the site of the new elementary school, scheduled to open in August 2007.</p> <p>A Phase I and Phase II Environmental Site Assessment was performed at the site by PBS&J in 2006 (Reference 2). Weston Solutions conducted additional sampling February through April, 2007 (Reference 1).</p>

2.0 SITE SCREENING INFORMATION

Date:		Time:	
TCEQ Personnel:	Dan Switek, Marshall Cedilote, Mike Alpin, Shawn Stewart, Gene Miller, Chris Wiatrek.		

A site visit and walkthrough was conducted on February 8, 2007. Representatives from the TCEQ, Weston Solutions, PBS&J, City of Austin, and American Contractors were present during the walkthrough.

Each of the buildings was inspected during the walkthrough. Building A was undergoing major renovation at the time of the walkthrough. Buildings C, D, and F were being used for storage for building materials, furniture, and miscellaneous storage. The chemical storage room in Building B was still being used to store waste oil, refrigerant, paint thinner, fuel oil, Dowtherm SR-1 (a heat exchange chemical used in the building heating system), and Forane (a refrigerant used in the buildings cooling system). Building C contained several drums of unlabeled contents, and of waste oil. Building E did not appear to be modified from its condition during operation of the facility, and the labs and explosion proof rooms were still intact.

During a subsequent site visit on February 21, 2007 to discuss sampling locations with Weston Solutions, all of the drums and chemicals were observed to have been removed. The waste was disposed of by Clean Harbors, a hazardous waste transportation and disposal company (Field Notes).

No evidence of releases of hazardous substances was observed during the site visit.

3.0 RANK (Seriousness of Situation)

- 1 **Low Potential Hazard** - No waste source(s) identified and/or limited or no targets identified.
- 2 **Low to Moderate Potential Hazard** - May have a waste source(s) and/or limited or no targets identified.
- 3 **Moderate Potential Hazard** - Potential waste source(s), potential targets are present in the area but no release is suspected.
- 4 **Moderate to High Potential Hazard** - Potential waste source(s) identified, a release may be suspected and potential targets are present in the area.
- 5 **High Potential Hazard** - Potential waste source(s) identified, a release is strongly suspected or observed, targets are present in the area and may be impacted. Sites in this category are believed to require immediate attention by EPA.
- 6 **Other** - Sites that for various reasons, do not fit into one of the above scoring criteria. An explanation is attached.

4.0 HAZARD DESCRIPTION (e.g. details on sources, contaminants, historical discharges, waste management and chemical use, threat to public and/or environment)

The company and its tenants used a wide variety of chemicals in their research and produced a variety of hazardous wastes. Chemical inventories provided by the City of Austin indicate the following chemical were used onsite: 2-ethyl 1 hexanol, 4-methyl 2-pentanol, acetone, acetonitrile, dodecane, ethyl acetate, heptanol, hexanes, hexanols, iso propanol, LNAPL (Diesel, Gasoline, Kerosene), methanol, n-hexane (high purity), n-octane, pentane, secondary butanol (SBA), toluene, 1,1,1 Trichloroethane, 1,1,2 Trichloroethene, 1,1,2,2 Tetrachloroethene, chloroform, methylene chloride, perchloroethylene, trichloroethylene, various surfactants (soaps), benzene, bis (2-ethylhexyl)phthalate, carbon tetrachloride, di-n-octyl phthalate, naphthalene, phenol, toluene, cyanide, chromium, copper, lead, mercury, nickel, silver, and zinc. The inventories are included in Reference 3.

Waste generated during research in the labs in Building A was stored in small, desktop accumulation canisters. The canisters were emptied into larger containers in the chemical storage area of building A. The larger containers were then moved to the container storage area in Building B (Reference 1). Wastes generated at the site include ignitable wastes, corrosive wastes, reactive wastes, and wastes containing RCRA metals, benzene, cresol, methyl ethyl ketone, pyridine, and chlorinated solvents. (Reference 4).

The facility once held a Radioactive Material License. The company used C-14 for biodegradation studies using the liquid scintillation counting technique. A Radioactive

Materials Field Activity Inspection performed by the Texas Department of State Health Services (TDSHS) did not indicate elevated levels of radioactivity (Reference 5).

5.0 SITE FEATURES

Potential Waste Sources:

<input type="checkbox"/>	Ponds, Lagoons, Surface Impoundments	<input type="checkbox"/>	Drums
<input checked="" type="checkbox"/>	Contaminated Soil	<input type="checkbox"/>	Pits
<input type="checkbox"/>	Transformers	<input type="checkbox"/>	Landfills
<input type="checkbox"/>	Waste Piles	<input type="checkbox"/>	No Sources Identified
<input type="checkbox"/>	Storage Tanks (above & below)	<input checked="" type="checkbox"/>	Other

Describe sources and releases

(e.g. #drums, size of impoundment, leaking drums, ruptured tank, containment)

Samples from environmental media were collected during the Environmental Evaluation performed by Weston Solutions (Reference 1). Weston collected 118 surface soil samples around the buildings, in the planned play and campus areas, and throughout the property. Weston also collected 38 samples of subslab vapors at 17 locations beneath or near Building A, one location approximately 400 feet northeast of building A, and at 8 other locations beneath buildings B-F.

Five organic compounds were detected in the surface soil at elevated levels in one or more samples. Benzo(a)anthracene was detected at concentrations ranging from < 200 ug/kg to 23.4 mg/kg. Benzo(a)pyrene was detected at concentrations ranging from < 200 ug/kg to 27.7 mg/kg. Benzo(b)fluoranthene was detected at concentrations ranging from < 200 ug/kg to 16.4 mg/kg. Dibenz(a,h)anthracene was detected at concentrations ranging from < 200 ug/kg to 5.95 mg/kg. Indeno(1,2,3-cd)pyrene) was detected at concentrations ranging from < 200 ug/kg to 27.5 mg/kg (Reference 1). Samples with elevated levels of organic compounds were collected from storm water retention basis, adjacent to parking lots, and up to approximately 150 feet from the edge of the nearest parking lot.

Several compounds in subslab vapors were found widespread across the site at elevated levels. Trimethylbenzenes were detected 33 of 38 samples, ranging from 6.34 ug/m³ to 269 ug/m³. The compounds m-Xylene/p-Xylene were detected in 37 of 38 samples, ranging from 55.6 ug/m³ to 415 ug/m³ (Reference 1). The source of these compounds has not been identified.

Chloroform was found in subslab vapors at elevated levels in an isolated area in the northeast part of Building A. Chloroform was detected in one or more samples ranging from <1.43 ug/m³ to 4888 ug/m³ (Reference 1). The source of chloroform vapors has not been identified.

6.0 TARGETS

Describe targets and proximity to wastes
(lagoon draining to creek, 10 homes within 200 feet, stressed vegetation and contamination at homes, SW intakes, nearest public and private drinking water wells, etc.)

The site is currently unoccupied, however, the intended use of the site is for a new LISD elementary school, with a capacity of enrolling approximately 550 students (Reference 6).

The adjacent land to the north, west and south is undeveloped. The nearest developed land is a Home Depot retail store, to the east of the site, across RM 620, approximately 100 feet from the east edge of the site (300 feet from the nearest onsite building). The nearest neighborhood is approximately 500 feet west from the northwest corner of the site (1500 feet from the nearest building).

Drainage from the site flows primarily to the north and then west in unnamed tributaries to Lake Travis approximately 1 mile to the northeast, which is part of Segment 1404 of the Colorado River Basin (Figure 9.0).

A search of the Texas Water Development Board and TCEQ Source Water Assessment databases indicated that there are two water wells within 0.5 miles of the site. The database indicates State Well Number 5834702 is located approximately 0.4 miles to the south-southeast of the site, has a depth of 74 feet, and is unused. State Well Number 5834709 is located approximately 0.4 miles to the southeast of the site, has a depth of 374 feet, and is used for domestic purposes (Reference 7).

Six karst features were noted and their locations are provided in the Phase I and Phase II Environmental Site Assessment that was performed by PBS&J (Reference 2, Section 6.0).

7.0 SITE LOCATION MAP

8.0 SITE MAP

9.0 SUFACE DRAINAGE MAP

10.0 SITE PHOTOGRAPHS

11.0 FIELD NOTES

12.0 REFERENCES

1. Weston Solutions, Inc. Environmental Evaluation Report, April 2007. 174 pages plus appendices.
2. PBS&J. Phase I and Phase II Environmental Site Assessment, November 2006. 49 pages plus Exhibits.
3. City of Austin. Chemical Inventories provided by Charles Lesniak, February 8, 2007. 3 pages.
4. Texas Commission on Environmental Quality, TRACS Database. Notice of Registration for SWR #39312, February 2007. 28 pages.
5. Texas Department of State Health Services. Radioactive Materials Field Activity Inspection, January 26, 2007. 4 pages.
6. Brett Champion, Leander Independent School District. Correspondence. 1 page.
7. Texas Water Development Board. Groundwater Data, April 26, 2007. 6 pages.

REFERENCE 1

REFERENCE 2

REFERENCE 3

REFERENCE 4

REFERENCE 5

REFERENCE 6

REFERENCE 7

10.0 SITE PHOTOGRAPHS

11.0 FIELD NOTES