

# Asbestos Minerals Sites – Initial Screening

Conducted by North Carolina Division of Waste Management,  
in cooperation with US EPA Region IV and North Carolina  
Division of Public Health, Health Hazards Control Unit

<b>A. SITE INFORMATION</b> Site Number: NC-49				
Historical Name	Sylva- US 23 Bypass Dunite			
Latitude / Longitude	35.38369N -83.20202W			
State, County, nearest City/Town	North Carolina, Jackson County, Sylva			
Site Type	<input type="checkbox"/> Mine	<input type="checkbox"/> Prospect	<input type="checkbox"/> Occurrence	
Mineral reported	<input type="checkbox"/> chrysotile	<input type="checkbox"/> crocidolite	<input type="checkbox"/> tremolite	<input checked="" type="checkbox"/> Other (name)
	<input type="checkbox"/> amosite	<input type="checkbox"/> anthophyllite	<input type="checkbox"/> actinolite	Fibrous talc and brucite

<b>B. INFORMATION SOURCES</b> (include publication date)	Furman (1981). USGS 7.5' Topo Map: Sylva North (7-1-83). USGS Orthophotoquad for Sylva North (4-12-93). Jackson Co. NCDOT road map (2005). <a href="http://www.ncdot.org/it/gis/DataDist/GISCountyMap_TIFs.html">http://www.ncdot.org/it/gis/DataDist/GISCountyMap_TIFs.html</a> .
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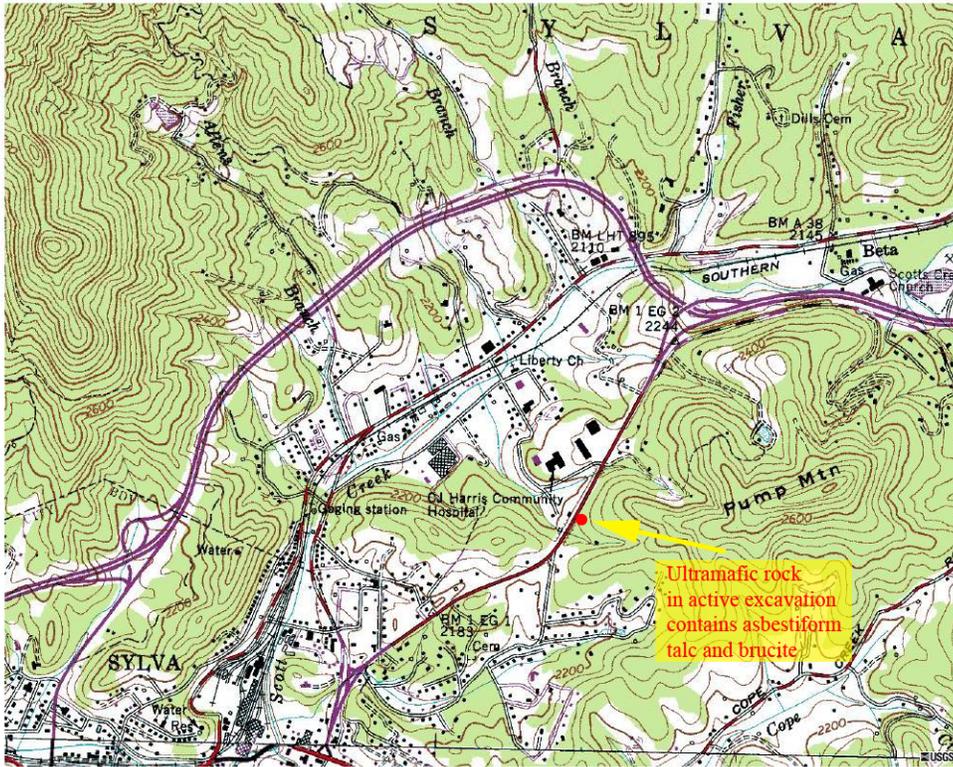
<b>C. SITE AND AREA RECONNAISSANCE</b>		Date of Site Reconnaissance	<b>11/1/05</b>
1. Was the site located and a site visit completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, site could not be located  (Please attach a topographic map print showing the site)		
2. Is the site property developed and in use of any kind?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, site is wooded / undeveloped		
3. Land use on site (check all that apply)	<input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Recreational (golf course, park, etc.) <input checked="" type="checkbox"/> Construction or clearing in progress <input type="checkbox"/> Other (please describe below)		
4. Are there large areas of bare soil visible on the property?	<input checked="" type="checkbox"/> Yes    (Please describe below) <input type="checkbox"/> No		
5. Are there residences, apartments, stores or businesses, or day care facilities on the site, or within 200 feet of it?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Please note which, and describe the item and its location (relative to the site) below.		
6. Where is the nearest residence, place of business, or place frequented by local residents located, in relation to the site?	<input checked="" type="checkbox"/> N/A (addressed at 5 above)  _____ (Place and distance/direction to site)		

7. Are any physical barriers present (fences, gates) that prevent access?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Description
<b>D. ADDITIONAL INFORMATION</b> (Indicate by letter and number which topic the information supports)	
<p><b>A.</b> Cross-fiber veins and alteration rinds were found on dunite boulders within an ultramafic body in an active borrow pit. The fibrous veins and alteration was identified as chrysotile in the field. Although morphology of the material looks exactly like chrysotile, the indices of refraction are not correct for chrysotile. PLM analysis identified fibrous talc and brucite in the samples instead. Chrysotile is commonly associated with these minerals but was not identified. Given the close proximity of the pit containing these minerals to a busy area and the uncertainty of the PLM analysis in this situation further sampling and perhaps x-ray diffraction analysis on some of the material may be prudent. Initial PLM analysis was performed by Ronald D. McDaniel. Confirmation analysis by PLM was performed by Stephen H. Westbrook, Asbestos Analysis and Information Service, Inc., a NVLAP accredited laboratory</p> <p><b>C3.</b> The site is an active (or recently active) borrow pit. Immediately west of the pit is an emergency medical facility and the regional hospital. Busy US 23 Bypass is adjacent to the pit.</p> <p><b>C4.</b> The pit contains about an acre of bare soil and saprolite.</p> <p><b>C5.</b> The closest structure is an emergency medical facility, less than 100 feet west of the pit.</p>	

**Directions to the borrow pit:**

The borrow pit is located on the east side of U.S. Business 23, 0.65 mile south of the intersection of U.S. Business 23 and U.S. Highway 74-23 and 0.96 mile north of the intersection of U.S. Business 23 and N.C. Highway 107. The pit is just north of the Sylva city limit sign directly across the road from an emergency medical facility and the regional hospital.

# Sylva- US 23 Bypass Dunitite



USGS Topographic Map 7-1-83



USGS Orthophoto 4-3-93



View borrow pit on east side of US 23 Bypass at the Sylva city limits.



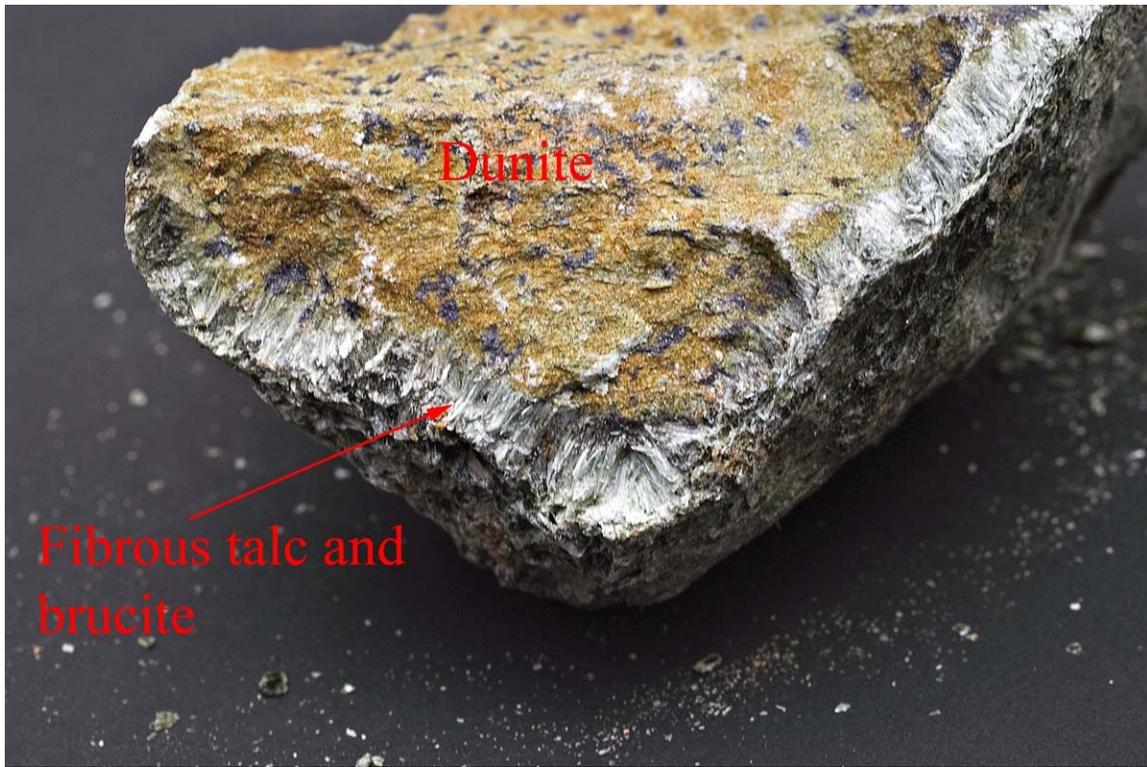
View looking west from borrow pit toward emergency medical facility and hospital.



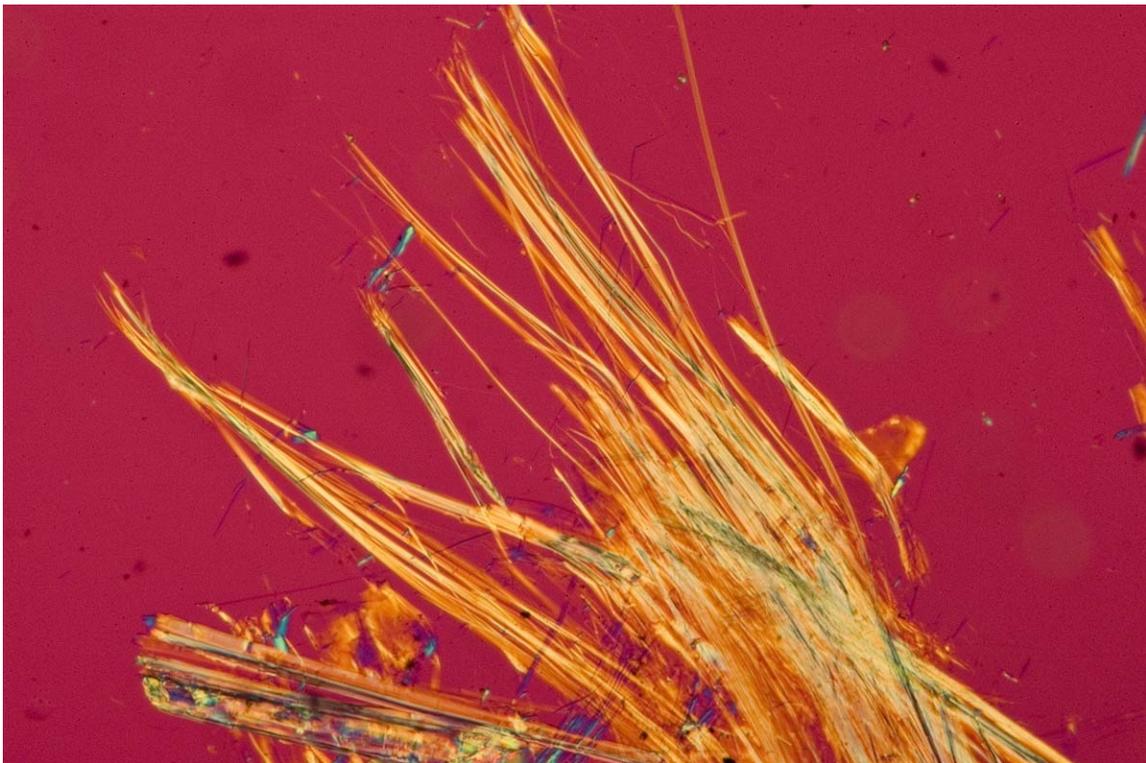
The property is for sale as commercial lots.



Cross-fiber vein of talc and brucite from boulder near US 23 Bypass.



Dunite with alteration rind of talc and brucite from.



Fibrous talc as viewed through the polarizing light microscope using a gypsum plate.