CDM

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Contaminant Screening Study
Libby Asbestos Site, Operable Unit 4
Libby, Montana

Draft Final Summary Report
for City of Libby Alley Investigation

October 2005

Summary Report

Response Action Contract
for Remedial, Enforcement Oversight, and Non-Time
Critical Removal Activities at Sites of Release or
Threatened Release of Hazardous Substances
in EPA Region 8

U.S. EPA Contract No. 68-W5-0022

Draft Final Summary Report
City of Libby Alley Investigation,
Contaminant Screening Study,
Libby Asbestos Site, Operable Unit 4

October 6, 2005

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1020105

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Work Assignment No.: 137-RIRI-08BC

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Contents

Section 1 **Introduction**

Section 2 **Field Activities**
2.1 Visual Inspection 2-1
2.2 Soil Sampling 2-2
2.3 Verbal Interview 2-2
2.4 Air Sampling 2-3

Section 3 **Quality Assurance/Quality Control**
3.1 Deviations from the Sampling and Analysis Plan Addendum 3-1
3.2 Achievement of Data Quality Objectives 3-2
3.3 Data Validation and Reporting 3-2

Section 4 **References**

Figures
Figure 1 City of Libby Alley Investigation Visual Inspection, Surface Soil and Air Sample Results

Tables
Table 1 City of Libby Alley Investigation Visual Inspection Summary
Table 2 City of Libby Alley Investigation Surface Soil Sample Results
Table 3 City of Libby Alley Investigation Air Sample Results
Table 4 Summary of Soil and Air Sample Results

Appendices
Appendix A Soil Sampling Field Log Notes
Appendix B Completed Soil Field Sample Data Sheets
Appendix C Verbal Interview Documentation
Appendix D Completed Air Field Sample Data Sheets
Appendix E Air Sampling Field Log Notes

Acronyms

CDM	CDM Federal Programs Corporation
EPA	U. S. Environmental Protection Agency
LA	Libby amphibole
PLM	polarized light microscopy
QA/QC	quality assurance/quality control
QC	quality control
SAP	sampling and analysis plan
SRC	Syracuse Research Corporation
VE	visual area estimation
%	percent

Section 1
Introduction

The purpose of this report is to summarize the field activities for the City of Libby alley investigation that took place between October 15 and October 24, 2003 and August 29 and 31, 2005.

As part of the Libby asbestos site remedial investigation, CDM Federal Programs Corporation (CDM) conducted an investigation of the alley ways within the City of Libby to determine the nature and extent of Libby amphibole (LA) asbestos contamination. All investigation activities were conducted in accordance with the Final Sampling and Analysis Plan (SAP), Remedial Investigation (CDM 2003a) and Final Sampling and Analysis Plan Addendum for the City of Libby Alley Investigation (SAP Addendum) (CDM 2003b).

This summary report presents visual inspection results, site-specific surface soil sampling data, air sampling data, and verbal interview information collected as part of this investigation.

Section 2
Field Activities

The Libby alley investigation consisted of a visual inspection for vermiculite, surface soil sampling, air sampling, and a verbal interview with the city supervisor. Unless noted in Section 3.1 (Deviations from the SAP Addendum), all field documentation and sample collection procedures provided or referenced in the SAP Addendum were followed. The following sections summarize the alley investigation field activities.

2.1 Visual Inspection

The CDM field team inspected 128 alley ways within the City of Libby for the presence or absence of vermiculite (Figure 1). All inspection data was recorded on field sample data sheets and in field log notes. The surface material (e.g., asphalt, gravel, sand, soil, etc.) of each alley was also noted in the field log notes. Copies of the log notes are provided in Appendix A.

The alleys inspected by the CDM field team are illustrated on Figure 1 and identified on Table 1. Field personnel observed vermiculite in 20 percent (%) of Libby alleys at the time of inspection. The following information summarizes the observations made by the field team:

- vermiculite was observed in soils adjacent to 3 paved alleys
- vermiculite was observed in the surface material of or in soils adjacent to 22 non-paved alleys
- vermiculite was not observed in 27 paved alleys
- vermiculite was not observed in 69 non-paved alleys

It should be noted that for all 25 alley ways containing visible vermiculite, an adjacent property to the alley way also contained visible vermiculite. That is, the vermiculite observed in the alley way appeared to have migrated from an adjacent property that contained vermiculite. It is not suspected that vermiculite was used as a base material or surface material for alley construction.

2.3 Soil Sampling

Soil samples were collected, prepared, and analyzed in accordance with procedures presented or referenced in the SAP Addendum, including completion of soil field sample data sheets (Appendix B). Soil samples were not collected from paved alleys. In total, 91 surface soil samples were collected from the 0-6 inch interval during this investigation (Figure 1).

As applicable to all soil samples collected under the Libby remedial investigation program, soil samples were analyzed for LA asbestos using two techniques: polarized light microscopy (PLM) visual area estimation (VE) and the PLM gravimetric method (Syracuse Research Corporation [SRC] 2003). The U.S. Environmental Protection Agency (EPA) is in the process of evaluating the accuracy and replicatability of each of these methods. However, based on EPA's performance evaluation study to date, PLM-VE results are currently being used to make project remediation decisions. For the purposes of this report, only PLM-VE results are presented.

All sample results were nondetect for LA (by PLM-VE) with the exception of CS-17979, which was trace (less than 0.2 percent) for LA. Sample CS-17979 was collected from alley 47 (see Figure 1); no vermiculite was observed in this alley. Surface soil sample results are presented in Table 2.

2.3 Verbal Interview

In order to document LA contamination concerns and obtain historical information about the alleys, a verbal interview was conducted with Dan Thede, the city supervisor, on February 2, 2005. This information was recorded on an information field form and in a field logbook. Copies of these records are provided in Appendix C. Details of the interview are as follows:

- Libby alley construction occurred during the late 1920s or early 1930s.
- Vermiculite was not brought in as a subbase or surfacing material during construction.
- Fill material is currently obtained from the city pit located adjacent to the Plum Creek pit on Pipe Creek Road.
- Future alley way improvement activities (i.e., paving) are anticipated to be performed by the city. These activities may occur in conjunction with the downtown revitalization project and would involve alleys in the vicinity of Mineral Avenue.
- Mr. Thede has not received any phone calls from residents voicing concern about vermiculite in Libby alley ways.

2.4 Air Sampling

Air samples were collected and analyzed in accordance with procedures presented or referenced in the SAP Addendum, including completion of air field sample data sheets (Appendix D). A total of 32 air samples were collected from 8 alley ways in Libby from August 29 through August 31, 2005. The low volume pumps collected air samples over a minimum time period of eight hours. The 8 sampled alleys were staggered geographically and randomly represented each of the four alley types in the SAP Addendum. The locations of each alley sampled and the conditions present during sampling are noted in the field log notes. Copies of the log notes are provided in Appendix E.

Three of the alleys were unpaved with visible vermiculite; 3 were unpaved with no visible vermiculite; 1 was paved with visible vermiculite; and the last was paved with no visible vermiculite. One of the three unpaved alleys with no visible vermiculite was the location of the only detected level of LA in soil collected during the 2003 alley soil sampling event. A total of 4 air samples were collected along each alley; however, it should be noted that 2 of the pump stands (1 each at 2 different alleys) had fallen over in between the required drive-by times during the afternoon portion of sampling. These 2 air samples were voided and not analyzed.

Results indicate 1 LA structure on each of 3 samples, all from alleys that were unpaved with visible vermiculite. Air sample results are presented in Table 3, and a summary of the air and soil results is presented in Table 4.

Section 3
Quality Assurance/Quality Control

CDM has established a formal quality assurance program to ensure consistently high quality project deliverables under its Response Action Contract with EPA. For work conducted by CDM in Libby, quality assurance/quality control (QA/QC) measures include the collection of quality control (QC) samples (such as soil duplicate samples and equipment blanks), implementation of a laboratory quality assurance program, review of project reports by a CDM-approved quality assurance staff member, and an auditing component to assess the effectiveness of the quality assurance program. The following sections describe deviations from the SAP Addendum and the implications of those deviations on project or data quality objectives.

3.1 Deviations from the Sampling and Analysis Plan Addendum

All requirements detailed in the SAP Addendum were met with minimal exceptions. Noted deviations are as follows:

Deviation #1
One hundred twenty-five alleys were originally identified in the SAP Addendum as requiring inspection. Three additional alleys (126, 127, and 128) not mentioned in the SAP Addendum were identified and inspected during the investigation, and are included in this report. However, during the field event, seven of these were determined to be part of private properties (e.g., driveways) that were investigated previously, or areas that are not currently being used as alley ways (e.g., areas that have been paved over for parking). These areas were visually inspected but were not sampled as part of this investigation.

Implication of deviation: This deviation has no negative effect on project/data quality objectives.

Deviation #2
In addition to the field logbook requirement, the verbal interview was recorded on an information field form. Use of the form is consistent with other contaminant screening study interviews conducted in Libby.

Implication of deviation: This deviation has a positive effect on retrievability of the verbal interview information since the form allows for permanent storage of the interview data in the project database.

Deviation #3
A duplicate soil sample collection frequency of 4.6% was achieved versus the 5% requirement.

Implication of deviation: This deviation has no negative impact on overall project data quality since: 1) overall QC sample collection frequency for contaminant screening study soil sampling will be evaluated in a separate QA/QC trend analysis report (CDM, 2005); and 2) results are 100% comparable between the parent samples and duplicates, indicating there are no precision issues with the field team's sample collection practices.

Deviation #4
An equipment blank was not collected on October 15, 2003.

Implication of deviation: No QC sample was collected on October 15, 2003 to verify the effectiveness of decontamination procedures. However, LA was not detected in any field samples collected on October 15, 2003, nor was it detected in any of the equipment blanks during the investigation. Therefore, this deviation appears to have had no negative impact on the overall project data quality.

Deviation#5
Low volume air sampling pumps were used instead of high volume pumps.

Implication of deviation: This deviation has no negative impact on overall project data quality since the decreased volume of the sample is adjusted during analysis in order to achieve the target analytical sensitivity.

Deviation #6
At the request of EPA, air sampling was conducted at a total of eight alleys instead of sixteen.

Implication of deviation: Although half as many alleys were sampled, the eight that were randomly chosen still represented each of the four categories listed in the SAP Addendum. Therefore, this deviation appears to have had no negative impact on the overall project data quality.

Deviation #7
At the request of EPA, eight of the air samples were analyzed with a sensitivity of 0.0001 structures/cubic centimeter.

Implication of deviation: This deviation has a positive effect on the accuracy of the sample analysis and improved the data set.

Deviation #8
Two air samples (1 each at 2 different alleys) were voided and not analyzed because the pumps were running for an unknown amount of time after the stands fell over.

Implication of deviation: There is a minimal impact to data quality due to the fact there are three additional sample results from same alley as the compromised air samples.

In order to reproduce the compromised samples, all four samples in both alley ways would have to be recollected.

3.2 Achievement of Data Quality Objectives

Of the eight deviations described above, two have positive impacts on data quality; five have no negative effect on data quality; and one had a minimal impact on data quality.

3.3 Data Validation and Reporting

None of the analytical data contained in this report was further validated beyond that performed by the laboratory as part of their QA/QC program. Therefore, it is assumed that the raw data are useable for their intended purpose, which is to determine the extent of LA asbestos contamination in alley ways within the City of Libby.

As stated in the SAP Addendum, following approval of this report, CDM will complete a letter to City of Libby detailing the results of the investigation and additional information regarding any necessary further activities.

Section 4
References

CDM. 2003a. Final Sampling and Analysis Plan, Remedial Investigation, Libby Asbestos Site, Operable Unit 4. May.

_____. 2003b. Final Sampling and Analysis Plan Addendum for City of Libby Alley Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4, Libby, Montana. October.

_____. 2003c. Close Support Facility Soil Preparation Plan, Revision No. 1, Libby Asbestos Site, Operable Unit 4, Libby, Montana. March 24, 2004.

_____. 2005. Contaminant Screening Study & Remedial Investigation Soil QA/QC Sample PLM Trend Analysis Report (Revision 0), Libby Asbestos Site, Operable Unit 4. February.

EPA. 2000. Sampling and Quality Assurance Project Plan Revision 1 for Libby, Montana, Environmental Sampling for Asbestos, Baseline Sampling for Source Area and Residential Exposure to Tremolite-Actinolite Asbestos Fibers. January.

SRC. 2003. Analysis of Asbestos Fibers in Soil by Polarized Light Microscopy. SRC-LIBBY-03 (Rev. 0). March 3, 2003.

Figure

Color Map(s)

The following pages contain color that does not appear in the scanned images.

To view the actual images, please contact the Superfund Records Center at (303) 312-6473.

Legend

Alley Sample Results, 0-6 Inches

- Non Detect
- Trace Libby Amphibole (<0.2%)
- Alley Not Paved, Visible Vermiculite (22)
- Alley Not Paved, No Visible Vermiculite (69)
- Alley Paved, Visible Vermiculite (3)
- Alley Paved, No Visible Vermiculite (27)
- Alley Not Present (7)

N
W E
S

Feet

0 470 940 1,880

Figure 1
City of Libby
Alley Visual Inspection
and Surface Soil Sample Results
February 2005
Libby, Montana

CDM

Tables

Table 1 City of Libby Alley Investigation Visual Inspection Summary

Not Paved, visible vermiculite (22 alleys)	Not Paved, no visible vermiculite (69 alleys)		Paved, visible vermiculite (3 alleys)	Paved, no visible vermiculte (27 alleys)	Alley not present (7 alleys)
11	1	65	58	17	3
46	2	66	73	18	4
48	5	67	74	20	22
50	6	68		25	34
51	7	69		26	35
59	8	70		27	77
63	9	75		28	93
71	10	79		33	
78	12	85		36	
80	13	87		37	
82	14	88		38	
83	15	89		39	
84	16	91		40	
86	19	96		41	
90	21	97		45	
95	23	100		57	
109	24	102		72	
110	29	103		76	
111	30	104		81	
116	31	105		92	
117	32	106		94	
124	42	108		98	
	43	113		99	
	44	114		101	
	47	115		107	
	49	119		112	
	52	120		118	
	53	121			
	54	122			
	55	123			
	56	125			
	60	126			
	61	127			
	62	128			
	64				

Notes:
Alley numbers correspond to those shown on Figure 1
Paved alleys not sampled, per the Sampling and Analysis Plan Addendum (CDM 2003b)

Table 2 City of Libby Alley Investigation Surface Soil Sample Results

Sample ID	Parent ID	Address	Sample Group	Location Description (Sub Location)	Media Type	Matrix	Category	Sample Date	Method	LA Bin	LA (%)
CS-17947-FG1		City of Libby Alley	Alley	Alley 1	Soil-Like	Surface soil	Field Sample	10/15/2003	PLM-VE	A	ND
CS-17948-FG1		City of Libby Alley	Alley	Alley 2	Soil-Like	Surface soil	Field Sample	10/15/2003	PLM-VE	A	ND
CS-17949-FG1		City of Libby Alley	Alley	Alley 5	Soil-Like	Surface soil	Field Sample	10/15/2003	PLM-VE	A	ND
CS-17950-FG1		City of Libby Alley	Alley	Alley 6	Soil-Like	Surface soil	Field Sample	10/15/2003	PLM-VE	A	ND
CS-17951-FG1		City of Libby Alley	Alley	Alley 7	Soil-Like	Surface soil	Field Sample	10/15/2003	PLM-VE	A	ND
CS-17952-FG		City of Libby Alley	Alley	Alley 8	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17953-FG		City of Libby Alley	Alley	Alley 126	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17954-FG		City of Libby Alley	Alley	Alley 9	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17955-FG		City of Libby Alley	Alley	Alley 10	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17956-FG		City of Libby Alley	Alley	Alley 11	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17957-FG		City of Libby Alley	Alley	Alley 12	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17958-FG		City of Libby Alley	Alley	Alley 13	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17959-FG		City of Libby Alley	Alley	Alley 14	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17960-FG1		City of Libby Alley	Alley	Alley 15	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17961-FG	CS-17960	City of Libby Alley	Alley	Alley 15	Soil-Like	Surface soil	Field Duplicate	10/16/2003	PLM-VE	A	ND
CS-17962-FG		City of Libby Alley	Alley	Alley 16	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17963-FG		City of Libby Alley	Alley	Alley 19	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17964-FG		City of Libby Alley	Alley	Alley 21	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17965-FG		City of Libby Alley	Alley	Alley 127	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17966-FG		City of Libby Alley	Alley	Alley 128	Soil-Like	Surface soil	Field Sample	10/16/2003	PLM-VE	A	ND
CS-17968-FG		City of Libby Alley	Alley	Alley 23	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17969-FG		City of Libby Alley	Alley	Alley 24	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17970-FG		City of Libby Alley	Alley	Alley 29	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17971-FG		City of Libby Alley	Alley	Alley 30	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17972-FG		City of Libby Alley	Alley	Alley 31	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17973-FG		City of Libby Alley	Alley	Alley 32	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17974-FG		City of Libby Alley	Alley	Alley 42	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17975-FG		City of Libby Alley	Alley	Alley 43	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17976-FG		City of Libby Alley	Alley	Alley 44	Soil-Like	Surface soil	Field Sample	10/17/2003	PLM-VE	A	ND
CS-17978-FG		City of Libby Alley	Alley	Alley 46	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17979-FG		City of Libby Alley	Alley	Alley 47	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	B1	TR
CS-17980-FG		City of Libby Alley	Alley	Alley 48	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17981-FG		City of Libby Alley	Alley	Alley 49	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17982-FG		City of Libby Alley	Alley	Alley 50	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17983-FG		City of Libby Alley	Alley	Alley 51	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17984-FG		City of Libby Alley	Alley	Alley 53	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17985-FG		City of Libby Alley	Alley	Alley 52	Soil-Like	Surface soil	Field Sample	10/18/2003	PLM-VE	A	ND
CS-17987-FG		City of Libby Alley	Alley	Alley 55	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17988-FG		City of Libby Alley	Alley	Alley 54	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17989-FG		City of Libby Alley	Alley	Alley 56	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17990-FG		City of Libby Alley	Alley	Alley 59	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17991-FG		City of Libby Alley	Alley	Alley 60	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17992-FG		City of Libby Alley	Alley	Alley 62	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17993-FG1	CS-17992	City of Libby Alley	Alley	Alley 62	Soil-Like	Surface soil	Field Duplicate	10/20/2003	PLM-VE	A	ND
CS-17994-FG1		City of Libby Alley	Alley	Alley 63	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17995-FG1		City of Libby Alley	Alley	Alley 61	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND

Sample ID	Parent ID	Address	Sample Group	Location Description (Sub Location)	Media Type	Matrix	Category	Sample Date	Method	LA Bin	LA (%)
CS-17996-FG1		City of Libby Alley	Alley	Alley 64	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17997-FG1		City of Libby Alley	Alley	Alley 65	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17998-FG1		City of Libby Alley	Alley	Alley 66	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-17999-FG1		City of Libby Alley	Alley	Alley 67	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-18000-FG1		City of Libby Alley	Alley	Alley 68	Soil-Like	Surface soil	Field Sample	10/20/2003	PLM-VE	A	ND
CS-18002-FG1		City of Libby Alley	Alley	Alley 69	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18003-FG1		City of Libby Alley	Alley	Alley 70	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18004-FG1		City of Libby Alley	Alley	Alley 71	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18005-FG1		City of Libby Alley	Alley	Alley 75	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18006-FG1		City of Libby Alley	Alley	Alley 78	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18007-FG1		City of Libby Alley	Alley	Alley 79	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18008-FG1		City of Libby Alley	Alley	Alley 80	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18009-FG1		City of Libby Alley	Alley	Alley 82	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18010-FG1		City of Libby Alley	Alley	Alley 83	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18011-FG1		City of Libby Alley	Alley	Alley 84	Soil-Like	Surface soil	Field Sample	10/21/2003	PLM-VE	A	ND
CS-18013-FG		City of Libby Alley	Alley	Alley 85	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18014-FG		City of Libby Alley	Alley	Alley 87	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18015-FG		City of Libby Alley	Alley	Alley 89	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18016-FG		City of Libby Alley	Alley	Alley 86	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18017-FG		City of Libby Alley	Alley	Alley 90	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18018-FG		City of Libby Alley	Alley	Alley 88	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18019-FG		City of Libby Alley	Alley	Alley 91	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18020-FG1		City of Libby Alley	Alley	Alley 95	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18341-FG1		City of Libby Alley	Alley	Alley 96	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18342-FG1		City of Libby Alley	Alley	Alley 97	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18343-FG1		City of Libby Alley	Alley	Alley 100	Soil-Like	Surface soil	Field Sample	10/22/2003	PLM-VE	A	ND
CS-18345-FG1		City of Libby Alley	Alley	Alley 102	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18346-FG1		City of Libby Alley	Alley	Alley 119	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18347-FG1		City of Libby Alley	Alley	Alley 121	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18348-FG1		City of Libby Alley	Alley	Alley 122	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18349-FG1		City of Libby Alley	Alley	Alley 120	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18350-FG1	CS-18349	City of Libby Alley	Alley	Alley 120	Soil-Like	Surface soil	Field Duplicate	10/23/2003	PLM-VE	A	ND
CS-18351-FG1		City of Libby Alley	Alley	Alley 103	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18352-FG1		City of Libby Alley	Alley	Alley 104	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18353-FG1		City of Libby Alley	Alley	Alley 117	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18354-FG1		City of Libby Alley	Alley	Alley 105	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18355-FG1		City of Libby Alley	Alley	Alley 106	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18356-FG1		City of Libby Alley	Alley	Alley 115	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18357-FG		City of Libby Alley	Alley	Alley 116	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18358-FG		City of Libby Alley	Alley	Alley 123	Soil-Like	Surface soil	Field Sample	10/23/2003	PLM-VE	A	ND
CS-18360-FG		City of Libby Alley	Alley	Alley 109	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18361-FG		City of Libby Alley	Alley	Alley 114	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18362-FG		City of Libby Alley	Alley	Alley 113	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18363-FG		City of Libby Alley	Alley	Alley 111	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18364-FG		City of Libby Alley	Alley	Alley 108	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18365-FG		City of Libby Alley	Alley	Alley 110	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18366-FG		City of Libby Alley	Alley	Alley 124	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND
CS-18367-FG		City of Libby Alley	Alley	Alley 125	Soil-Like	Surface soil	Field Sample	10/24/2003	PLM-VE	A	ND

Sample ID	Parent ID	Address	Sample Group	Location Description (Sub Location)	Media Type	Matrix	Category	Sample Date	Method	LA Bin	LA (%)
CS-18368-FG	CS-18367	City of Libby Alley	Alley	Alley 125	Soil-Like	Surface soil	Field Duplicate	10/24/2003	PLM-VE	A	ND
CS-17967-FG		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/16/2003	PLM-VE	A	ND
CS-17977-FG		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/17/2003	PLM-VE	A	ND
CS-17986-FG		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/18/2003	PLM-VE	A	ND
CS-18001-FG1		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/20/2003	PLM-VE	A	ND
CS-18012-FG1		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/21/2003	PLM-VE	A	ND
CS-18344-FG1		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/22/2003	PLM-VE	A	ND
CS-18359-FG		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/23/2003	PLM-VE	A	ND
CS-18369-FG		NA	Blank	NA	Soil-Like	Silica Sand	Equipment Blank	10/24/2003	PLM-VE	A	ND

Notes:

The report excludes all laboratory quality control sample results, such as those associated with lab blanks, lab duplicates, re-preparation, re-count same, re-count different, verified analysis, etc.

For LA Bin descriptions, refer to the Close Support Facility Soil Preparation Plan (CDM 2003c).

FG or FG1 = fine ground

NA = not applicable

PLM-VE = polarized light microscopy - visual estimation

LA = Libby amphibole

ND = nondetect

Table 3 City of Libby Alley Investigation Air Sample Results

Sample ID	Category	Sample Date	Alley Number	Structures Detected	Analytical Sensitivity	Concentration (S/cc)
CS-20371	Field Sample	8/31/2005	13	0	0.0010	<0.0010
CS-20372	Field Sample	8/31/2005	13	0	0.0036	<0.0036
CS-20373	Field Sample	8/31/2005	13	0	0.0037	<0.0037
CS-20374	Field Sample	8/31/2005	13	0	0.0038	<0.0038
CS-20364	Field Sample	8/31/2005	47	0	0.0010	<0.0010
CS-20365	Field Sample	8/31/2005	47	0	0.0036	<0.0036
CS-20366	Field Sample	8/31/2005	47	0	0.0036	<0.0036
CS-20361	Field Sample	8/31/2005	48	1	0.0010	0.0010
CS-20362	Field Blank	8/31/2005	48	0	N/A	N/A
CS-20398	Field Sample	8/31/2005	48	0	0.0033	<0.0033
CS-20399	Field Sample	8/31/2005	48	0	0.0033	<0.0033
CS-20400	Field Sample	8/31/2005	48	0	0.0033	<0.0033
CS-20367	Field Sample	8/31/2005	73	0	0.0035	<0.0035
CS-20368	Field Sample	8/31/2005	73	0	0.0036	<0.0036
CS-20369	Field Sample	8/31/2005	73	0	0.0010	<0.0010
CS-20394	Field Sample	8/30/2005	86	0	0.0039	<0.0039
CS-20395	Field Sample	8/30/2005	86	0	0.0039	<0.0039
CS-20396	Field Sample	8/30/2005	86	0	0.0040	<0.0040
CS-20397	Field Sample	8/30/2005	86	1	0.0010	0.0010
CS-20386	Field Sample	8/30/2005	107	0	0.0010	<0.0010
CS-20387	Field Sample	8/30/2005	107	0	0.0037	<0.0037
CS-20388	Field Sample	8/30/2005	107	0	0.0038	<0.0038
CS-20389	Field Sample	8/30/2005	107	0	0.0039	<0.0039
CS-20381	Field Sample	8/30/2005	119	0	0.0010	<0.0010
CS-20382	Field Sample	8/30/2005	119	0	0.0033	<0.0033
CS-20383	Field Sample	8/30/2005	119	0	0.0034	<0.0034
CS-20384	Field Sample	8/30/2005	119	0	0.0037	<0.0037
CS-20385	Field Blank	8/30/2005	119	0	N/A	N/A
CS-20390	Field Sample	8/30/2005	124	0	0.0038	<0.0038
CS-20391	Field Sample	8/30/2005	124	0	0.0038	<0.0038
CS-20392	Field Sample	8/30/2005	124	1	0.0010	0.0010
CS-20393	Field Sample	8/30/2005	124	0	0.0037	<0.0037

Table 4 Summary of Soil and Air Sample Results

Alley Number	Alley Type	Number of Air Samples Collected	Detectable LA in Soil	Detectable LA in Air
13	Not Paved, no visible vermiculite	4	No	No
47	Not Paved, no visible vermiculite	3	Yes	No
48	Not Paved, visible vermiculite	4	No	Yes
73	Paved, visible vermiculite	3	No	No
86	Not Paved, visible vermiculite	4	No	Yes
107	Paved, no visible vermiculte	4	No	No
119	Not Paved, no visible vermiculite	4	No	No
124	Not Paved, visible vermiculite	4	No	Yes

Appendix A
Soil Sampling Field Log Notes

CDM

Location ALLEY ~~SAMPLING~~ DS 10-15-03 #1 Date 10-15-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

SOIL SAMPLES FOR ALLEY #1

WEST SIDE STARTING POINT

~~50'~~ DS 10-15-03

15:11

CS- 17947

SP- 124353

~~100'~~ DS 10-15-03

150' DS 10-15-03

200' DS 10-15-03

DS 10-15-03

DAVID SPIELMAN - 10-15-03 - David Spielman

Location ALLEY #1 Date 10-15-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

14:30

ALLEY #1

LENGTH 234'

WIDTH 9'-10'

CONSTRUCTION

SOIL AT WEST END

GRAVEL FROM MID-END

PERIMETER

S: GARAGES (RESIDENTIAL)

N: STOCKADE FENCE

NOTES

NO VISIBLE VERMICULITE

DS 10-15-03

200'

150'

100'

50'

OVERHEAD UTILITY LINES

GPS # ~~T2A10150~~ T2A10153

DAVID SPIELMAN - 10-15-03 - David Spielman

Location ALLEY # 2 Date 10.15.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

US 10-15-03 15:21 : ON SITE

LENGTH: 301 FT.

WIDTH: 16 FT.

CONSTRUCTION:

WEATHERED SOIL,

GRASS STRIP IN MIDDLE

PERIMETER (RESIDENTIAL)

N: STOCKADE FENCE

S: WIRE FENCE + GARAGE

~~NOTES~~ ~~ONE~~ TWO DRIVEWAYS

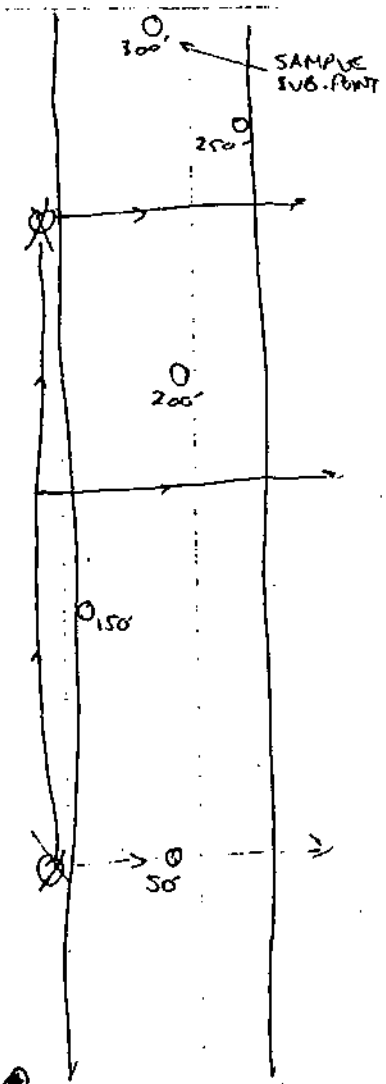
CS- 17948

SP- 124354

SAMPLE EQUIPMENT DECON. ACCORDING TO SAP

SAMPLED AT 15:40

GPS# ~~T2A10153~~ T2A10153



DAVID SPIELMAN — 10-15-03 — David Spielman

Location ALLEY # 3 & # 4, #5 Date 10-15-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

16:00 ON SITE - ALLEY #3 AND ALLEY #4 ARE ACTUALLY PART OF 214 COLORADO AVE PROPERTY, AND WERE SAMPLED AS DRIVEWAY AND BACKYARD (DANNY ZAMBRANO REPORTS HE AND BOB HUNT DID THIS.)

ALLEY # 5

16:06 ON SITE

LENGTH: 300 FT

WIDTH: 9' AT E. ENTRANCE

CONSTRUCTION

WEATHERED GRAVEL AND SOIL.

PERIMETER (RESIDENTIAL)

N: WIRE FENCES, ONE GARAGE

S: PARKING, 2 CARPORTS ONE HOME

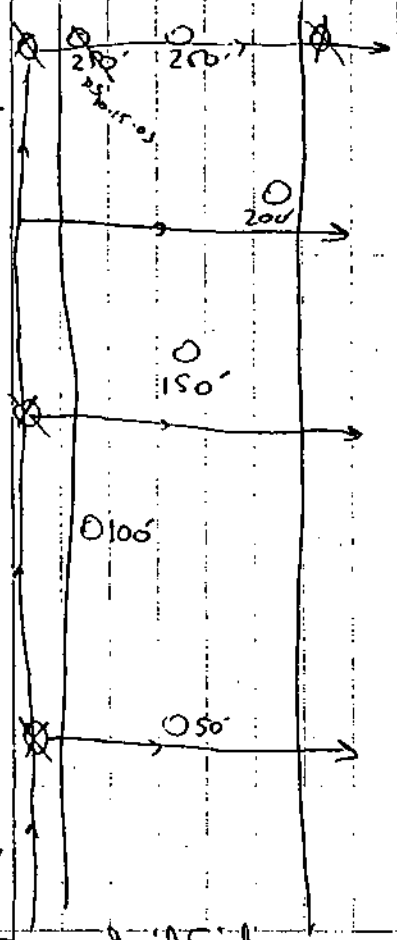
CS- 17949

SP- 124355

NO VISIBLE VERMICULITE

SAMPLE COLLECTED ACCORDING TO SAP. SAMPLE TIME 16:37

GPS# T2B10153



DAVID SPIELMAN — 10-15-03 — David Spielman

Location ALLEY #6 Date 10·15·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

16:46 ON SITE ALLEY #6 DS 10.15.03

LENGTH: 296 FT

WIDTH: 10-15 FT

CONSTRUCTION:

GRAVEL + WEATHERED SOIL ~~DS 10.15.03~~

PERIMETER (RESIDENTIAL)

N: TWO GARAGES, ONE DRIVEWAY, ONE CAR PORT

S: ONE HOME, ONE APARTMENT BLOCK, ALLEY #7 IN MIDWAY

CS- 17950

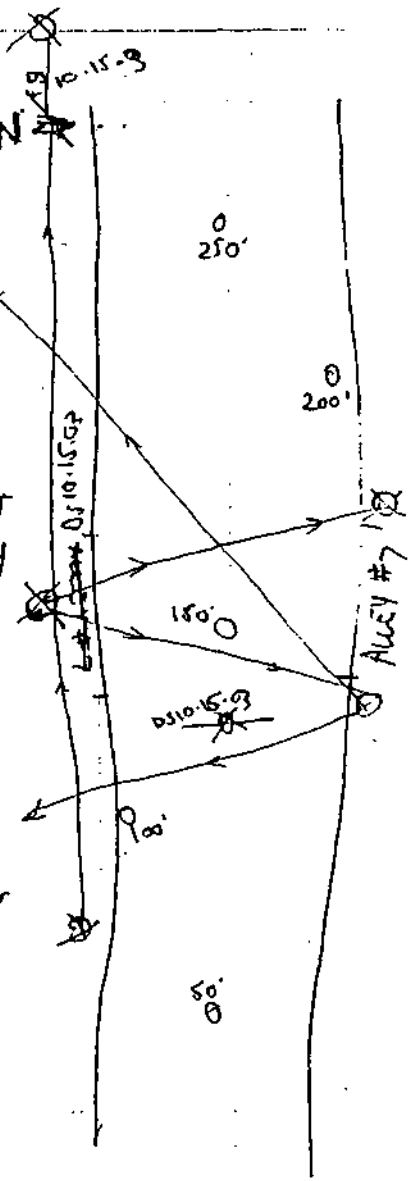
SP- 124356

NO VISIBLE VERMICULITE

- SAMPLE COLLECTED ACCORDING TO SAP ~~DS 10.15.03~~

SAMPLE COLLECTED AT 17:10

GPS # T2C10153 ~~DS 10.15.03~~



DAVID SPIELMAN – 10.15.03 David Spielman

Location ALLEY #7 Date 10 15.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

16:48 MEASURE ALLEY #7 DS 10.15.03

LENGTH: 137 FT

WIDTH: 10-15 FT

CONSTRUCTION

GRAVEL + WEATHERED SOIL ~~DS 10.15.03~~

PERIMETER (RESIDENTIAL)

W: ONE HOME, ONE DRIVEWAY

E: GARAGE FOR APARTMENTS

CS- 17951

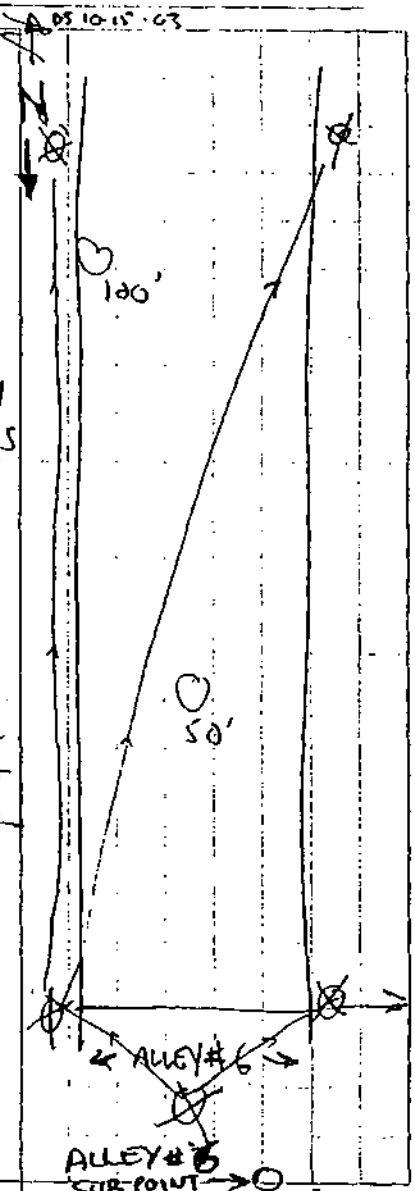
SP- 124357

NO VISIBLE VERMICULITE

- SAMPLE COLLECTED ACCORDING TO SAP ~~DS 10.15.03~~

SAMPLE COLLECTED AT 17:16

GPS # T2C10153 ~~DS 10.15.03~~



DAVID SPIELMAN – 10.15.03 David Spielman

Location ALLEY#8 Date ~~10-15-03~~ 10-16-03

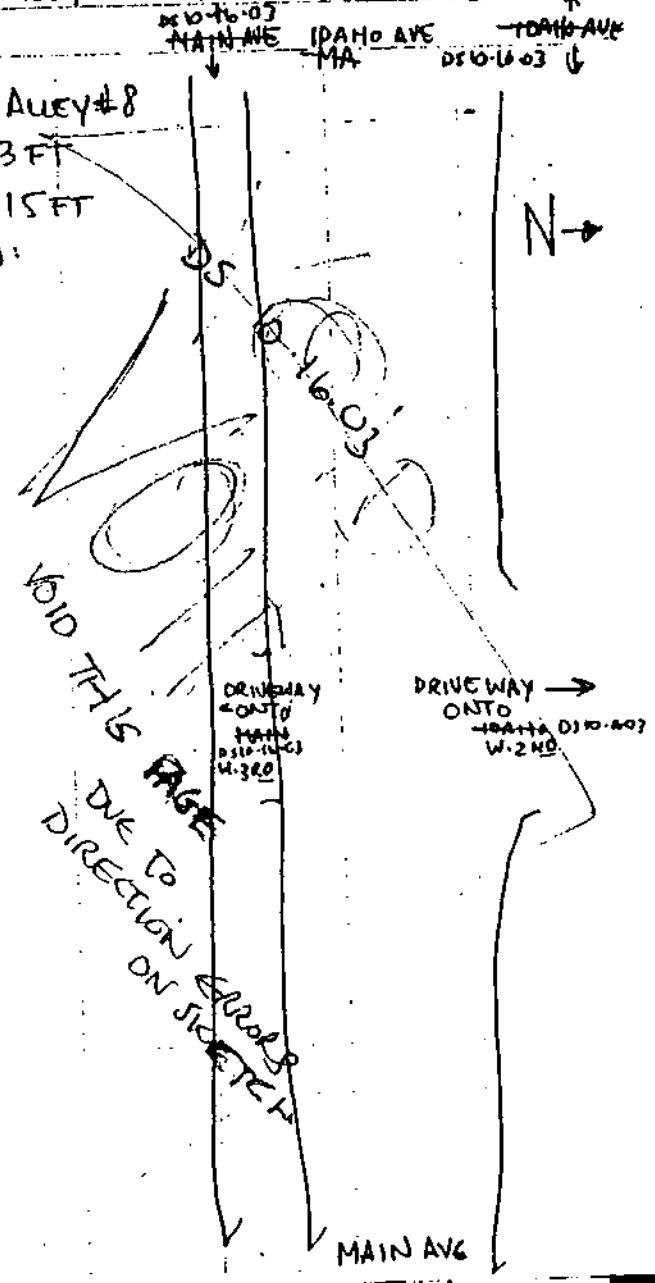
Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 Volpe

0942 ARRIVE ALLEY#8

LENGTH: 293 FT

WIDTH: 10-15 FT

CONSTRUCTION:



Location ALLEY#8 Date 10-16-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

0942 ARRIVE ALLEY#8

LENGTH: 298 FT (WHOLE ALLEY) / 153 FT (UNPAVED)

WIDTH: 10-15 FT

CONSTRUCTION: PEA-GRAVEL ON SOIL, SOME DEGRADED ASPHALT PATCHES (~~NORTH~~ SOUTH HALF OF ALLEY)

ASPHALT (~~SOUTH~~ NORTH ½ OF ALLEY)

PERIMETER (RESIDENTIAL)

W: APT. BLOCK, OPEN PARKING ONE HOME

E: APT BLOCK'S CARPORTS

CS- 17952

SP- 124358

① SAMPLE EQUIPMENT DECONTAMINATED ACCORDING TO SAP

② SAMPLE TIME: 10:16

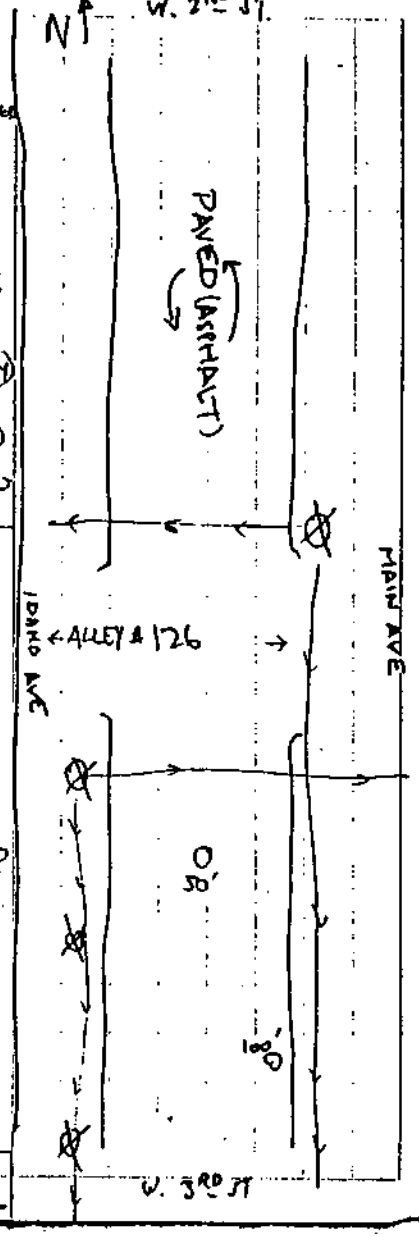
③ NO VISIBLE VERMICULITE

④ ONLY UNPAVED PORTION SAMPLED

⑤ GPS # TZA1016 3

⑥ FSDS # 006100

DAVID SPIELMAN 10/16/03



Location: ALLEY #126 Date: 10-16-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

10:20 ON SITE ALLEY 126

LENGTH: 300FT

WIDTH: 10-16FT

CONSTRUCTION: PEA-GRAVEL ON SOIL, SOME DEGRADED ASPHALT PATCHES

PERIMETER: (RESIDENTIAL)

N: APT. BLOCK (SIDE WALL)

ONE RESIDENT GARAGE, E

S: LAWN, APT. BLOCK

CS- 17953

SP- 124359

① NO VISIBLE VERMICULITE

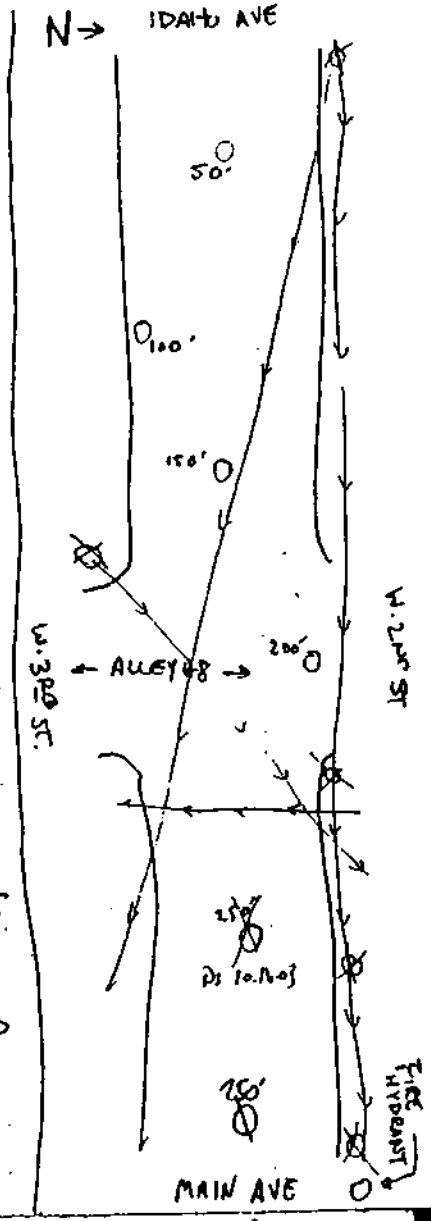
② SAMPLE EQUIPMENT DECONTAMINATED ACCORDING TO THE SAP

③ SAMPLE COLLECTION 10:35

④ FSDS 00 6100

⑤ GPS T2AD163

DAVID SPIELMAN 10-16-03



Location: ALLEY #9 Date: 10-16-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

10:54 ON SITE ALLEY #9

LENGTH: 310 FT

WIDTH: 12 FT.

CONSTRUCTION: PACKED GRAVEL + SOIL

PERIMETER: (RESIDENTIAL)

W: SHEDS, SCRAP AUTOS + DEBRIS

E: HOMES/GARAGES

CS- 17954

SP- 124360

① NO VISIBLE VERMICULITE

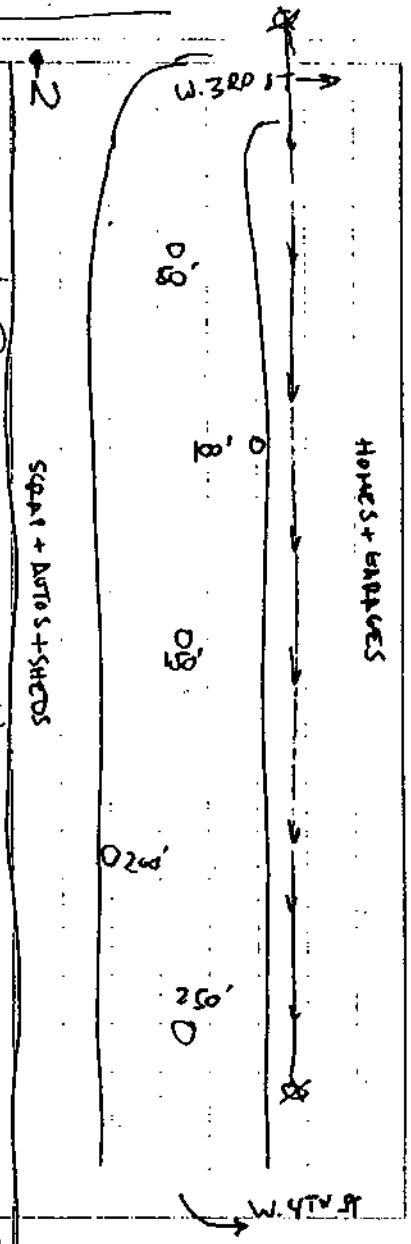
② SAMPLE EQUIPMENT DECONTAMINATED ACCORDING TO SAP

③ SAMPLE COLLECTION 11:10

④ FSDS 8061 00

⑤ GPS # T2B10163

DAVID SPIELMAN 10-16-03



Location ALLEY # 10 Date 10-16-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

11:18 ON SITE ALLEY #10

LENGTH: 218 FT.

WIDTH: 14 FT.

CONSTRUCTION: SOIL WITH GRAVEL 'PUSHED IN' (NATURAL AREA WITH GRASS, LEAVES, TWIGS IN THE ALLEYWAY)

PERIMETER: (RESIDENTIAL)

E: SHRUBS / BACK OF HOMES ON COLORADO AVE.

W: CREEK BED

CS- 17955

SP- 124381

SAMPLE COLLECTED 11:35

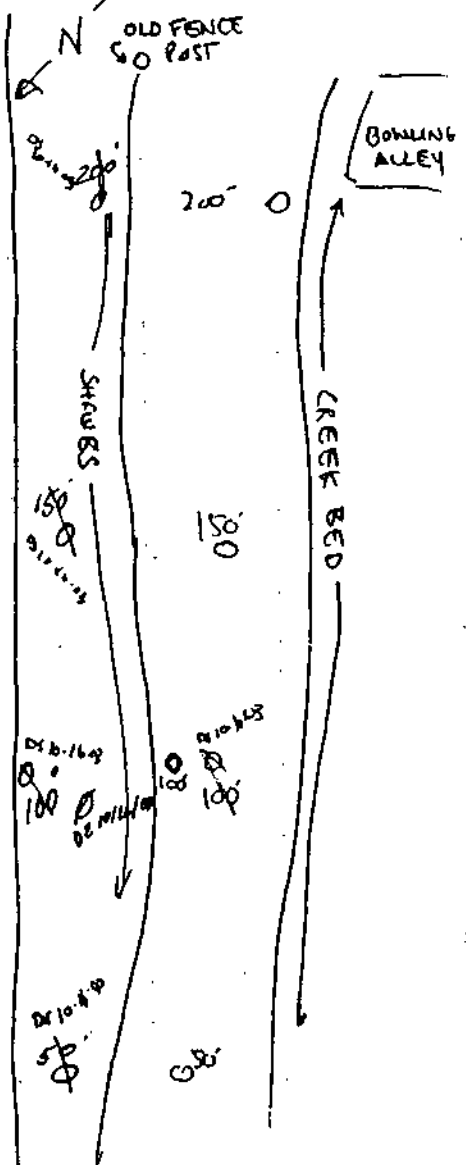
① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006101

④ GPS # T2C10163

DAVID SIELMAN - 10-16-03



Location ALLEY # 11 Date 10-16-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

11:42 ON SITE ALLEY # 11

LENGTH: 297

WIDTH: 12

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER: (RESIDENTIAL)

W: HEDGEROW, GARAGE, ONE DRIVEWAY / YARD

E: STOCKADE FENCE, SHED / CAMPER PAD

SAMPLE TIME 11:56

CS- 17956

SP- 124382

① NO VISIBLE VERMICULITE

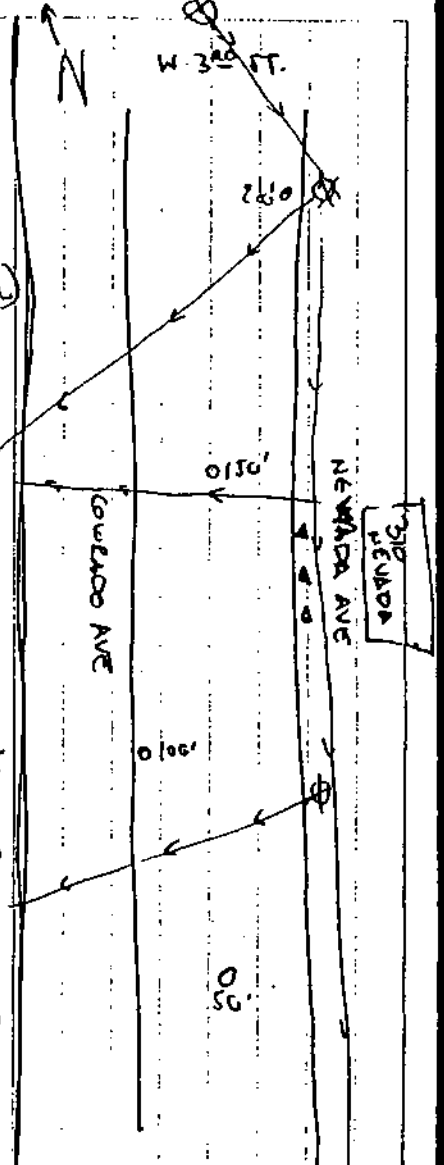
② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006101

④ GPS # T2D10163

- JACKHAMMER NOT REQUIRED, RAIN SOAKED SOIL IS SOFT.

DAVID SIELMAN 10-16-03



Location: ALLEY #11 Date: 10-16-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

12:02 VISIBLE VERMICULITE ("MEDIUM" AMOUNT) IN A 10 FT PATCH OF SOIL ON THE EAST SIDE OF ALLEY IN GRASS - APPEARS TO BE FORMER FLOWERBED OR GARDEN USE. NOW STOCKADE FENCE SEPARATES PPTY FROM ALLEY. ASSOCIATED WITH PROPERTY (BACKYARD) OF 310 NEVADA AVE.

12:05 - LUNCH

12:40 : TEAM REPLENISHES WATER (DRINKING), RETRIEVES EQUIPMENT FROM OFFICE

DS 10-16-03

DAVID SPIELMAN — 10.16.03 — David Spielman

Location: ALLEY #12 Date: 10-16-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

13:09 ON SITE ALLEY #12

LENGTH : 215 FT

WIDTH : 14 FT

CONSTRUCTION: PACKED SOIL

PERIMETER : (RESIDENTIAL)

W. BACKYARDS\SHEDS

E. BACKYARDS\SHEDS

S. ENDS AT A BACK YARD

~~OPEN SPACE FOR VEHI~~

SAMPLE TIME 13:20

CS- 17957

SP- 124383

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS ~~DECONTAMINATED~~ DECON'ED ACCORDING TO THE SAP

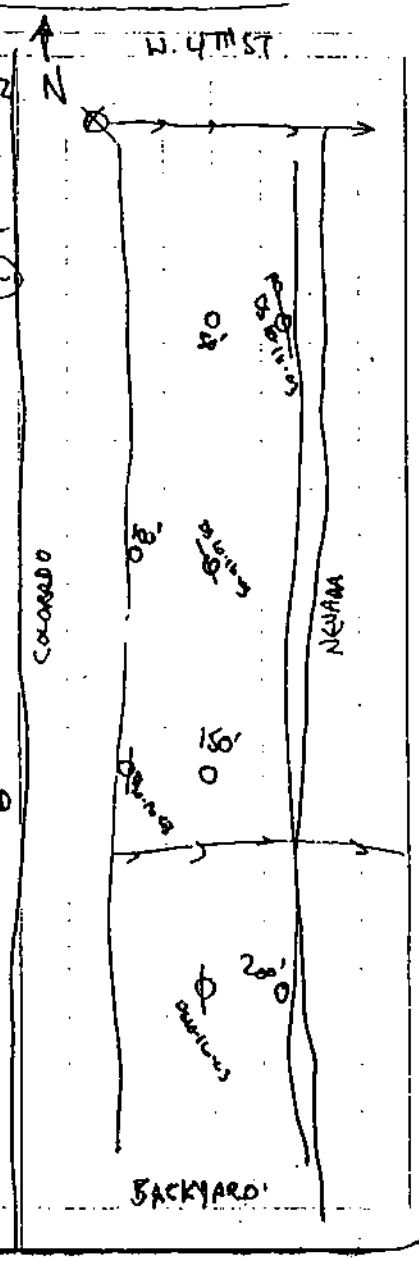
③ FSDS # CSS-S-00001

④ GPS # TZE10163

⑤ NO JACKHAMMER, PRY BAR TO DIG SAMPLE.

DS 10-16-03

DAVID SPIELMAN - 10.16.03 David Spielman



Location: ALLEY # 13 Date: 10·16·03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

13:34 ON SITE Alley #13

DIMENSIONS: 294 FT. X 14 FT.

CONSTRUCTION: HARD PACKED

SOIL

PERIMETER (RESIDENTIAL)

W: HOMES / BACK YARDS

E: HOMES / YARDS / DRIVEWAYS

SAMPLE TIME 13:52

CS- 17958

SP- 124384

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS/PER SAP

③ SAMPLE TOOL: BREAKER BAR

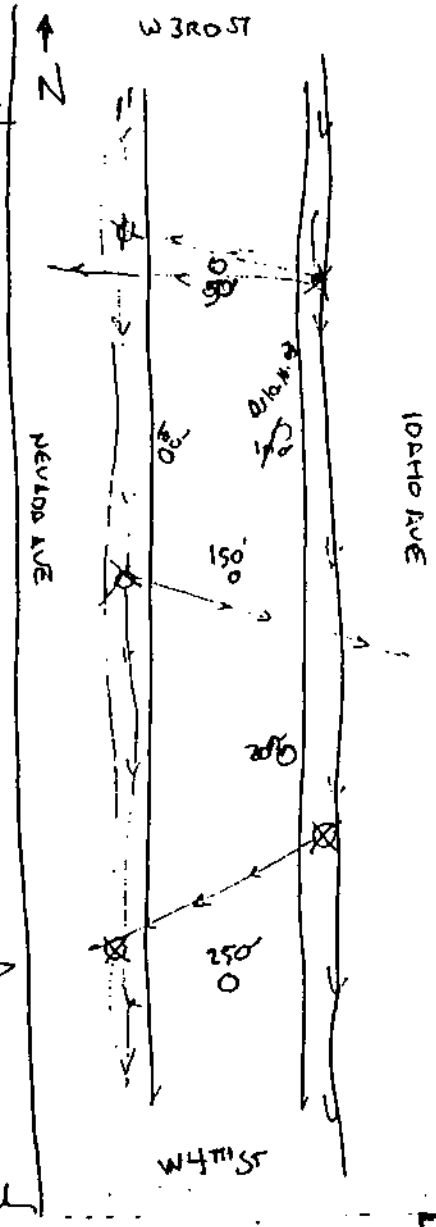
④ FSDS # CSS-S-006102

⑤ GPS # T2F10163

ADDITIONAL INFORMATION

~~NO VISIBLE~~ NONE

DAVID SPIELMAN 10.16.03



Location: ALLEY #14 Date: 10·16·03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

14:00 ON SITE ALLEY #14

DIMENSIONS: 300 FT. X 15 FT.

CONSTRUCTION: PACKED SOIL

PERIMETER: (RESIDENTIAL)

W: HOMES / YARDS / CAR PORT

E: HOMES / YARDS / CAR PORT

SAMPLE TIME 14:12

CS- 17959

SP- 124385

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ SAMPLE TOOL: BREAKER BAR

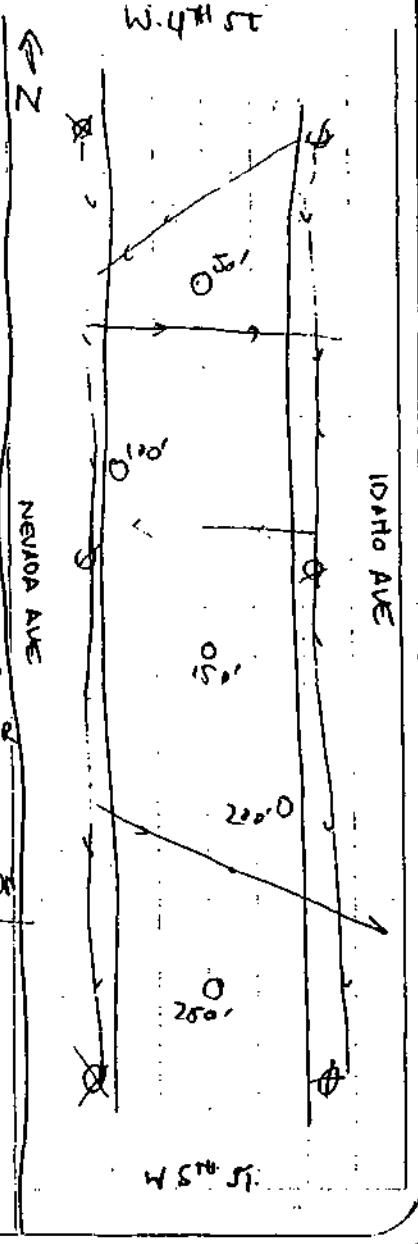
④ FSDS # CSS-S-006102

⑤ GPS # T2G10163

ADDITIONAL INFORMATION

NONE

DAVID SPIELMAN 10.16.03



Location ALLEY #15 Date 10·16·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

14:19 ON SITE ALLEY #15

DIMENSIONS 290FT × 14FT

CONSTRUCTION: PACKED SOIL

PERIMETER: (RESIDENTIAL)

W: YARDS/HOMES/DRIVEWAYS

E: PARKING/HOMES/YARDS

ALLEY 15 SP- 124386

CS- 17960

SAMPLE TIME 14:28

DUPLICATE CS- 17961

SP- 124386

SAMPLE TIME 14:32

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-~~006073~~ 006103

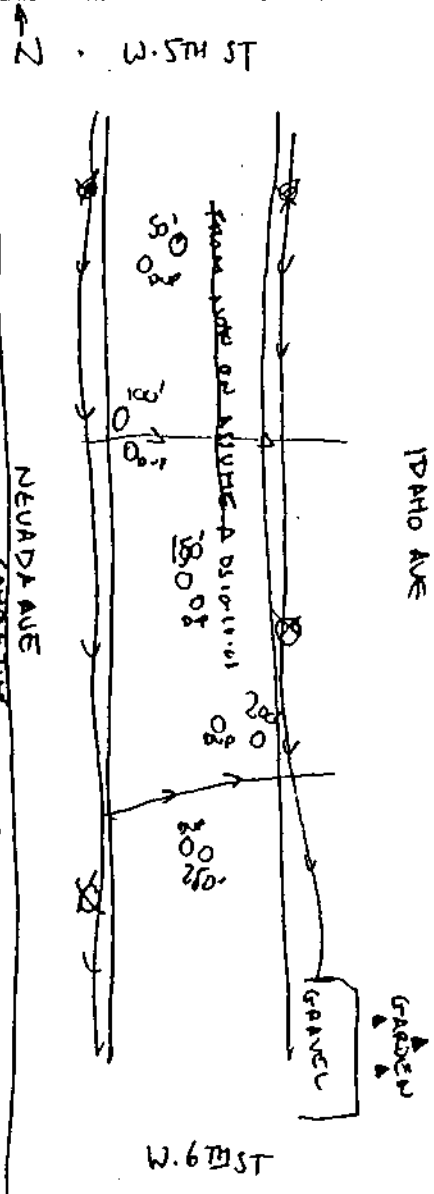
④ GPS# T2G10163

ADDITIONAL NOTES

GARDEN ~ 10FT EAST OF ALLEY AT SE CORNER (IDAHO AND W6TH SIDE)

HAS VISIBLE VERMICULITE

DAVID SPIELMAN 10·16·03



Location ALLEY #16 Date 10·16·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

14:50 ON SITE ALLEY #16

DIMENSIONS: 293 × 16 FT

CONSTRUCTION: PACKED SOIL

PERIMETER (RESIDENTIAL)

W YARDS/FENCE/HOMES

E YARDS/PARKING/HOMES

SAMPLE TIME 14:57

CS- 17962

SP- 124387

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

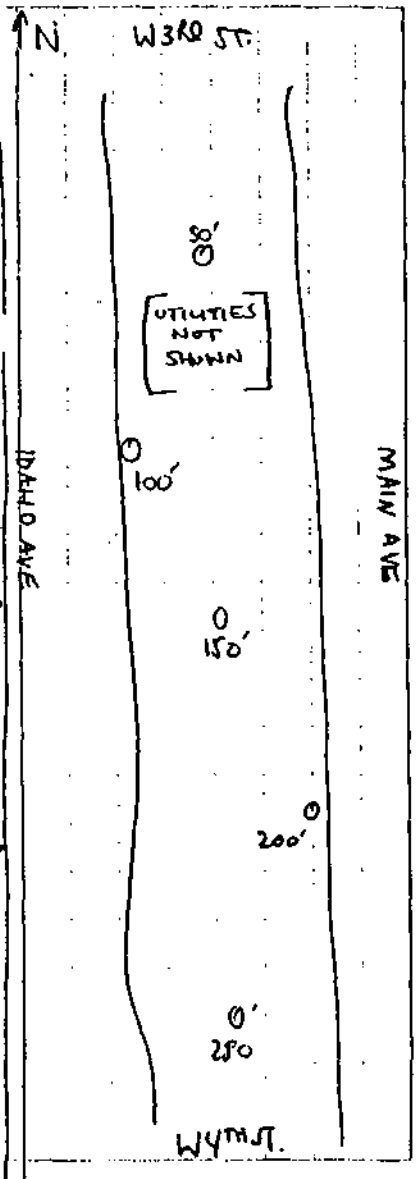
③ FSDS# CSS-S-006063

④ GPS# T2I10163

ADDITIONAL NOTES:

NONE

DAVID SPIELMAN - 10·16·03



Location ALLEY #17, ALLEY #18 Date 10-16-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10-16-03

15:06

ALLEY #17 (NO SITE SKETCH)

DIMENSIONS: 296 FT x 16 FT

CONSTRUCTION: PAVED

PERIMETER (RESIDENTIAL)

W: APARTMENTS/HOME WITH FENCE)/PARKING

E: HOMES/PARKING

NO SAMPLING REQUIRED

NO VERMICULITE OBSERVED IN THE AREA

DS 10-16-03

15:12

ALLEY #18 (NO SITE SKETCH)

DIMENSIONS: 30 FT x 16 FT

CONSTRUCTION: PAVED

PERIMETER: (RESIDENTIAL & COMMERCIAL)

W: HEDGEROW/HOMES

E: POST OFFICE - PARKING AND BUILDING

NO SAMPLING REQUIRED

NO VERMICULITE OBSERVED IN THE AREA

DS 10-16-03

DS 10-16-03

DAVID SPIELMAN — 10-16-03 — David Spielman

Location ALLEY #19 Date 10-16-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10-16-03

15:47 ON-SITE ALLEY #19

DIMENSIONS 301 FT. x 12 FT.

CONSTRUCTION PACKED SOIL W/SMALL ASPHALT PATCH AT THE NORTH END

PERIMETER (RESIDENTIAL)

W: HOUSES/YARDS/PARKING

E: HOUSES/YARDS/PARKING

DS 10-16-03

SAMPLE 16:06

CS- 17963

SP- 124388

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS CSS-S-006103

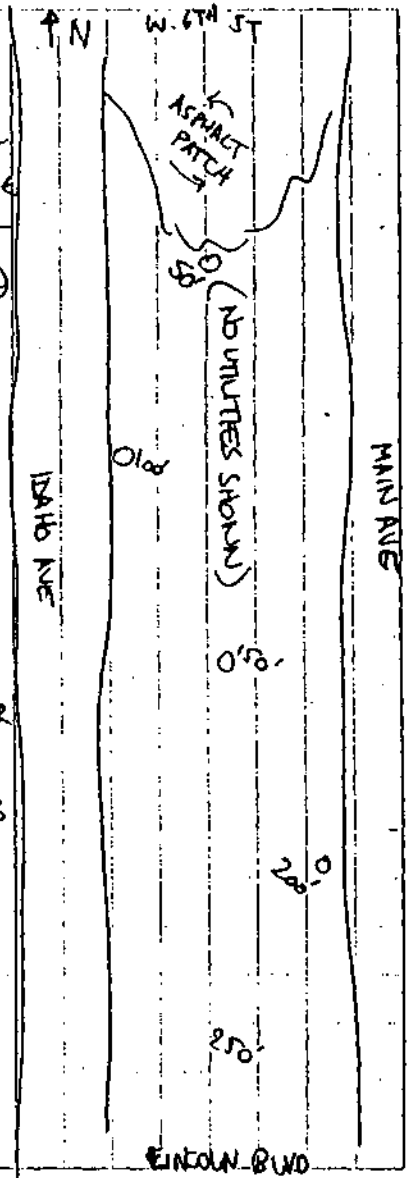
④ GPS # TR T2J10163

DS 10-16-03

ADDITIONAL NOTES:

NONE

DS 10-16-03



DAVID SPIELMAN - 10.16.03 - David Spielman

Location ALLEY #20 Date 10·16·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~DS 10·16·03~~

16:14 ON SITE ALLEY #20

DIMENSIONS 278FT x 14FT

CONSTRUCTION ~~DS 10·16·03~~

DEGRADED ASPHALT W/GRAVEL COVER (OVERFLOW FROM ADJACENT PARKING AREAS) ~~DS 10·16·03~~

PERIMETER (COMMERCIAL)

W: COMMERCIAL + PARKING

E: COMMERCIAL + PARKING

① NO VERMICULITE OBSERVED IN THIS AREA ~~DS 10·16·03~~

② NO SAMPLING REQUIRED

ADDITIONAL NOTES:

NONE

~~DS 10·16·03~~

DAVID SPIELMAN - 10·16·03 DS

~~DS 10·16·03~~

NO SKETCH (PAVED ALLEY)

~~DS 10·16·03~~

Location ALLEY #21 Date 10·16·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~10·16·03~~

16:26 ON SITE ALLEY 21

DIMENSIONS: 100FT x 14FT

CONSTRUCTION: PACKED SOIL, SOME ASPHALT PATCHES

PERIMETER (MIXED)

W: HOME ~~DS 10·16·03~~

E: JENKINS MOTORS

SAMPLES 16:32

CS- 17964

SP- 124389

~~DS 10·16·03~~

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT U DECONTAMINATED AS PER SAP

③ FSDS CSS-S-006104

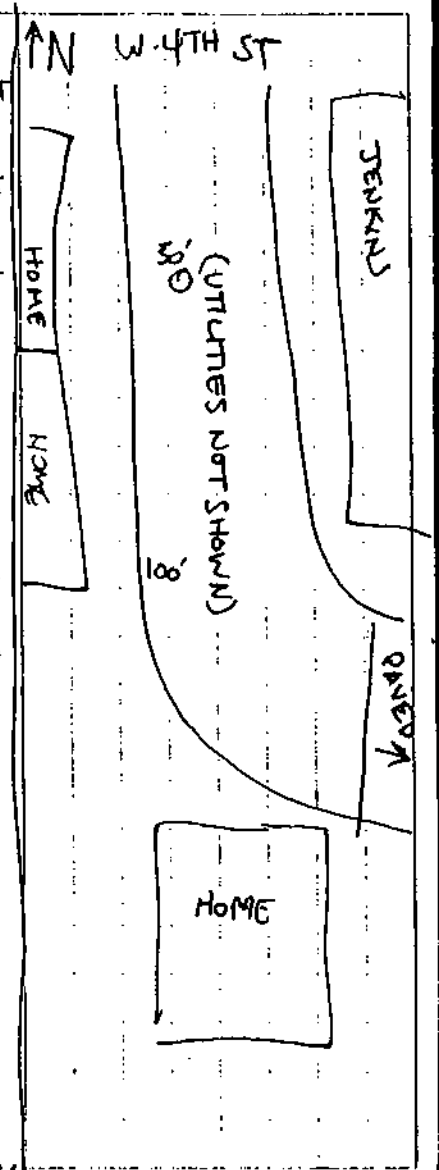
④ GPS # TRK10163

ADDITIONAL NOTES:

WRAPS AROUND (EAST) JENKINS MOTORS, EAST SIDE IS PAVED, LIKELY USED ONLY BY JENKINS

~~DS 10·16·03~~

DAVID SPIELMAN - 10.16.03 DS



Location ALLEY # 127 Date 10.16.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10.16.03~~

16:43 : ARRIVE ALLEY #127

DIMENSIONS : 159FT x 13 FT

CONSTRUCTION : VERY DEGRADED ASPHALT PAVING AND PACKED SOIL.

PERIMETER (~~COMMERCIAL~~ MIXED) DS 10.16.03

W : COMMERCIAL/RESIDENCE

E : COMMERCIAL/RESIDENCE

CS- 17965

SP- 124390

SAMPLE TIME 16:58

DS 10.16.03

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS CSS-S- 006104

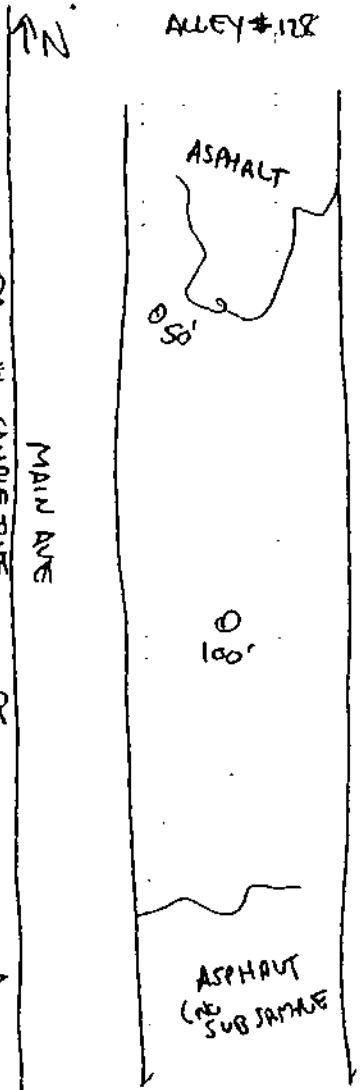
④ GPS # T2L10163

ADDITIONAL NOTES :

ALLEY DEAD-ENDS AT ALLEY #128

DS 10.16.03

DAVID SPIELMAN 10.16.03



Location ALLEY # 128 Date 10.16.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10.16.03~~

17:02 ON SITE ALLEY #128

DIMENSIONS : 297FT x 12FT

CONSTRUCTION : GRAVEL WITH SOME ASPHALT/TAR COVERAGE ~~DS 10.16.03~~

PERIMETER : (MIXED)

N : COMMERCIAL/RESIDENTIAL

S : COMMERCIAL/RESIDENTIAL

CS- 17966

SP- 124391

SAMPLE TIME 17:10

DS 10.16.03

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S- 006104

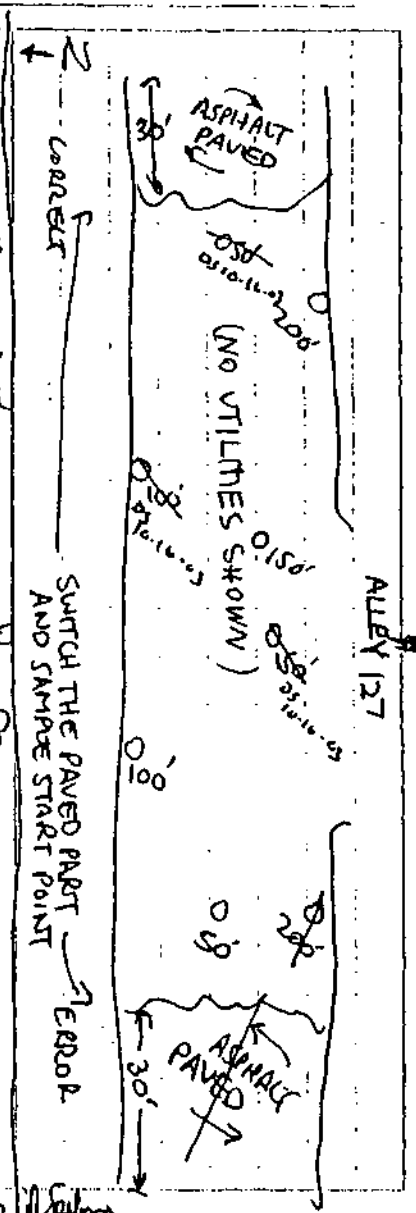
④ GPS # T2L10163

ADDITIONAL NOTES :

NONE

DS 10.16.03

DAVID SPIELMAN 10.16.03



Location: ALLEY # 23 Date: 10-17-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

09:10 ON-SITE ALLEY # 23

DIMENSIONS: ~~27~~ 278 FT x 15 FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER: (COMMERCIAL)

N: COMMERCIAL

S: COMMERCIAL

SAMPLE TIME 09:40

CS- 17968

SP- 124392

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

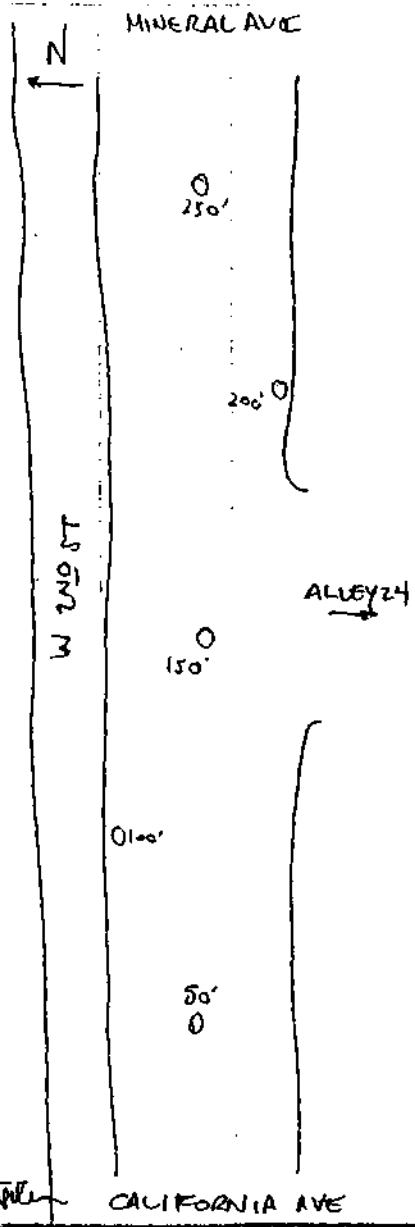
③ PSDS # CSS-S-006106

④ GPS # T2A10173

ADDITIONAL NOTES:

NONE

DAVID SPIELMAN-10-17-03



Location: ALLEY # 24 Date: 10-17-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

09:43 ON-SITE ALLEY # 24

DIMENSIONS: 138 FT BY 15 FT

CONSTRUCTION: PACKED SOIL AND GRAVEL AND DEGRADED ASPHALT

PERIMETER: (COMMERCIAL)

W: COMMERCIAL BLD.

E: COMMERCIAL BLD.

SAMPLE TIME 09:53

CS- 17969

SP- 124393

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

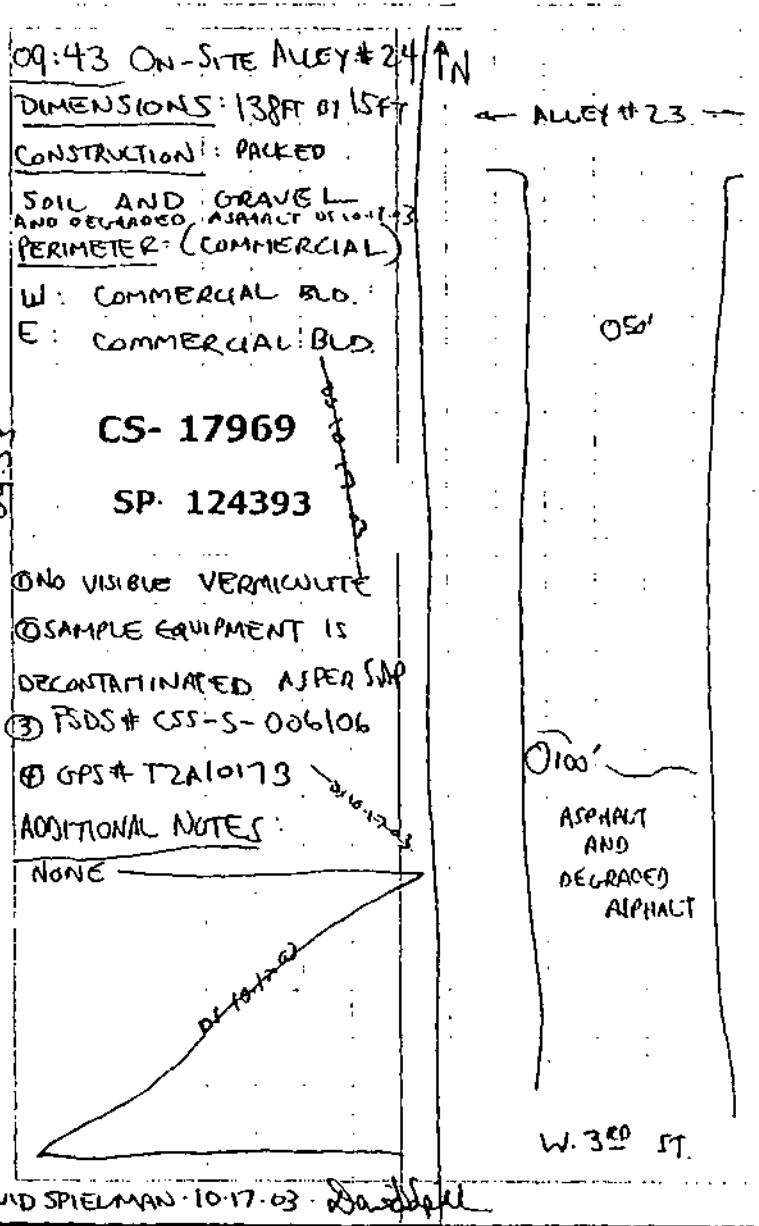
③ PSDS # CSS-S-006106

④ GPS # T2A10173

ADDITIONAL NOTES:

NONE

DAVID SPIELMAN-10-17-03



Location ALLEY # ~~23, 24~~ 26, 26, 27 Date 10.17.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

PAVED ALLEYS

09:58 ON-SITE ALLEY ~~#25~~ 25

DIMENSIONS: 288 FT x 19 FT

CONSTRUCTION: ASPHALT PAVED, FAIR-GOOD CONDITION

PERIMETER: COMMERCIAL ON EITHER SIDE

BOUNDARIES: W: CALIFORNIA AVE E: MINERAL AVE

N: W. 3RD ST S. W. 4TH ST.

NOTES: NO SAMPLING REQUIRED FOR PAVED ALLEYS AND NO VERMICULITE WAS OBSERVED IN THE AREA

10:04 ON-SITE ALLEY #26

DIMENSIONS: 289 FT x ~~18 FT~~ 19 FT

CONSTRUCTION: BLACK-TOP PAVEMENT (ASPHALT) BRAND NEW

PERIMETER: COMMERCIAL ON EITHER SIDE

BOUNDARIES: W: CALIFORNIA AVE. E: MINERAL AVE.

N: W 4TH ST S: W 5TH ST

NOTES: NO SAMPLING REQUIRED ON PAVED ALLEYS AND NO VERMICULITE WAS OBSERVED IN THE AREA

10:12 ON-SITE ALLEY #27

DIMENSIONS: 284 FT x 18 FT

CONSTRUCTION: ASPHALT PAVED - GOOD CONDITION

PERIMETER: COMMERCIAL ON EITHER SIDE

BOUNDARIES: W: CALIFORNIA AVE E: MINERAL AVE

N: W. 5TH ST S: W. 6TH ST.

NOTES: NO SAMPLING REQUIRED IN PAVED ALLEYS AND NO VERMICULITE WAS OBSERVED IN THE AREA

DAVID SPIELMAN — 10.17.03 — David Spielman

Location ALLEY # 28 Date 10.17.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

10:18 ON SITE ALLEY # 28

DIMENSIONS: 280 FT x 18 FT

CONSTRUCTION: ASPHALT PAVED, FAIR CONDITION

PERIMETER: MOSTLY COMMERCIAL, ONE RESIDENCE

BOUNDARIES: W: CALIFORNIA AVE E. MINERAL AVE

N. W 6TH ST. S: LINCOLN BLVD.

NOTES: NO SAMPLING REQUIRED ON PAVED ALLEYS, AND NO VISIBLE VERMICULITE IN THE AREA

DAVID SPIELMAN — 10.17.03 — David Spielman

Location ALLEY # 29 Date 10·17·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10·17·03

10:24: ON-SITE ALLEY # 29

DIMENSIONS: 283FT x 15FT

CONSTRUCTION: PACKED SOIL AND GRAVEL — 10·17·03

PERIMETER: (RESIDENTIAL)

W: HOMES/YARDS/DRIVEWAYS

E: HOMES/YARDS/DRIVEWAYS

SAMPLE TIME 10:45

CS- 17970

SP- 124394

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006106

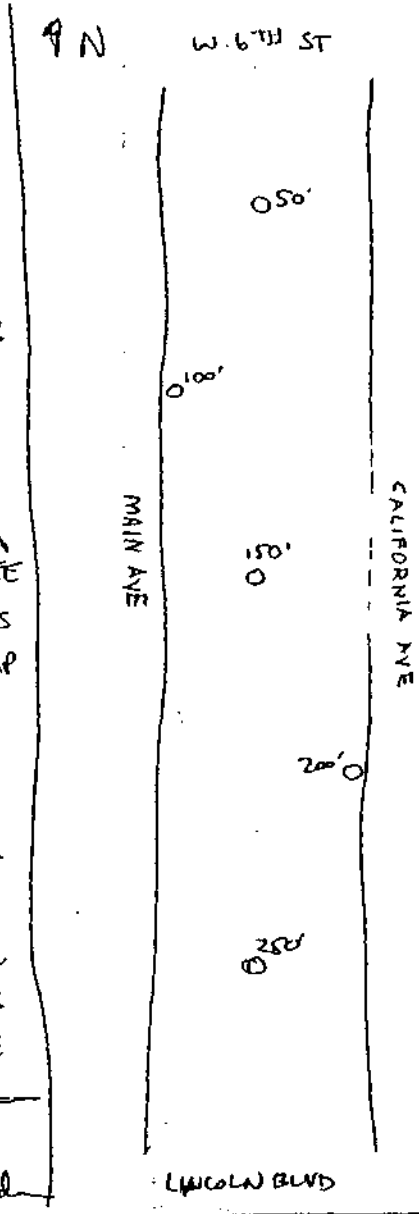
④ GPS# T2B10173

ADDITIONAL NOTES:

THERE IS A PROPANE TANK BEING PLACED AT RESIDENCE IN S.E. END OF ALLEY. VISUAL OF SOIL TRENCH DUG FOR GAS LINE IS ABOUT 8", NO VERMICULITE OBSERVED.

DS 10·17·03

DAVID SPIELMAN 10·16·03 D Spielman



Location ALLEY # 22 Date 10·17·03

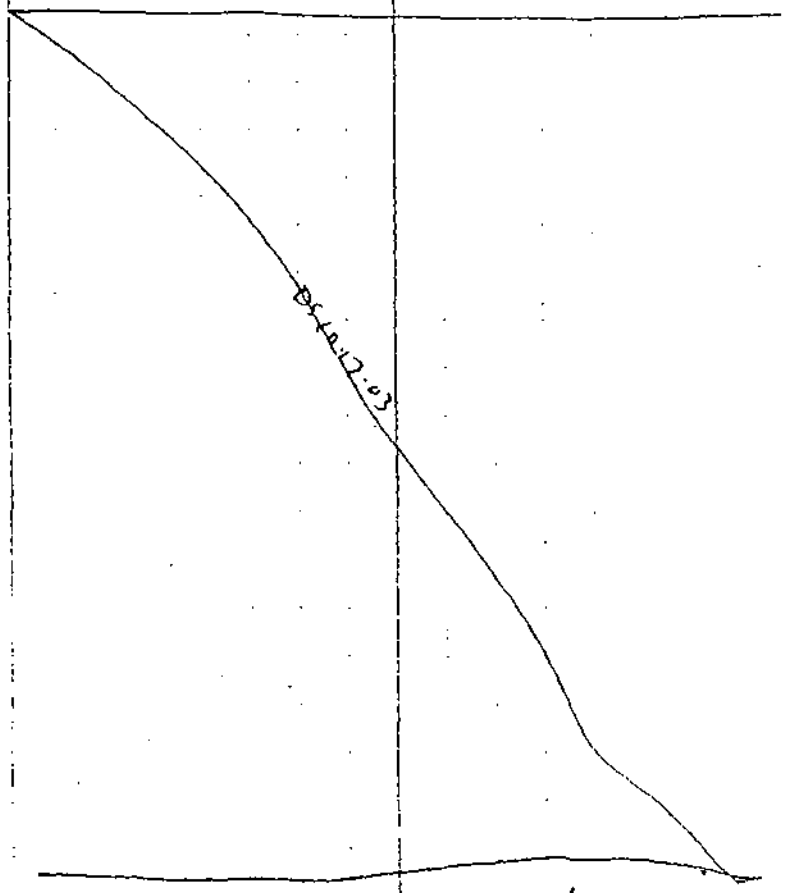
Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10·17·03

10:49 ON SITE ALLEY # 22 — DS 10·17·03

DIMENSIONS - A BUILDING IS ON SITE THERE IS NO ALLEY, A PAVED PARKING LOT IS ALSO ON SITE

BOUNDARIES: BLOCK BORDERED BY MAIN AND CALIFORNIA, W. 5TH AND W 6TH STREETS. — DS 10·17·03



DAVID SPIELMAN — 10·17·03 — David Spielman

Location: ALLEY # 30 Date: 10-17-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-17-03

10:51 ON SITE ALLEY # 30

CONSTRUCTION: GRAVEL AND PACKED SOIL

DIMENSIONS: 102 FT x 15 FT

PERIMETER: (COMMERCIAL)

- THIS IS A SHORT DRIVEWAY NEXT TO THE "MINT" BAR

SAMPLE TIME 11:13

CS- 17971

SP- 124395

DS 10-17-03

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006107

④ GPS # T2C10173

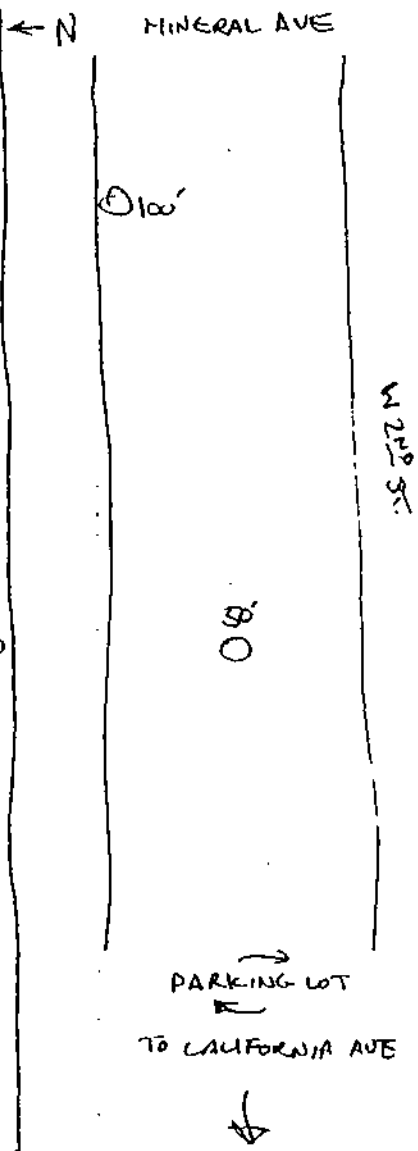
ADDITIONAL NOTES:

THE EXTENT OF THE ALLEY IS JUST UP TO THE END OF BLD. HOUSING "THE MINT" BAR REMAINDER IS A GRAVEL PARKING LOT.

DS 10-17-03

DS 10-17-03

DAVID SPIELMAN 10-17-03



Location: ALLEY # 31 Date: 10-17-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-17-03

11:26 ON SITE ALLEY # 31

DIMENSIONS: 102 FT x 15 FT

CONSTRUCTION: GRAVEL AND PACKED SOIL — DS 10-17-03

PERIMETER: (COMMERCIAL)

- THIS IS A SHORT DRIVEWAY USED BY 'ACHIEVEMENTS' LETS OUT ONTO A GRAVEL PARKING LOT

SAMPLE TIME 11:42

CS- 17972

SP- 124396

DS 10-17-03

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006107

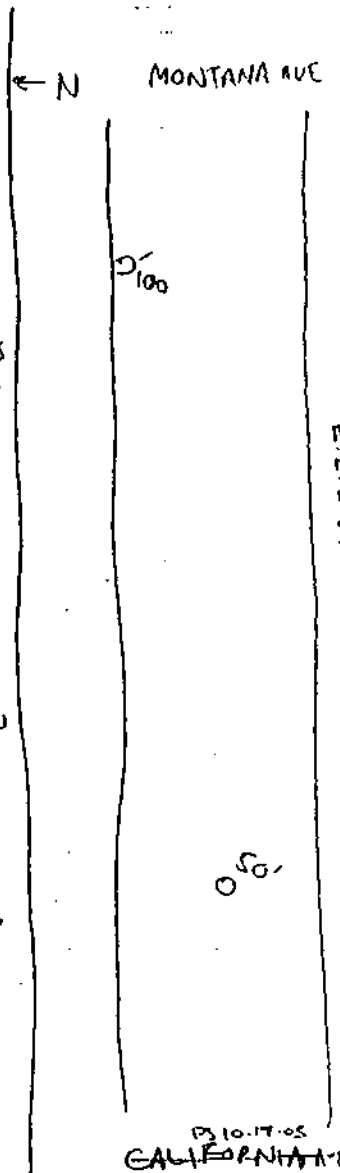
④ GPS # T2D10173

ADDITIONAL NOTES:

NONE

DS 10-17-03

DAVID SPIELMAN 10-17-03



Location ALLEY # 32 Date 10.17.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-17-03

13:39 ON SITE ALLEY # 32

DIMENSIONS: 180FT x 14FT

CONSTRUCTION: PACKED SOIL/GRAVEL

PERIMETER: (MIXED)

N: ONE HOME \ COMMERCIAL

S: COMMERCIAL BUILDING

SAMPLE TIME 13:51

CS- 17973

SP- 124397

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSOS CSS-S-006107

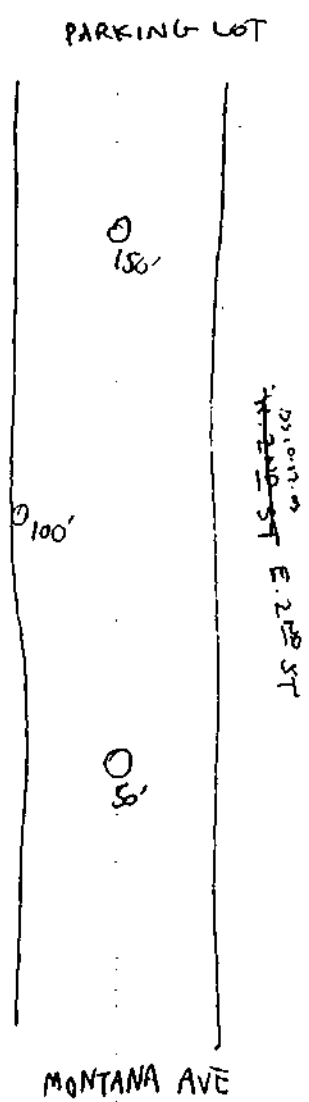
④ GPS# T2E10173

ADDITIONAL NOTES:

THIS IS A SHORT DRIVEWAY THAT LETS OUT ON THE EAST SIDE INTO A LARGE GRAVEL PARKING LOT

DS 10-17-03

DAVID SPIELMAN. 10.17.03 David Spielman



Location ALLEY # 33, # 34, # 35, # 36 Date 10.17.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-17-03

13:58 ON SITE ALLEY # 33 DS 10-17-03

DIMENSIONS: 288FT x 15 FT

CONSTRUCTION: ASPHALT PAVED - FAIR TO POOR CONDITION

PERIMETER: COMMERCIAL

BOUNDARIES NORTH: E. 2ND ST.

SOUTH: E. 3RD ST.

WEST: MINERAL

EAST: MONTANA

DS 10-17-03

NOTES: NO SAMPLING REQUIRED ON PAVED ALLEYS, AND NO VISIBLE VERMICULITE IN THE AREA

14:01 ON SITE ALLEY # 34 DS 10-17-03

- NORTH/SOUTH MIDLINE OF THE BLOCK (SAME BOUNDARIES AS ALLEY # 33) - NO ALLEY HERE

LAND IS USED BY THE BUSINESSES ON THE BLOCK

14:04 ON SITE ALLEY # 35 DS 10-17-03

NO ALLEY HERE - IT IS GRASS LAWN, OVERGROWN

14:05 ON SITE ALLEY # 36

DIMENSIONS: 305FT x 18 FT

CONSTRUCTION: ASPHALT PAVED, GOOD CONDITION

PERIMETER: COMMERCIAL

BOUNDARIES: NORTH: E. 2ND ST WEST: MONTANA AVE

SOUTH: E. 3RD ST EAST: LOUISIANA AVE.

DS 10-17-03

DAVID SPIELMAN - 10.17.03 - David Spielman

Location ALLEY# 37, 38, #39 Date 10·17·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10·17·03~~

14:10 ON SITE ALLEY# 37

DIMENSIONS: 283FT x 18FT DS 10·17·03

CONSTRUCTION: ASPHALT/BLACKTOP PAVED, GOOD CONDITION

PERIMETER: COMMERCIAL DS 10·17·03

BOUNDARIES: NORTH: EAST 3RD ST WEST: MONTANA AVE

DS 10·17·03 SOUTH: EAST 4TH ST EAST: LOUISIANA AVE

NO SAMPLING REQUIRED ON PAVED ALLEY, AND NO VISIBLE VERMICULITE IN THE AREA DS 10·17·03

14:19 ON SITE ALLEY# 38

DIMENSIONS: 280 x 18 FT DS 10·17·03 DS 10·17·03

CONSTRUCTION: ASPHALT PAVED, GOOD CONDITION

PERIMETER: COMMERCIAL DS 10·17·03

BOUNDARIES: NORTH: EAST 3RD ST WEST: MINERAL AVE

~~DS 10·17·03~~ SOUTH: EAST 4TH ST EAST: MONTANA AVE

NO SAMPLING REQUIRED ON PAVED ALLEY, AND NO VISIBLE VERMICULITE IN THE AREA DS 10·17·03

14:40 ON SITE ALLEY #39

DIMENSIONS: 298FT x 17FT. DS 10·17·03

CONSTRUCTION: ASPHALT PAVED, GOOD CONDITION

PERIMETER: MIXED, MOSTLY COMMERCIAL W/ONE RESIDENCE

BOUNDARIES NORTH: EAST 4TH ST WEST: MINERAL AVE

~~DS 10·17·03~~ SOUTH: EAST 5TH ST EAST: MONTANA AVE

NO SAMPLING REQUIRED ON PAVED ALLEY, AND NO VISIBLE VERMICULITE IN THE AREA (~~THERE IS BAR IN ATTIC OF SMALL HOME ADJACENT~~) DS 10·17·03

DAVID SPIELMAN — 10·17·03 — David Spielman

Location ALLEY #40, #41 Date 10·17·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

14:49 ON SITE ALLEY #40

DIMENSIONS: 298FT. x 14FT. DS 10·17·03

CONSTRUCTION: ASPHALT PAVED, FAIR CONDITION

PERIMETER: MIXED COMMERCIAL AND RESIDENTIAL

BOUNDARIES NORTH: E 5TH ST ~~WEST~~ EAST: MONTANA AVE

~~DS 10·17·03~~ SOUTH: E 6TH ST ~~EAST~~ WEST: MINERAL AVE

NO SAMPLING REQUIRED ON PAVED ALLEY, AND NO VISIBLE VERMICULITE IN THE AREA DS 10·17·03

15:20 ON SITE ALLEY #41

DIMENSIONS: 288 x 18FT DS 10·17·03

CONSTRUCTION: ASPHALT PAVED, FAIR CONDITION, PATCHED

PERIMETER: MIXED, MOSTLY COMMERCIAL, ONE HOME

BOUNDARIES: NORTH E 6TH ST WEST MINERAL AVE.

~~DS 10·17·03~~ SOUTH ~~FENCO~~ LINCOLN BLVD. DS 10·17·03 EAST MONTANA AVE.

NO SAMPLING REQUIRED ON PAVED ALLEY, AND NO VISIBLE VERMICULITE IN THE AREA.

DS 10·17·03

DAVID SPIELMAN — 10·17·03 — David Spielman

Location ALLEY #42 Date 10·17·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 / VOLPE

DS 10-17-03

15:30 ON SITE ALLEY #42

CONSTRUCTION: DECOMPOSED ASPHALT PAVING (SOFT AND HAS APPEARANCE OF GRAVEL AND PACKED BLACK SOIL)

PERIMETER: (RESIDENTIAL) HOMES/YARDS/DRIVEWAYS/SHEDS

SAMPLE TIME 15:47

CS- 17974

SP- 124398

DS 10-17-03

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006108

④ GPS# ~~T26~~ T2F10173 DS 10-17-03

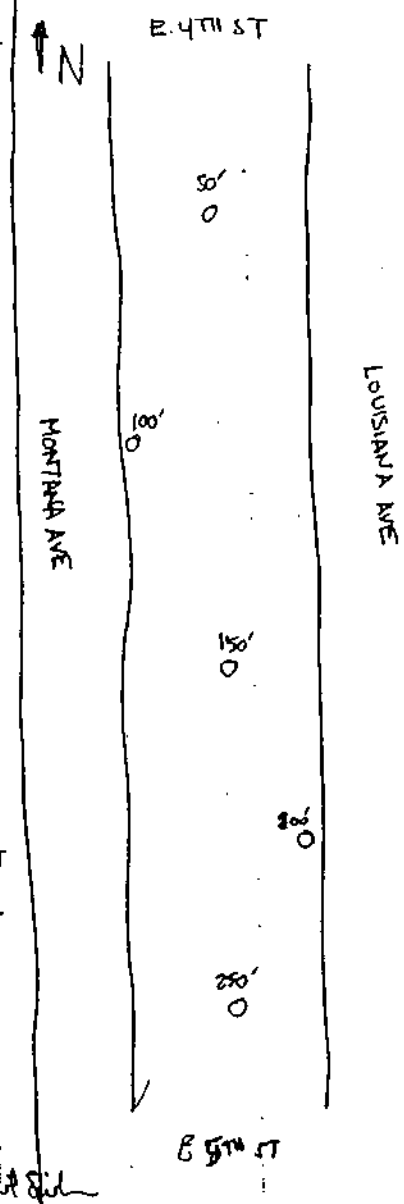
ADDITIONAL NOTES:

DIMENSIONS 300FT. x 15FT

NO ADDITIONAL NOTES

DS 10-17-03

DAVID SPIELMAN. ~~10-10-03~~ DS 10-17-03



Location ALLEY #43 Date 10·17·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

DS 10-17-03

16:30 ON SITE ALLEY #43

CONSTRUCTION: GRAVEL AND PACKED SOIL. APPEARS TO HAVE HAD ASPHALT AT ONE TIME (OBSERVED AT EDGES OF ALLEY)

PERIMETER: (RESIDENTIAL) HOMES\YARDS\SHEDS\DRIVEWAYS

DIMENSIONS 291FT x 14FT

SAMPLE TIME 16:50

CS- 17975

SP 124399

DS 10-17-03

① NO VISIBLE VERMICULITE

② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006108

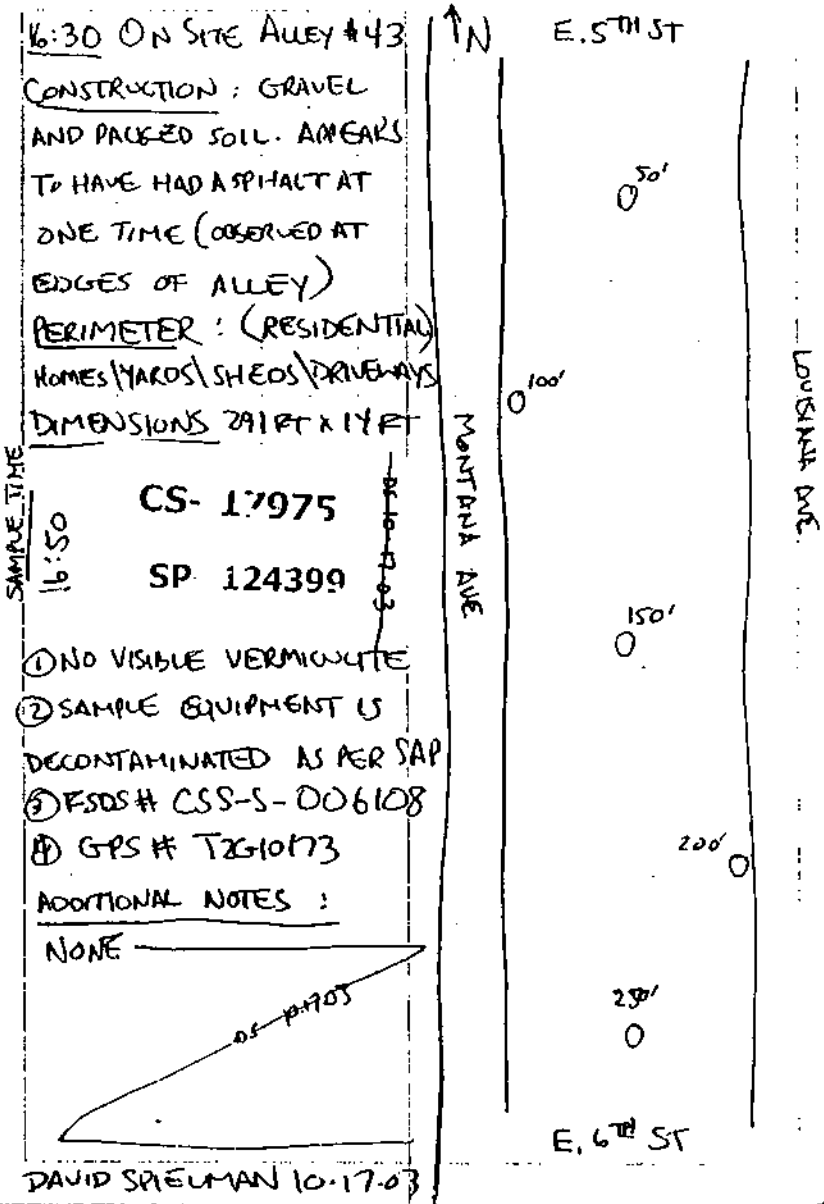
④ GPS # T2G10173

ADDITIONAL NOTES:

NONE

DS 10-17-03

DAVID SPIELMAN 10·17·03



Location: ALLEY # 44 Date: 10-17-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLTE

~~DS 10-17-03~~

16:55 ON SITE ALLEY # 44

DIMENSIONS: 294 FT. X 16 FT.

CONSTRUCTION: EXTREMELY DEGRADED ASPHALT PAVING, NOW MOSTLY GRAVEL AND SOFT ASPHALT/SOIL MIX. ~~DS 10-17-03~~

PERIMETER: (RESIDENTIAL) HOMES/YARDS/SHEDS/DRIVEWAYS

SAMPLE TIME 17:10

CS- 17976

JP- 124400

~~DS 10-17-03~~

① NO VISIBLE VERMICULITE

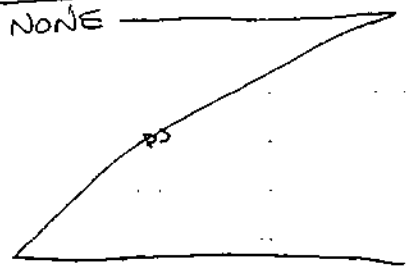
② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

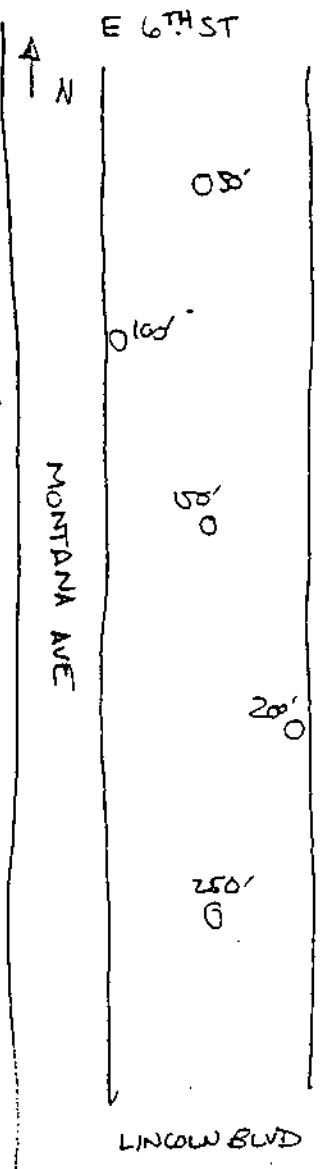
③ FSDS# CSS-S-006108

④ GPS# T2H10173

ADDITIONAL NOTES:

NONE





DAVID SPIELMAN – 10-17-03 David Spielman

Location 10·18·03 ALLEY # 45 Date 10·18·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

~~DS 10·18·03~~

0950 ON SITE ALLEY # 45 ~~DS 10·18·03~~

DIMENSIONS 297 × 20FT

CONSTRUCTION · NORTH HALF IS BLACK TOP PAVED, SOUTH HALF IS DEGRADED ASPHALT IN FAIR TO POOR CONDITION ~~DS 10·18·03~~

PERIMETER : (MIXED) NORTH HALF IS COMMERCIAL PARKING, SOUTH HALF IS RESIDENTIAL ~~DS 10·18·03~~

BOUNDARIES NORTH E. 4TH ST WEST LOUISIANA AVE ~~DS 10·18·03~~ SOUTH E. 5TH ST EAST UTAH AVE

NO SAMPLING REQUIRED IN PAVED ALLEYS AND NO VERMICULITE VISIBLE IN THE AREA.

~~DS 10·18·03~~

DAVID SPIELMAN — 10.18.03 — David Spielman

Location: ALLEY #46 Date: 10.18.03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-18-03

ONSITE 10:00 ALLEY #46

DIMENSIONS 30 SRT. x 18 FT.

CONSTRUCTION: PACKED SOIL AND GRAVEL, ~~EXTE~~ DS 10-18-03 REMNANTS OF (FORMER) ASPHALT PAVING

PERIMETER: (RESIDENTIAL) YARDS\HOMES\SHEDS\DRIVEWAYS

CS- 17978

SAMPLE TIME 10:21

SP- 124401

① SIGNIFICANT VISIBLE VERMICULITE LOCATED AT ~~69~~ FT. FROM S.W. ~~TO~~ END, SOIL BERM ALONG THE S.W. SIDE OF ALLEY - APPEARS TO CONTAIN AT LEAST ONE LARGE POCKET OF RAW (UNPROCESSED) TAILINGS — DS 10-18-03

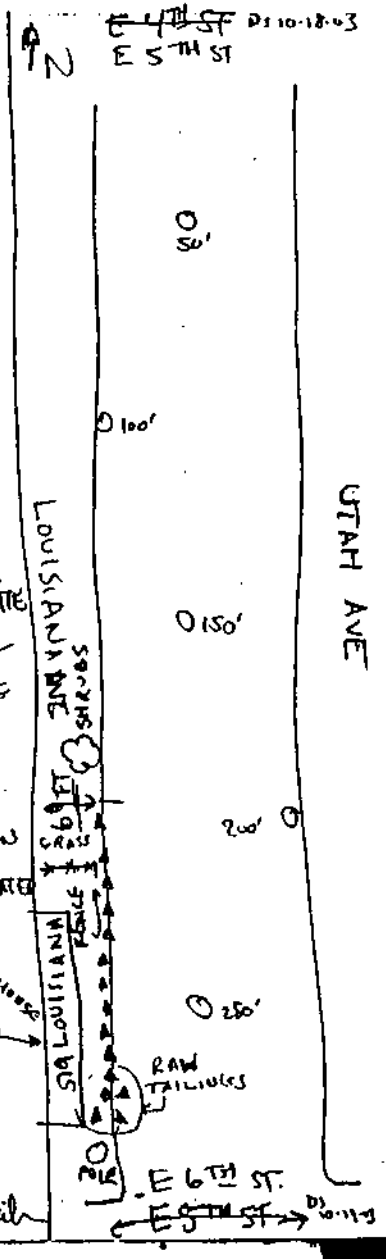
② SAMPLING EQUIPMENT DECONTAMINATED ACCORDING TO THE SAP

③ FSDS# CSS-S-006110

④ GPS# T2A10183

DS 10-18-03

DAVID SPIELMAN - 10-18-03



Location: ALLEY #47 Date: 10.18.03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-18-03

10:49 ONSITE ALLEY #47

DIMENSIONS 295 FT x 12 FT

CONSTRUCTION PACKED SOIL AND GRAVEL, DEGRADED ASPHALT PAVEMENT

PERIMETER (RESIDENTIAL) YARDS\HOMES\SHEDS\DRIVEWAYS

CS- 17979

SAMPLE TIME 11:01

SP- 124402

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

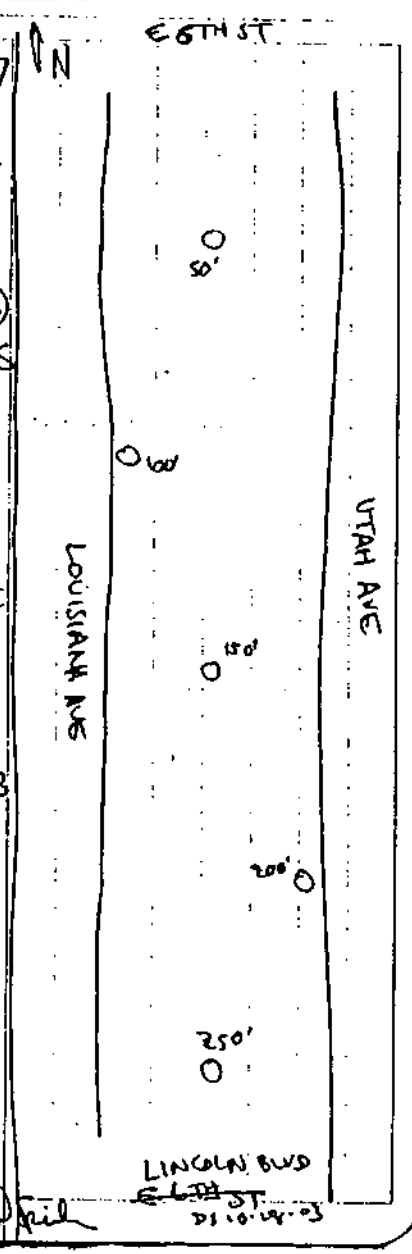
③ FSDS# CSS-S-006110

④ GPS# ~~T2A1~~ DS 10-18-03 T2B10183

ADDITIONAL NOTES: NONE

DS 10-18-03

DAVID SPIELMAN 10-18-03



Location: ALLEY #48 Date: 10·18·03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~10-18-03~~

11:12 ON SITE ALLEY #48

DIMENSIONS: 301 FT x 18 FT

CONSTRUCTION: PACKED SOIL AND GRAVEL —DS 10-18-03

PERIMETER: (RESIDENTIAL) HOUSES \ YARDS \ SHEDS \ DRIVEWAYS

SAMPLE TIME 11:28

CS- 17980

SP- 124403

① SMALL QTY VISIBLE VERMICULITE IN S.W. END, A SMALL PATCH NEXT TO FENCE POST, 33 FT FROM S.W. CORNER OF ALLEY. —DS 10-18-03

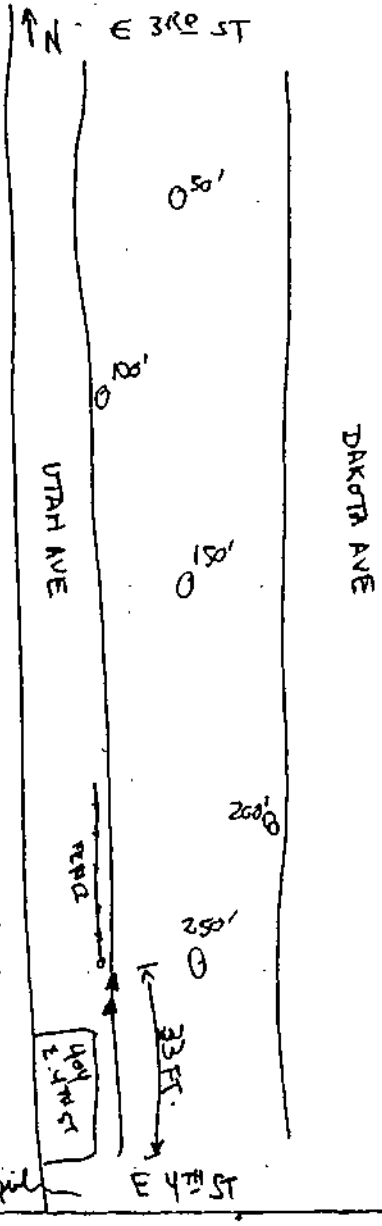
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006110

④ GPS # T2C10183

ADDITIONAL NOTES: NONE

DS 10-18-03



DAVID STIELMAN 10-18-03

Location: ALLEY # 49 Date: 10·18·03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

10-18-03

13:27 ON SITE ALLEY #49

DIMENSIONS 295 FT. x 15 FT.

CONSTRUCTION NATURAL SOIL AND ~~GRAVEL~~ LARGE STREAM ROCKS —DS 10-18-03

PERIMETER (RESIDENTIAL) OPEN (NO FENCE) LAWNS, HOMES \ DRIVEWAYS \ SHEDS

SAMPLE TIME 13:31

CS- 17981

SP- 124404

① NO VISIBLE VERMICULITE

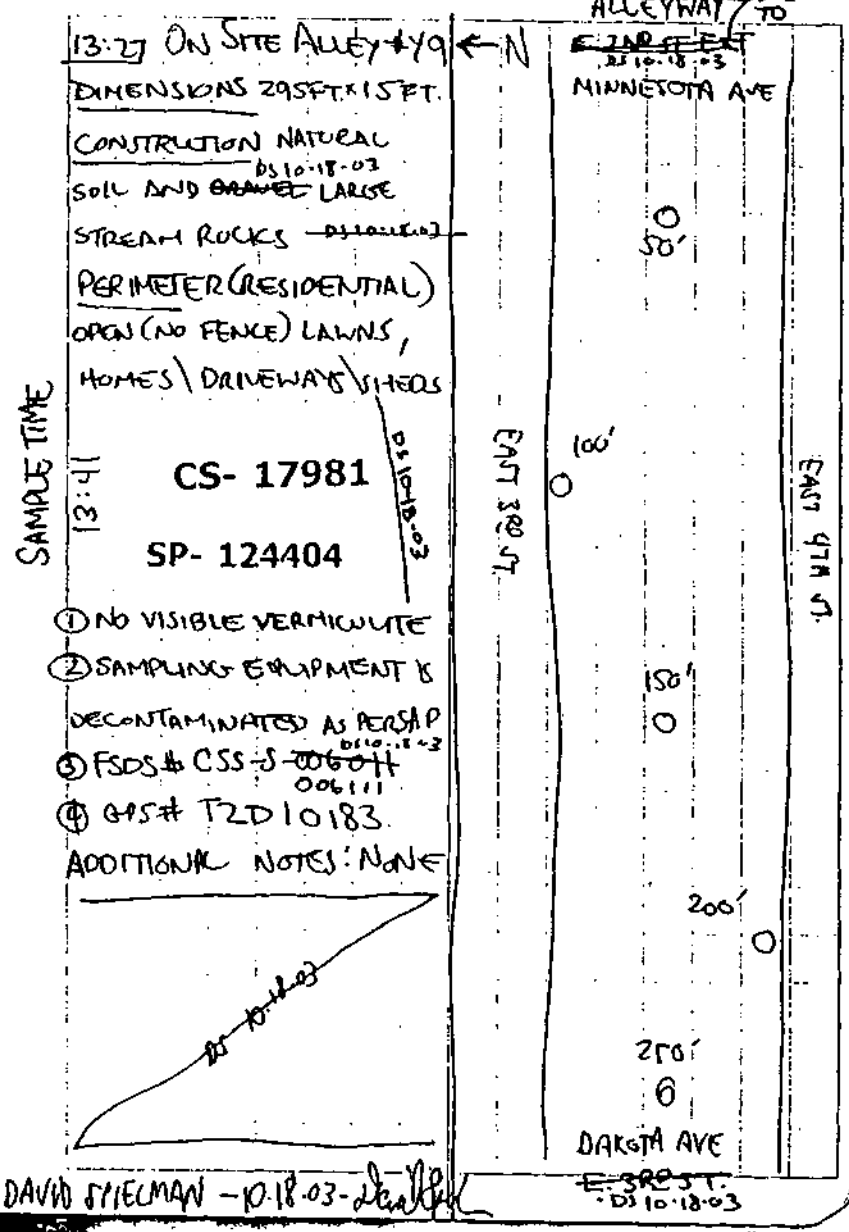
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-~~006011~~ 006111

④ GPS # T2D10183

ADDITIONAL NOTES: NONE

DS 10-18-03



DAVID STIELMAN - 10-18-03

Location: ALLEY #50 Date: 10-18-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-18-03

13:50 ON SITE ALLEY #50

CONSTRUCTION: PACKED SOIL AND GRAVEL DS 10-18-03

DIMENSIONS 297FT x 13FT

PERIMETER (RESIDENTIAL) HOMES\YARDS\SHEDS\FENCE

SAMPLE TIME 14:09

CS- 17982

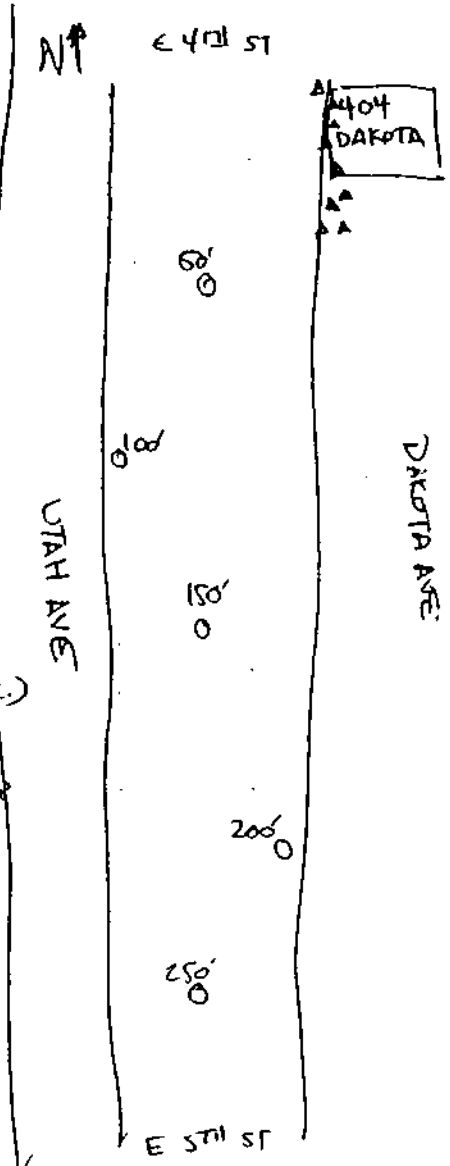
SP- 124405

① VISIBLE VERMICULITE WAS OBSERVED, DS 10-18-03 SIGNIFIC "HIGH" AMOUNT, AT N.E. CORNER OF ALLEY IN SOIL ASSOCIATED (GARDEN ALSO FULL OF VERMIC.) WITH BACKYARD AND GARDEN OF 404 DAKOTA AVE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS CSS-S-006111

ADDITIONAL NOTES: NO FENCE BETWEEN 404 DAKOTA BACKYARD AND THE ALLEY DS 10-18-03



DAVID SPIELMAN — 10-18-03 — David Spielman

Location: ALLEY #51 Date: 10-18-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-18-03

14:13 ON SITE ALLEY #51

DIMENSIONS: 306FT x 13FT

CONSTRUCTION: PACKED SOIL AND GRAVEL DS 10-18-03

PERIMETER: (RESIDENTIAL) YARDS/DRIVEWAYS/SHEDS/HOUSES

SAMPLE TIME 14:28

CS- 17983

SP- 124406

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

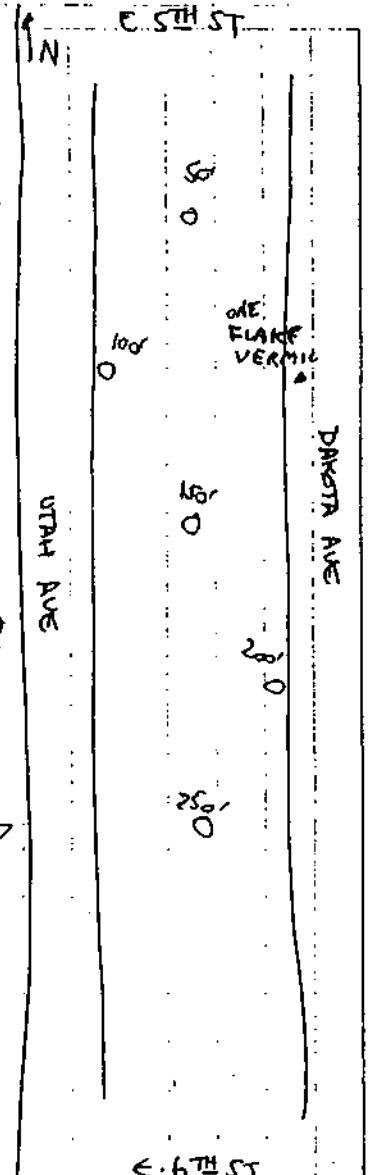
③ FSDS# CSS-S-006111

④ GPS# T2F10183

ADDITIONAL NOTES:

NONE

DS 10-18-03



DAVID SPIELMAN — 10-18-03 David Spielman

Location ALLEY #52 Date 10.18.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10.18.03~~

DS 10.18.03 ~~14:32~~ 14:32 ARRIVE ALLEY #52

DIMENSIONS: 293 FT. X 14 FT.

CONSTRUCTIONS: PACKED SOIL AND GRAVEL ~~DS 10.18.03~~

PERIMETER (RESIDENTIAL): YARDS\FENCE\HOMES\DRIVEWAYS

SAMPLE TIME 14:46

CS- 17985

SP- 124407

~~DS 10.18.03~~

① NO VISIBLE VERMICULITE

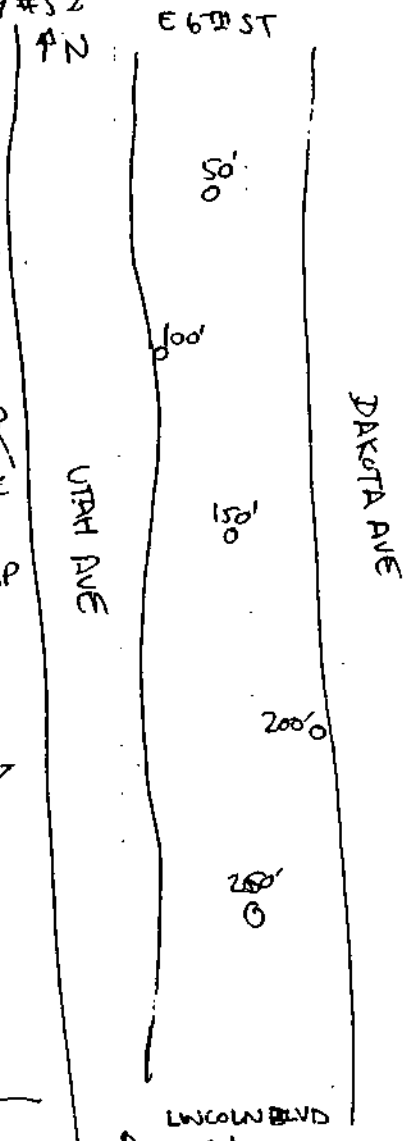
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006112

④ GPS# T2G10183

ADDITIONAL NOTES: NONE

DS 10.18.03



DAVID SPIELMAN 10.18.03 — David Spielman

Location ALLEY #53 Date 10.18.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

~~DS 10.18.03~~

1456 ON SITE ALLEY #53

DIMENSIONS 293 FT X 14 FT

CONSTRUCTION PACKED SOIL AND GRAVEL ~~DS 10.18.03~~

PERIMETER (RESIDENTIAL) HOMES\SHEDS\YARDS\FENCES\DRIVEWAY ~~DS 10.18.03~~

SAMPLE TIME 15:04

CS- 17984

SP- 124408

~~DS 10.18.03~~

① NO VISIBLE VERMICULITE

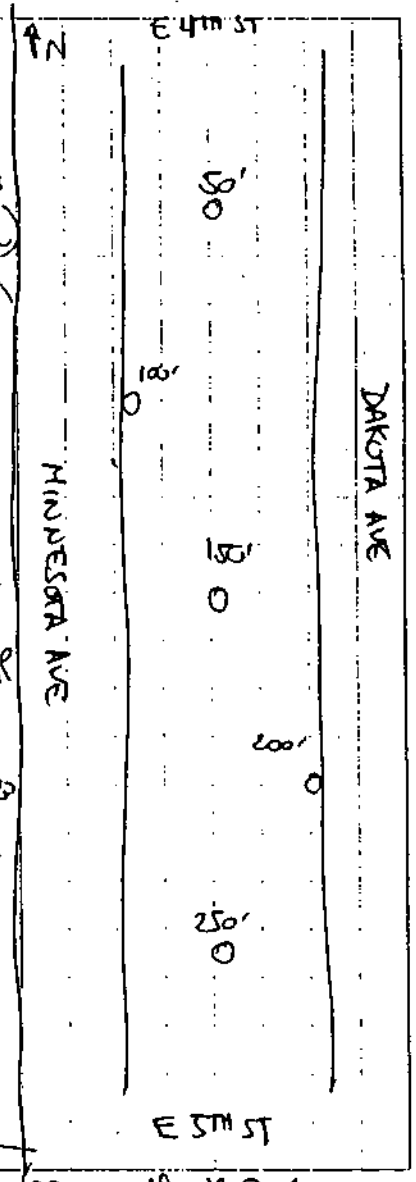
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CS-S-06112

④ GPS # ~~T2F10183~~ T2H 10183 DS 10.18.03

ADDITIONAL NOTES: NONE

DS 10.18.03



DAVID SPIELMAN — 10.18.03 — David Spielman

78

Location: ALLEY # ~~54~~ 55 (DS 10-20-03) Date: 10-20-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

DS 10-20-03

0900: ALLEY # ~~54~~ 55 (DS 10-20-03) ON SITE

DIMENSIONS: 298FT x 16FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER: (RESIDENTIAL) YARDS\SHEDS\HOUSES\DRIVEWAY

SAMPLE TIME 09:23

CS- 17987

SP- 124409

① NO VISIBLE VERMICULITE

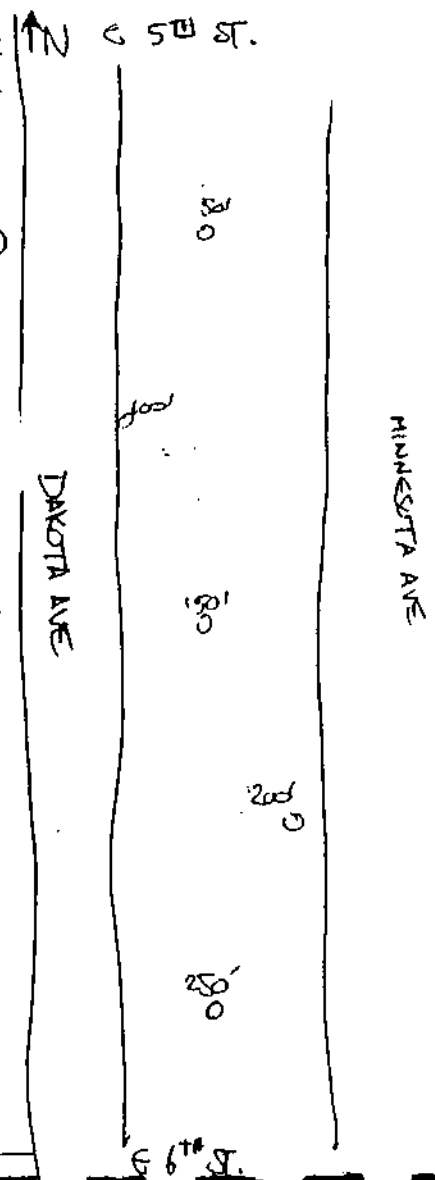
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006114

④ GPS# T2A0203

ADDITIONAL NOTES: NONE

DS 10-20-03



Location: ALLEY # ~~53~~ 54 (DS 10-20-03) Date: 10-20-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

DS 10-20-03

0936: ALLEY # 54 ON SITE

DIMENSIONS: 300FT x 15FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-20-03~~

PERIMETER (RESIDENTIAL) YARDS\SHEDS\HOUSES\DRIVEWAYS

SAMPLE TIME 09:48

CS- 17988

SP- 124410

① NO VISIBLE VERMICULITE

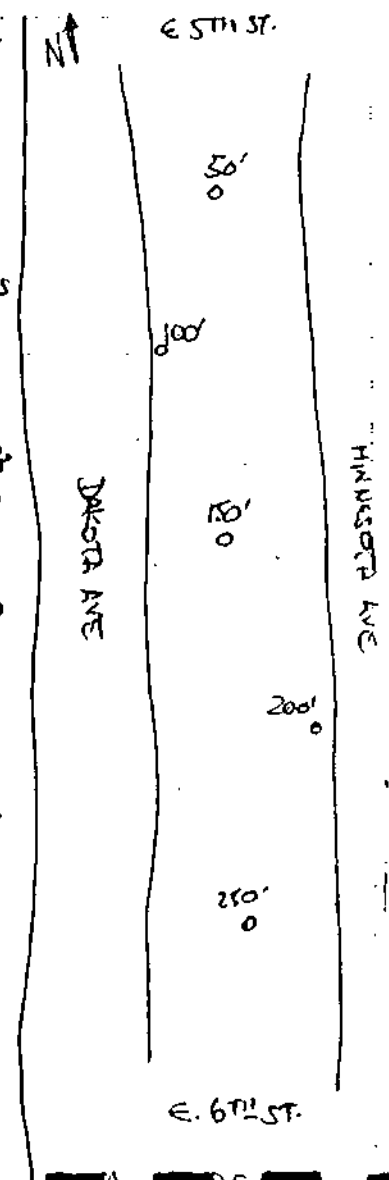
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006114

④ GPS# T2B10203

ADDITIONAL NOTES: NONE

DS 10-20-03



80

Location: ALLEY # ~~57~~ 56 DS 10.20.03 Date: 10.20.03

Project Client: LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

DS 10.20.03

10:00 ON SITE ALLEY 5/6 TC 12/1/03

CONSTRUCTION: PACKED SOIL AND GRAVEL 10.20.03

DIMENSIONS 264 FT X 18 FT

PERIMETER (RESIDENTIAL) YARDS/HOMES/DEAD END DS

SAMPLE TIME 10:15

CS- 17989

SP- 121411

① NO VISIBLE VERMICULITE

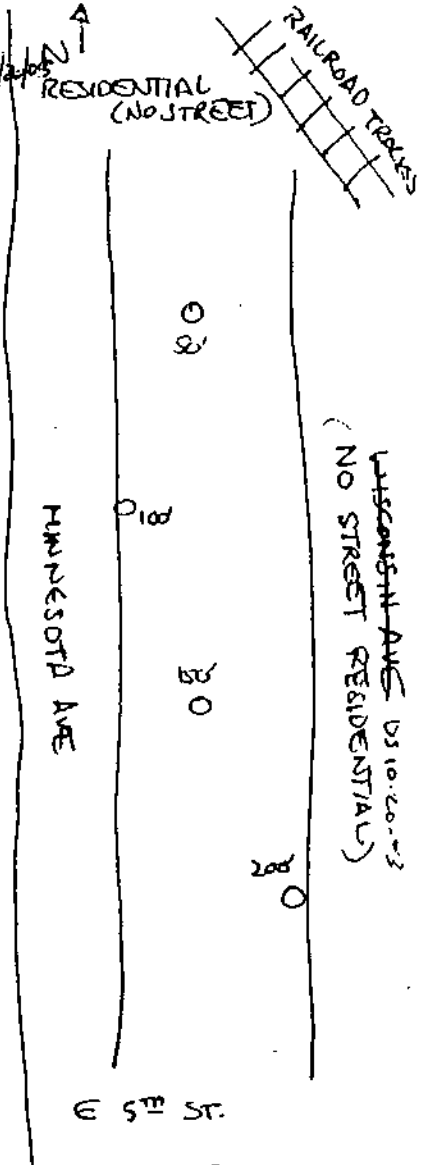
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS CSS-S-006114

④ GPS# ~~T2C102003~~ T2C10203 DS 10.20.03

ADDITIONAL NOTES:

DS 10.20.03



DAVID SPIELMAN — 10.20.03 — David Spielman

Location: ALLEY # 57 Date: 10.20.03

Project Client: LIBBY ASBESTOS PROJECT EPA REG 8 / VOLPE

DS 10.20.03

10:20 ON SITE ALLEY #57

DIMENSIONS: 302 FT X 18 FT

PERIMETER: (RESIDENTIAL) YARDS/DRIVEWAYS/HOMES/SHEDS

CONSTRUCTION: ASPHALT PAVED, VERY POOR CONDITION, ABOUT 80% REMAINING

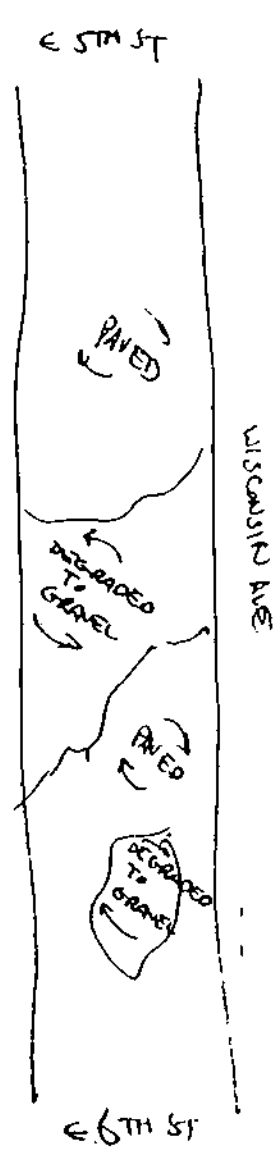
SAMPLE TIME 10.20.03

DS 10.20.03

① NO VISIBLE VERMICULITE

② NO SAMPLING REQUIRED ON PAVED ~~DRIVEWAYS~~ ALLEYWAYS 10.20.03 DS

DS 10.20.03



DAVID SPIELMAN — 10.20.03 — David Spielman

82

Location: ALLEY #58 Date: 10-20-03

Project: LIBBY ASBESTOS PROJECT EPA REG 8 YOUNG

DS 10-20-03

10:38 ON SITE ALLEY #58

DIMENSIONS: 276FT X 18FT

CONSTRUCTION: ASPHALT PAVED AND GRAVEL —DS 10-20-03

VERY POOR CONDITION

PERIMETER (RESIDENTIAL) DS 10-20-03

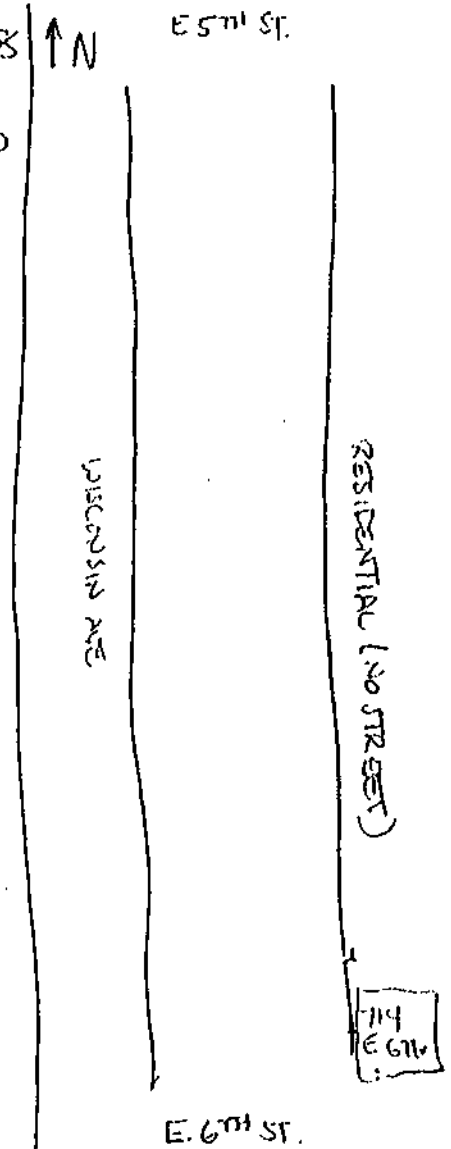
YARDS/SHEDS/HOMES/DRIVEWAYS

① TRACE VISIBLE VERMICULITE ADJACENT TO HOME ON 714 E. 6TH ST, NONE IN ALLEY!

② NO SAMPLING REQUIRED ON PAVED ALLEY WAYS

ADDITIONAL NOTES: NONE

DS 10-20-03



DAVID SPIELMAN — 10-20-03 — David Spielman

Location: ALLEY #59 Date: 10-20-03

Project: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS-10-20-03

10:50 ON SITE ALLEY #59

DIMENSIONS 299FT X 14FT

CONSTRUCTION: PACKED SOIL AND GRAVEL —DS 10-20-03

PERIMETER (RESIDENTIAL)

YARDS\HOMES\SHEDS\DRIVEWAYS

CS-17990

SP- 124412

DS 10-20-03

DS-10-20-03

① "MEDIUM" VISIBLE VERMICULITE IN A PATCH THAT IS NEXT TO A GARDEN, 619 MINNESOTA AVE BACK YARD

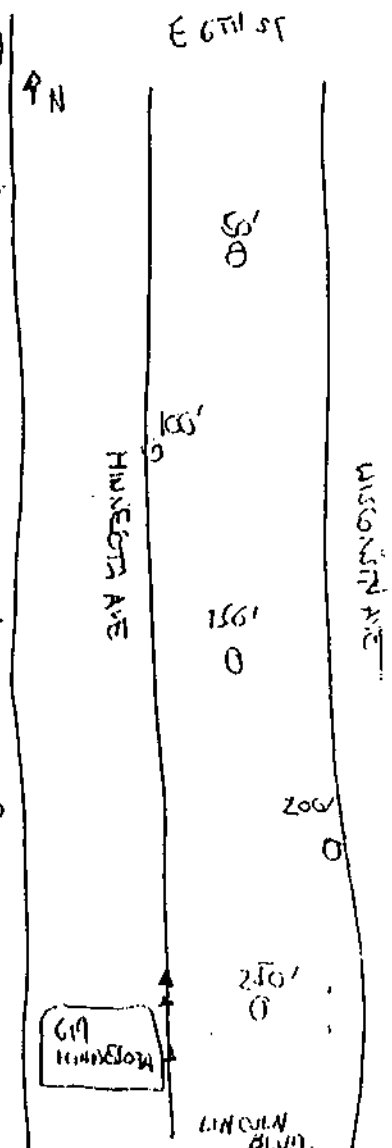
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-00615

④ GPS# T2D10203

ADDITIONAL NOTES: NONE

DS (10-20-03)



DAVID SPIELMAN — 10-20-03 — David Spielman

Location ALLEY # 60 Date 10.20.03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-20-03~~

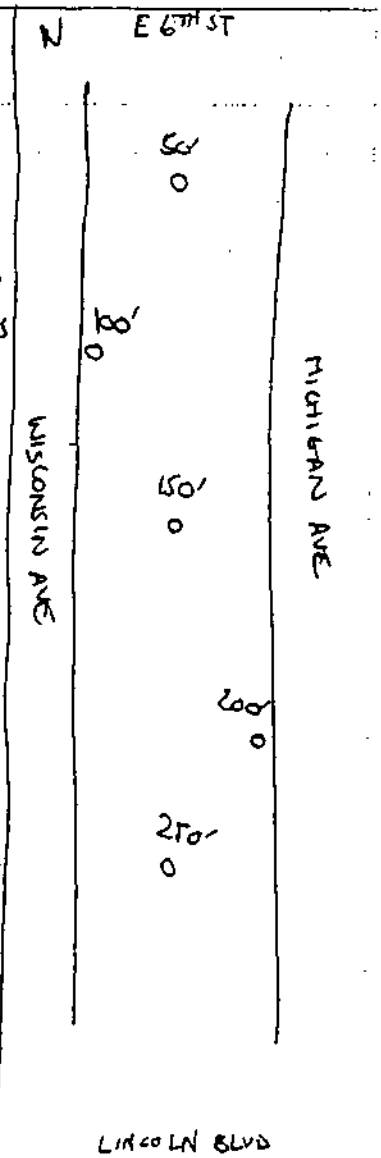
13:50 ON SITE ALLEY #60
RAINING (MODERATE)
DIMENSIONS 299FT x 14FT
CONSTRUCTION PACKED SOIL
AND GRAVEL ~~DS 10-20-03~~
PERIMETER (RESIDENTIAL)
YARDS\DRIVEWAYS\HOMES\STEPS

SAMPLE TIME 14:01

CS- 17991

SP- 124413

① NO VISIBLE VERMICULITE
② SAMPLING EQUIPMENT IS DECONTAMINATED IAW PER SAP
③ FSDS # CSS-S-006115
④ GPS # T2E10203
ADDITIONAL NOTES: NONE



~~DS 10-20-03~~

DAVID SPIELMAN — 10.2003 David Spielman

36

Location: ALLEY #62 Date: 10-20-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DJ 10-20-03

14:09 ON-SITE ALLEY #62

DIMENSIONS 295FT x 14FT

CONSTRUCTION: PACKED SOIL AND GRAVEL DJ 10-20-03

PERIMETER: (RESIDENTIAL)

HOMES\YARDS\DRIVEWAYS\SITES

SAMPLE TIME ALLEY 14:22

CS- 17992

SP- 124414 ALLEY62

SAMPLE TIME DUPLICATE 14:24

CS- 17993

SP- 124415 DUPLICATE

① NO VISIBLE VERMICULITE

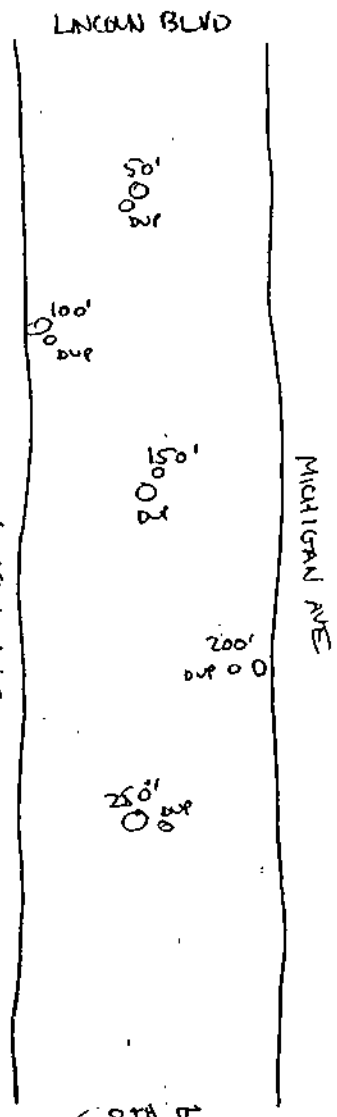
② SAMPLING EQUIPMENT IS TO BE DECONTAMINATED AS PER SAP

③ FSDS# 006115 & 006116

④ GPS# ~~T2F10203~~ T2F10203 DJ 10-20-03

ADDITIONAL NOTES: NONE

DJ 10-20-03



DAVID SPIELMAN — 10-20-03 — David Spielman

37

Location: ALLEY #63 Date: 10-20-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DJ 10-20-03

14:28 ON SITE ALLEY #63

RAINING (MODERATE-HARD)

DIMENSIONS 297FT x 14FT

CONSTRUCTION: SOIL PACKED SOIL AND GRAVEL DJ 10-20-03

PERIMETER (RESIDENTIAL)

SAMPLE TIME 14:38

CS- 17994

SP- 124415

DJ 10-20-03

① NO VISIBLE VERMICULITE DJ 10-20-03

② SAMPLING EQUIPMENT DECONTAMINATED AS PER SAP

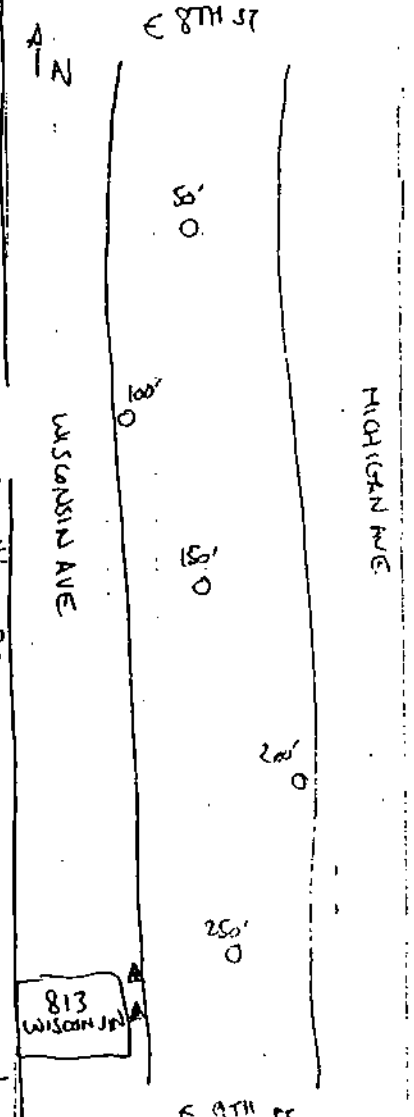
③ FSDS# CSS-S-006116

④ GPS# TLG-10203

ADDITONAL NOTES:

SMALL QTY OF VISIBLE VERMICULITE IN GRASS NEXT TO DOG RUN IN BACK YARD ASSOCIATED WITH 813 WISCONSIN AVE PPTY.

DJ 10-20-03



DAVID SPIELMAN — 10-20-03 — David Spielman

88

Location: ALLEY #61 Date: 10-20-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-20-03~~

14:50 ON SITE ALLEY #61

DIMENSIONS: 348FT. X 16FT.

CONSTRUCTION: PACKED SOIL AND GRAVEL (3" + OF GRAVEL)

PERIMETER (MIXED)

E: RESIDENTIAL (FENCED)

W: COMMERCIAL (FENCED)

SAMPLE TIME 15:08

CS- 17995

SP- 124416

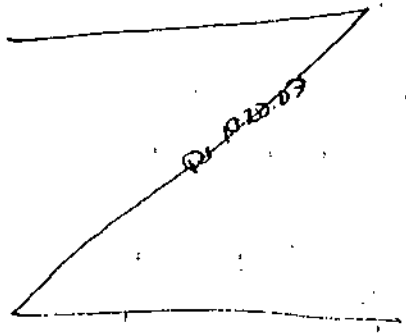
① NO VISIBLE VERMICULITE

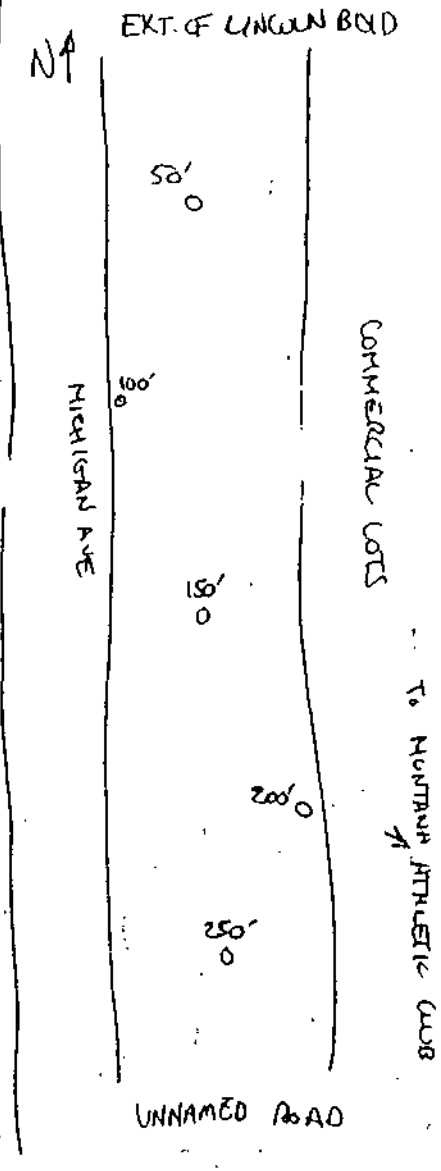
② SAMPLING EQUIPMENT DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006116

④ GPS# T21H10203

ADDITIONAL NOTES: NONE





Location: ALLEY #64 Date: 10-20-03

Project/Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-20-03~~

15:10 ON SITE ALLEY #64

DIMENSIONS 300FT x 16FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-20-03~~

PERIMETER (RESIDENTIAL) 'HOMES\YARDS\DRIVEWAYS\SHEDS'

SAMPLE TIME 15:23

CS- 17996

SP- 124417

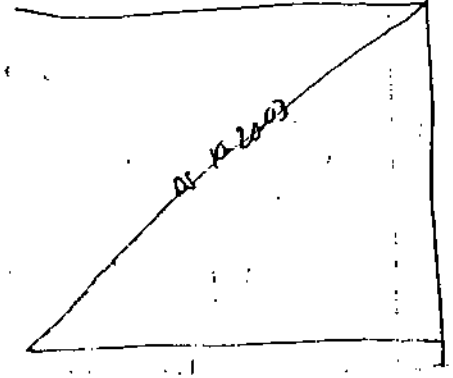
① NO VISIBLE VERMICULITE

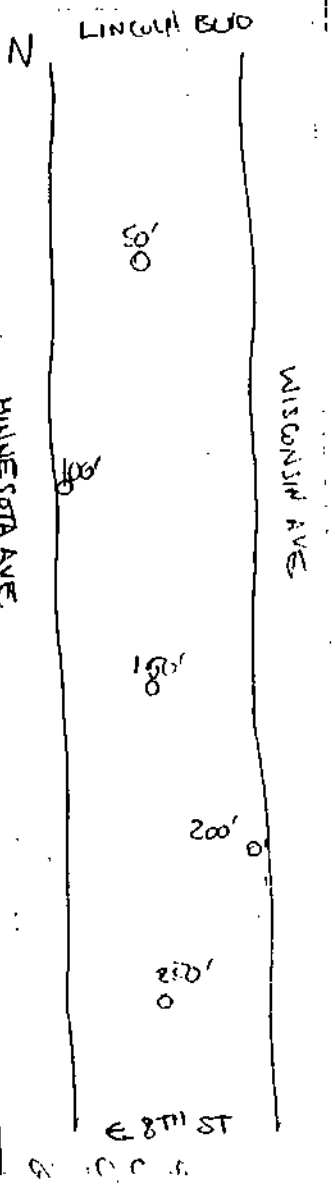
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006117

④ GPS# T21I10203

ADDITIONAL NOTES: NONE





90

Location ALLEY #65 Date 10-20-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

15:28 ON SITE ALLEY #65

DIMENSIONS 357FT X 12FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER (RESIDENTIAL) HOMES\YARDS\SHEDS\DRIVEWAYS

SAMPLE TIME 15:40

CS- 17997

SP- 124418

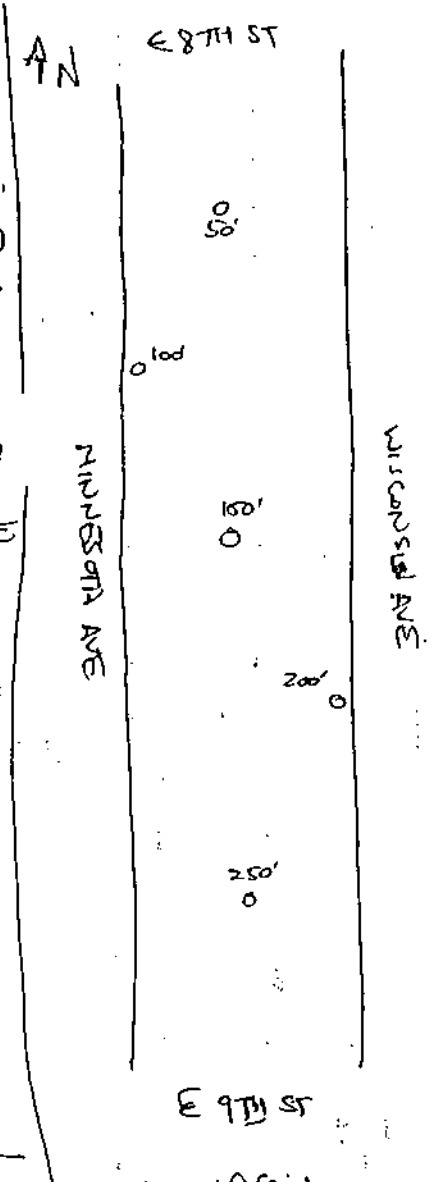
① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006117

④ GPS # T2J10203

ADDITIONAL NOTES: NONE



DAVID SPIELMAN 10-20-03

Location ALLEY #66 Date 10-20-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

15:50-16:05 COFFEE BREAK (COLD + HARD RAIN CONTINUES)

16:15 ON SITE ALLEY #66

DIMENSIONS 301FT X 18FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER (RESIDENTIAL) HOMES\YARDS\DRIVEWAYS\SHEDS

SAMPLE TIME 16:30

CS- 17998

SP- 124419

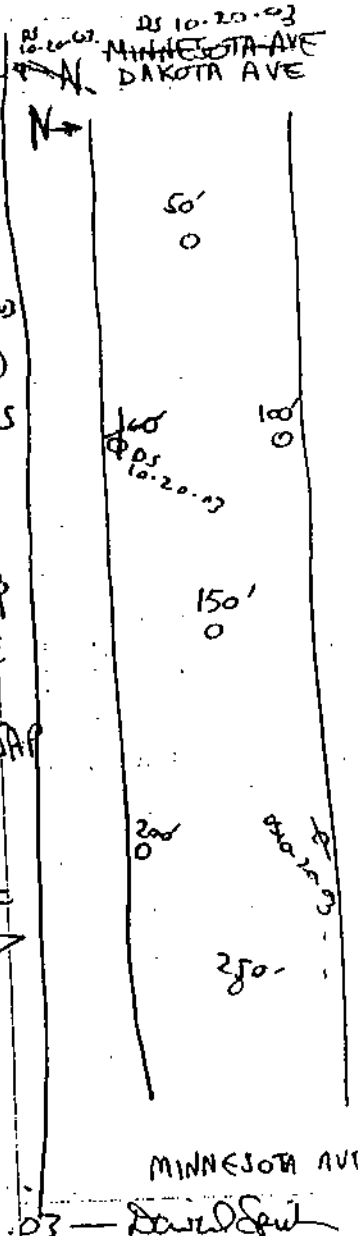
① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006117

④ GPS # T2K10203

ADDITIONAL NOTES: NONE



DAVID SPIELMAN — 10-20-03 —

92

Location: ALLEY # 67 Date: 10-20-03

Project Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-20-03~~

16:42 ON SITE ALLEY # 67.

DIMENSIONS 298FT x 18 FT

CONSTRUCTION PACKED SOIL AND GRAVEL, PARTIALLY PAVED

PERIMETER (MIXED)

N: RESIDENTIAL ~~DS 10-20-03~~

S: COMMERCIAL ~~DS 10-20-03~~

SAMPLE TIME 16:53

CS- 17999 ~~DS 10-20-03~~

SP- 124420

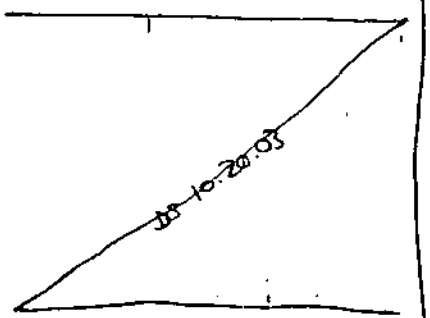
① NO VISIBLE VERMICULITE

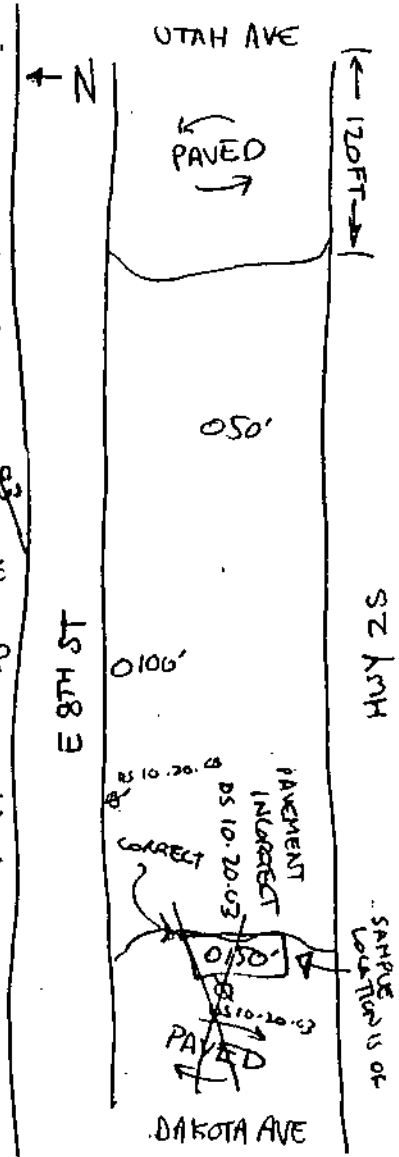
② SAMPLING EQUIPMENT DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006118

④ GPS # T2L10203

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10.20.03 — David Spielman

Location: ALLEY # 68 Date: 10.20.03

Project Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-20-03~~

17:02 ON SITE ALLEY # 68!

DIMENSIONS: 285FT x 18FT

CONSTRUCTIONS: PACKED SOIL AND GRAVEL ~~DS 10-20-03~~

PERIMETER (MIXED)

W: RESIDENTIAL ~~DS 10-20-03~~

E: RESIDENTIAL + COMMERCIAL

SAMPLE TIME 17:14

CS- 18000 ~~DS 10-20-03~~

SP- 124421

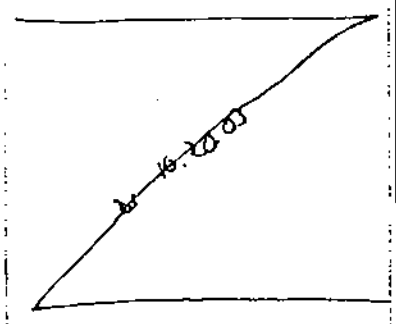
① NO VISIBLE VERMICULITE

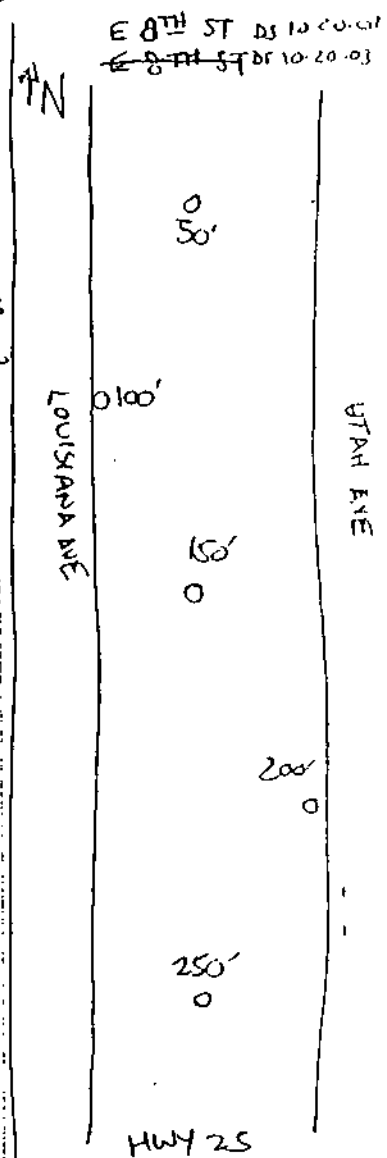
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006118

④ GPS # T2M10203

ADDITIONAL NOTES: NONE





DALIA SPIELMAN — 10.20.03 — Dalia Spielman

Location ALLEY# ~~68~~ 69 DS 10-21-03 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~DS-10-21-03~~

0907 ON SITE ALLEY# ~~68~~ 69 DS 10-21-03

DIMENSIONS 297FT x 19FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-21-03~~

PERIMETER (RESIDENTIAL) YARDS\HOMES\SHEDS\DRIVEWAYS

SAMPLE TIME 09:22

CS- 18002

SP- 124422

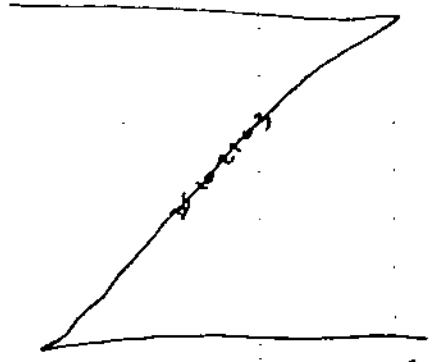
① NO VISIBLE VERMICULITE

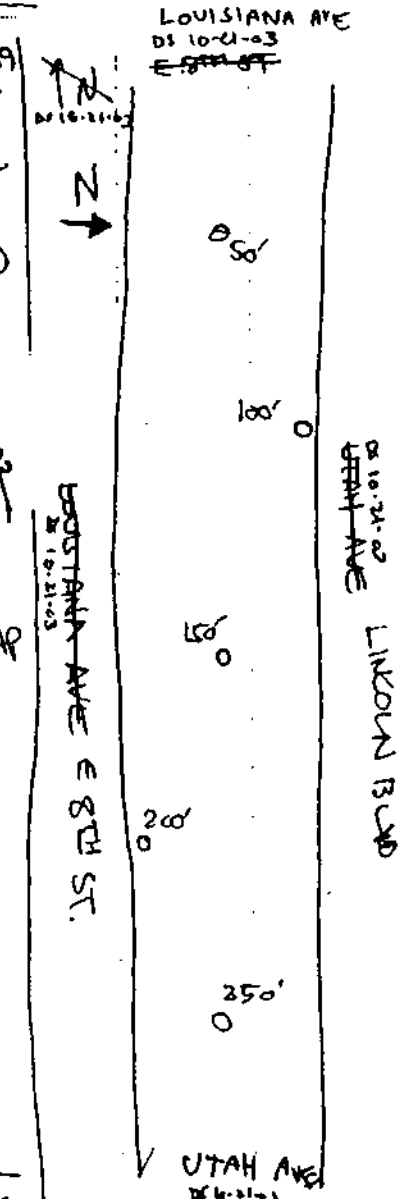
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006119

④ GPS# T2A10213

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — David Spielman

Location ALLEY# ~~70~~ DS 10-21-03 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~DS-10-21-03~~

0933 ON-SITE ALLEY# 70

DIMENSIONS 297FT x 18FT

CONSTRUCTION HARD PACKED SOIL AND GRAVEL

PERIMETER (RESIDENTIAL) YARDS\HOMES\SHEDS\DRIVEWAYS

SAMPLE TIME 0943

CS- 18003

SP- 124423

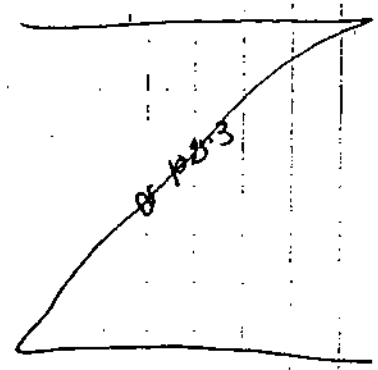
① NO VISIBLE VERMICULITE

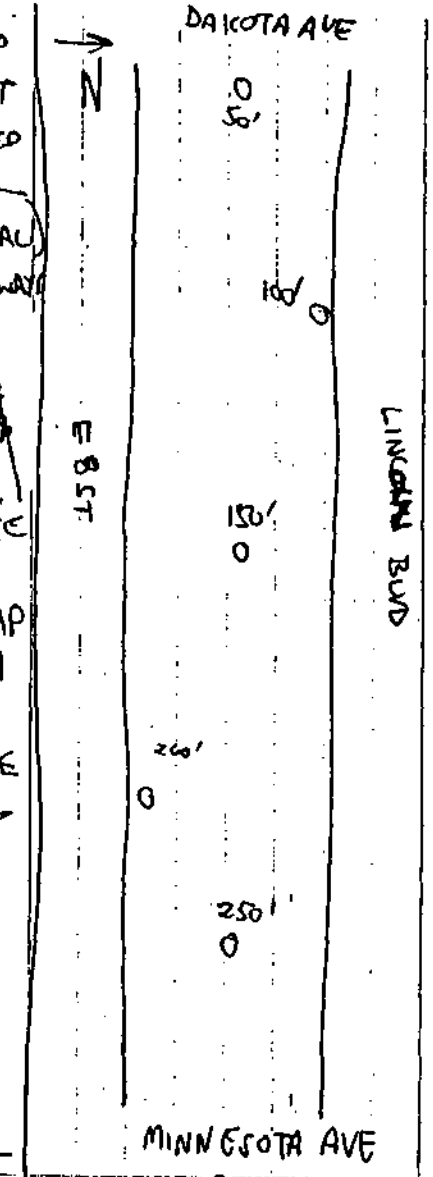
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-006119

④ GPS# T2B10213

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10.21.03 — David Spielman

Location: ALLEY # 71 Date: 10-21-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-21-03~~

0952 ON SITE ALLEY # 71

DIMENSIONS 294FT x 15FT

CONSTRUCTION ROAD BASE (3") (PEA GRAVEL) AND SOIL ~~DS 10-21-03~~

PERIMETER (RESIDENTIAL) YARDS\HOMES\SHEDS\DRIVEWAYS ~~DS 10-21-03~~

SAMPLE TIME 10:20

CS- 18004

SP- 124424

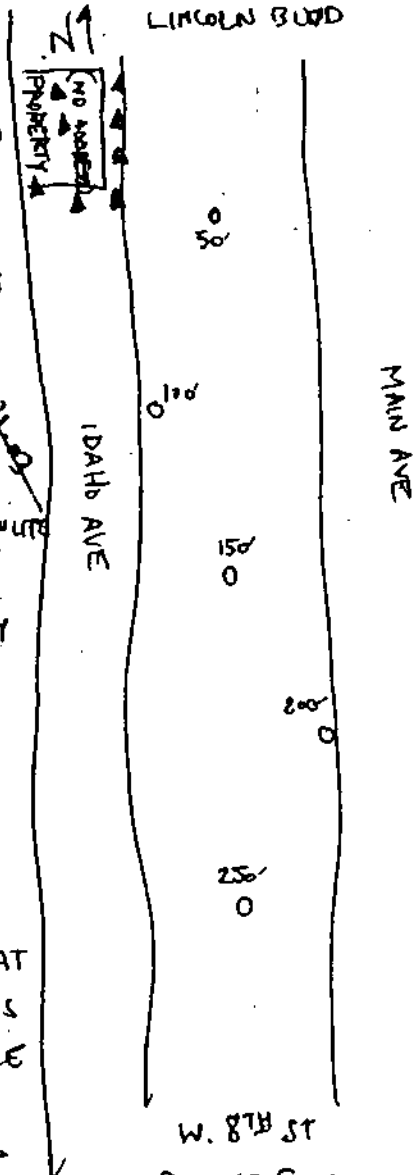
① "MED-HEAVY" VISIBLE VERMICULITE ALONG GRASS AT THE NW CORNER OF THE ALLEY, BY A NEW STOCKADE FENCE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP ~~DS 10-21-03~~

③ RSDS# CSS-S-806119

④ GPS# T2C10213

ADDITIONAL NOTES: HOME AT CORNER W. LINCOLN/MAIN HAS NO ADDRESS, YARD HAS VISIBLE VERMICULITE THROUGHOUT- ~~DS 10-21-03~~



DAVID SPIELMAN — 10-21-03 — David Spielman

Location: ALLEY # 72, #73 Date: 10-21-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-21-03~~

1025 ON SITE ALLEY #72 ~~DS 10-21-03~~

DIMENSIONS: 276FT x 14FT

CONSTRUCTION: ASPHALT PAVED, HIGH GRAVEL CONTENT (SOFT) ~~DS 10-21-03~~

PERIMETER ~~(RESIDENTIAL)~~ DS 10-21-03 (MIXED)

W: MOTEL APARTMENT BLOCK

E: RESIDENTIAL AND COMMERCIAL

BOUNDARIES N: W. 8TH ST W: IDAHO AVE

~~DS 10-21-03~~ S: HWY 2 E: MAIN AVE

NOTES: PAVED ALLEYS DO NOT REQUIRE SAMPLING, AND NO VISIBLE VERMICULITE IN THE AREA.

1034 ON SITE ALLEY #73 ~~DS 10-21-03~~

DIMENSIONS: 276FT x 12F

CONSTRUCTION: BLACK TOP PAVED, GOOD CONDITION

PERIMETER (MIXED) ~~DS 10-21-03~~

BOUNDARIES: N: LINCOLN BLVD W: MAIN AVE

~~DS 10-21-03~~ S: W. 8TH ST E: CALIFORNIA AVE

NOTES: VERMICULITE OBSERVED IN FLOWERBED IN EAST SIDE MIDDLE SECTION OF ALLEY. ASSOCIATED WITH EXTENSIVE GARDENS/FLOWERBEDS AT BACK YARD OF 720 CALIFORNIA AVE. NO VISIBLE VERMICULITE IN THE ALLEY, BUT THE FLOWERBED EXTENDS BEYOND THE YARD'S FENCELINE. NO SAMPLING TAKEN DUE TO PAVED ALLEY ~~DS 10-21-03~~

DAVID SPIELMAN — 10.21.03 — David Spielman

Location ALLEY #74 Date 10·21·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10·21·03~~

10:47 ON-SITE ALLEY #74

~~PERIMETER DS 10·21·03~~

DIMENSIONS 284FT x 16FT

CONSTRUCTION PAVED (ASPHALT AND GRAVEL) FAIR TO POOR CONDITION ~~DS 10·21·03~~

~~PERIMETER~~ MIXED DS 10·21·03

~~BOUNDARI~~ DS 10·21·03

① ~~NO~~ DS 10·21·03 VISIBLE VERMICULITE

② NO SAMPLING REQUIRED AT PAVED ALLEYS DS 10·21·03

ADDITONAL NOTES: ~~NONE~~ DS 10·21·03

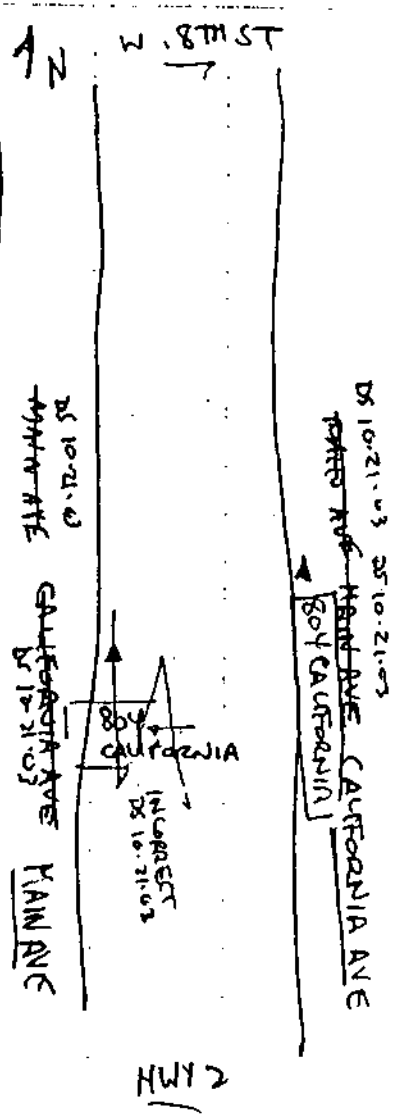
LATE NOTE HOME AT 804 CALIFORNIA HAS VERMIC. IN A BACKYARD GARDEN

DS: DZ LOOK AT SOIL BEHIND FENCE IN ALLEY TRACE VISIBLE

DS 10·21·03

LATE NOTE DS 10·21·03

VERMIC NOT IN ALLEY SOIL, BUT IS IN PILE IN THE ALLEY FROM THE 804 CAL. AVE. GARDEN, OWNER SCREENS SOIL



DAVID SPIELMAN — 10·21·03 — David Spielman

Location ALLEY # 75 Date 10·21·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10·21·03~~

11:26 ON SITE ALLEY # 75

DIMENSIONS 296FT x 18FT

CONSTRUCTION: PACKED SOIL

PERIMETER (RESIDENTIAL) HOMES/YARDS/DRIVEWAYS/SHEDS

SAMPLE TIME - 11:36

CS- 18005

SP- 124425

① NO VISIBLE VERMICULITE

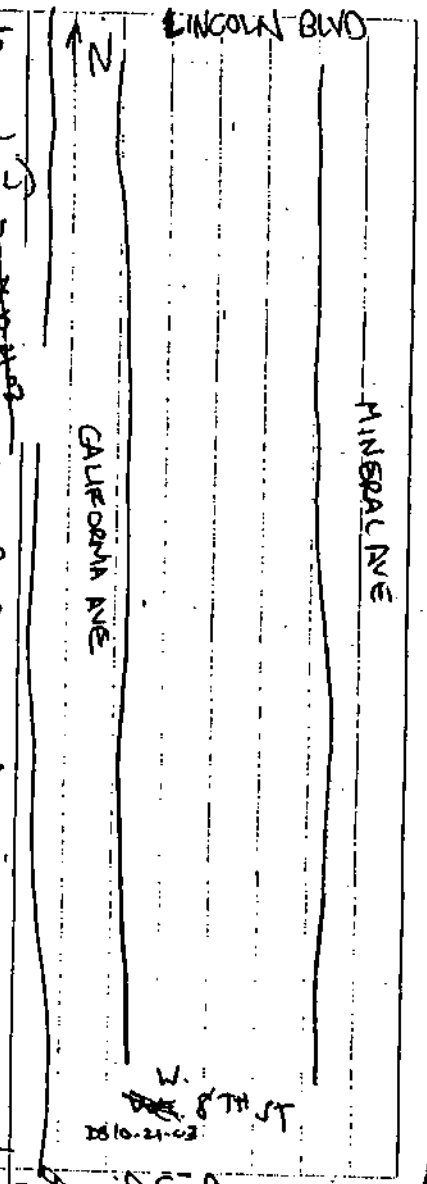
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006120

④ GPS # T2010213

ADDITIONAL NOTES: NONE

DS 10·21·03



DAVID SPIELMAN — 10.21.03 — David Spielman

Location ALLEY #76, #77 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-21-03

11:47 ON SITE ALLEY #76 DS-10-21-03

DIMENSIONS 296FT x 14FT

CONSTRUCTION ASPHALT PAVED - GOOD CONDITION

PERIMETER (MIXED)

W: RESIDENTIAL : YARDS/PARKING

E: MOTEL BLOCK - EVERGREEN MOTEL

① NO VISIBLE VERMICULITE IN THE AREA, NO SAMPLING REQUIRED ON PAVED ALLEYS

② BOUNDARIES: N. W. 8TH ST W: CALIFORNIA AVE

DS 10-21-03 S: HWY 2 E: MINERAL AVE

DS 10-21-03

12:00-13:45 AT OFFICE - DS WORKING ON PAPERS RELATED TO UPCOMING C.I.C. POSITION FOR JANUARY 2004 YEAR. DZ WORKING ON TRAVEL/EXPENSE PAPERWORK FOR END OF SEASON DEPARTURE DS 10-21-03

13:45-14:15 LUNCH DS 10-21-03

14:15 ON SITE ALLEY #77

NO ALLEY HERE, THIS IS PART OF PAVED DRIVE AND PARKING LOT OF COMMERCIAL BUSINESSES OFF HWY 2.

DS 10-21-03

DAVID SPIELMAN — 10-21-03 — David Spiel

Location ALLEY #78 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-21-03

14:19 ON SITE ALLEY #78

DIMENSIONS 330FT x 20FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER (MIXED)

W: PARKING AND COMMERCIAL AND RESIDENCES

E: RESIDENTIAL : HOMES, YARDS, SHEDS

SAMPLE TIME 14:32

CS- 18006

SP- 124426

① VISIBLE VERMICULITE (SEE SKETCH ON THIS PAGE)

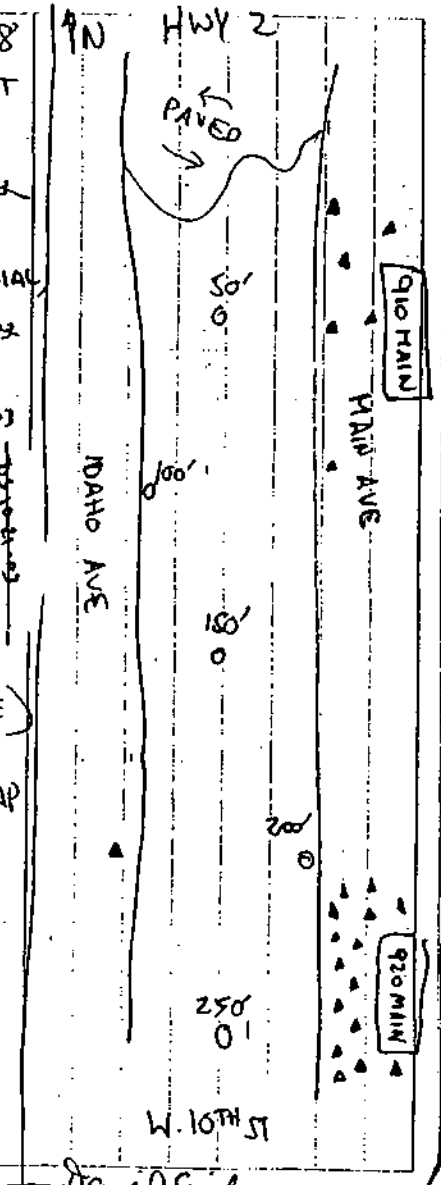
② SAMPLING EQUIPMENT DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006120

④ GPS# 12 E10213

ADDITIONAL NOTES: NOTE LOCATIONS OF HEAVY VERMICULITE ON SITE SKETCH

DS 10-21-03



DAVID SPIELMAN 10-21-03 — David Spiel

Location ALLEY #79 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-21-03

1:55 ON SITE ALLEY #79

DIMENSIONS 284FT X 18FT

CONSTRUCTION ROAD BASE AND PACKED SOIL (1ST 114 FT NO. TO SOUTH. IS PAVED)

PERIMETER (MIXED)

W: RESIDENTIAL + COMMERCIAL

E: RESIDENTIAL + COMMERCIAL

SAMPLE TIME 15:03

CS- 18007

SP- 124427

DS 10-21-03

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

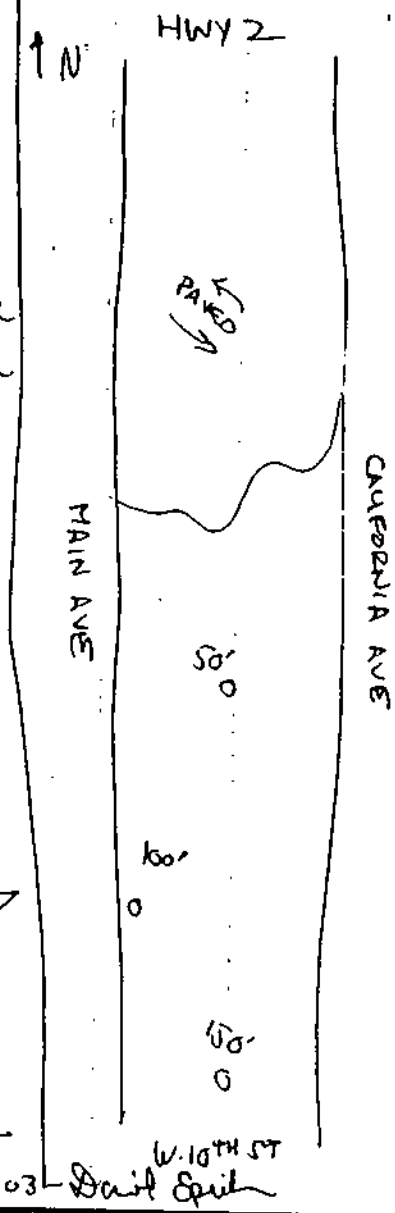
③ FSDS# CSS-S-006120

④ GPS# T2F10213

ADDITIONAL NOTES: NONE

DS 10-21-03

DAVID SPIELMAN — 10.21.03 David Spielman



Location ALLEY # 80 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-21-03

1:11 ON SITE ALLEY 80

DIMENSIONS 202 FT X 15 FT

CONSTRUCTION PACKED SOIL AND GRAVEL — DS 10-21-03

PERIMETER: (MIXED)

W: COMMERCIAL + RESIDENTIAL

E: RESIDENTIAL

NORTH END IS DEAD-END AT FENCE FOR HWY 2 PARKING

SAMPLE TIME 15:21

CS- 18008

SP- 124428

DS 10-21-03

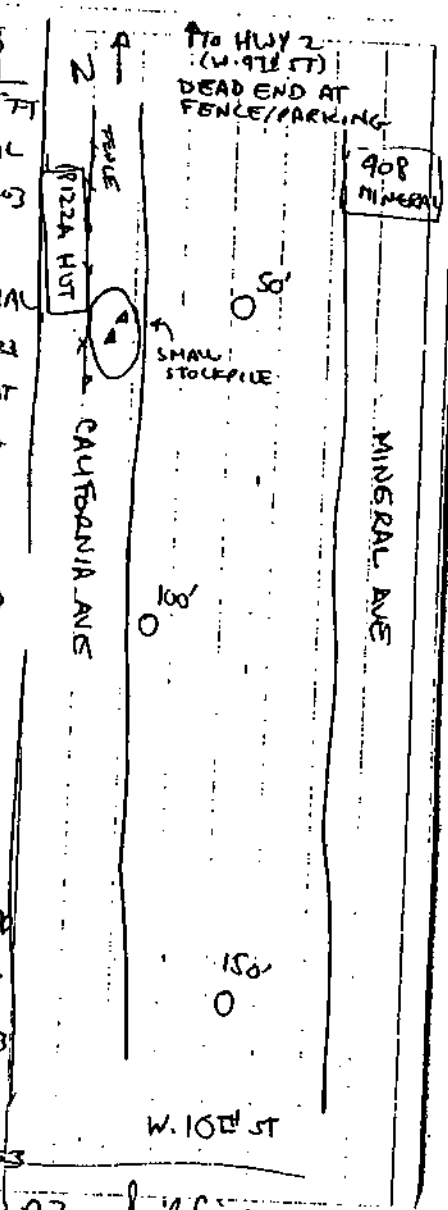
① SMALL QTY VISIBLE VERMICULITE IN STOCKPILE (GRASS/SOIL/GARDEN DEBRIS) NW CORNER OF ALLEY, MAY BE ASSOCIATED WITH BACKYARD OF 908 MINERAL AVENUE PROPERTY.

② FSDS # CSS-S-006121 DS 10-21-03

③ GPS# T2G10213

DS 10-21-03

DAVID SPIELMAN — 10.21.03 — David Spielman



Location: ALLEY #81 Date: 10-21-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-21-03~~

16:07 ON SITE ALLEY #81

DIMENSIONS 294 FT × 20 FT

~~CONSTRUCTION: PACKED SOIL AND GRAVEL~~ ~~DS 10-21-03~~

PERIMETER: (MIXED)

INCLUDES DRIVEWAYS FOR COMMERCIAL BUSINESS AND ALLEY LETS OUT ONTO HWY 2

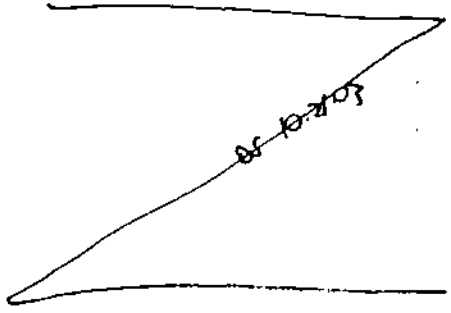
CONSTRUCTION: SOFT ASPHALT COVERED BY SOIL/GRAVEL

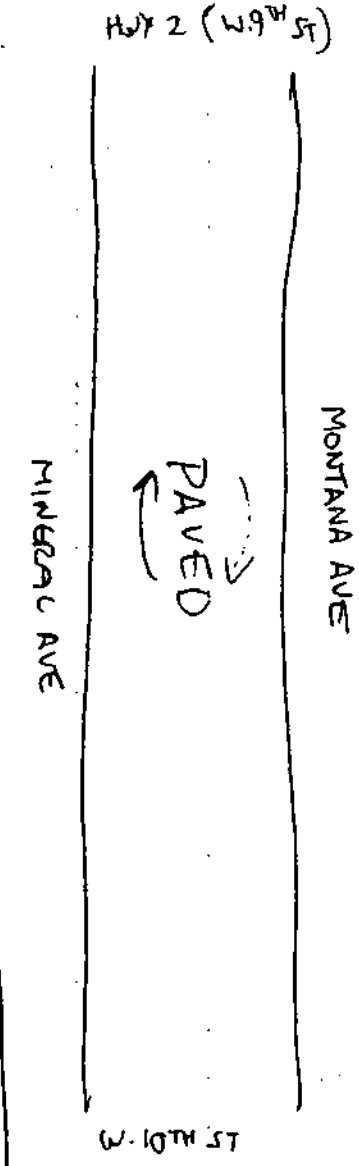
① NO VISIBLE VERMICULITE

② NO SAMPLING REQUIRED IN PAVED ALLEYS ~~DS 10-21-03~~

ADDITIONAL NOTES:

NORTH HALF OF ALLEY IS A SERVICE ROAD FOR SEVERAL BUSINESSES.





DAVID SPIELMAN — 10-21-03 — David Spielman

Location: ALLEY #82 Date: 10-21-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-21-03~~

16:23 ON SITE ALLEY #82

DIMENSIONS: 345 FT × 12 FT

CONSTRUCTION: PACKED SOIL W/GRAVEL ~~DS 10-21-03~~

PERIMETER (RESIDENTIAL) HOMES\YARDS\SHEDS\FENCE

SAMPLE TIME 16:40

CS- 18009

SP- 124429

① HEAVY CONCENTRATION OF VISIBLE VERMIC ALONG GRASS STRIP, BUT RIGHT NEXT TO ALLEY - SEE SKETCH

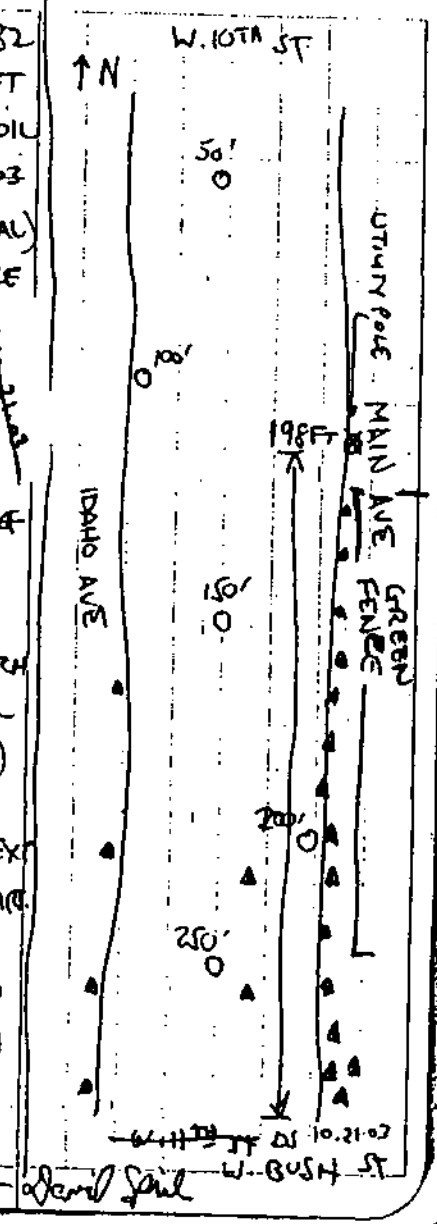
SEVERAL FLAKES IN GRAVEL ~~ROAD~~ (TRAVELLED PART) OF ALLEY, EASY TO SEE CONCENTRATIONS IN SOIL NEXT TO THE GRAVEL COVERED PART.

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006121

④ GPS # T2H10213

~~DS 10-21-03~~



DAVID SPIELMAN 10.21.03 — David Spielman

Location ALLEY # 83 Date 10·21·03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-21-03~~

16:53 ON SITE ALLEY # 83

DIMENSIONS 347 FT × 13 FT

CONSTRUCTION : PACKED SOIL AND GRAVEL ~~DS 10-21-03~~

PERIMETER (RESIDENTIAL) HOMES \ YARDS \ SHEDS \ DRIVEWAYS

SAMPLE TIME 17:09

CS- 18010

SP- 124430

DS 10-21-03

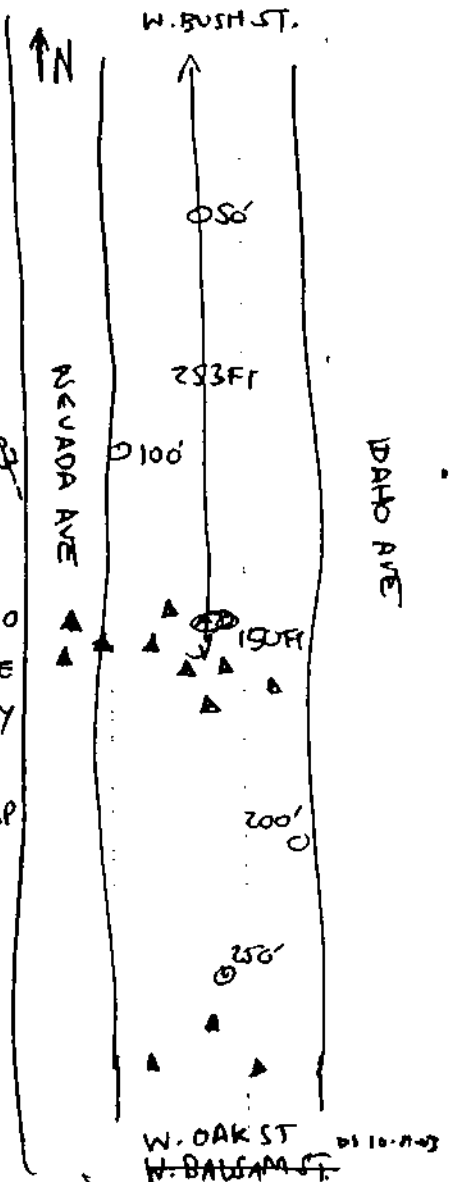
① VISIBLE VERMICULITE IN ALLEY, A 10 FT LONG PATCH 253 FT FROM NORTH END. ALSO A FEW FLAKES SEEN AT THE SOUTHERNMOST 10 FT OF ALLEY

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006121

④ GPS # T2J10213

DS 10-21-03



DAVID SPIELMAN — 10.21.07 — David Spielman

Location ALLEY # 84 Date 10-21-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

17:15 ON SITE ALLEY # 84

DIMENSIONS 347 FT × 14 FT

CONSTRUCTION PACKED SOIL AND GRAVEL ~~DS 10-21-03~~

PERIMETER (RESIDENTIAL) YARDS \ HOMES \ SHEDS \ FENCES \ DRIVEWAYS. 1016 CALIFORNIA AVE APT # 1, FRONT DOOR AND DRIVEWAY FACE ALLEY

CS-18011 DS 10-21-03

SAMPLE TIME 17:34

SP- 124431

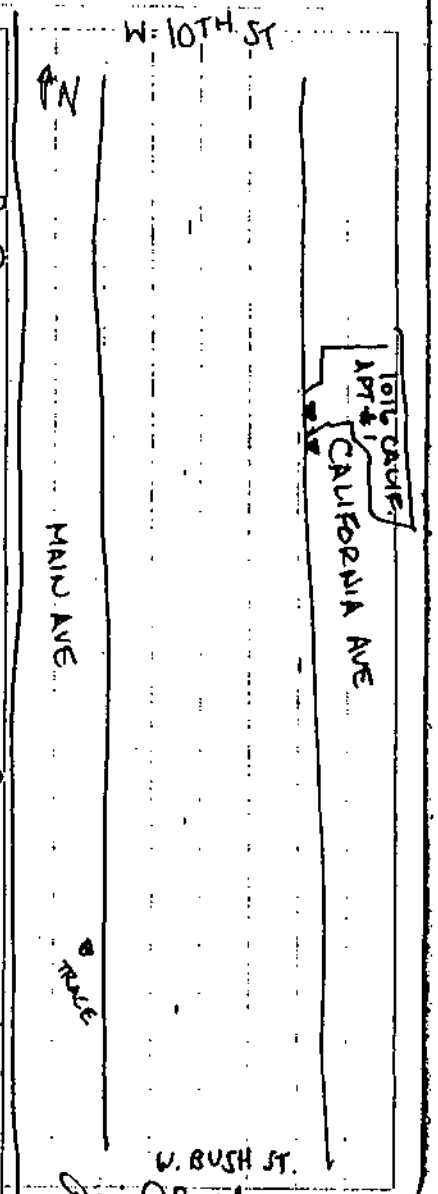
① TRACE VISIBLE VERMIC. AT SW CORNER OF ALLEY IN GRASS. SMALL QTY ALSO ASSOCIATED WITH YARD AND DRIVEWAY FOR 1016 CAL. AVE ~~DS 10-21-03~~

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006122

④ GPS # T2J10213

DS 10-21-03



DAVID SPIELMAN — 10.21.03 — David Spielman

Location ALLEY #85 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-22-03~~

09:17 Alley #85 ON SITE

DIMENSIONS 350FT x 14FT

CONSTRUCTION PACKED SOIL

PERIMETER (RESIDENTIAL)

SAMPLE TIME 09:45

CS- 18013

SP 124432

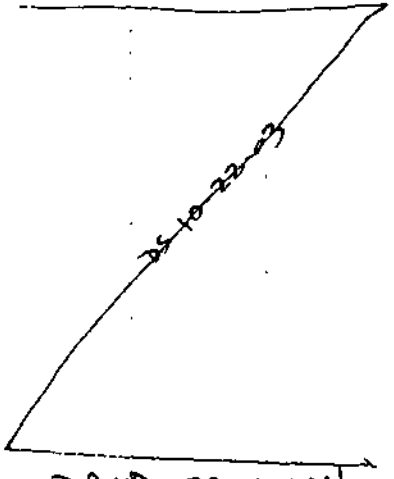
① NO VISIBLE VERMICULITE

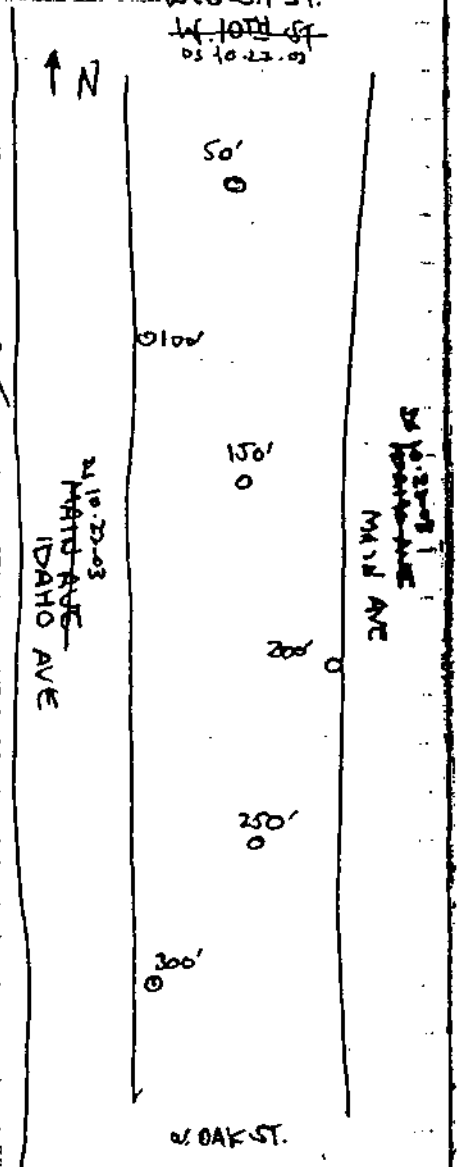
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006123

④ GPS # T2A10223

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-22-03 — David Spielman

DS 10-22-03

Location ALLEY #86 87 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-22-03~~

0950 ON SITE ALLEY #87

DIMENSIONS 301 FT x 14 FT

CONSTRUCTION PACKED SOIL

PERIMETER: RESIDENTIAL

SAMPLING TIME 10:00

CS- 18014

SP- 124433

① NO VISIBLE VERMICULITE

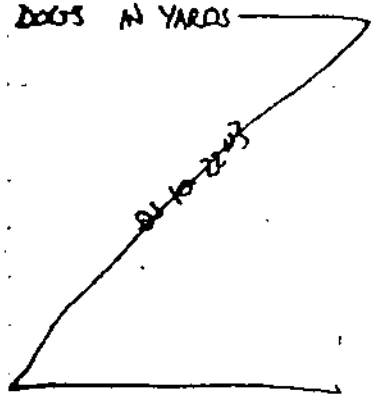
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

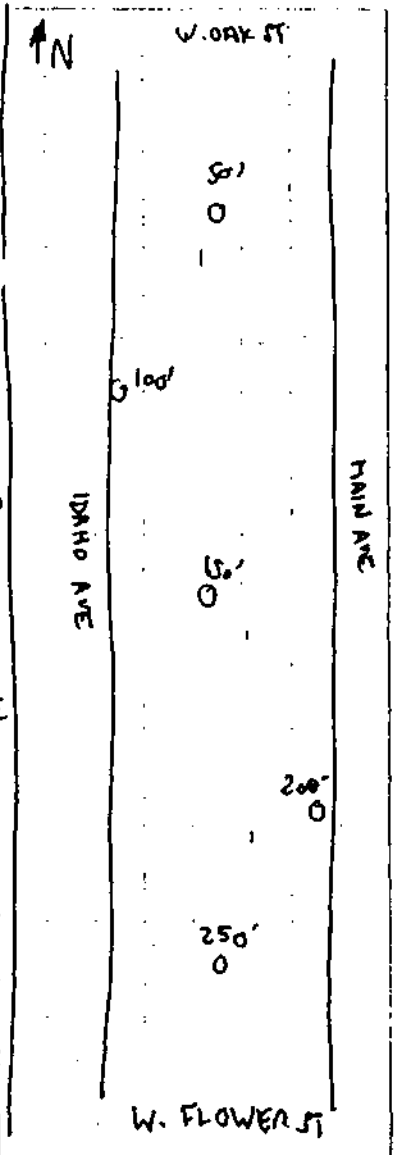
③ FSDS # CSS-S-006123

④ GPS # T2B10223

ADDITIONAL NOTES:

TWO BIG, LOUD, AGGRESSIVE DOGS IN YARDS





DAVID SPIELMAN — 10-22-03 — David Spielman

Location ALLEY #89 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10-22-03

10:14 ON SITE ALLEY #89

DIMENSIONS: 302FT×12FT

CONSTRUCTION: PACKED SOIL AND GRAVEL DS 10-22-03

PERIMETER: RESIDENTIAL

SAMPLE TIME 10:25

CS- 18015

SP- 124434

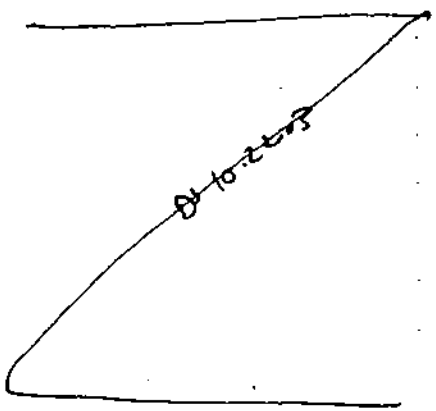
① NO VISIBLE VERMICULITE

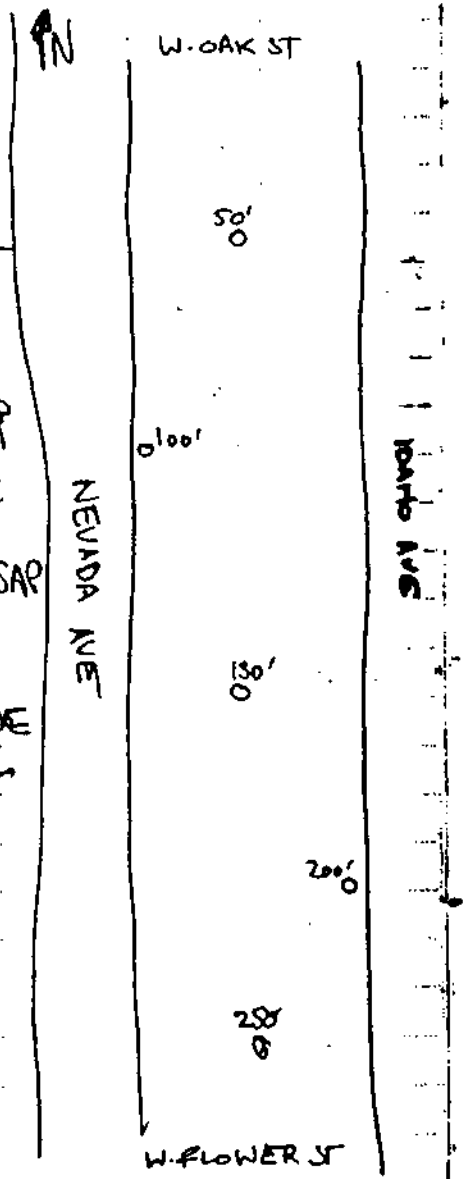
② SAMPLE EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006123

④ GPS# T2C10223

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-22-03 — David Spielman

Location ALLEY # 86 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10-22-03

10:34 ON SITE ALLEY # 86

DIMENSIONS: 349FT×18FT

CONSTRUCTION: PACKED SOIL AND GRAVEL DS 10-22-03

PERIMETER: RESIDENTIAL

SAMPLE TIME 10:49

CS- 18016

SP- 124435

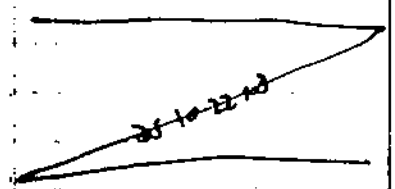
① VISIBLE VERMICULITE IN GRASS ONLY AT MID. EAST SIDE OF ALLEY BEHIND A LARGE TAN COLOR GARAGE ASSOCIATED WITH PROP. AT 1108 CALIFORNIA AVE

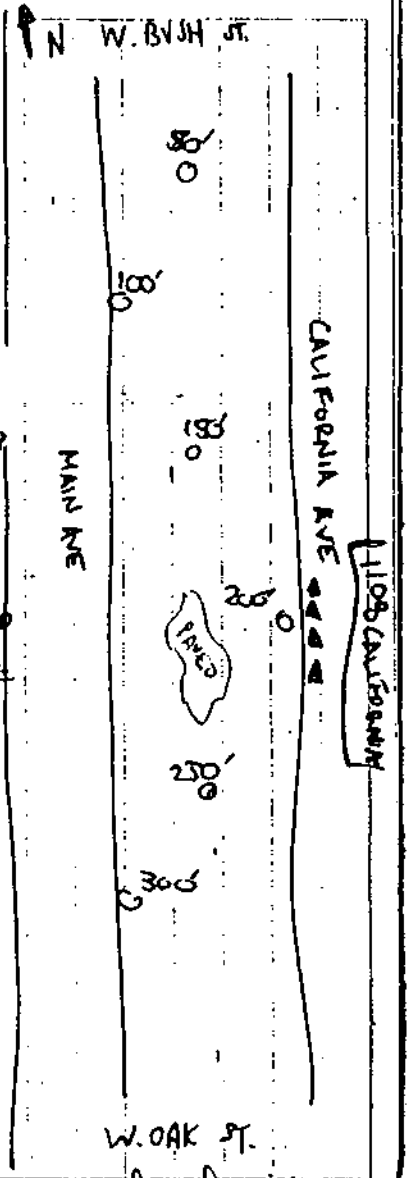
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ GPS# T2D10223

④ ADDITIONAL NOTES:

SOME ASPHALT PATCHES OR PAVEMENT REMNANTS





DAVID SPIELMAN — 10-22-03 — David Spielman

Location: ALLEY # 90 Date: 10-22-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 ~~VOLPE~~

~~DS 10-22-03~~

11:00 ON SITE ALLEY # 90

DIMENSIONS: 293 FT × 18 FT

CONSTRUCTION: PACKED SOIL

PERIMETER: RESIDENTIAL

SAMPLE TIME 11:16

CS- 18017

SP- 124436

① VISIBLE VERMICULITE IN GRASS AT N.E. CORNER OF ALLEY ASSOCIATED WITH 1204 CALIFORNIA AVENUE

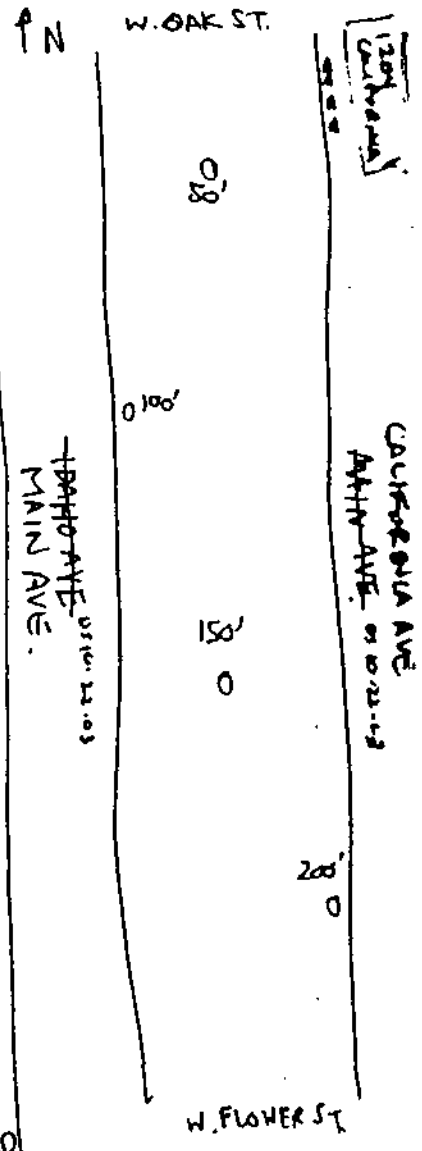
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS # CSS-S-006124

④ GPS # T2E 10223

⑤ ADDITIONAL NOTES: REMEDIATION CREWS ARE ON-SITE WORKING AT 1204 CALIFORNIA. DEE WARREN AND COURTNEY ZAMORA CALLED TO SITE TO DETERMINE IF THIS ALLEY VERMIC. CAN BE ALSO REMOVED

DAVID SPIELMAN — 10-22-03 — David Spielman



Location: ALLEY # 88 Date: 10-22-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 ~~VOLPE~~

~~DS 10-22-03~~

11:30 ON SITE ALLEY # 88

DIMENSIONS 649 FT. × 12 FT.

CONSTRUCTION: PACKED SOIL

PERIMETER: RESIDENTIAL

CS- 18018

SP- 124437

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

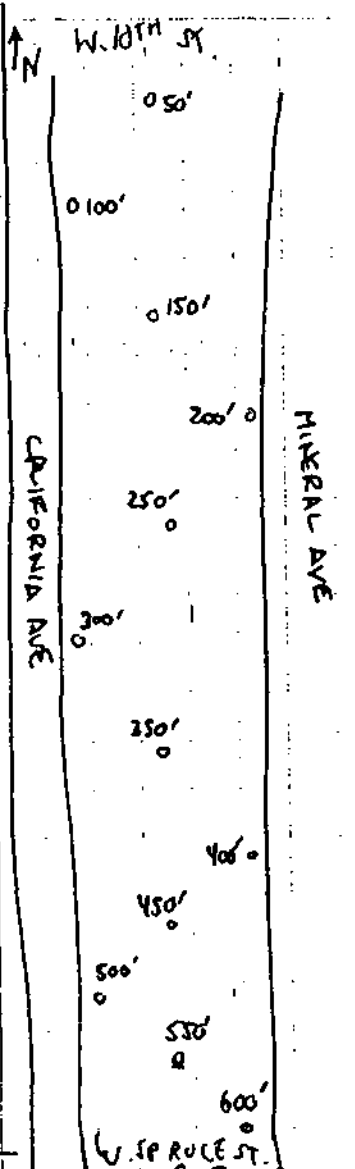
③ FSDS # CSS-S-006124

④ GPS # T2F 10223

ADDITIONAL NOTES: NONE

LONG ALLEY, REQUIRED GREATER THAN A FIVE-POINT COMPOSITE

DAVID SPIELMAN - 10-22-03 — David Spielman



Location ALLEY # 91 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 ~~VOLPE~~

DS 10-22-03

1415 ON SITE ALLEY 91

CONSTRUCTION: PACKED SOIL

~~PERIMET~~ DIMENSIONS: 410FT X 15FT

PERIMETER: RESIDENTIAL

SAMPLE TIME 1415

CS- 18019

SP- 124438

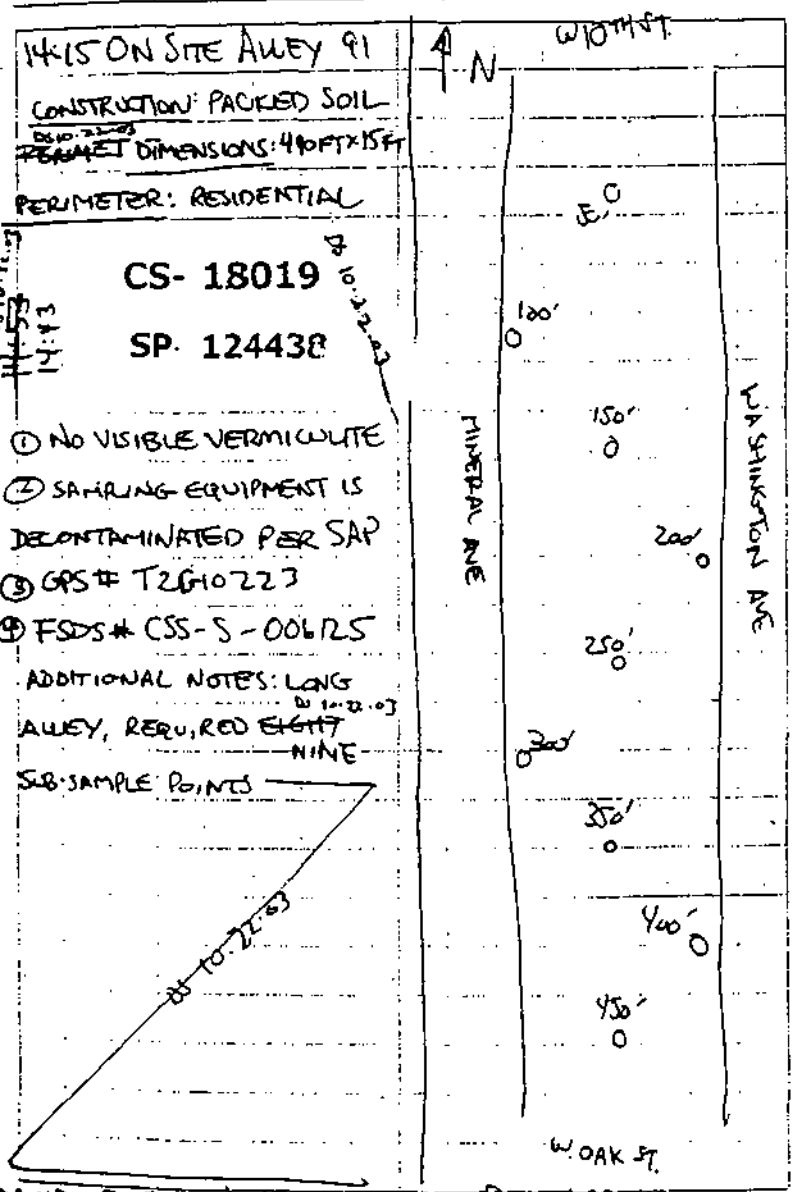
① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ GPS # T2G10223

④ FSDS # CSS-S-006125

ADDITIONAL NOTES: LONG ALLEY, REQUIRED ~~EIGHT~~ NINE SUB-SAMPLE POINTS



DS 10-22-03

DS 10-22-03

DAVID SPIELMAN — 10-22-03 — David Spielman

Location ALLEY #92, #93, #94 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

DS 10-22-03

15:11 ON SITE ALLEY #92 DS 10-22-03

DIMENSIONS 285FT × 20FT DS 10-22-03

CONSTRUCTION: ASPHALT PAVED, FAIR CONDITION W/SOME POTHOLES. DS 10-22-03

PERIMETER: MIXED. MOSTLY RESIDENTIAL EXCEPT NORTH END FRONTS ON HWY 2, IS COMMERCIAL DS 10-22-03

① NO VISIBLE VERMICULITE IN THE AREA, NO SAMPLING REQUIRED ON PAVED ALLEYS DS 10-22-03

BOUNDARIES N: HWY 2 W: MONTANA AVE

DS 10-22-03 S: W. 10TH ST E: LOUISIANA AVE

15:20 ON SITE ALLEY #93 DS 10-22-03

NO ALLEY HERE, IT IS McDONALDS (TM) PARKING LOT

DS 10-22-03

15:29 ON SITE ALLEY #94 DS 10-22-03

DIMENSIONS 514FT. X 20FT. DS 10-22-03

CONSTRUCTION ASPHALT PAVED, FAIR TO POOR CONDITION

PERIMETER RESIDENTIAL, AND A CHURCH DS 10-22-03

BOUNDARIES N: W10TH ST. W: MONTANA AVE.

DS 10-22-03 S: E. SPRUCE ST. E: LOUISIANA AVE.

① NO VISIBLE VERMICULITE, AND NO SAMPLING IS REQUIRED ON PAVED ALLEYS DS 10-22-03

DS 10-22-03

DAVID SPIELMAN — DS. 10-22-03 — David Spielman

Location ALLEY # 95 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-22-03

15:38 ON SITE ALLEY #95

DIMENSIONS 414FT × 15FT

CONSTRUCTION: PACKED SOIL AND GRAVEL DS 10-22-03

PERIMETER: RESIDENTIAL DS 10-22-03

CS- 18020

SP- 124-35

SAMPLE TIME 15:50

DS 10-22-03

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

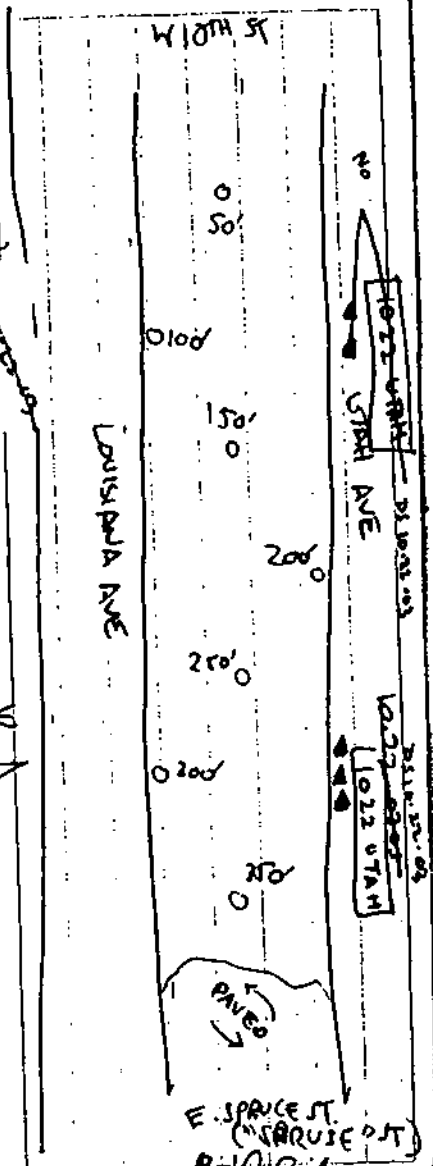
③ FSDS # CSS-S- 006125

④ GPS # T2H10223

ADDITIONAL NOTES: NONE

LATE NOTE SEVEN POINT COMPOSITE DS 10-22-03

DS 10-22-03



DAVID SPIELMAN — 10-22-03 — David Spielman

Location: ALLEY #95 Date: 10-22-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-22-03

15:57 ADDITIONAL NOTE FOR ALLEY 95 DS 10-22-03
VISIBLE VERMICULITE OBSERVED BEHIND 1022 UTAH (SOUTH EAST END OF ALLEY) IN A PATCH BEHIND ~~STOLEN~~ DS 10-22-03 PICKET FENCE. SMALL QTY BUT VERY LARGE FLAKES. DS 10-22-03

DS 10-22-03

DAVID SPIELMAN — 10-22-03 — David Spielman

Location: ALLEY #96 Date: 10-22-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-22-03~~

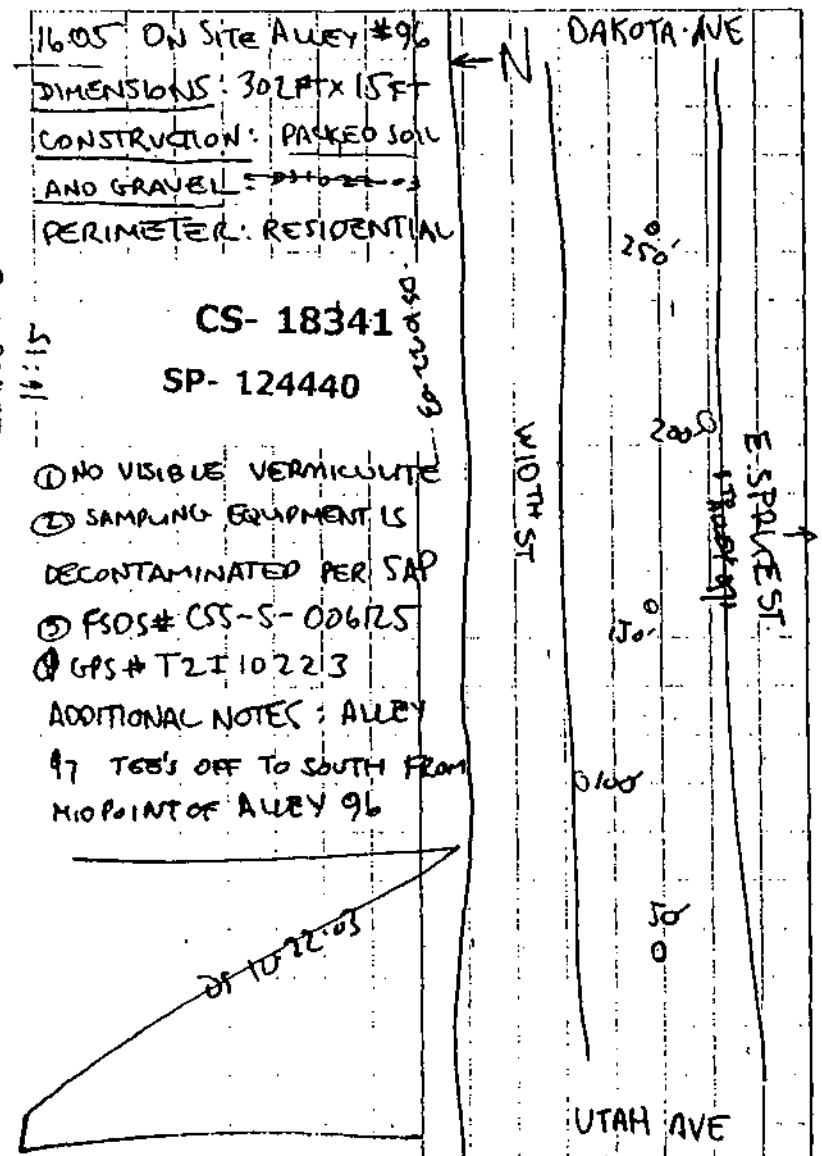
16:05 ON SITE ALLEY #96
DIMENSIONS: 302 FT X 15 FT
CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-22-03~~
PERIMETER: RESIDENTIAL

SAMPLE TIME 16:15

CS- 18341

SP- 124440

① NO VISIBLE VERMICULITE
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP
③ FSOS# CSS-S-006125
④ GPS# T2I10223
ADDITIONAL NOTES: ALLEY 97 TEE'S OFF TO SOUTH FROM MIDPOINT OF ALLEY 96



DS 10-22-03

DAVID SPIELMAN — 10-22-03 — David Spielman

Location ALLEY # 97 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-22-03

16:22 ON SITE ALLEY # 97

DIMENSIONS: 214FT. X 12FT

CONSTRUCTION PACKED SOIL AND GRAVEL — DS-10-22-03

PERIMETER: RESIDENTIAL

SAMPLE TIME 16:30

CS- 18342

SP- 124441

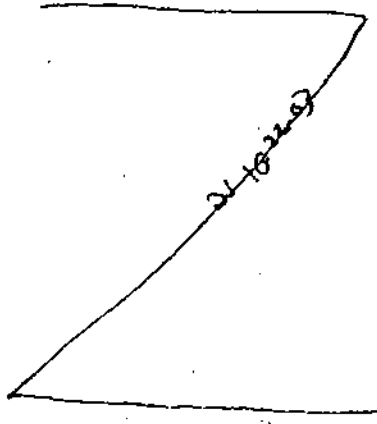
① NO VISIBLE VERMICULITE

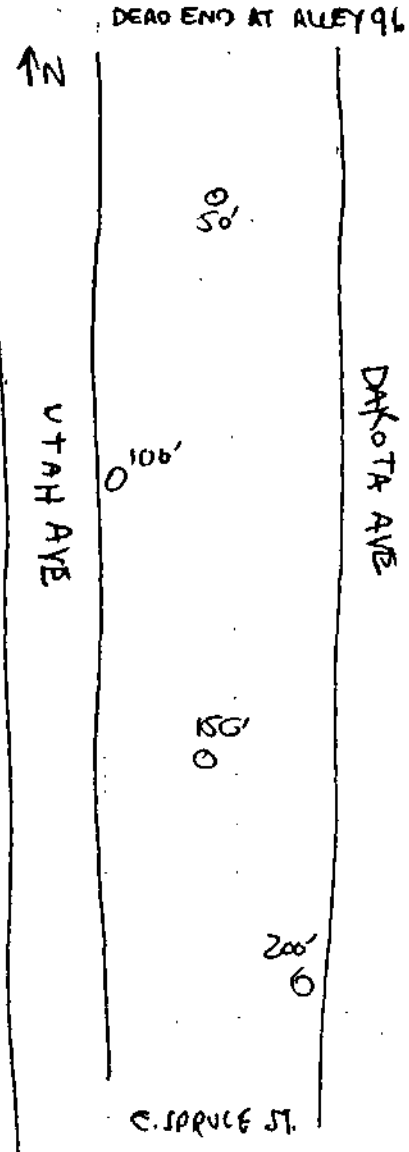
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS # CSS-S-006126

④ GPS # T2J10223

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-22-03 — David Spiel

Location ALLEY # 98, # 99 Date 10-22-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-22-03

16:36 ON SITE ALLEY # 98

DIMENSIONS 162FT X 17FT — DS 10-22-03

CONSTRUCTION: ASPHALT PAVED, POOR CONDITION

PERIMETER (MIXED) RESIDENTIAL AT EAST SIDE, WEST SIDE ENDS AT COMMERCIAL LOT AND PPTYS. ON HWY 2 — DS-10-22-03

① NO VISIBLE VERMICULITE IN THE AREA, NO SAMPLING REQUIRED ON PAVED ALLEYS — DS 10-22-03

16:40 ON SITE ALLEY # 99 — DS 10-22-03

DIMENSIONS 55FT. X 20 FT.

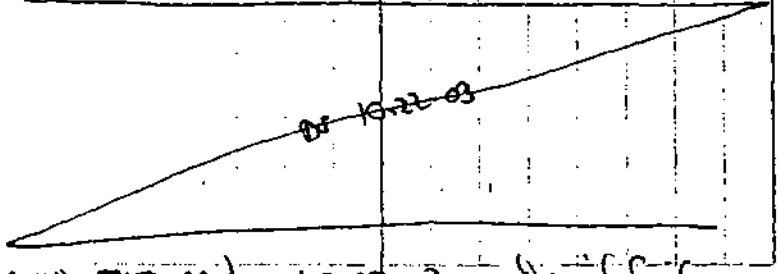
CONSTRUCTION: ASPHALT PAVED, POOR CONDITION

PERIMETER: MIXED) ~~RESID~~ DS 10-22-03 RESIDENTIAL ALONG SOUTH SIDE, BORDERS COMMERCIAL PPTY ON NORTH SIDE — DS 10-22-03

BOUNDARIES N: HWY 2 W. DAKOTA AVE

DS 10-22-03 S: SPRUCE ST E. HWY 2

① NO VISIBLE VERMICULITE, AND NO SAMPLING REQUIRED ON PAVED ALLEYS. — DS 10-22-03



DAVID SPIELMAN — 10-22-03 — David Spiel

126

Location: ALLEY #100 Date: 10-22-03

Project Name: LIBBY ASBESTOS PROJECT EPA REGION 8 VOLPE

~~DS 10-22-03~~

16:47 ON SITE ALLEY #100

DIMENSIONS: 249FT X 18FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER RESIDENTIAL

CS- 18343

SP- 124442

SAMPLE TIME 17:02

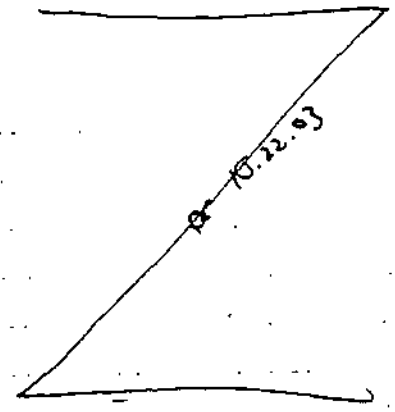
(1) NO VISIBLE VERMICULITE

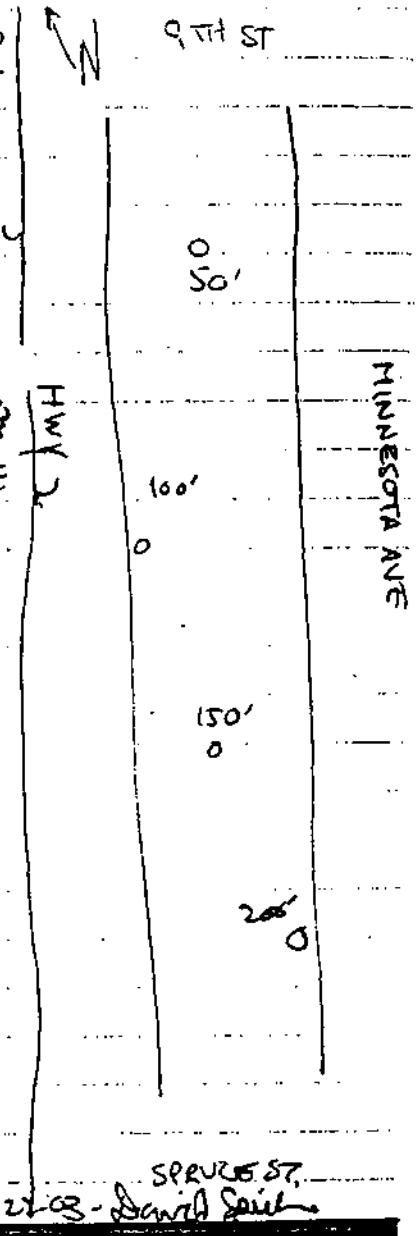
(2) SAMPLING EQUIPMENT DECONTAMINATED PER SAP

(3) FSDS # ESS-S-006126

(4) GPS # T2K10223

ADDITIONAL NOTES: NONE





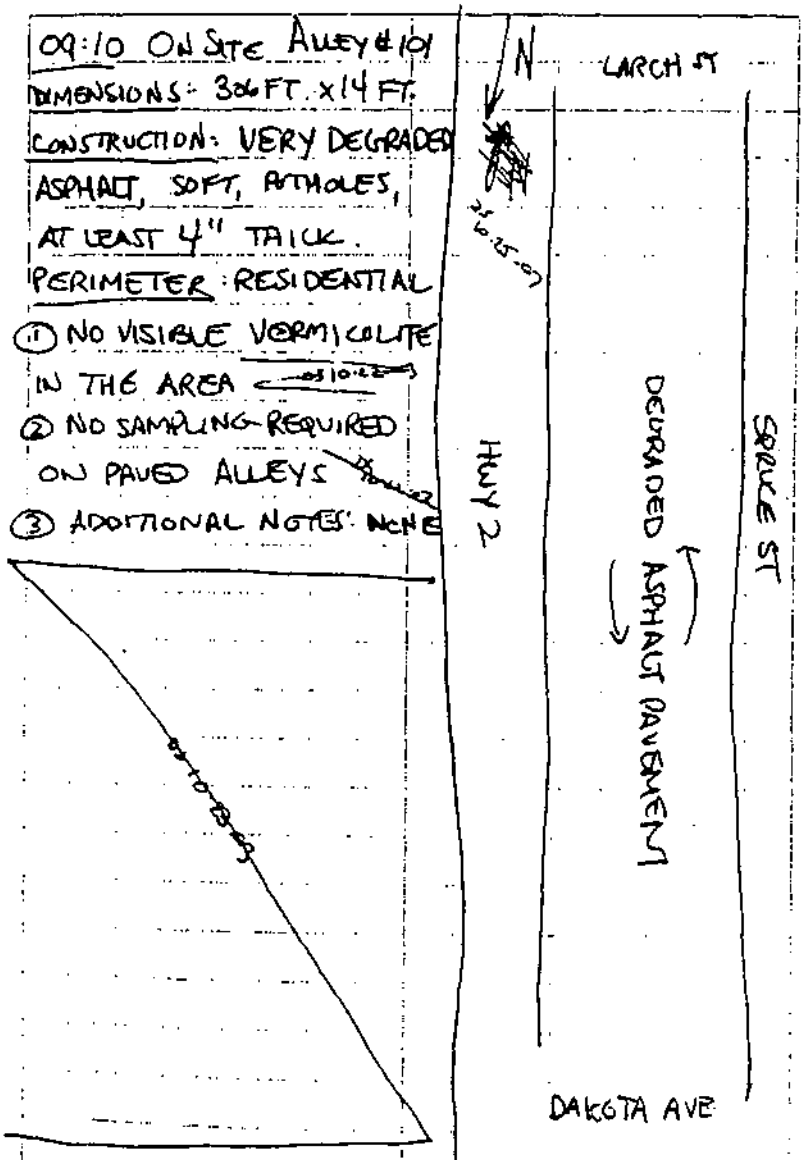
DAVID SPIEGMAN – 10-22-03 – David Spiegman

Location ALLEY # 101 ~~DS 10-23-03~~ Date 10-23-03

Project / Client LIBBY ASBESTOS- PROJECT EPA REG 8 ~~TOPE~~

~~DS 10-23-03~~

09:10 ON SITE ALLEY # 101
DIMENSIONS: 306 FT. x 14 FT.
CONSTRUCTION: VERY DEGRADED ASPHALT, SOFT, POTHOLES, AT LEAST 4" THICK.
PERIMETER: RESIDENTIAL
① NO VISIBLE VERMICULITE IN THE AREA ~~DS 10-23~~
② NO SAMPLING REQUIRED ON PAVED ALLEYS ~~DS 10-23~~
③ ADDITIONAL NOTES: NONE



DAVID SPIELMAN 10-23-03 David Spielman

130

Location ALLEY #102 Date 10.23.03

Project/Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-23-03

09:39 ON SITE ALLEY #102

DIMENSIONS: ~~302 FT~~ 343 FT x 14 FT DS 10-23-03

CONSTRUCTION: PACKED SOIL AND GRAVEL DS 10-23-03

PERIMETER: RESIDENTIAL (OPEN GRASS YARD ON ENTIRE EAST SIDE DS 10-23-03

SAMPLE TIME 09:48

CS- 18345

SP- 124443

① NO VISIBLE VERMICULITE

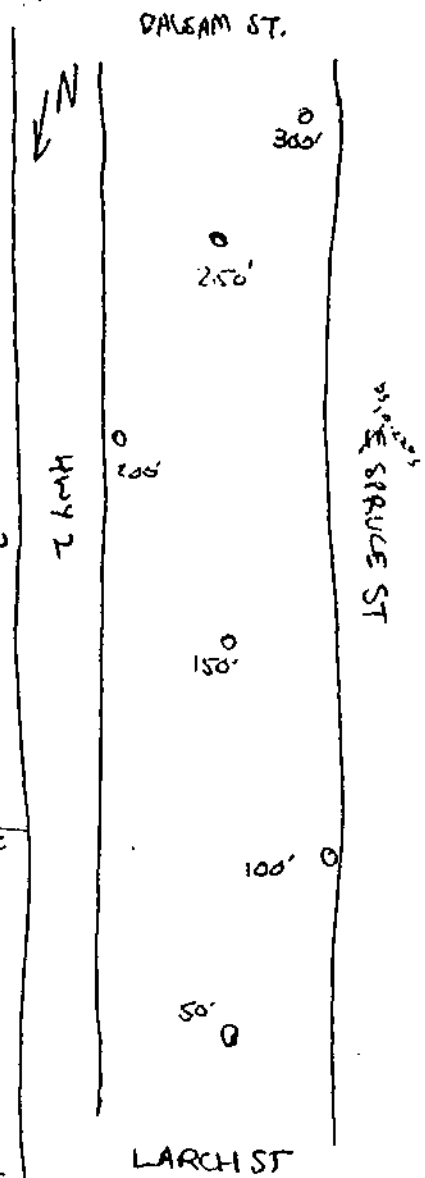
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006127

④ GPS # T2A10233

ADDITIONAL NOTES: NONE

DS 10-23-03



DAVID SPIELMAN – 10.23.03 David Spielman

131

Location ALLEY #118 Date 10.23.03

Project/Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

DS 10-23-03

01:54 ON SITE ALLEY #118

DIMENSIONS: 336 FT x 14 FT

CONSTRUCTION: ASPHALT PAVED WITH GRAVEL FILL FOR POTHOLES – FAIR CONDITION

PERIMETER: (MIXED)

W: RESIDENTIAL DS 10-23-03

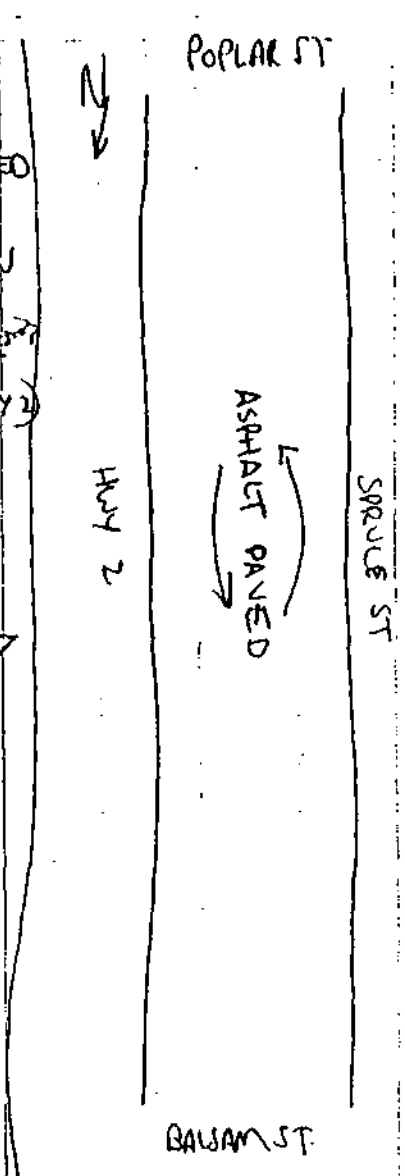
E: COMMERCIAL (ALONG HWY 2)

① NO VISIBLE VERMICULITE

② NO SAMPLING REQUIRED ON PAVED ALLEYS DS 10-23-03

ADDITIONAL NOTES: NONE

DS 10-23-03



DAVID SPIELMAN – 10.23.03 David Spielman

Location: ALLEY #~~121~~ 119 (DS 10-23-03) Date: 10-23-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE (DS 10-23-03)

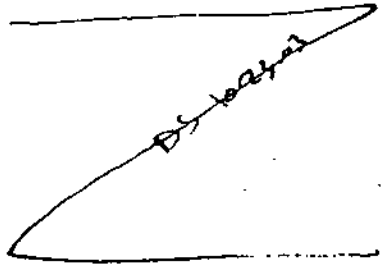
10:07 ON SITE ALLEY #119
DIMENSIONS: 329 FT X 14 FT
CONSTRUCTION: GRAVEL AND PACKED SOIL (DS 10-23-03)
PERIMETER (MIXED)
W: RESIDENTIAL (DS 10-23-03)
E: COMMERCIAL (EMPIRE FOODS ALONG HWY 2)

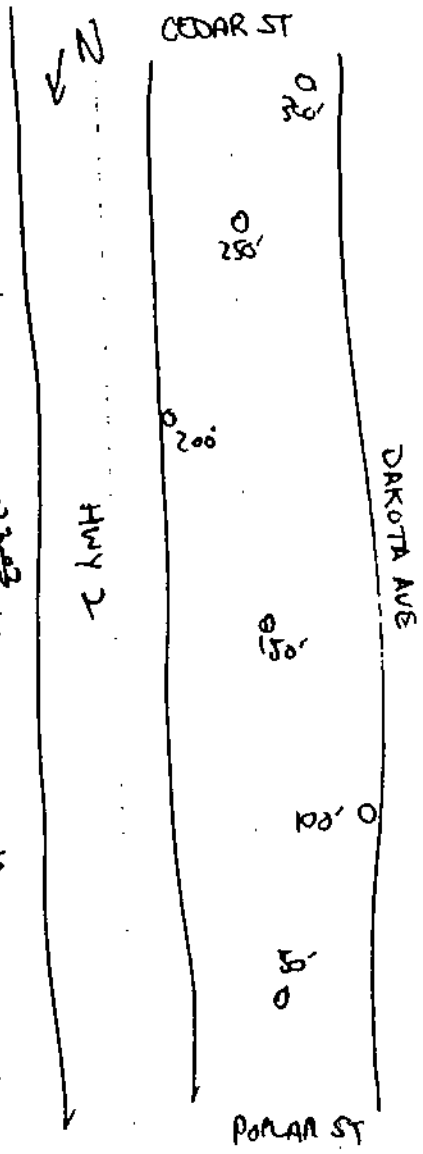
SAMPLE TIME 10:18

CS- 18346 (DS 10-23-03)

SP- 124444

① NO VISIBLE VERMICULITE
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP
③ FSDS# CSS-S-006127
④ GPS# T2B10233
ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-23-03 — David Spielman

Location: ALLEY # 121 Date: 10-23-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE (DS 10-23-03)

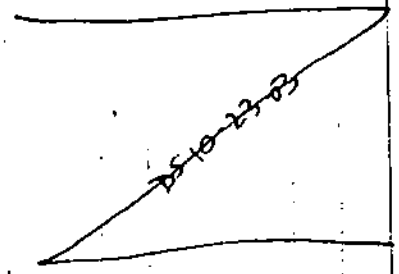
10:28 ON SITE ALLEY #121
DIMENSIONS: 311 FT. X 14 FT.
CONSTRUCTION: PACKED SOIL AND GRAVEL, PATCHES OF (OLD) ASPHALT (DS 10-23-03)
PERIMETER: (MIXED)
W: RESIDENTIAL
E: COMMERCIAL (ALONG HWY 2)

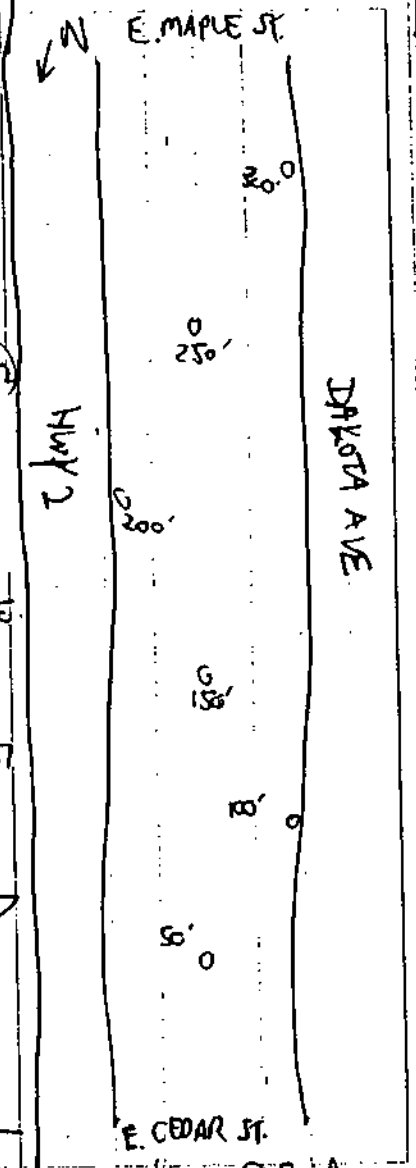
SAMPLE TIME 10:35

CS- 18347 (DS 10-23-03)

SP- 124445

① NO VISIBLE VERMICULITE
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP
③ FSDS# CSS-S-006127
④ GPS# T2C10233
ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-23-03 — David Spielman

Location ALLEY #122 Date 10-23-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-23-03~~

10:43 ON SITE ALLEY #122

DIMENSIONS: 200FT x 14FT

CONSTRUCTION: ROAD BASE (PACKED SAND AND GRAVEL)

PERIMETER: RESIDENTIAL

SAMPLE TIME 11:01

CS- 18348

SP- 124446

① NO VISIBLE VERMICULITE

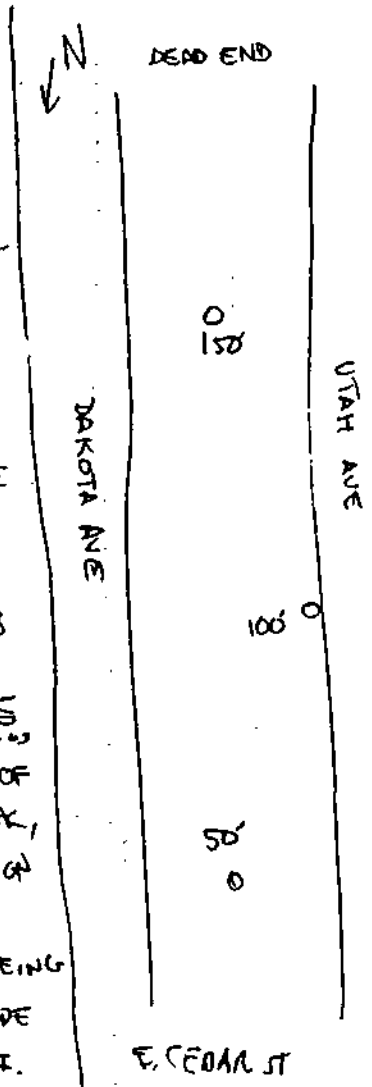
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-006128

④ GPS# T2D10233

ADDITIONAL NOTES: ~~NONE~~ DS 10-23-03 RESIDENT REPORTS THAT 4" OF ROADBASE PUT ON LAST WEEK, AND THERE IS VERMICULITE ON OR NEAR ALLEY UNDERNEATH. DANNY ZAMBRANO RECALLS SEEING VERMICULITE IN MIDDLE/E. SIDE ALLEY PRIOR DURING CSS/RI. - SAMPLE DUG TO 6-8" TO GET TO ORIGINAL ALLEY ~~DS 10-23-03~~

DAVID SPIELMAN — 10-23-03 — David Spielman



Location ALLEY # 120 Date 10-23-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-23-03~~

DS 10-22-03 10:11:14 ON SITE ALLEY #120

DIMENSIONS: 310FT x 18FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-22-03~~

PERIMETER (RESIDENTIAL)

SAMPLE TIME ALLEY-120 11:26

CS- 18349

SP- 124447

SAMPLE TIME DUPLICATE 11:34

CS- 18350

SP-124447

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

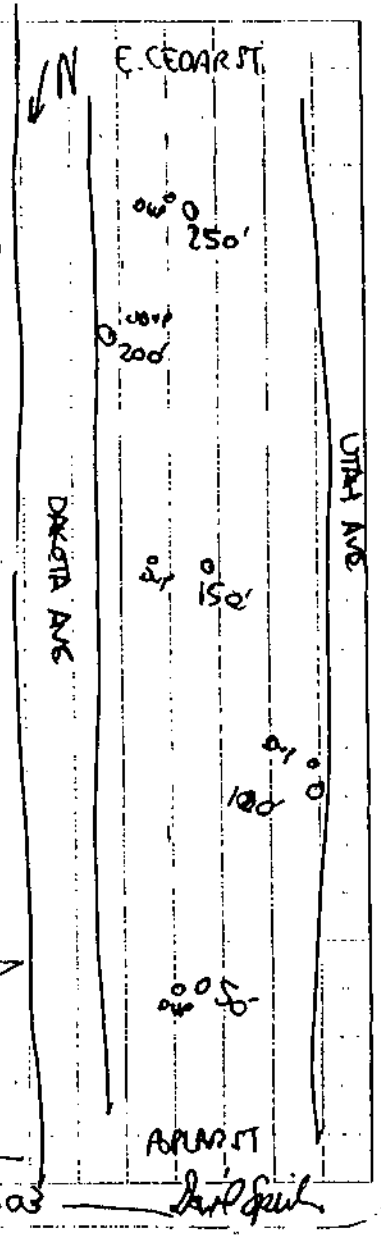
③ FSDS# CSS-S-006128

④ GPS# T2E10233

ADDITIONAL NOTES: NONE

DS 10-23-03

DAVID SPIELMAN — 10-23-03 — David Spielman



Location ALLEY# 103 ~~DS 10-23-03~~ Date 10-23-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~DS 10-23-03~~

13:25 ON SITE ALLEY#103

DIMENSIONS: 303FT × 13FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-23-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 13:45

CS- 18351

SP- 124448

① NO VISIBLE VERMICULITE

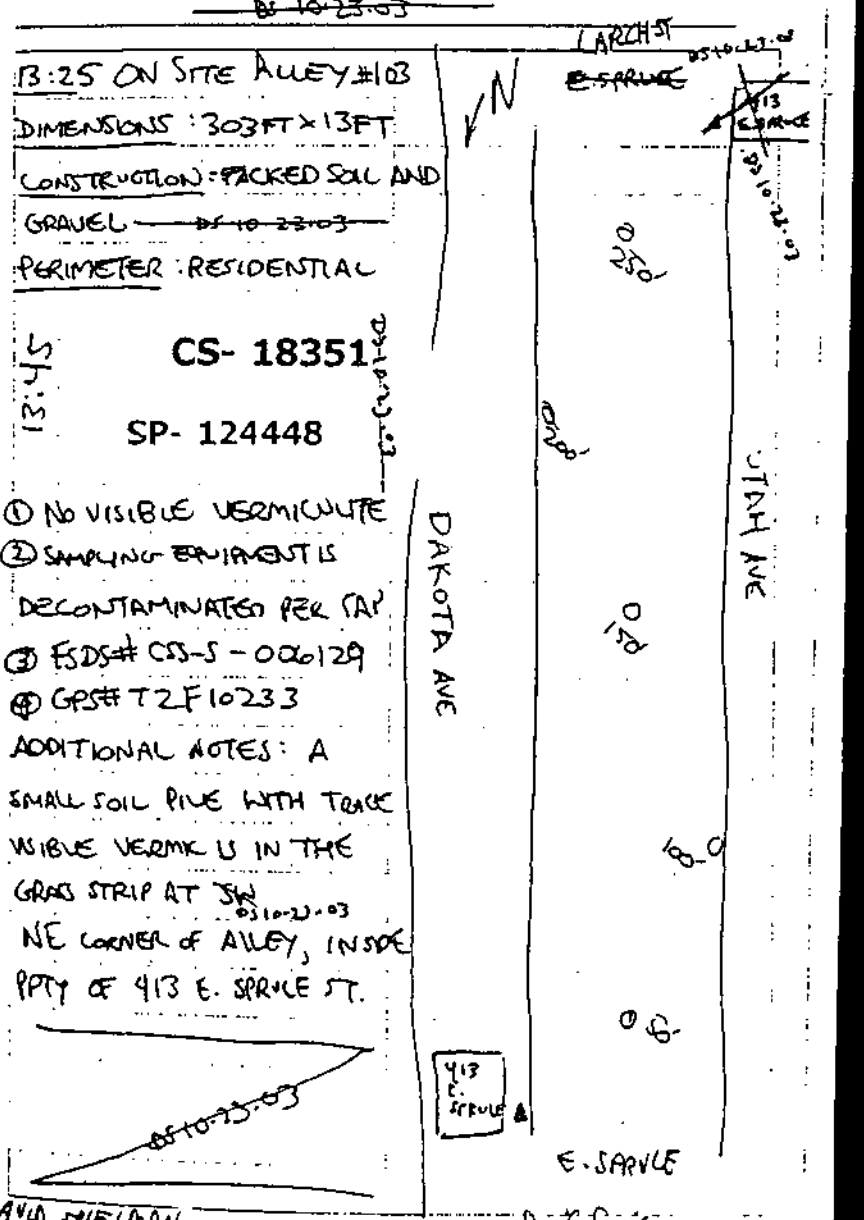
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-006129

④ GPS# T2F10233

ADDITIONAL NOTES: A SMALL SOIL PILE WITH TRACE VISIBLE VERMIC IS IN THE GRASS STRIP AT SW NE CORNER OF ALLEY, INSIDE PPTY OF 413 E. SPRUCE ST.

~~DS 10-23-03~~



DAVID STIELMAN ——— 10-23-03 ——— David Stielman

138

Location ALLEY # 104 Date 10-23-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~DS 10-23-03~~

13:50 ON SITE. ALLEY # 104

DIMENSIONS : 341FT x 14FT

CONSTRUCTION : PACKED SOIL AND GRAVEL ~~DS 10-23-03~~

PERIMETER : RESIDENTIAL

SAMPLE TIME 14:05

CS- 18352

SP- 124449

① NO VISIBLE VERMICULITE

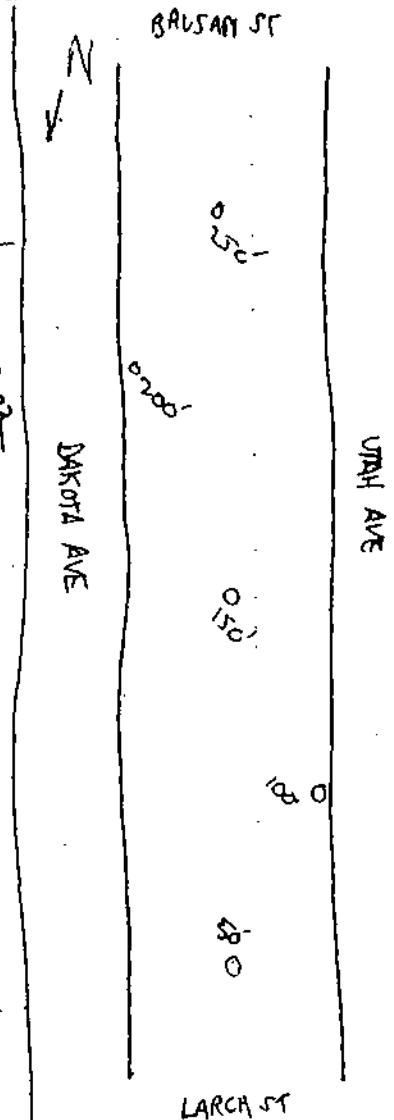
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS # CSS-S-006129

④ GPS # T2GP233

ADDITIONAL NOTES : NONE

~~DS 10-23-03~~



DAVID SPIELMAN — 10-23-03 — David Spielman

139

Location ALLEY # 117 Date 10-23-03

Project / Client LIBBY ASBESTOS PROJECT EPA REG-8 VOLPE

~~DS 10-23-03~~

14:14 ON SITE ALLEY # 117

DIMENSIONS 340FT x 13FT

CONSTRUCTION : PACKED SOIL AND GRAVEL ~~DS 10-23-03~~

PERIMETER : RESIDENTIAL

SAMPLE TIME 14:26

CS- 18353

SP- 124450

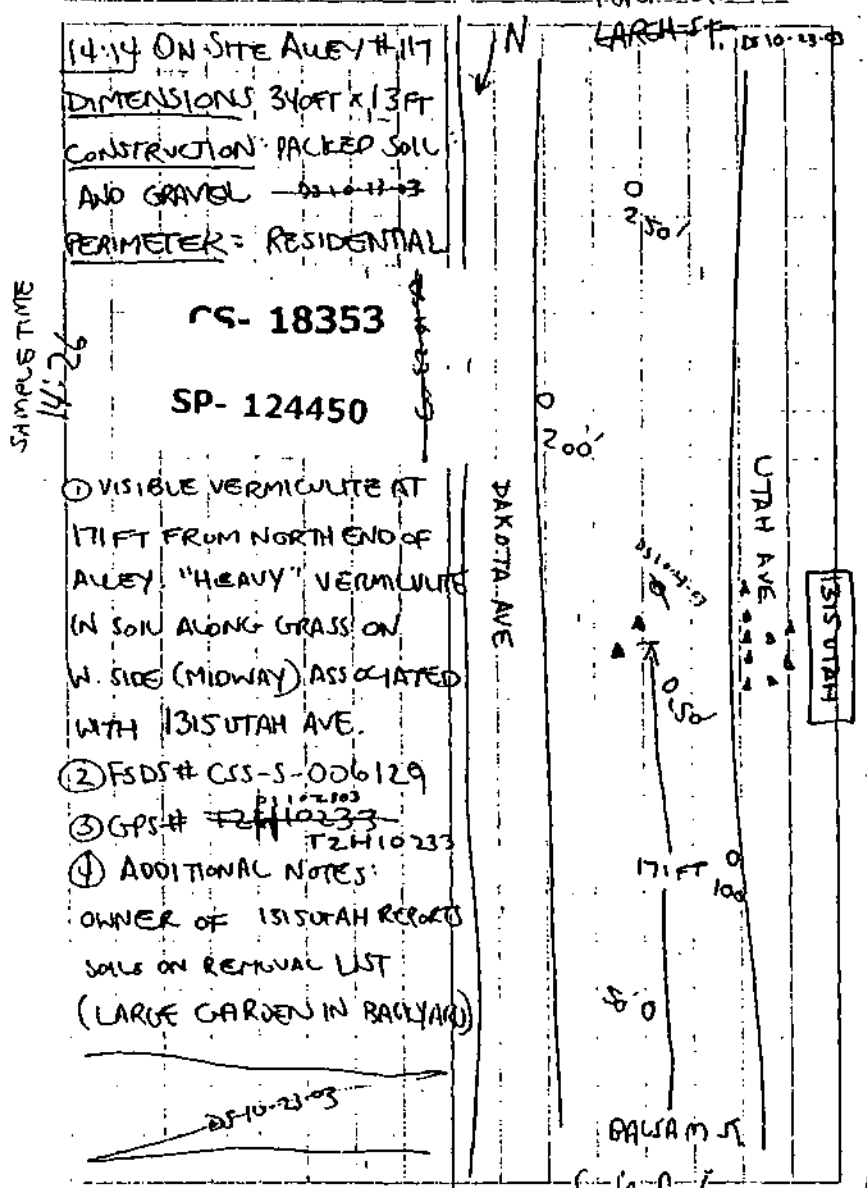
① VISIBLE VERMICULITE AT 171FT FROM NORTH END OF ALLEY. "HEAVY" VERMICULITE IN SOIL ALONG GRASS ON W. SIDE (MIDWAY) ASSOCIATED WITH 1315 UTAH AVE.

② FSDS # CSS-S-006129

③ GPS # ~~T2H10233~~ T2H10233

④ ADDITIONAL NOTES: OWNER OF 1315 UTAH REQUESTS SOILS ON REMOVAL LIST (LARGE GARDEN IN BACKYARD)

~~DS 10-23-03~~



DAVID SPIELMAN — 10-23-03 — David Spielman

DS 10-23-03

Location: 105 ALLEY #105

Date: 10-23-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-23-03~~

14:45 ON SITE ALLEY #105

DIMENSIONS: 201 FT X 12 FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-23-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 15:02

CS- 18354

SP- 124452

DS 10-23-03

① NO VISIBLE VERMICULITE

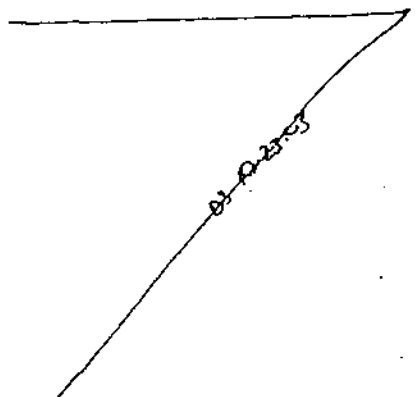
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

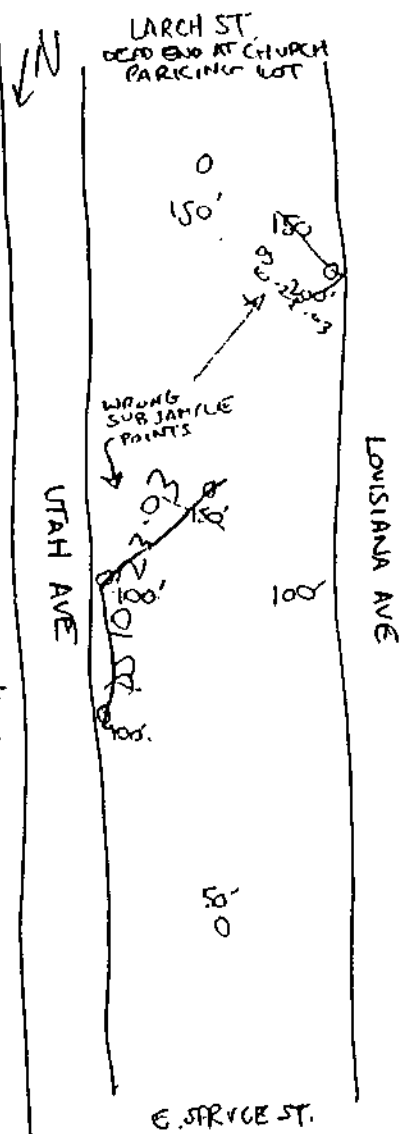
③ FSDS# CSS-S-006130

④ GPS # T2 T2 I 10233

DS 10-23-03

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-23-03 — David Spiel

Location: ALLEY #106

Date: 10-23-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-23-03~~

15:06 ON SITE ALLEY #106

DIMENSIONS 345 FT. X 12 FT.

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-23-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 15:20

CS- 18355

SP- 124453

DS 10-23-03

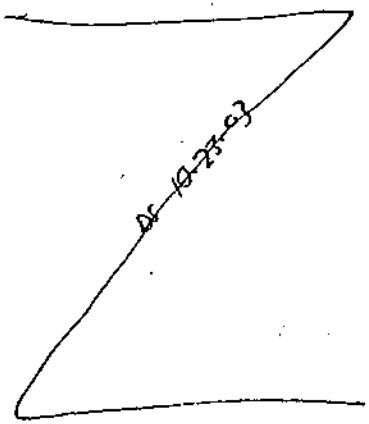
① NO VISIBLE VERMICULITE

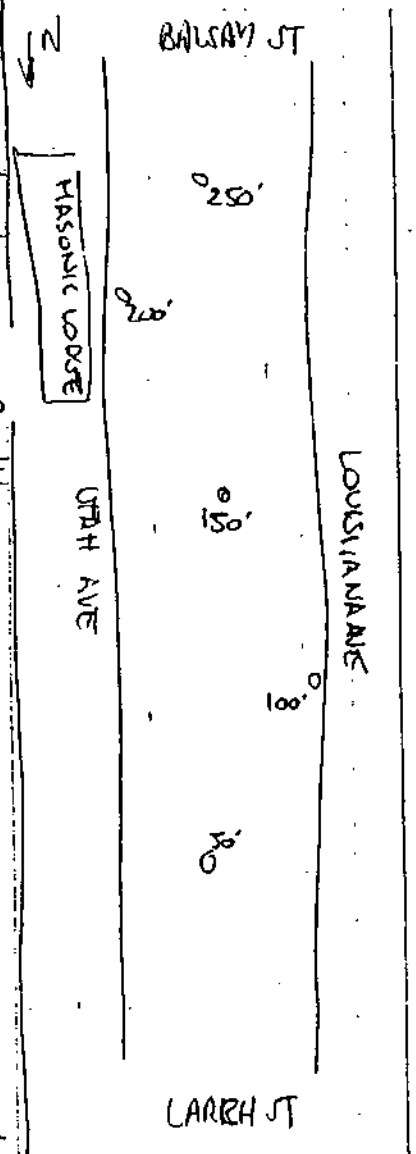
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-006130

④ GPS# T2J10233

ADDITIONAL NOTES: NONE





DAVID SPIELMAN — 10-23-03 — David Spiel

Location: ALLEY # 115 Date: 10-23-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~05-10-23-03~~

15:24 ON SITE ALLEY # 115

DIMENSIONS: 339FT x 16FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~05-10-23-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 15:39

CS- 18356

SP- 124454

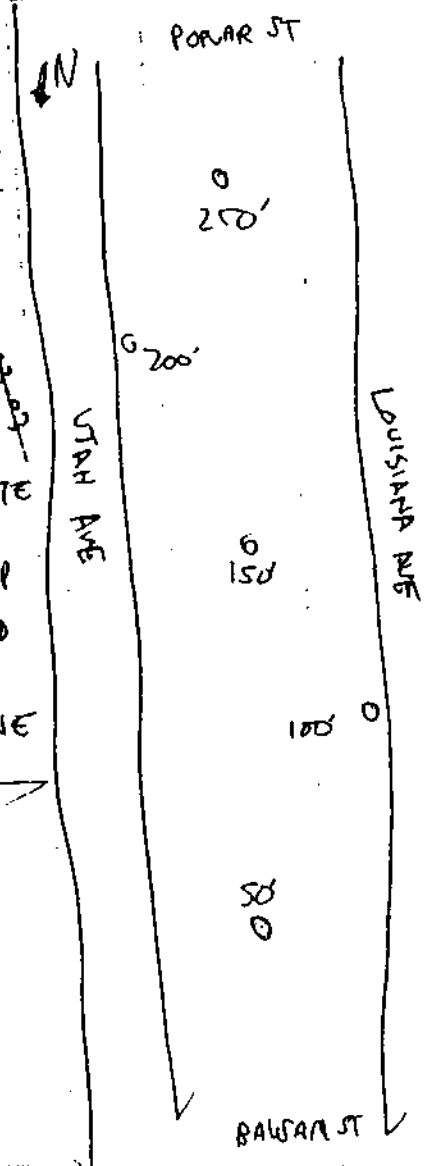
① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-006130

④ GPS# T2K10233

ADDITIONAL NOTES: NONE



DAVID SPIELMAN — 10-23-03 — David Spielman

Location: ALLEY # 116 Date: 10-23-03

Project / Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~05-10-23-03~~

15:50 ON SITE ALLEY # 116

DIMENSIONS 328FT x 15FT

CONSTRUCTION GRAVEL AND PACKED SOIL ~~05-10-23-03~~

PERIMETER (RESIDENTIAL)

SAMPLE TIME 15:51

CS- 18357

SP- 124455

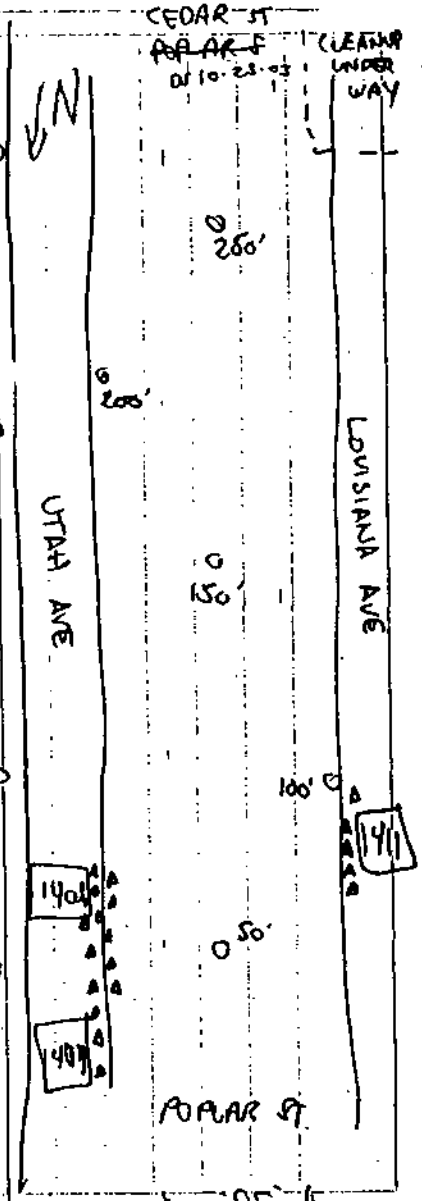
① "HEAVY" VISIBLE VERMIC IN GRASS ALONG ALLEY AT NORTH END, BOTH SIDES, ASSOCIATED WITH 1406 UTAH AND ~~ADJACENT HOUSE (NO ADDRESS, 1402 OR 1407)~~ 1404 UTAH, AND 1411 LOUISIANA AVENUES 05-10-23-03

- ALSO, CLEANUP/EXCAVATION UNDERWAY AT SW CORNER OF THE ALLEY — 05-10-23-03

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006131

④ GPS# T2L10233



DAVID SPIELMAN — 10-23-03 — David Spielman

144

Location: ALLEY #123 Date: 10.23.03

Project: Client: LIBBY ASBESTOS PROJECT EPA REG 8 VOLPE

~~DS 10-23-03~~

16:20 ON SITE ALLEY #123

DIMENSIONS 188FT × 14FT

CONSTRUCTION PACKED SOIL AND GRAVEL-DEEP ROADBASE

PERIMETER RESIDENTIAL

SAMPLE TIME 16:32

CS- 18358

SP- 124456

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

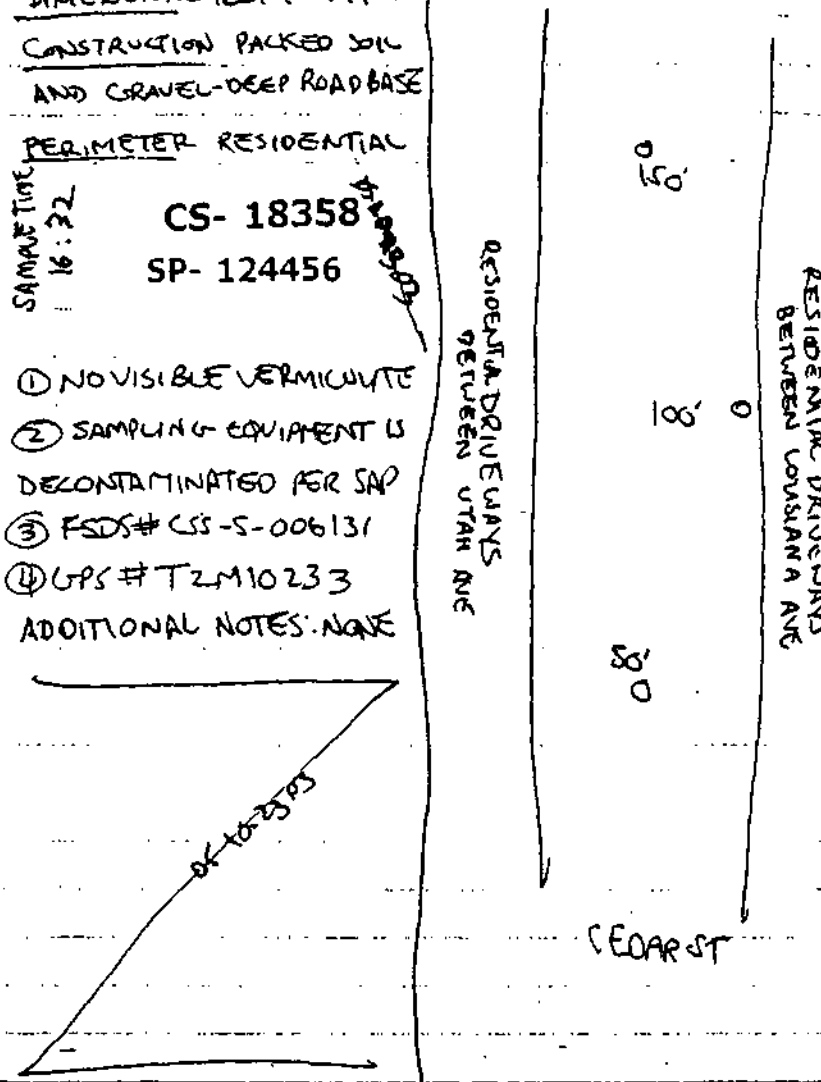
③ FSDS# CSS-S-006131

④ GPS # T2M10233

ADDITIONAL NOTES: NONE

~~DS 10-23-03~~

DEAD ENDS IN GRASS



DAVID SHIELMAN — 10.23.03 — David Shielman

1

ALLEY #107 10-24-03

LIBBY ASBESTOS PROJECT EPA REG 8/VOLPE

ALLEY #107

10:00 ON SITE ALLEY #107

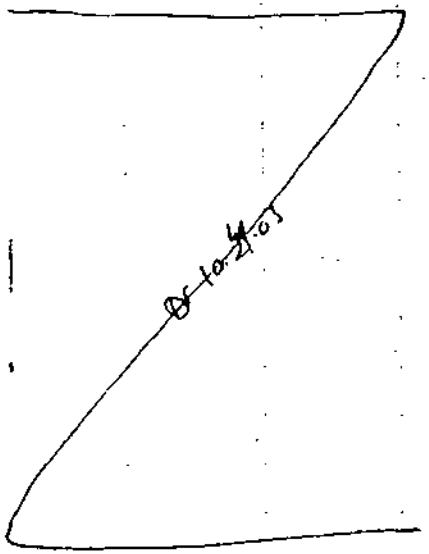
DIMENSIONS: 301FT x 14FT

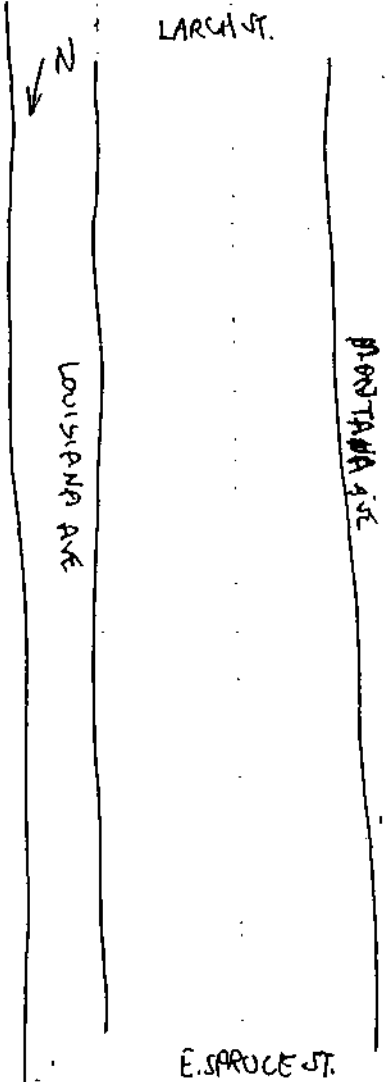
CONSTRUCTION: ASPHALT PAVED, POOR CONDITION, VERY SOFT IN MOST PARTS, POTHOLES.

PERIMETER: RESIDENTIAL

① NO VISIBLE VERMICULITE IN THE AREA ~~DS 10-24-03~~

② NO SAMPLING REQUIRED ON PAVED ALLEYS ~~DS 10-24-03~~





DAVID SPIELMAN — 10-24-03 — David Spielman

5

ALLEY #109 10-24-03

LIBBY ASBESTOS PROJECT EPA REG 8/VOLPE

ALLEY #109

10:12 ON SITE ALLEY #109

DIMENSIONS: 342FT x 14FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-24-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 10:20

CS- 18360

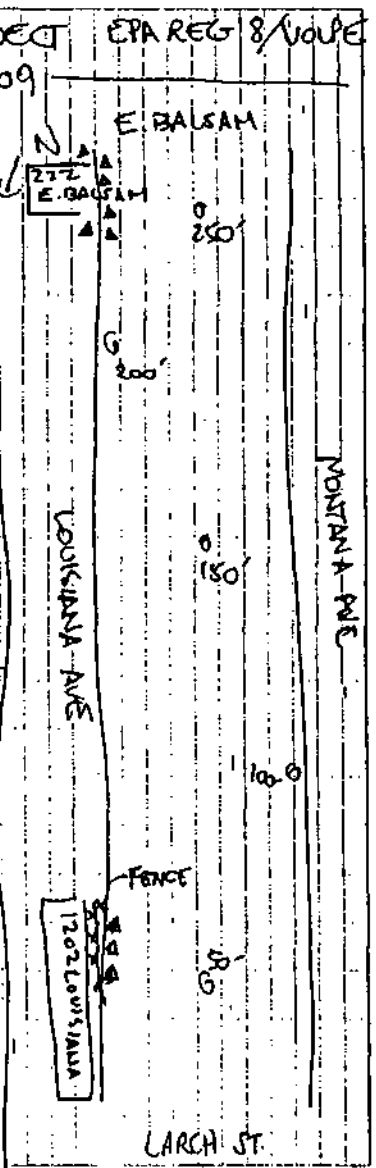
SP- 124457 10-24-03

① VISIBLE VERMICULITE IN TWO LOCATIONS — ALONG GRASS AT S.E. CORNER "HEAVY" CONCENTRATION, ASSOCIATED W/ 222 E BALSAM. "MED" CONCENTRATION OF SMALL FLAKES EXPOSED AT FENCE ASSOCIATED WITH 1202 LOUISIANA AVE.

② FSDS# CSS-S-006132

③ GPS# T2A10243

④ SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP



DAVID SPIELMAN — 10-24-03 — David Spielman

ALLEY # 112 — 10-24-03

LIBBY ASBESTOS PROJECT — EPA REG 8/VOLPE

ALLEY #112

10:31 ALLEY #112 ON SITE

DIMENSIONS 340FT x 14FT

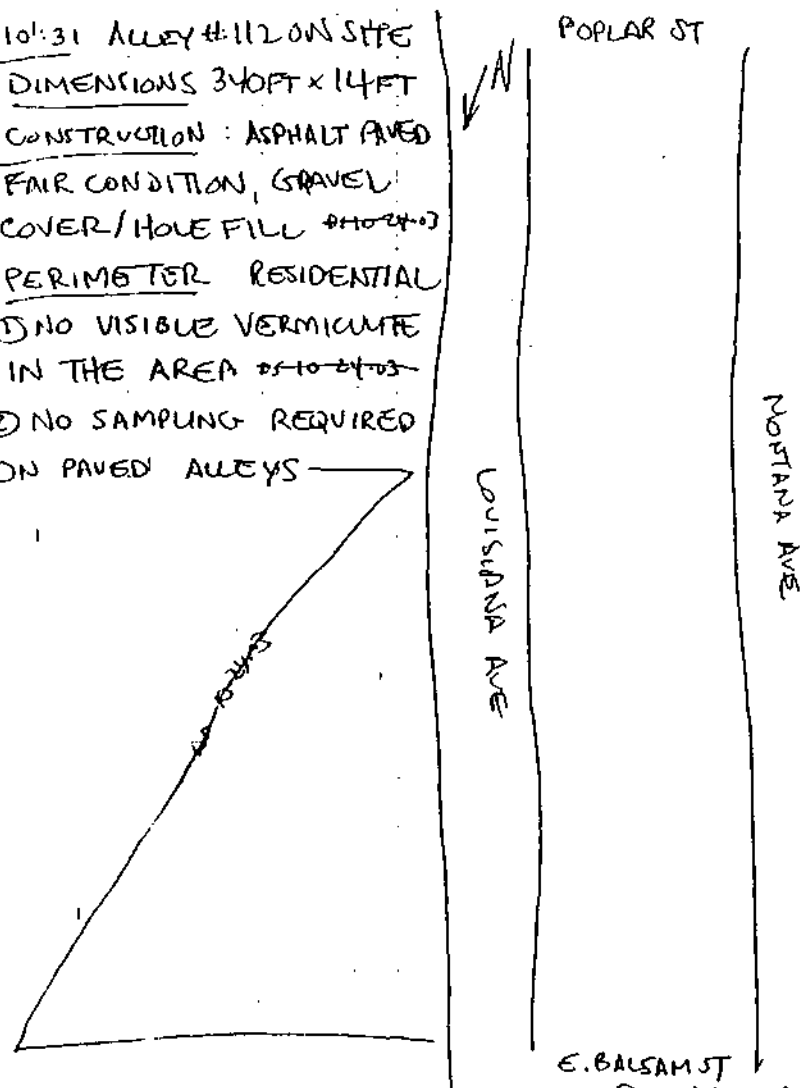
CONSTRUCTION : ASPHALT PAVED

FAIR CONDITION, GRAVEL COVER/HOLE FILL ~~10-24-03~~

PERIMETER RESIDENTIAL

① NO VISIBLE VERMICULITE IN THE AREA ~~10-24-03~~

② NO SAMPLING REQUIRED ON PAVED ALLEYS



DAVID SPIELMAN — 10-24-03 — David Spielman

ALLEY # 114 — 10-24-03

LIBBY ASBESTOS PROJECT — EPA REG-8/VOLPE

ALLEY # 114

10:41 ON SITE ALLEY # 114

DIMENSIONS: 330FT x 12FT

CONSTRUCTION: PARTIALLY PAVED (1ST 90FT. FROM NORTH SIDE) WITH ASPHALT - REMAINDER IS PACKED SOIL AND GRAVEL ~~10-24-03~~

PERIMETER : RESIDENTIAL

SAMPLE TIME 10:51

CS- 18361

SP- 124458

① NO VISIBLE VERMICULITE

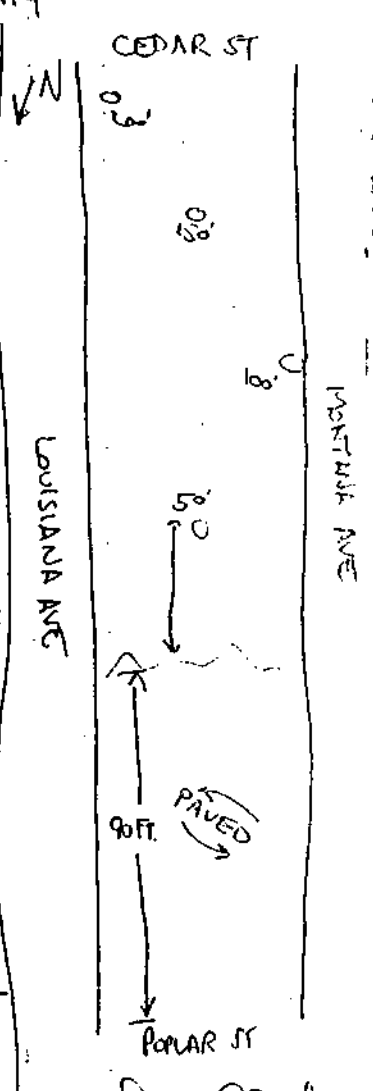
② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS# CSS-S-006132

④ GPS# T2B10243

ADDITIONAL NOTES - NO SAMPLE COLLECTED AT THE PAVED PORTION OF THE ALLEY

~~10-24-03~~



DAVID SPIELMAN — 10-24-03 — David Spielman

ALLEY # 113 10-24-03

LIBBY ASBESTOS PROJECT EPA REG 8/VOLPE

ALLEY # 113

11:00 ON SITE ALLEY #113

DIMENSIONS 308FT x 16FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-24-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 11:11

CS- 18362

SP- 124459

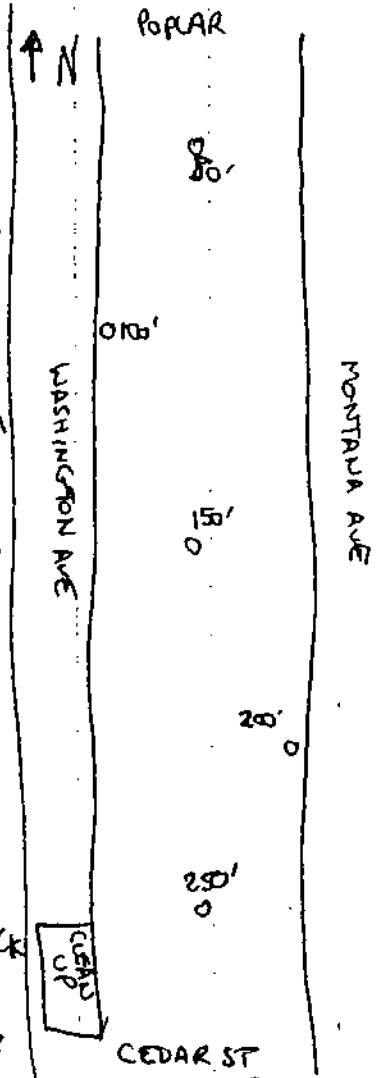
① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED AS PER SAP

③ FSDS # CSS-S-006132

④ GPS # T2L10243

ADDITIONAL NOTES: LARGE YARD CLEANUP AT LOG CABIN ON SW CORNER (CORNER OF CEDAR AND WASHINGTON NE CORNER) - YARD IS BARE SOIL IN FRONT AND FRESH SOD IN BACK NO VISIBLE VERMICULITE IN THE AREA ~~DS 10-24-03~~



DAVID SPIELMAN — 10.24.03 — David Spielman

ALLEY # 111 10-24-03

LIBBY ASBESTOS PROJECT EPA REG 8/VOLPE

ALLEY # 111

11:28 ON SITE ALLEY # 111

DIMENSIONS: 343FT x 12FT

CONSTRUCTION: PACKED SOIL AND GRAVEL ~~DS 10-24-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 11:47

CS- 18363

SP- 124460

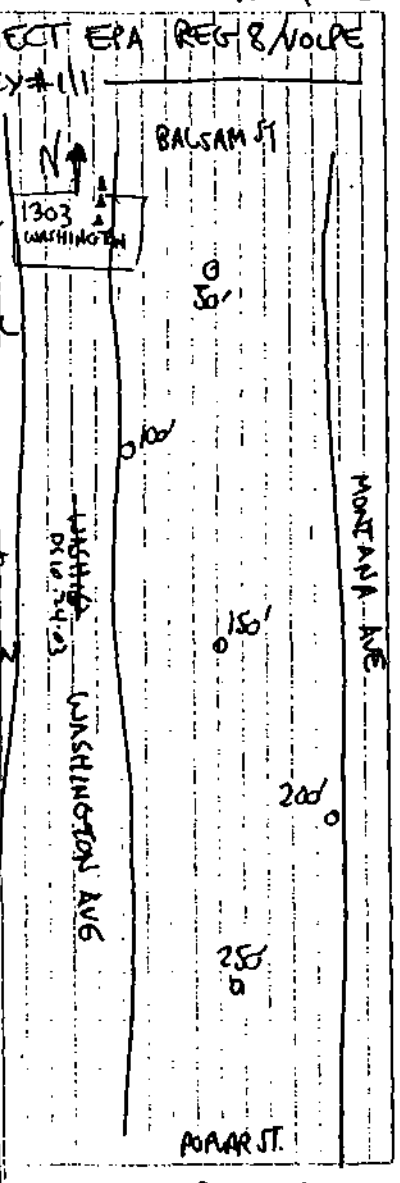
① VISIBLE VERMICULITE ALONG GRASS AT NW CORNER, IN YARD OF 1303 WASHINGTON ("MED" CONCENTRATION) IS ON OR ADJACENT TO GRASS STRIP IN ALLEY, MAY BE CONFINED TO YARD ONLY ~~DS 10-24-03~~

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS # CSS-S-006133

④ GPS # T2D10243

~~DS 10-24-03~~



DAVID SPIELMAN — 10.24.03 — David Spielman

-03
PE
-03

ALLEY #108 10-24-03

LIBBY ASBESTOS PROJECT EPA REG 8/VOLPE

14:00 ON SITE ALLEY #108

DIMENSIONS 267FT x 14FT

CONSTRUCTION PACKED SOIL AND GRAVEL ~~DS 10-24-03~~

PERIMETER: RESIDENTIAL

SAMPLE TIME 14:07

CS- 18364

SP- 124821

~~DS 10-24-03~~

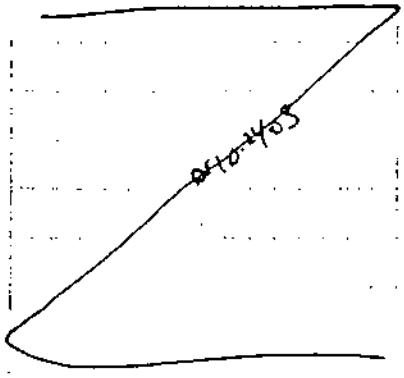
① NO VISIBLE VERMICULITE

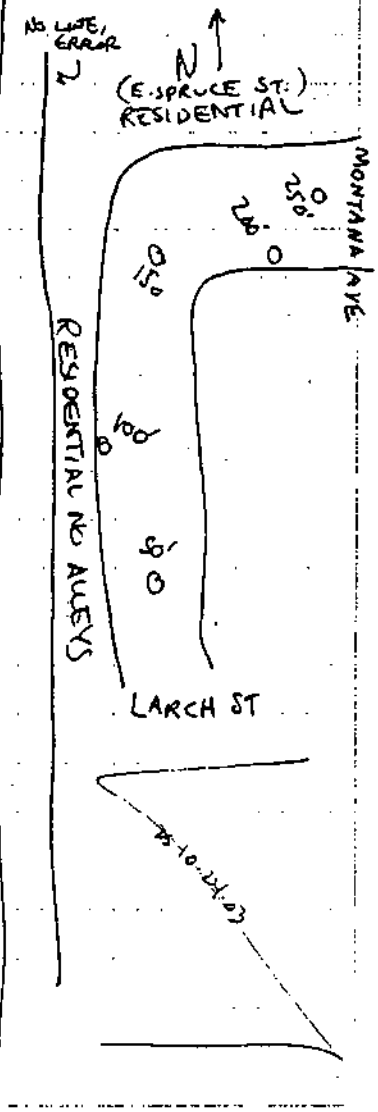
② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-006133

④ GPS# T2E10243

ADDITIONAL NOTES: NONE





DAVID SAELMAN — 10-24-03 — David Saelman

12

ALLEY #110.

LIBBY ASBESTOS PROJECT 10-24-03 EPA REG 8/VOLPE

14:14 ON SITE ALLEY #110

DIMENSIONS 346 x 12 FT

CONSTRUCTION: PACKED SOIL AND GRAVEL

PERIMETER: RESIDENTIAL

SAMPLE TIME 14:22

CS- 18365

SP- 124822

① VISIBLE VERMICULITE IN GRASS ALONG N.E. CORNER OF ALLEY, OUTSIDE FENCED GARDEN (FULL OF VERMICULITE) AT 1212 MONTANA AVE.

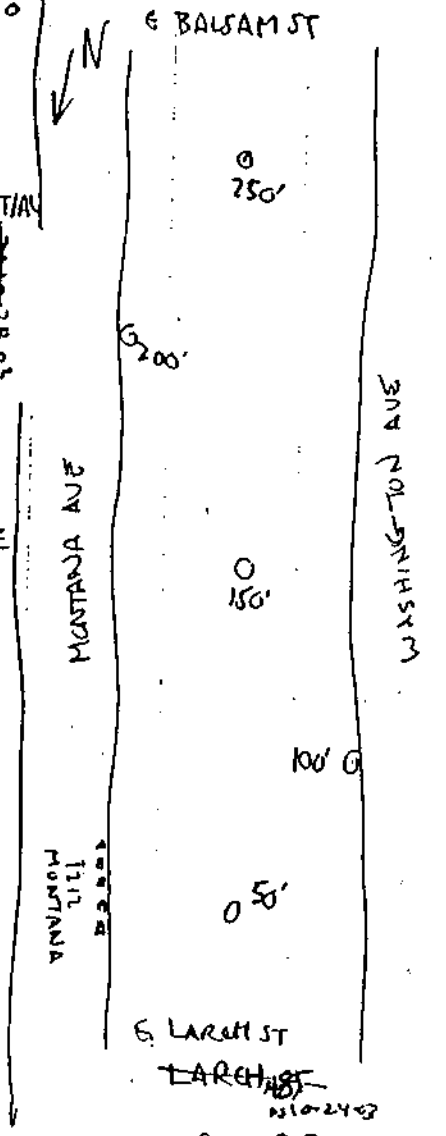
② SAMPLE EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-006133

④ GPS# T2F10243

ADDITIONAL NOTES: VERMICULITE IS UNDER VERY THICK GRASS

DS-10-24-03



DAVID SPIELMAN – 10-24-03 – David Spielman

ALLEY # 124

LIBBY ASBESTOS PROJECT 10-24-03 EPA REG 8/VOLPE

14:35 ON SITE ALLEY # 124

DIMENSIONS 357 FT x 14 FT

CONSTRUCTION PACKED SOIL AND GRAVEL — DS 10-24-03

PERIMETER RESIDENTIAL

SAMPLE TIME 14:48

CS- 18366

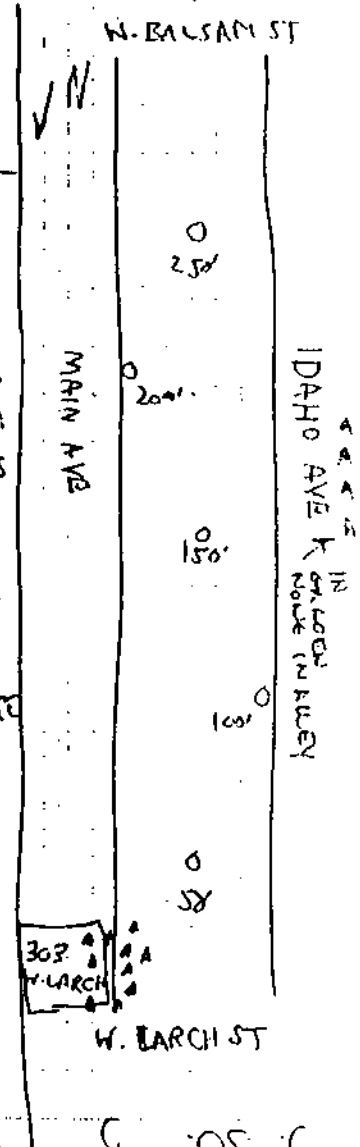
SP- 124823

① VISIBLE VERMICULITE IN GRASS AND IN ALLEY (ON SURFACE) ASSOCIATED WITH 'HEAVY' CONCENTRATION IN GARDEN AT 303 W. LARCH - FENCE POSTS UP BUT NO FENCE - VERMICULITE ALSO VISIBLE IN GARDEN (SEE SKETCH) MID-WEST SIDE OF ALLEY BUT NONE ON GRASS IN ALLEYWAY — DS 10-24-03

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

③ FSDS# CSS-S-~~006133~~ 006134 DS 10-24-03

④ GPS# T2G10243



DAVID SPIELMAN – 10-24-03 – David Spielman

ALLEY#125 10-24-03

LIBBY ASBESTOS PROJECT EPA KEGG/VOLPE

14:59 ON SITE ALLEY#125

DIMENSION 178FT x 15FT

CONSTRUCTION: PACKED SOIL AND GRAVEL, GRASS

PERIMETER: RESIDENTIAL (THREE BACKYARDS)

SAMPLE TIME ALLEY 125 15:07 — CS- 18367 — SP- 124824

SAMPLE TIME DUPLICATE 15:17 — CS- 18368 — SP- 124824

① NO VISIBLE VERMICULITE

② SAMPLING EQUIPMENT IS DECONTAMINATED PER SAP

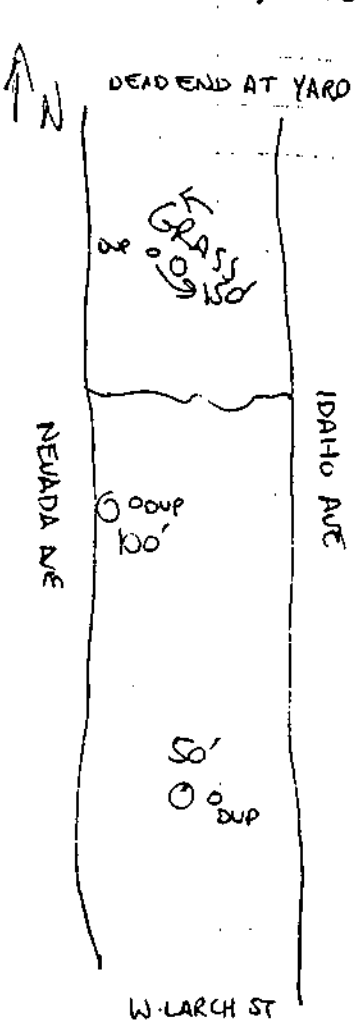
③ FSDS# CSS-1-006134

④ GPS # T2H10243

ADDITIONAL NOTES: NONE

10-24-03

DAVID SPIELMAN — 10-24-03



Appendix B
Completed Soil Field Sample Data Sheets

CDM

Sheet No.: CSS-S- 006071

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 22/23/24/25 Sampling Date: 10-15-03

Address: ~~AL~~ DW 10-15-03 CITY OF LIBBY ALLEY Owner/Tenant: CITY OF LIBBY

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: ZAMBRANO / SPIELMAN

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17947	CS- 17948	CS- 17949
Location ID	SP- 124353	SP- 124354	SP- 124355
Sample Group	ALLEY	ALLEY	ALLEY
Location Description (circle)	Back yard Front yard Side yard ALLEY Driveway ~~#1~~ DW 101503 Other	Back yard Front yard Side yard ALLEY Driveway ~~#2~~ Other DW 101503	Back yard Front yard Side yard ALLEY Driveway ~~#5~~ Other
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 4	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	15:11	15:40	16:37
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	~~BD-~~ PS 10-15-03 NO L.V. IN SAMPLE Alley #1	BD-_____ NO L.V. IN SAMPLE Alley #2	BD-_____ NO L.V. IN SAMPLE Alley #5
Entered (LFO) PS	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DS	QC by D.Z

dw 101503

vs 052003

Sheet No.: CSS-S- 006073

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100239 Page No: 22/23/24/25 Sampling Date: 10-15-03

Address: CITY OF LIBBY ALLEY (Owner/Tenant: CITY OF LIBBY

Business Name: NA

Land Use: (circle) (Residential) School Commercial Mining Roadway Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: ZAMBRANO \ SPELMAN

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17950	CS- 17951	
Location ID	SP- 124356	SP- 124357	
Sample Group	ALLEY	ALLEY	
Location Description (circle)	Back yard Front yard Side yard Driveway (Other) ALLEY #6 DW 10/15/03	Back yard Front yard Side yard Driveway (Other) ALLEY #7 DW 10/15/03	Back yard Front yard Side yard Driveway Other _____
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	Surface Soil Other _____
Type (circle)	Grab (Comp.) # subsamples 5	Grab Comp. # subsamples _____	Grab Comp. # subsamples _____
Sample Time	17:10	17:16	
Top Depth (in.)	0	0	
Bottom Depth (in.)	6	6	
Field Comments Note if vermiculite is visible in sampled area	~~BD-~~ DS 10-15-03 NO L.V. OBSERVED IN SAMPLE Alley #6	BD- DS 10-15-03 NO L.V. OBSERVED IN SAMPLE Alley #7	BD- _____
Entered (LFO) _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____

For Field Team Completion (Provide Initials)	Completed by DS	QC by D. Z

DW 100503

vs 052003

Sheet No.: CSS-S- 006100

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 30-32 Sampling Date: 10·16·03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17952	CS- 17953	CS- 17954
Location ID	SP- 124358	SP- 124359	SP- 124360
Sample Group	Alley #8	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 2	Grab Comp # subsamples 4	Grab Comp. # subsamples 5
Sample Time	10:16	10:35	11:10
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 8 Vermiculite observed: yes or no	Alley # 126 Vermiculite observed: yes or no	Alley # 9 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DJ	QC by D.Z

DW 10·16·03

vs 052003

Sheet No.: CSS-S- 006101

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 34-36 Sampling Date: 10/16/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17955 10/16/03	CS- 17956 10/16/03	CS- 17957 10/16/03
Location ID	SP- 124381 10/16/03	SP- 124382 10/16/03	SP- 124383 10/16/03
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 4	Grab Comp. # subsamples 4	Grab Comp. # subsamples 4
Sample Time	11:35	11:56	1320
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 10 Vermiculite observed: yes or no	Alley # 11 DS 10-16-03 Vermiculite observed: yes or no ~~[illegible]~~ DS 10-16-03 in [illegible]	Alley # 12 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10.16.03

vs 052003

Sheet No.: CSS-S- _____

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100239 Page No: 38-40 Sampling Date: 10/16/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17958	CS- 17959	CS- 17960
Location ID	SP- 124384	SP- 124385	SP- 124386
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1352	1412	14:28
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 13 Vermiculite observed: yes or no	Alley # 14 Vermiculite observed: yes or no	Alley # 15 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10.16.03

vs 052003

Sheet No.: CSS-S- 006103

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

PAGE 40,41,43 ~~40-42~~ DS 10-16-03

Scenario No.: NA Field Logbook No: 100289 Page No: ~~39-41~~ DS 10-16-03 Sampling Date: 10/16/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA DZ 10/16/03

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17961	CS- 17962	CS- 17963 10/16/03
Location ID	SP-12436 SP- ~~124387~~ DS 10-16-03	SP- 124387	SP- 124388 DZ
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other Alley	Back yard Front yard Side yard Driveway Other Alley	Back yard Front yard Side yard Driveway Other Alley
Category (circle)	FS DZ 10/16/03 FD of CS-17960 DS 10-16-03 ~~Field Blank (lot or equipment)~~	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Surface Soil Other _____ DZ 10/16/03	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1432	1459	16:06
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~16~~ 15 DS 10-16-03 Vermiculite observed: yes or no RESIDENTIAL AREA	Alley # 16 Vermiculite observed: yes or no RESIDENTIAL AREA	Alley # 19 Vermiculite observed: yes or no COMMERCIAL AREA
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10-16-03

vs 052003

Sheet No.: CSS-S- 006104

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 45/47 Sampling Date: 10/16/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other (—)

Sampling Team: (circle) CDM MACTEC Other — Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17964 DZ 10/16/03	CS- 17965 DZ 10/16/03	CS- 17966 DZ 10/16/03
Location ID	SP- 124389	SP- 124390	SP- 124391
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 2	Grab Comp. # subsamples 2	Grab Comp. # subsamples 4
Sample Time	1632	16:59	17:10
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 21 Vermiculite observed: yes or no MIXED RESIDENTIAL + COMMERCIAL	Alley # 127 Vermiculite observed: yes or no MIXED RESIDENTIAL + COMMERCIAL ASPHALT PAVING AT ENDS OF ~~MANY SPOTS IN~~ ALLEY DZ 10-16-03	Alley # 128 Vermiculite observed: yes or no MIXED RESIDENTIAL + COMMERCIAL ASPHALT PAVED AT ENT END
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D-Z	QC by OS

dw 10-16-03

vs 052003

Sheet No.: CSS-S- 006105

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 48 Sampling Date: 10-16-03

Address: ~~City of Libby Alley~~ DS 10-16-03 318 LOUISIANA AVE Owner/Tenant ~~City of Libby~~ CDM DS 10-16-03

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other (NA)

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17967		
Location ID	AD-000001 ~~BD~~ DS 10-16-03		
Sample Group	BLANK ~~Alley~~ DS 10-16-03	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: ~~Alley~~ NA DS 10-16-03	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other SAND	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples ____	Grab Comp. # subsamples ____	Grab Comp. # subsamples ____
Sample Time	17:28		
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	~~Alley #~~ _____ DS 10-16-03 Vermiculite observed: yes or no DS 10-16-03 ~~PREC~~ EQUIPMENT BLANK	Alley # _____ Vermiculite observed: yes or no	Alley # _____ Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DS	QC by O.Z.

dw 10-16-03

vs 052003

Sheet No.: CSS-S- 006106

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 50-52 Sampling Date: 10/17/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) ~~Residential~~ DS 10-17-03 School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17968 10/17/03 DZ	CS- 17969 10/17/03 DZ	CS- 17970 10/17/03 DZ
Location ID	SP- 124392	SP- 124393	SP- 124394
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 2	Grab Comp. # subsamples 5
Sample Time	09:40	09:53	10:45
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 23 Vermiculite observed: yes or no	Alley # 24 Vermiculite observed: yes or no PARTIALLY PAVED ALLEY	Alley # 29 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10.17.03

Sheet No.: CSS-S- 006107

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 56, 57, 58 Sampling Date: 10/17/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA DZ 10-17-03

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17971 DZ 10/17/03	CS- 17972 DZ 10/17/03	CS- 17973 DZ 10/17/03
Location ID	SP- 124395 DZ 10/17/03	SP- 124396 DZ 10/17/03	SP- 124397 DZ 10/17/03
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 2	Grab Comp. # subsamples 2	Grab Comp. # subsamples ~~2~~ 3 DZ 10/17/03
Sample Time	11:13	11:42	13:51
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 30 Vermiculite observed: yes or no	Alley # 31 # Vermiculite observed: yes or no	Alley # 32 # Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DS

Sheet No.: CSS-S- 006108

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 62 Sampling Date: 10/17/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17974 DZ 10/17/03	CS- 17975 DZ 10/17/03	CS- 17976 DZ 10/17/03
Location ID	SP- 124398	SP- 124399	SP- 124400
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other Alley	Back yard Front yard Side yard Driveway Other Alley	Back yard Front yard Side yard Driveway Other Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	15:47	16:50	17:10
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 42 Vermiculite observed: yes or no	Alley # 43 Vermiculite observed: yes or no	Alley # 44 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DS	QC by DZ

dw 10/17

Sheet No.: CSS-S- 006109

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: ~~62~~ 65 DS 10-17-03 Sampling Date: 10/17/03

Address: ~~City of Libby Alley~~ 318 LOUISIANA AVE Owner/Tenant: ~~City of Libby~~ DS 10-17-03 CDM

Business Name: NA DS 10-17-03

Land Use: (circle) Residential School Commercial Mining ~~Roadway~~ DS 10-17-03 Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17977 DS 10-17-03		
Location ID	DZ 10/17/03 BD-000001 AD		
Sample Group	Blank ~~Alley~~ DZ 10/17/03	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: ~~Alley~~ DS 10-17-03 NA	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ ~~Field Blank~~ (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other SAND	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples _____	Grab Comp. # subsamples _____	Grab Comp. # subsamples _____
Sample Time	17:24		
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	~~Alley #~~ _____ ~~Vermiculite observed: yes or no~~ DS 10-17-03 BLANK	Alley # _____ Vermiculite observed: yes or no	Alley # _____ Vermiculite observed: yes or no
Entered (LFO) _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____

For Field Team Completion (Provide Initials)	Completed by DS	QC by DZ

Sheet No.: CSS-S- 006110

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 68, 69, 70 Sampling Date: 10/18/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17978	CS- 17979	CS- 17980
Location ID	SP- 124101	SP- 124402	SP- 124403
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5
Sample Time	1021	11:01	11:28
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 46 # Vermiculite observed: (yes) or no ALONG S.W 69 FT. EDGE OF ALLEY	Alley # 47 # Vermiculite observed: yes or (no) TRACE	Alley # 48 Vermiculite observed: (yes) or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dlc 10.18.03

vs 052003

Sheet No.: CSS-S-006111

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: ~~73~~ 70, 72, 73 Sampling Date: 10/18/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17981	CS- 17982	CS- 17983
Location ID	SP- 124404	SP- 124405	SP- 124406
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5
Sample Time	1341	14:09	14:28
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 49 Vermiculite observed: yes or (no)	Alley # 50 Vermiculite observed: (yes) or no	Alley # 51 Vermiculite observed: (yes) or no observed one piece on east side of alley no LV in sample
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DV

dw 10.18.03

vs 052003

Sheet No.: CSS-S- 006112

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 74-75 Sampling Date: 10/12/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17984	CS- 17985	
Location ID	SP- 124407	SP- 124468	
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	Surface Soil Other _____
Type (circle)	Grab (Comp. #) subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples ____
Sample Time	DS 10-18-03 ~~1445~~ 1504	14:46	
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~52~~ 53 DS 10-18-03 Vermiculite observed: yes or (no)	Alley # ~~53~~ 52 DS 10-18-03 Vermiculite observed: yes or (no)	Alley # _____ Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

DW 10-18-03

vs 052003

Sheet No.: CSS-S- 006113

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 76 Sampling Date: 10/18/03

Address: ~~City of Libby Alley~~ DZ 10/18/03 Owner/Tenant: ~~City of Libby~~ DZ 10/18/03 C.D.M

Business Name: NA

Land Use: (circle) Residential School (Commercial) Mining Roadway Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17986		
Location ID	AD-000001		
Sample Group	BLANK ~~Alley~~ DS 10-18-03	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: ~~Alley~~ BLANK DS 10-18-03	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other SOIL	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	(Grab) Comp. # subsamples ____	Grab Comp. # subsamples ____	Grab Comp. # subsamples ____
Sample Time	15:30		
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # _____ Vermiculite observed: yes or no DS 10-18-03 BLANK	Alley # _____ Vermiculite observed: yes or no	Alley # _____ Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DS	QC by JRM

dw 10.18.03

vs 052003

Sheet No.: CSS-S- 00611-4

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 78-79-80 Sampling Date: 10/20/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17987 10/20/03 DZ	CS- 17988 10/20/03 DZ	CS- 17989 10/20/03 DZ
Location ID	SP- 124409	SP- 124410	SP- 124411
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples ~~3~~ 4 02 10/20/03
Sample Time	0923	0948	1015
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~54~~ ~~#~~ 55 03 10-20-03 Vermiculite observed: yes or (no)	Alley # 54 Vermiculite observed: yes or (no)	Alley # ~~#~~ ~~57~~ # 56 02 10/20/03 Vermiculite observed: yes or (no)
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10/20/03

vs 052003

Sheet No.: CSS-S- 006115

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 83,85,86 Sampling Date: 10/20/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17990 10/20/03 DZ	CS- 17991 10/20/03 DZ	CS- 17992 10/20/03 DZ
Location ID	SP- 124412 10/20/03 DZ	SP- 124413 10/20/03 DZ	SP- 124414 10/20/03 DZ
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp. #) subsamples 5	Grab (Comp. #) subsamples 5	Grab (Comp. #) subsamples 5
Sample Time	1058	DZ 10-20-03 ~~1400~~ 14:01	14:22
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments - Note if vermiculite is visible in sampled area	Alley # 59 ~~#~~ Vermiculite observed: (yes) or no ALONG SIDE FENCE/GARDEN S.W. CORNER	Alley # ~~#~~ 60 Vermiculite observed: yes or (no)	Alley # ~~#~~ 62 Vermiculite observed: yes or (no)
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10/30/03

vs 052003

Sheet No.: CSS-S- 006116

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: ~~[illegible]~~ 86 87 88 Sampling Date: 10/20/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17993 10/20/03 DZ	CS- 17994 10/20/03 DZ	CS- 17995 10/20/03 DZ
Location ID	SP- 124414	SP- 124415	SP- 124416
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of CS-17992 Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	14:24	1438	1500
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 62 Dup Vermiculite observed: yes or no	Alley # 63 # Vermiculite observed: yes or no SMALL QTY IN GRASS AT SOUTH OVER OF ALLEY ~~IN GRASS~~ DZ 10-20-03	Alley # 61 # Vermiculite observed: yes or no TC 1/26/05
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DJ

dw 102003

vs 052003

Sheet No.: CSS-S- 006117

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 89, 90, 91 Sampling Date: 10/20/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17996 10/20/03 DZ	CS- 17997 10/20/03 DZ	CS- 17998 10/20/03 DZ
Location ID	SP- 124417	SP- 124418	SP- 124419
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp # subsamples 5	Grab Comp # subsamples 5	Grab Comp # subsamples 5
Sample Time	15:23	15:40	1630
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 64 Vermiculite observed: yes or no	Alley # 65 ~~#~~ Vermiculite observed: yes or no	Alley # 66 ~~#~~ Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DS

dw 10/2003

vs 052003

Sheet No.: CSS-S- 006118

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 92, 93, 98 Sampling Date: 10/20/03

Address: City of Libby Alley *Owner/Tenant: City of Libby*

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 17999	CS- 18000	CS- 18001
Location ID	SP- 124470	SP- 124[illegible]	AD-000001 DS 10.20.03
Sample Group	Alley	Alley	~~Alley~~ DS 10.20.03 NA
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other) ~~Alley~~ DS 10.20.03 (NA)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS FD of _____ (Field Blank) (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	Surface Soil (Other) SAND
Type (circle)	Grab (Comp.) # subsamples 3	Grab Comp. # subsamples 5	(Grab) Comp. # subsamples ____
Sample Time	1653	1714	1732
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 67 # Vermiculite observed: yes or (no)	Alley # 68 # Vermiculite observed: yes or (no)	~~Alley #~~ ~~Vermiculite observed: yes or no~~ DS 10.20.03 BLANK
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 102003

vs 052003

Sheet No.: CSS-S- 006119

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 20229 Page No: 96,97,98 Sampling Date: 10/21/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18002 10/21/03 DZ	CS- 18003 10/21/03 DZ	CS- 18004 10/21/03 DZ
Location ID	SP- 124422	SP- 124423	SP- 12[illegible]
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5
Sample Time	0922	0943	10:20
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~68~~ 69 10/21/03 Vermiculite observed: yes or (no)	Alley # 70 # Vermiculite observed: yes or (no)	Alley # 71 # Vermiculite observed: (yes) or no ALONG GRASS AT NW CORNER OF ALLEY
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10-21-03

vs 052003

Sheet No.: CSS-S- 006120

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 101-104 103 Sampling Date: 10/21/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18005 10/21/03 DZ	CS- 18006 10/21/03 DZ	CS- 18007 10/21/03 DZ
Location ID	SP- 124425	SP- 124426	SP- 124427
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 3
Sample Time	1136	DZ 10/21/03 ~~1422~~ 14:32	15:03
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 75 # Vermiculite observed: yes or no	Alley # 78 # Vermiculite observed: yes or no NEW DZ 10-21-03 [illegible] VERMICULITE AT [illegible] OF ALLEY ALONG THE GRASS	Alley # 79 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10.21.03

vs 052003

Sheet No.: CSS-S- 006121

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100229 Page No: 107-109 Sampling Date: 10/21/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining [Roadway] Other ( )

Sampling Team: (circle) [CDM] MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18008 10/21/03	CS- 18009 10/21/03	CS- 18010 10/21/03
Location ID	SP- 124428 10/21/03 DZ	SP- 124429 DZ 10/21/03	SP- 124430 10/21/03 DZ
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless otherwise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp.) # subsamples 3	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 5
Sample Time	1521	1640	1709
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 80 ~~#~~ Vermiculite observed: (yes) or no DS 10-21-03 East side of Pizza Hut East small pieces QUANTITY DS 10-21-03	Alley # 82 ~~#~~ Vermiculite observed: (yes) or no HEAVY CONCENTRATION of VISIBLE VERMIC ALONG GRASS STRIP RIGHT NEXT SEE SKETCH.	Alley # 83 ~~#~~ Vermiculite observed: (yes) or no FEW FLAKES IN SHEET 83
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DS

dw 10-21-03

vs 052003

Sheet No.: CSS-S- 006122

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 109-110 Sampling Date: 10/21/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18011 10/21	CS- 18012 10/21/03	
Location ID	SP- 124431 10/21 DZ	AD-000001 10/21 DZ	
Sample Group	Alley	dw 10.21.03 ~~Alley~~ blank	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: ~~Alley~~ NA 10.21.03	Back yard Front yard Side yard Driveway Other: Alley 10/21/03
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS DZ FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other SAND	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples _____	Grab Comp. # subsamples _____
Sample Time	17:34	~~NA~~ 10.21.03 17:46	
Top Depth (in.)	0	dw 10.21.03 NA	0
Bottom Depth (in.)	6	dw 10.21.03 NA	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 944 Vermiculite observed: yes or no	Alley # _____ Vermiculite observed: yes or no BLANK	Alley # _____ Vermiculite observed: yes or no
Entered (LFO) _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DS

dw 10.21.03

vs 052003

Sheet No.: CSS-S- 006123

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 112, 113, 114 Sampling Date: 10/22/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18013 10/22/03	CS- 18014 10/22/03	CS- 18015 10/22/03
Location ID	SP- 124432 10/22/03 DZ	SP- 124433 10/22/03 DZ	SP- 124434 10/22/03 DZ
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp. #) subsamples ~~5~~ 6 DZ 10/24/03	Grab (Comp. #) subsamples 5	Grab (Comp. #) subsamples 5
Sample Time	0945	1008	1025
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 85 ~~#~~ Vermiculite observed: yes or (no)	Alley # 87 ~~#~~ Vermiculite observed: yes or (no)	Alley # 89 ~~#~~ Vermiculite observed: yes or (no)
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

dw 10.22.03

vs 052003

Sheet No.: CSS-S- 006124

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100239 Page No: 115, 116, 117 Sampling Date: 10/22/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18016 10/22/03 DZ	CS- 18017 10/22/03 DZ	CS- 18018 10/22/03 DZ
Location ID	SP- 124435	SP- 124436	SP- 124437
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp.) # subsamples 6	Grab (Comp.) # subsamples 5	Grab (Comp.) # subsamples 12
Sample Time	10:49	11:16	11:51
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 86 # Vermiculite observed: (yes) or no ALONG GRASS IN MIDDLE EAST SIDE OF ALLEY	Alley # 90 # Vermiculite observed (yes) or no	Alley # 88 # Vermiculite observed: yes or (no)
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

vs 052003

dw 10.22.03

Sheet No.: CSS-S- 006125

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 00289 Page No: 119, 121, 123 Sampling Date: 10/22/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18019 10/22/03 DZ	CS- 18020 10/22/03 DZ	CS- 18341 10/22/03 DZ
Location ID	SP- 124438	SP- 124439	SP- 124440
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples ~~5~~ 9 DS 10.22.03	Grab Comp. # subsamples ~~9~~ 7 DZ 10/22/03	Grab Comp. # subsamples 5
Sample Time	DS 10.22.03 ~~10:43~~ 10:43	15:50 ~~10:42~~	1615
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 91 Vermiculite observed: yes or no	Alley # 95 10/22/03 DZ Vermiculite observed: yes or no SUPERFICIAL SIDE OF ALLEY ON 7022 UTAH	Alley # 96 # Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10.22.03

vs 052003

Sheet No.: CSS-S- 000120

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 124,126,127 Sampling Date: 10/22/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18342	CS- 18343	CS- 18344
Location ID	SP- 124441	SP- 124442	AD - 00001
Sample Group	Alley	Alley	NA ~~Alley~~ 10-22-03
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway Other: ~~Alley~~ NA 10-22-03
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS FD of _____ (Field Blank) (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	Surface Soil (Other) SAND
Type (circle)	Grab (Comp.) # subsamples 4	Grab (Comp) # subsamples 4	(Grab) Comp. # subsamples —
Sample Time	1630	17:02	1717
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 97 ≠ Vermiculite observed: yes or (no)	Alley # 100 Vermiculite observed: yes or (no)	Alley # _____ Vermiculite observed: yes or no DS 10-22-03 BLANK
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DS

dw 10-22-03

vs 052003

Sheet No.: CSS-S- 006127

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100289 Page No: 130,132,133 Sampling Date: 10/23/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18345	CS- 18346	CS- 18347
Location ID	SP- 124443	SP- 124444	SP- 124445
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 6	Grab Comp. # subsamples 6	Grab Comp. # subsamples 5
Sample Time	0942	10:13	10:35
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~101~~ 102 Vermiculite observed: yes or no	Alley # 119 Vermiculite observed: yes or no	Alley # 121 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

dw 10-30-03

vs 052003

Sheet No.: CSS-S- 006128

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100229 Page No: 134, 135 Sampling Date: 10/23/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18348	CS- 18349	CS- 18350
Location ID	SP- 124446	SP- 124447	SP- 124447
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS (FD of) CS-18349 Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp. #) subsamples 3	Grab (Comp. #) subsamples 5	Grab (Comp. #) subsamples 5
Sample Time	11:01	11:26	11:34
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 122 Vermiculite observed: yes or (no)	Alley # 120 # Vermiculite observed: yes or (no)	Alley # 120 Vermiculite observed: yes or (no)
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

dw 10.23.03

vs 052003

Sheet No.: CSS-S- 006129

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100224 Page No: 131, 133, 139 Sampling Date: 10/23/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18351	CS- 18352	CS- 18353
Location ID	SP- 124448	SP- 124449	SP- 124450
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	10/23/03 13:45	14:05	14:26
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 103 Vermiculite observed: yes or no -	Alley # 104 Vermiculite observed: yes or no -	Alley # 117 Vermiculite observed: yes or no in middle of alley at 171 ft from north end
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

10/23/03

vs 052003

Sheet No.: CSS-S- 006130

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 10289 Page No: 10,11,12 Sampling Date: 10/23/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18354	CS- 18355	CS- 18356
Location ID	SP- 124452	SP- 124453	SP- 124454
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 3	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	15:02	15:20	15:39
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 105 # Vermiculite observed: yes or no	Alley # 106 # Vermiculite observed: yes or no	Alley # 115 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

dw 10.23.03

vs 052003

Sheet No.: CSS-S- 006131

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100229 Page No: 143-145 Sampling Date: 10-23/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18357	CS- 18358	CS- 18359
Location ID	SP- 124455	SP- 124456	AD-000001
Sample Group	Alley	Alley	~~Alley~~ BLANK
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway ~~Other: Alley~~ NA
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS FD of _____ (Field Blank) (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	Surface Soil (Other) SAND
Type (circle)	Grab (Comp. #) subsamples 5	Grab (Comp. #) subsamples ____	(Grab) Comp. # subsamples ____
Sample Time	1559	1632	17:10
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~115~~ 116 Vermiculite observed: (yes) or no "HEAVY" CONCENTRATION ALONG GRAD AT NORTH END OF ALLEY	Alley # 123 Vermiculite observed: yes or (no)	Alley # _____ Vermiculite observed: yes or no BLANK
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DN

vs 052003

Sheet No.: CSS-S- 006132

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100292 Page No: 5, 7, 8 Sampling Date: 10/24/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18360	CS- 18361	CS- 18362
Location ID	SP- 124457	SP- 124458	SP- 124459
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)	Back yard Front yard Side yard Driveway (Other: Alley)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless otherwise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp. #) subsamples 5	Grab (Comp. #) subsamples 4	Grab (Comp. #) subsamples 5
Sample Time	1020	10:50	11:11
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # ~~107~~ # 109 DZ 10/24/03 Vermiculite observed: (yes) or no ALONG GRASS AT S.E. CORNER AND N.E. SIDE	Alley # 114 Vermiculite observed: yes or (no)	Alley # 113 # Vermiculite observed: yes or (no)
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DW

dw 10.24.03

vs 052003

Sheet No.: CSS-S-006133

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100292 Page No: 91,12 Sampling Date: 10/24/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18363	CS- 18364	CS- 18365
Location ID	SP- 124460	SP- 124821	SP- 124822
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1147	14:07	1422
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 111 # Vermiculite observed: yes or no	Alley # 108 Vermiculite observed: yes or no	Alley # 110 # Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D. Z	QC by DS

vs 052003

10.24.03

Sheet No.: CSS-S- 006134

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100292 Page No: 13,14 Sampling Date: 10/24/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining Roadway Other ( )

Sampling Team: (circle) CDM MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18366	CS- 18367	CS- 18368
Location ID	SP- 124823	SP- 124824	SP- 124824
Sample Group	Alley	Alley	Alley
Location Description (circle)	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of CS-18367 Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp # subsamples 3	Grab Comp # subsamples 3
Sample Time	14:48	15:07	15:12
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	Alley # 124 Vermiculite observed: yes or no N. [illegible] ALLEY NEAR GRASS AND ALLEY SURFACE	Alley # 125 Vermiculite observed: yes or no	Alley # 125 Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by D.Z	QC by DJ

DW 10.24.03

vs 052003

Sheet No.: CSS-S- 006135

CONTAMINANT SCREENING STUDY/REMEDIAL INVESTIGATION

FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Scenario No.: NA Field Logbook No: 100292 Page No: 15 Sampling Date: 10/24/03

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: (circle) Residential School Commercial Mining (Roadway) Other ( )

Sampling Team: (circle) (CDM) MACTEC Other _____ Names: Danny Zambrano/Dave Speilman

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 18369 10/24/03 DZ		
Location ID	AD-000001		
Sample Group	BLANK ~~Alley~~ DS 10-24-03	Alley	03 Alley
Location Description (circle)	Back yard Front yard Side yard Driveway ~~Other: Alley~~ NA DS 10/24/03	Back yard Front yard Side yard Driveway Other: Alley	Back yard Front yard Side yard Driveway Other: Alley
Category (circle)	FS FD of _____ (Field Blank (lot or equipment))	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil (Other) SAND	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	(Grab) Comp. # subsamples ____	Grab Comp. # subsamples ____	Grab Comp. # subsamples ____
Sample Time	15:30		
Top Depth (in.)	0	0	0
Bottom Depth (in.)	6	6	6
Field Comments Note if vermiculite is visible in sampled area	~~Alley #~~ _____ ~~DS 10/24/03~~ Vermiculite observed: yes or no BLANK	Alley # _____ Vermiculite observed: yes or no	Alley # _____ Vermiculite observed: yes or no
Entered (LFO) ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by DZ	QC by DS

vs 052003

dw 10.24.03

Appendix C
Verbal Interview Documentation

92

Location City of Libby Alley Date 02/02/05

Project / Client EPA/Volpe CDM: P. Opem

City of Libby Contact: Don Theale

Author: P. Opem, Weather: 32°, overcast, wet, light rain PPE: Modified Level D, Gov. Doc: CSJ AT SAP Rev. 1, 2003, Activities: CSS Interview.

0932: Speak with Don Theale (Libby Public works), Complete CSS interview, Complete SPF form.

02/02/05

BUF NA

☐ Soil samples collected (Date: NA)
(refer to earlier sampling efforts by CDM)

LIBBY ASBESTOS PROJECT
Contaminant Screening Study
Primary Structure and Property Assessment Information Field Form (Primary IFF)

Field Logbook No.: 200319 Page No.: 92 Site Visit Date: 02/02/05

Address: ~~Libby City Alleys~~ City of Libby Alley Structure Description: Alleys

Occupant: NA Phone Number:

~~Owner~~ (if different than occupant): Contact: Don Theede Phone Number: 293-1213

Business Name: Libby Public Works Dept.

Sampling Team: NA

Field Form Check Completed by (100% of forms):

Screening Field Check Completed by (2% of forms):

Data Item	Value	Notes
HOUSE ATTRIBUTES		
Property Description	Residential Industrial Commercial City	
Surrounding Land Use	Residential Industrial Commercial School Mining Other:	
Year of Construction	NA Unknown	
Square Footage	NA	
Construction Material	Wood frame Masonry/Stone Other: NA	
Number of Floors Above Ground	1 2 3 Other: NA	
Number of Rooms Per Floor Above Ground	1: 2: 3: Other: NA	
Basement	Yes NA No	
Heating Source	Wood/Coal Electric Propane/Gas Other: NA	
Heat Distribution	Forced air Radiant Other: NA	

CSS Primary Structure IFF (continued)

Address: ~~Libby City Alleys~~ City of Libby Alley (to 12/02/05) BD# NA

Data Item	Value	Notes
OCCUPANT INFORMATION		
Was the residence/building remodeled?	Yes No If yes, When (years): <2 2-5 >5 Where: Attic Living Areas Garage Basement Other: NA	
Has resident/business purchased any Libby vermiculite materials from W.R. Grace in the past?	Yes No NA	
Has the property at this location been used for a for-profit enterprise of distributing, treating, storing, or disposing of Libby vermiculite?	Yes No NA	
CONTAMINANT SCREENING STUDY ASSESSMENT		
Occupant Information	☐ Verbal Interview Complete: NA	
Is there any knowledge of former miners, close relatives of miners, or any highly exposed persons living or visiting the property?	Yes No Unknown NA	If unknown, why?
Is the resident, past or present, diagnosed with an asbestos-related disease?	Yes No Unknown NA	If unknown, why?
Indoor Information	☐ Indoor Visual Inspection Complete:	
Does the interior have vermiculite attic insulation?	Yes No Unknown NA	If unknown, why?
Did the interior ever have vermiculite attic insulation? NA applies if attic currently has VCI	Yes No Unknown NA NA	If unknown, why?
Are there vermiculite additives in any of the building materials?	Yes No Unknown NA	If unknown, why? Type and location of building material:

CSS Primary Structure IFF (continued)
PO 02/01/05

Address: ~~Libby City Alleys~~ City of Libby Alley BD# NA

Data Item	Value	Notes
Location of indoor vermiculite (circle all that apply)	Attic Walls Crawl Space None Visual in Living Space: Basement, Ground Floor, Second Floor, Attached Garage Other: NA	If in living space, provide specific location:
Outdoor Information	☐ Outdoor Visual Inspection Complete:	
Location of outdoor vermiculite (circle all that apply)	Driveway Flowerbed Garden Yard Former Flowerbed Former Garden Stockpile None Other NA	
Overall Assessment Complete: NA	☐ Reconnaissance (Verbal Interview, Indoor, Outdoor Inspection)	
Are primary source materials present at the property?	Yes No NA	
Where are primary source materials located?	Inside Outside Both (NA)	NA applies if no primary source materials are located at the property.

Below information is per interview with Don Thede of Libby Public Works Dept. on 01/02/05

ADDITIONAL INFORMATION (Note any partial access or sample collection issues)

- Time frame of downtown alley construction: late 1920's or early 1930's
- No vermiculite was brought in as a subbase or surfacing material
- Vermiculite was not used to fill in any ruts/holes/etc.
- City maintenance schedule for alleys: fix as they need; alleys are patrolled twice per year. Any fill material needed for alleys is of the crushed variety from the City pit
- Other planned activities for alleys: trying to qualify for paving funds through the state's matching $ program; downtown revitalization committee could also pave some of the alleys in the vicinity of Mineral Ave. in conjunction with their plans
- Mr. Thede did not receive a single call or voiced concern from residents in regards to vermiculite in the alleys of downtown Libby.

CSS Primary Structure IFF (continued)

PO 02-10-05

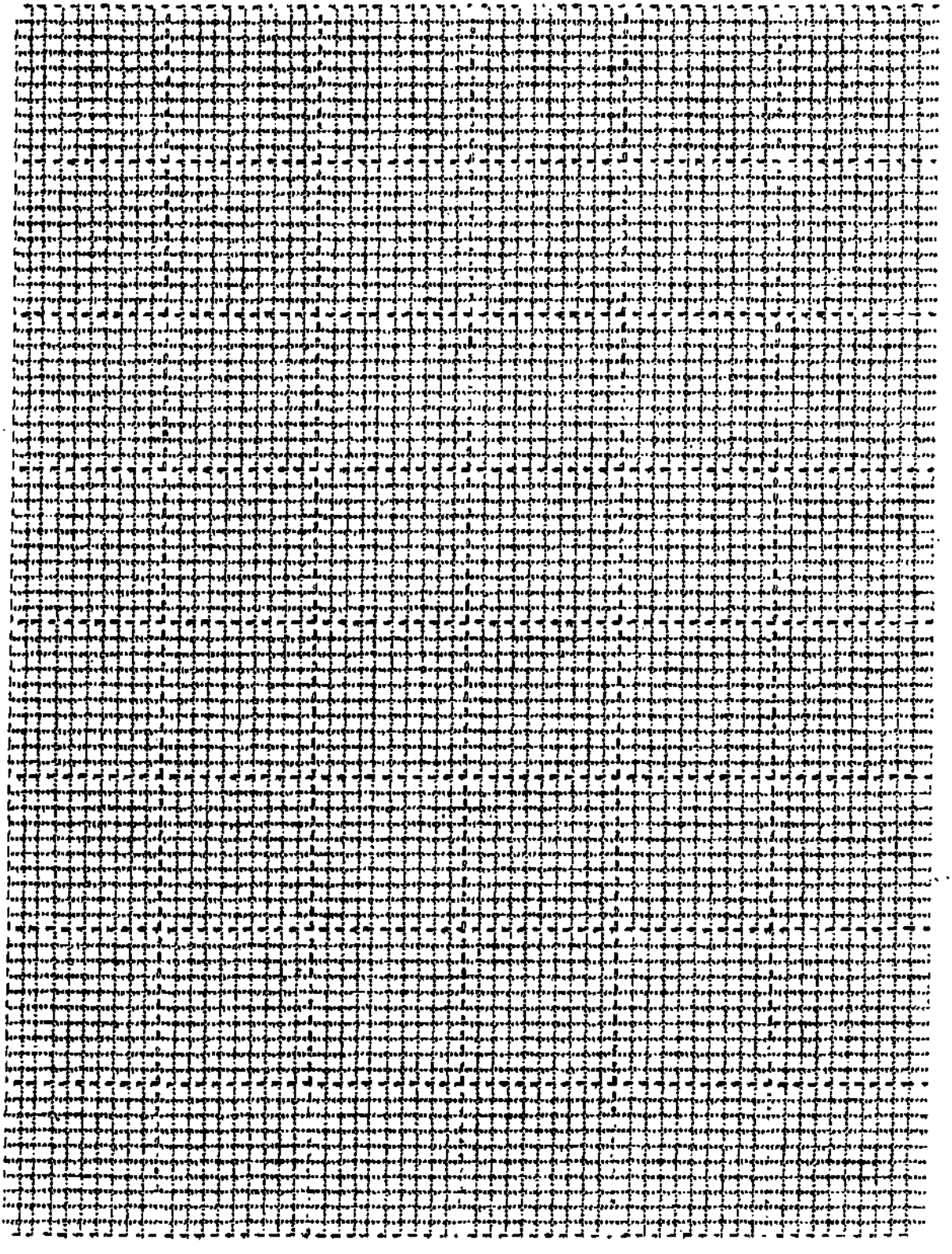
Address: ~~Libby City Alley~~ City of Libby Alley BD# NA

FIELD DIAGRAM OF PROPERTY

Identify important features (i.e. drainage, trees, gardens, structures, flowerbeds, utility poles, known undergrounc utilities, suspected Libby amphibole source areas, sample locations, etc). Include north arrow.

NOT TO SCALE

NA



Appendix D
Completed Air Field Sample Data Sheets

CDM

Sheet No.: SA- ~~001549~~ 002896

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 10043 Page No: 63 Sampling Date: 8/31/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20361	CS- 20362	
Location ID	SP- 127820	SP- 127820	
Sample Group	Alley	Alley	Alley
Location Description	Alley #49 - 200 ft from corner of East 4TH ST & alley.	Alley Blank	Alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS (FB-(field blank)) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor Outdoor NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer DryCal (NA)	Rotometer DryCal NA
Pump ID Number	691335	NA	
Flow Meter ID No.	110775-1	NA	GP / 8/31/05
Start Date	8/31/05	8/31/05	
Start Time	0756		
Start Flow (L/min)	3.90		
Stop Date	8/31/05	GP 8/31/05	
Stop Time	1711		
Stop Flow (L/min)	4.12		
Pump fault? (circle)	(No) Yes NA	No Yes (NA)	No Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Alley #: 49 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 49 Vermiculite observed: yes or (no) Archive Blank (circle): (Yes) No 9/1/05	Alley #: _____ Vermiculite observed: ~~yes or no~~ Archive Blank (circle): Yes No
Cassette Lot Number: 5016W			
QC (Field Team) GP Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by GP	QC by GP

vs 101503

Sheet No.: SA- ~~001555~~ 002897

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 64 Sampling Date: 8/31/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	~~CS- 20363~~ 9.1.05 pk	CS- 20364	CS- 20365
Location ID	SP- 127345 8/31/05	SP- 127346 8/31/05	SP- 127347 8/31/05
Sample Group	Alley	Alley	Alley
Location Description	Alley #47 - 50 ft from Lincoln Blvd + alley corner	Alley #47 - 100 ft from Lincoln Blvd + alley corner	Alley #47 - 150 ft from Lincoln Blvd + alley corner.
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	691460	626560	666460
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/31/05	8/31/05	8/31/05
Start Time	0833	0837	0840
Start Flow (L/min)	3.90	3.90	3.90
Stop Date	8/31/05	8/31/05	8/31/05
Stop Time	1550	1733	1730
Stop Flow (L/min)	3.90	3.90	3.90
Pump fault? (circle)	No (Yes) NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	(No) Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments CS-20363 Stand blew over. Heavy loading. Cassette Lot Number: 5016W	Alley #: 47 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 47 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 47 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)
QC (Field Team) pk Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by GP	QC by pk

VS 101503

002878

Sheet No.: SA-~~001553~~

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 64 Sampling Date: 8/31/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20366		
Location ID	SP- 127348		
Sample Group	Alley	Alley	Alley
Location Description	Alley #47 - 200 ft from Lincoln BLVD & alley corner	Alley	Alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	(25mm) 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	691462	~~691460~~ 8/31/05 gp	
Flow Meter ID No.	110775-1	gp 8/31/05	8/31/05 gp
Start Date	8/31/05		
Start Time	0843	~~1552~~ 8/31/05 gp	
Start Flow (L/min)	3.90	~~3.90~~ 8/31/05 gp	
Stop Date	8/31/05		
Stop Time	1725		
Stop Flow (L/min)	3.90		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	(No) Yes NA	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Alley #: 47	Alley #: ~~47~~ 8/31/05 gp	Alley #: _____
	Vermiculite observed: yes (or no)	Vermiculite observed: yes or no	Vermiculite observed: yes or no
Cassette Lot Number: 506W	Archive Blank (circle): Yes (No)	Archive Blank (circle): Yes No	~~Archive Blank (circle): Yes No~~
QC (Field Team) JK Entered (LFO) CG	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____	Volpe: Entered _____ Validated _____

For Field Team Completion (Provide Initials)	Completed by gp	QC by JK

vs 101503

Sheet No.: SA-~~001552~~ 002899

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100437 Page No: 65 Sampling Date: 8/31/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20367 8/31/05	CS- 20368 8/31/05	CS- 20369 8/31/05
Location ID	SP- 127349 8/31/05	SP- 127350 8/31/05	SP- 127351 8/31/05
Sample Group	Alley	Alley	Alley
Location Description	Alley ~~#7~~ 48 alley #73 - 50 ft from West 8TH St + alley corner.	Alley #73 - 100 ft from West 8TH ST + alley corner.	Alley #73 - 150 feet from West 8TH ST + alley corner.
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	691275	626675	606523
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/31/05	8/31/05	8/31/05
Start Time	0856	0900	0904
Start Flow (L/min)	3.90	3.90	3.90
Stop Date	8/31/05	8/31/05	8/31/05
Stop Time	1739	1742	1745
Stop Flow (L/min)	4.12	3.90	3.90
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	(No) Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Alley #: 73 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 73 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 73 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)
Cassette Lot Number: 506 W			
QC (Field Team) CG Entered (LFO)	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by UP	QC by pk

vs 101503

Sheet No.: SA 001553

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 65 Sampling Date: 8/31/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC CDM Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	9.1.05 VOID ~~CS-20370~~		
Location ID	SP- 127352 8/31/05 EP		
Sample Group	Alley	Alley	Alley
Location Description	Alley #73 - 200 ft from corner of West 87th St & alley.	Alley 8/31/05 EP	Alley 8/31/05 EP
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	691259	~~691259~~ 8/31/05 EP	
Flow Meter ID No.	110775-1	~~110775-1~~ 8/31/05 EP	
Start Date	8/31/05		
Start Time	0908	~~1602~~ 8/31/05 EP	
Start Flow (L/min)	3.90	~~3.90~~ 8/31/05 EP	
Stop Date	8/31/05		
Stop Time	1600		
Stop Flow (L/min)	3.90		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments CS-20370 stand blew over Heavy load Cassette Lot Number: 506W	Alley #: 73 Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: 73 ~~Vermiculite observed:~~ yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No
QC (Field Team) Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

VOID 9.1.05 PK

For Field Team Completion (Provide Initials)	Completed by EP	QC by PK

002901

Sheet No.: SA-~~001004~~

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 16 Sampling Date: 8/31/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20371	CS- 20372	CS- 20373
Location ID	SP- 127353	SP- 127354	SP- 127355
Sample Group	Alley	Alley	Alley
Location Description	Alley #13 - 50 ft from corner of West 4TH St + alley.	Alley #13 - 100 ft from corner of West 4TH ST + alley.	Alley #13 - 150 ft from corner of West 4TH ST + alley.
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	1026538	602723	1026620
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/31/05	8/31/05	8/31/05
Start Time	0925	0929	0934
Start Flow (L/min)	3.90	3.90	3.90
Stop Date	8/31/05	8/31/05	8/31/05
Stop Time	1752	1755	1758
Stop Flow (L/min)	3.90	4.12	4.12
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No Yes (NA)	No Yes (NA)	No Yes (NA)
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Alley #: 13 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 13 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 13 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)
Cassette Lot Number: 506 W			
QC (Field Team) JK Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by EP	QC by JK

vs 101503

Sheet No.: SA-~~001555~~ 002906

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 66 Sampling Date: 8/31/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20374		
Location ID	SP- 127356		
Sample Group	Alley	Alley	Alley
Location Description	Alley #13 - 200 ft from corner of West 4th St + alley.	Alley	Alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	(25mm) 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	191410		
Flow Meter ID No.	110775-1	8/31/05 gp	8/31/05 gp
Start Date	8/31/05		
Start Time	0936		
Start Flow (L/min)	3.90		
Stop Date	8/31/05		
Stop Time	1500		
Stop Flow (L/min)	3.90		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes (NA)	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Alley #: 13 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No
Cassette Lot Number: 506W			
QC (Field Team) gp Entered (LFO)	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by gp	QC by gp

vs 101503

Sheet No.: SA-001540

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 60 Sampling Date: 8/30/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20381	CS- 20382	CS- 20383
Location ID	SP- 127801	SP- 127802	SP- 127803
Sample Group	Alley	Alley	Alley
Location Description	Alley #119 - 50 feet from corner of east cedar and alley	Alley #119 - 150 ft from corner of East Cedar St and alley	Alley #119 - 200 ft from corner of East Cedar St and alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	616365	616418	612682 / 626574
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/30/05	8/30/05	8/30/05
Start Time	0750	0800	0810 / 1640
Start Flow (L/min)	3.90	3.90	3.90 / 3.90
Stop Date	8/30/05	8/30/05	8/30/05
Stop Time	1725	1729	1537 / 1837
Stop Flow (L/min)	3.67	3.90	3.90 / 3.90
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No (Yes) NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	(No) Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Alley #: 119	Alley #: 119	Alley #: 119
	Vermiculite observed: yes or (no)	Vermiculite observed: yes or (no)	Vermiculite observed: yes or (no)
Cassette Lot Number: 506W	Archive Blank (circle): Yes (No)	Archive Blank (circle): Yes (No)	Archive Blank (circle): Yes (No)
QC (Field Team) gk Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by	QC by
gp	gp	gk

vs 101503

Sheet No.: SA- 001541

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 60 Sampling Date: 8/30/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20384	CS- 20385	
Location ID	SP- 127804	SP- 127804	
Sample Group	Alley	Alley	Alley
Location Description	Alley #119 - 250 ft from corner of East Cedar St & alley.	Alley #119 - 250 ft from corner of East Cedar St & alley	Alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS (FB-(field blank)) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor Outdoor NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer DryCal (NA)	Rotometer DryCal NA
Pump ID Number	666338	N/A	
Flow Meter ID No.	110775-1	N/A	GP 8/30/05
Start Date	8/30/05	8/30/05	
Start Time	0820		
Start Flow (L/min)	3.90		
Stop Date	8/30/05	8/30/05 GP	
Stop Time	1705		
Stop Flow (L/min)	3.67		
Pump fault? (circle)	(No) Yes NA	No Yes (NA)	No Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Alley #: 119	Alley #: 119	Alley #: _____
Cassette Lot Number: _____	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Vermiculite observed: yes or no Archive Blank (circle): Yes No
QC (Field Team) GP Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by GP	QC by GP

Sheet No.: SA- 001542

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 61 Sampling Date: 8/30/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson/

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20386	CS- 20387	CS- 20388
Location ID	SP- 127805	SP- 127806	SP- 127807
Sample Group	Alley	Alley	Alley
Location Description	Alley #107 - 50 feet from corner of east spruce + alley.	Alley #107 - 100 ft from corner of east Spruce + alley.	Alley #107 - 150 ft from corner of East Spruce St + alley.
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	691476	691462	691259
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/30/05	8/30/05	8/30/05
Start Time	0900 ~~3.705~~	0910	0919
Start Flow (L/min)	3.90	3.90	3.90
Stop Date	8/30/05	8/30/05	8/30/05
Stop Time	1752	1749	1745
Stop Flow (L/min)	3.90	3.90	3.90
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	(No) Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Alley #: 107	Alley #: 107	Alley #: 107
Cassette Lot Number:	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Vermiculite observed: yes (or no) Archive Blank (circle): Yes (No)
QC (Field Team) Entered (LFO)	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by	QC by

Sheet No.: SA- 001543

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 61 Sampling Date: 8/30/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC CDM Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20389		
Location ID	SP- 127808		
Sample Group	Alley	Alley	Alley
Location Description	Alley #107 set pump 200 ft from corner of East Spruce St & alley.	Alley	Alley
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	6210670/6210602		
Flow Meter ID No.	110775-1		
Start Date	8/30/05		
Start Time	0923 / 1650		
Start Flow (L/min)	3.90 / 3.90		
Stop Date	8/30/05		
Stop Time	1628 / ~~1758~~ / 1758		
Stop Flow (L/min) 8/30/05 WP	3.90 / 3.90		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments / Cassette Lot Number:	Alley #: 107 Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No
QC (Field Team) / Entered (LFO)	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials) WP	Completed by WP	QC by

vs 101503

Sheet No.: SA- 001544

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 62 Sampling Date: 8/30/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC CDM Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20390	CS- 20391	CS- 20392
Location ID	SP- 127809	SP- 127810	SP- 127811
Sample Group	Alley	Alley	Alley
Location Description	Alley #124 - 50 ft from corner of West Balsam St & alley.	Alley #124 - 100 ft from corner of West Balsam St & alley	Alley #124 - 150 ft from corner of West Balsam St & alley.
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	691422/660338	1626020	1691410
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/30/05	8/30/05	8/30/05
Start Time	0940 / 1705	0947	0950
Start Flow (L/min)	3.90 / 3.90	3.90	3.90
Stop Date	8/30/05	8/30/05	8/30/05
Stop Time	1620 / 1847	1805	1808
Stop Flow (L/min)	3.90 / 3.90	3.90	3.90
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments: Not paved, Hard packed dirt/gravel. Cassette Lot Number: 516 W	Alley #: 124 Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: 124 Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: 124 Vermiculite observed: yes or no Archive Blank (circle): Yes No
QC (Field Team) Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by	QC by

101503

Sheet No.: SA- 001545

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 62 Sampling Date: 8/30/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20393		
Location ID	SP- 127812		
Sample Group	Alley	Alley	Alley
Location Description	Alley #124 - ~250 ft from corner of W. Balsam St & alley	Alley	Alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	(25mm) 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	071460		
Flow Meter ID No.	110775-1		
Start Date	8/30/05	SP 8/30/05	SP 8/30/05
Start Time	0955		
Start Flow (L/min)	3.90		
Stop Date	8/30/05		
Stop Time	1812		
Stop Flow (L/min)	4.12		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	(No) Yes NA	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments Cassette Lot Number:	Alley #: 124 Vermiculite observed: (yes) or no Archive Blank (circle): Yes (No)	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No
QC (Field Team) gl Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials) SP	Completed by SP	QC by gl

Sheet No.: SA- 001549

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 62, 63 Sampling Date: 8/30/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20394	CS- 20395	CS- 20396
Location ID	SP- 127813	SP- 127814	SP- 127815
Sample Group	Alley	Alley	Alley
Location Description	Alley #86 - 50 ft from corner of West Oak St + alley	Alley #86 - 100 ft from corner of West Oak St + alley	Alley #86 - 150 ft from corner of West Oak St + alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	691335	602723	10660460
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/30/05	8/30/05	8/30/05
Start Time	1010	1020	1028
Start Flow (L/min)	3.90	3.90	3.90
Stop Date	8/30/05	8/30/05	8/30/05
Stop Time	1818	1822	1825
Stop Flow (L/min)	3.90	3.90	3.90
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	(No) Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Alley #: 86	Alley #: 86	Alley #: 86
Cassette Lot Number:	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)
QC (Field Team) Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by	QC by

vs 101503

Sheet No.: SA- 001547

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 62, 63 Sampling Date: 8/30/05

ddress: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway Other (Alley)

Sampling Team: MACTEC CDM Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20397		
Location ID	SP- 127816		
Sample Group	Alley	Alley	Alley
Location Description	Alley #86 - 200 ft from corner of West Oak St & alley	Alley	Alley
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm 37mm	25mm 37mm	25mm 37mm
Pore Size (circle)	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8	TEM- .45 PCM- 0.8
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	626538		
Flow Meter ID No.	110775-1	EP 8/30/05	EP 8/30/05
Start Date	8/30/05		
Start Time	1033		
Start Flow (L/min)	3.90		
Stop Date	8/30/05		
Stop Time	1829		
Stop Flow (L/min)	3.90		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments Cassette Lot Number: _____	Alley #: 86 Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No	Alley #: _____ Vermiculite observed: yes or no Archive Blank (circle): Yes No
QC (Field Team) pl Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by	QC by pl

vs 101503

Sheet No.: SA- 001548

LIBBY FIELD SAMPLE DATA SHEET (FSDS) FOR STATIONARY AIR

Field Logbook No: 100432 Page No: 63 Sampling Date: 8/31/05

Address: City of Libby Alley Owner/Tenant: City of Libby

Business Name: NA

Land Use: Residential School **Commercial** Mining Roadway (Other) (Alley)

Sampling Team: MACTEC (CDM) Other _____ Names: E. Peterson

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS- 20398	CS- 20399	CS- 20400
Location ID	SP- 127817	SP- 127818	SP- 127819
Sample Group	Alley	Alley	Alley
Location Description	Alley #48- 50 ft from corner of East 4TH ST + alley	Alley #48- 100 ft from corner of East 4TH ST + alley	Alley #48- 150 ft from corner of East 4TH ST + Alley
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) 37mm	(25mm) 37mm	(25mm) 37mm
Pore Size (circle)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)	TEM- .45 (PCM- 0.8)
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	691476	666418	661365
Flow Meter ID No.	110775-1	110775-1	110775-1
Start Date	8/31/05	8/31/05	8/31/05
Start Time	0743	0747	0752
Start Flow (L/min)	3.90	3.90	3.90
Stop Date	8/31/05	8/31/04	8/31/05
Stop Time	1700	1704	1707
Stop Flow (L/min)	4.12	4.12	4.12
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	(No) Yes NA	(No) Yes NA	(No) Yes NA
Sample Type	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Alley #: 48 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 48 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)	Alley #: 48 Vermiculite observed: yes or (no) Archive Blank (circle): Yes (No)
Cassette Lot Number: 5064W			
QC (Field Team) Entered (LFO) CG	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____	Volpe: Entered ____ Validated ____

For Field Team Completion (Provide Initials)	Completed by	QC by

vs 101503

Appendix E
Air Sampling Field Log Notes

CDM

Location Alley #119 Date 8/30/05

Project / Client Libby Asbestos Project

E. Peterson - Author Alley # 119

0730: Arrive onsite at Alley #119. Clear, cool, ~50°, sunny, slight breeze from NE. Todays activities will include performing air sampling of Libby alley ways as described in the Final SAP Addendum for City of Libby Alley Investigation, and as governed by the SQAPP. Personnel onsite is E. Peterson. PPE is level D, steel toe boots, orange vest, eye protection. Alley #119 runs N/S directly behind Empire Foods. It's perimeter is commercial on the east side + residential on the west. Construction appears to be unpaved, hard packed dirt and gravel. No visible vermiculite.

0750 - Place pump 50 ft from corner of E. Cedar St. + alley. CS-20381 Samples will be collected with low volume pumps rather than high volume pumps as stated in the SAP, due to difficulty providing power to the high vol. pumps. SP-127801.

0800 - set pump at 150 ft from corner of East Cedar St and alley. CS-20382, SP-127802

0810 - set pump at 200 ft from corner of alley + East Cedar St. CS-20383, SP-127803.

Erin Peterson 8/30/05 Erin M Peterson

Location Alley #119 Date 8/30/05

Project / Client Libby Asbestos Project

E. Peterson Alley #119, Alley # 107

0820 - set pump at 250 ft from corner of East Cedar St + alley. CS-20384, SP-127804 Also collect blank sample at this location. CS-20385, SP-127804.

8/30/05 EP

0830 - Depart site.

0845 - Arrive at alley #107. Alley is approx 300' x 15'. Surface does not appear to be paved. Construction appears to be hard packed soil and gravel. Perimeter is residential in nature with a mixture of fences, driveways, + garages. Alley # 107 runs from East Spruce St to East Larch St, and is bound by Louisiana Ave to the east + Montana Ave to the west. No visible vermiculite.

8/30/05 EP

0900 - set pump 50 ft from corner of East Spruce St + Alley. CS 20386, SP 127805.

0910 - set pump 100 ft from corner of East Spruce St + Alley. CS-20387, SP-127806

0919 - set pump 150 ft from corner of East Spruce St + Alley. CS-20388, SP-127807

0923 - set pump 200 ft from corner of East Spruce St + Alley. CS-20389, SP-127808

0928 - Depart site.

Erin Peterson 8/30/05 Erin M Peterson

Location Alley #124 Date 8/30/05

Project / Client Libby Asbestos Project

E. Peterson Alley #124, Alley #86

0932 - Arrive at Alley #124. Alley #124 runs between West Larch St + West Balsam St., and is bound by Idaho Ave + Main Ave. Alley is approx. 350' x 15'. Alley is constructed of packed soil, gravel + large cobbles. Perimeter is residential and consists of yards, fencelines, garages, + driveways. Visible Vermiculite located at the north end of the alley, behind 303 West Larch. 8/30/05 GP

0940 - set pump 50 ft from corner of West Balsam St + alley. CS-20390, SP-127809

0947 - set pump 100 ft from corner of West Balsam St + alley. CS-20391, SP-127810

0950 - set pump 150 ft from corner of West Balsam St + alley. CS-20392, SP-127811

0955 - Set pump 250 ft from corner of West Balsam St + alley. CS-20393, SP-127812

1000 - Depart Site. 8/30/05 GP

1005 - Arrive at Alley #86. Alley #86 runs from West Bush St. to West Oak St. + is bound by California Ave + Main Ave. Alley is approx. 350' x 15'.

Erin Peterson 8/30/05 Erin Peterson

Location Alley #86 Date 8/30/05

Project / Client Libby Asbestos Project

E. Peterson Alley #86

Construction consists of hard packed soil + gravel. Perimeter is residential + consists of fencelines, garages, + driveways. No visible vermiculite.

1010 - set pump 50 ft from corner of West Oak St + alley. CS-20394, SP-127813

1020 - set pump 100 ft from corner of West Oak St + Alley. CS-20395, SP-127814 GP 8/30/05

1028 - set pump 150 ft from corner of West Oak St + alley. CS-20396, SP-127815.

1033 - set pump 200 ft from corner of West Oak St + alley. CS-20397, SP-127816

1040 - Depart site + drive by all pumps.

1100 - Return to office to complete paperwork. 8/30/05 GP

1230 - Break for lunch. 8/30/05 GP

1330 - Drive by all sample locations + check air flow. 8/30/05 GP

1435 - Return to office. 8/30/05 GP

1545 - Drive by all sample locations. Sample CS-20383 in alley #119 had stopped due to battery fault. Return to office to pickup spare pumps. 8/30/05 GP

Erin Peterson 8/30/05 Erin Peterson

Location CSS Alley Air Monitoring Date 8/30/05
Project / Client Libby Asbestos Project
E. Peterson

1635 - Replace air pump on sample CS-20383. Drive around & check on all pumps. Samples CS-20389 (Alley 107) + CS-20390 (Alley 124) also had pump fault due to battery failures. Change out pumps, then return to first alley to begin collecting samples.
1830 - All samples collected. Return to office to relinquish samples & FSDS's to C. Gilbert.
1900 - Depart site for day.

8/30/05

Erin Peterson 8/30/05 Erin M Peterson

Location CSS Alley Air Monitoring Date 8/31/05
Project / Client Libby Asbestos Project
E. Peterson (Author) Alley #48

0700 - Collect air pumps + supplies from office and depart to 1ST property.
0725 - Arrive at Alley #48. Clear, cool, ~50°, calm. Todays activities will include performing air monitoring in Libby alleyways as described in the Final SAP Addendum for City of Libby Alley Investigation, + as governed by the SQAPP. Personnel onsite is E. Peterson. PPE is level "D"; steel-toe boots, orange safety vest, eye protection. Alley #48 runs North/South between East 4TH ST + East 3RD ST and is bound by Utah Ave + Dakota Ave. The alley is just east of the hospital + one residence. Dimensions are approx. 300' x 18'. Construction is packed soil + gravel. Perimeter is residential (yards, garages, driveways). No visible vermiculite seen.
0743 - set pump at 50 ft from corner of alley + East 4TH ST. CS-20398, SP-127817.
0747 - set pump at 100 ft from corner of alley + East 4TH ST. CS-20399, SP-127818.
0752 - set pump at 150 ft from corner of alley + East 4TH ST. CS-20400, SP-127819

Erin Peterson 8/31/05 Erin M Peterson

Location CSS Alley Air Monitoring Date 8/31/05
Project / Client Libby Asbestos Project
E. Peterson Alley #48, Alley #47

0756 - set pump 200 ft from corner of alley + East 4TH ST. CS-20361, SP-127820. 8/31/05 EP
Collect blank at this location: CS-20362, SP-127820. Alley #48 appears to receive moderate traffic. 8/31/05 EP
0800 - Return to office to discuss sample sensitivity for portion of alley samples w/ D. Repine + T. Crowell. Previous days samples CS-20381, CS-20386, CS-20392, + CS-20397 are selected to be submitted from TEM-AHERA 0.0001 slcc sensitivity analysis. 8/31/05 EP
0833 - Arrive at Alley #47. Alley #47 is approx. 300' x 12'. Construction is fine dirt + gravel over hard packed base. Highly dusty, with lots of potholes. Alley appears to receive moderate traffic + garbage trucks. Perimeter is residential (yards, garages, driveways, fencelines). Heavy plant growth along southern half of alley. No visible vermiculite.
0833 - set pump 50 ft from corner of alley + Lincoln BLVD. CS-20363, SP-127345.
0837 - set pump 100 ft from corner of alley + Lincoln BLVD. CS-20364, SP-127346.
Erin Peterson 8/31/05

Location CSS Alley Air Monitoring Date 8/31/05
Project / Client Libby Asbestos Project
E. Peterson Alley #47, Alley #73

0840 - set pump 150 ft from corner of alley + Lincoln BLVD. CS-20365, SP-127347.
0843 - set pump 200 ft from corner of alley + Lincoln BLVD. CS-20366, SP-127348. 8/31/05 EP
0846 - Depart site
0850 - Arrive at Alley #73. Alley #73 is approx. 280' x 12'. Alley is partially paved (good cond.) + partially heavily gravelled. Alley appears to receive light to moderate traffic. Perimeter is mixed: residential/commercial. The southern portion residential + the northern portion running thru a church parking lot. No visible vermiculite.
0856 - set pump 50 ft from corner of alley + West 8TH ST. CS-20367, SP-127349.
0900 - set pump 100 ft from corner of alley + West 8TH ST. CS-20368, SP-127350.
0904 - set pump 150 ft from corner of alley + West 8TH ST. CS-20369, SP-127351
0908 - set pump 200 ft from corner of alley + West 8TH ST. CS-20370, SP-127352. 8/31/05 EP
0910 - Depart site
0915 - Arrive at Alley #13. Alley #13 is approx. 290' x 14'. Construction is hard packed dirt + gravel. Moderately dusty.
Erin Peterson 8/31/05

Location CSS Alley Air Monitoring Date 8/31/05
Project / Client Libby Asbestos Investigation
E. Peterson Alley #13

Alley #13 appears to receive regular residential traffic & garbage trucks. Perimeter is residential (yards, carports, garages, fence-lines). No visible vermiculite.
0925 - set pump 50 ft from corner of West 4TH ST & alley. CS-20371, SP-127353.
0929 - set pump 100 ft from corner of West 4TH ST & alley. CS-20372, SP-127354.
0934 - set pump 150 ft. from corner of West 4TH ST & alley. CS-20373, SP-127355.
0936 - set pump 200 ft from corner of West 4TH ST & alley. CS-20374, SP-127356.
0945 - Depart site. 8/31/05 GP
0946 - Complete driveby of all pumps, then return to office to complete paperwork.
1130 - complete driveby of all pumps.
1210 - Break for lunch. 8/31/05 GP
1320 - complete driveby of all pumps.
1400 - Return to office. Work on delivering undeliverable sample results to residents.
1540 - complete driveby of all pumps.
1550 - Alley #47, sample CS-20363 found blown over by gusty winds that arose in the pm. Sample collected heavy loading,

Erin Peterson 8/31/05 Erin M Peterson

Location CSS Alley Air Monitoring Date 8/31/05
Project / Client Libby Asbestos Project
E. Peterson

so was pulled. 8/31/05 GP 8/31/05 GP
1600 - Alley #473, sample CS-20370 found blown over by gusty winds that arose in the pm. Sample collected loading, so was pulled early. 8/31/05 GP
1620 - return to office.
1700 - return to collect all samples.
1800 - return to office to relinquish samples & FSDS's to C Gilbert. Samples CS-20364, CS-20369, CS-20371, CS-20361 selected to be submitted for TEM-AHERA 0.0001 s/cc sensitivity analysis. Samples CS-20363 & CS-20370 are voided as per T Crowell due to loading.
1830 - Depart site for day.

GP 8/31/05

Erin Peterson 8/31/05 Erin M Peterson

Location CSS Alley Air Monitoring Date 9/1/05
Project / Client Libby Asbestos Project
E. Peterson

0700 - Onsite for morning meeting.
0800 - Collect GPS data for all sample locations used on 8/30/05 + 8/31/05 in support of the City of Libby Alley Investigation. Data collect on the Trimble 5 unit + saved in files:
T5A09015 (Alley 115)
T5B09015 (Alley 107)
T5C09015 (Alley 124)
T5D09015 (Alley 86)
T5E09015 (Alley 48)
T5F09015 (Alley 47)
T5G09015 (Alley 73)
T5H09015 (Alley 13)
9/1/05 up
1100 - Return to office. 9/1/05 up

up 9/1/05

Erin Peterson 9/1/05 Erin Peterson

Location Date
Project / Client

9/1/05 - Logbook signed in by E. Peterson and turned over to the file for future use.

Erin Peterson
Erin Peterson 9/1/05

Erin Peterson 9/1/05